

Minnesota Attorney General: Administrative Rules Proceedings

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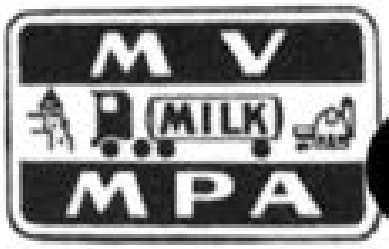

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522 Agriculture -
Milk - Protein

RULES REVIEW CHECKLIST

DATE RULES RECEIVED 5-29 Temporary Rule _____

Resubmitted and Received 6/25 | 7/26

DUE DATE 6-18 | 7/5 | 8/6

a. Returned to Agency w/o filing w/Secy of State 6/13 | 7/3
b. Approved 8/6 Date Sent Back to Agency _____

- -

1. Rules as Adopted ✓
2. Rules as Proposed ✓
3. Certificate of Board's Authorizing Resolution, where applicable N.A.
4. Order for Hearing ✓
5. Notice of Hearing ✓
   (i) Sufficiency ✓
6. Secretary of State's List ✓
7. Certificate of Acquisition of Secretary of State's List ✓
8. Affidavit of Mailing ✓
   (i) At least 30 days prior to hearing ✓
9. Statement of Need and Evidence ✓
10. Hearing Examiner's Report ✓
11. Agency's Findings of Fact ✓
12. Certificate of Board's Resolution Adopting Rules, where applicable N.A.
13. Order Adopting ✓
14. Report of Chief Hearing Examiner ✓
    (i) Finding of No Substantial Change ✓
    (ii) Permission to Incorporate by Reference, where applicable ✓
15. Certificate of Compliance with Rulemaking Procedures _____
16. Copy of Notice of Intent to Solicit Outside Opinion, where applicable ✓
17. Petition by Public, where applicable N.A.

Postponed Hearing Notice, Mailing, etc. here —

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August 3, 1979

Mr. Lee Sheehy
Office of Attorney General
G-25 Administration Building
St. Paul, Minnesota 55155

Dear Mr. Sheehy:

We are submitting this letter on behalf of Land O'Lakes, Inc. We have received a copy of the Department of Agriculture's revised protein rule concerning the testing of milk on the basis of protein. The Department has sought to purge the deficiencies in its previous protein rule by attempting to remove all references to pricing.[1] However, the Department has not altered the essential element which caused its previous rule to be disapproved. The proposed rule is, once again, limited solely to measurement of protein, while Minn. Stat. §32.25, the purported authority for the rule, limits the Commissioner's authority to promulgation of rules for testing of nonfat solids. Thus, we again urge the Attorney General to disapprove the proposed rule as beyond the statutory authority of the Commissioner.

The Administrative Procedures Act, Minn. Stat. §15.0412, provides that the Act "shall not be authority for an agency to adopt, amend, suspend or repeal rules". There must be an independent statutory basis for enactment of a rule. The Department's proposed rule states that it is enacted pursuant to Minn. Stat. §32.25. This statute provides for pricing of whole milk either 1) on the basis of 3.5 pounds of butterfat per hundredweight or 2) on the basis of 3.5 pounds of butterfat per hundredweight and the nonfat solids contained therein. The statute specifically states that "The latter basis shall be used only after the

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[1]The Department has apparently overlooked references to pricing which remain or are implied in proposed 3 MCAR 1.1333A and 3 MCAR 1.1332C(1).

Commissioner has promulgated, as provided in this subdivision, rules and regulations for the testing of nonfat solids". This language is the only mandate given by that statute to the Commissioner to promulgate rules or regulations on any subject, and the authority is limited to rules for testing of nonfat solids.

There would be statutory authority for tests to measure protein only if protein and solids-not-fat are identical measurements. This letter will not repeat the points we have raised demonstrating that "protein" and "nonfat solids" are separate and distinct measurements. We refer only to the Attorney General's memorandum of July 3, 1979, which appears to recognize that there is a distinction, and notes that this distinction is also acknowledged by the Department of Agriculture:

> The Agency's own selective editing of the Hearing Examiner's report indicates that they do not believe that protein and nonfat solids are, as the Hearing Examiner concluded, "a distinction without a difference". See Hearing Examiner Finding No. 34.

The purported authority for the rule, Minn. Stat. §32.25 would authorize promulgation of tests for measurement of nonfat solids, but does not authorize tests for measurement of protein. Therefore, the rule exceeds the statutory authority of the Commissioner.

In addition to the lack of authority for the proposed rule, it should not be approved without holding new hearings in order to determine the need for and reasonableness of the rule. Minn. Stat. §15.0412 provides that a public hearing shall be held on each rule, and "at the public hearing the agency shall make an affirmative presentation of facts establishing the need for and reasonableness of the rule proposed for adoption". The Hearing Examiner determined that the Department had shown the need for and reasonableness of its original rule establishing an alternative method for the pricing of whole milk on the basis of protein. However, the Department's proposed new rule has eliminated references to pricing, and therefore additional hearings are required in order to determine whether or not there is any need or purpose for the proposed new rule.

Minn. Stat. §15.052 states that new hearings must be held "when the proposed final rule of an agency is substantially different from that which was proposed at the public hearing". Rules of the Office of Hearing Examiners state that whether a proposed final rule is substantially different shall be determined by the degree to which it:

A. Affects classes of persons not represented at the previous hearing; or

B. Goes to a new subject matter of significant effect; or

C. Makes a major substantive change that was not raised by the original Notice of Hearing in such a way as to invite reaction at the hearing; or

D. Results in a rule fundamentally different from that contained in the Notice of Hearing.

9 MCAR §2.111

In this case, the proposed rule is so different in purpose that the Examiner's original findings of need and reasonableness cannot stand, and thus new hearings are required.

The Department's initial rule, as published in 3 State Register 1217 (December 11, 1978), was intended according to the Statement of Purpose and authority to "provide an optional method for the purchasing of whole milk". In its statement of need and reasonableness, the Department suggested that the rules were necessary "to make Minnesota's marketing system comparable and compatible with other states". At the public hearings, testimony concerned the desirability of protein as a pricing element. Protein testing was considered only in the context of protein pricing. In short, the Department's original rule was intended to provide a formula for the purchasing of milk, and the Hearing Examiner's finding that the rule was reasonable and necessary was based on his feeling that Minnesota should allow milk pricing on the basis of protein. However, the Department's proposed new rule has omitted all references to pricing, and therefore the rule cannot now be justified as a pricing mechanism. Thus, further hearings are required to make clear the purpose of the new rule and whether it is necessary.

We think it is especially important that the Department show a need for the proposed new rule since, on the surface, it appears to have no purpose whatsoever. Since the Department has removed references to pricing, adoption of the rule would not allow payment for milk on the basis of protein. In fact, once protein content is determined pursuant

to the Department's proposed rule, we don't see any lawful use which can be made of this measurement. Why would anyone care to measure protein if they cannot use this measurement for any lawful purpose?

Although it might be argued that the Attorney General cannot disapprove a rule merely because it doesn't have any purpose, the Department does have the statutory obligation to show need and reasonableness. We fear that the proposed rule may be merely a "device" attempted by the Department to circumvent the law and avoid the Attorney General's previous opinion that the Department does not have the statutory authority to promulgate rules establishing protein pricing. Accordingly, we believe it imperative that the Attorney General state clearly that, until the statute is amended, it is illegal in Minnesota to pay for milk on a basis which includes the measurement of protein.

Respectfully submitted,

DOHERTY, RUMBLE & BUTLER

Ralph K. Morris

RKM:AIS:jd

Ralph K. Morris

cc: Peder Hong, Esq.

Alan I. Silver

Alan I. Silver

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

In the Matter of the Proposed Adoption) of Rules of the Department of Agricul-) ture Governing the Testing of Milk on) the Basis of Protein)	REVISED FINDINGS OF FACT, CONCLUSIONS, AND ORDER, ADOPTING RULES DATED JULY 20, 1979

The above-entitled matter came duly on for hearing before Hearing Examiner Howard L. Kaibel, Jr., on March 6, 1979, at 7:30 p.m. in the Sauk Centre, Minnesota, City Hall. Additional hearings were conducted in Shakopee, Minnesota, at the Scott County Courthouse at 7:30 p.m. on March 6, 1979, and at the Houston County Courthouse in Caledonia, Minnesota, on March 8, 1979, commencing at 7:30 p.m.

Members of the Department of Agriculture (hereinafter "Department") panel included: Orlowe Osten, Director of the Dairy Industries Division; Randall D. Young, Director of the Planning Division; and Peder Hong, Special Assistant Attorney General. The hearings continued until all persons or representatives of interested persons or organizations desiring to be heard were heard. No transcript of the proceedings has been ordered or prepared, and this report is, consequently, based on the notes of the Hearing Examiner.

On April 27, 1979, the Report of Hearing Examiner was issued in this matter. On May 24, commissioner issued his Findings of Fact, Conclusions,and Order adopting rules. On May 29, the Report of the Chief Hearing Examiner found no substantial change. Thereafter, these rules as originally adopted were submitted to Mr. Lee Sheehy Esq. for review by the Attorney General. On June 11, Mr. Sheehy received correspondence on behalf of Land O'Lakes, Inc. and Mid-America Dairymen, Inc.. On June 14, Mr. Sheehy requested comment and briefing from the Department. On June 21, the Department supplied Mr. Sheehy with its response to said request. (See memorandum from Peder Hong to Lee Sheehy dated June 21, 1979) On July 2, Mr. Sheehy received further correspondence on behalf of Land O'Lakes, Inc. and Mid-America Dairymen, Inc.. On July 3, Mr. Sheehy advised the Department that "based on the record submitted to the Attorney General's office, it has been determined that the agency does not

have statutory authority to promulgate the rules as presently constituted establishing the pricing mechanism based solely on protein. This office reserves judgment on the question of whether the agency has authority to merely establish a testing procedure for protein".

These revised Findings of Fact, Conclusions, and Order adopting rules, dated July 20, 1979, revise the original Findings of Fact, Conclusions, and Order adopting rules dated May 24, 1979, for the sole purpose of clarifying that the department's intent is to adopt rules relating to the testing of protein but not to adopt rules which would regulate pricing in light of the determinations of the Office of Hearing Examiners and the Attorney General that the Department does not have statutory authority to adopt the latter.

Based upon all the records and proceedings herein, the Minnesota Department of Agriculture makes the following:

FINDINGS OF FACT

1. That on November 22, 1978, the Department filed the following documents with the Chief Hearing Examiner:

   (a) A copy of the proposed rules.
   (b) The Order for Hearing proposed to be issued.
   (c) The Notice of Hearing proposed to be issued.
   (d) A Statement of the number of persons expected to attend the hearing and estimated length of the Department's presentation.

2. That on December 11, 1978, a Notice of Hearing and a copy of the proposed rules were published at 3 State Register 1217.

3. That on January 31, 1979, the Department mailed the Notice of Hearing to all persons and associations who had registered their names with the Secretary of State for the purpose of receiving such notice.

4. That on February 1, 1979, the Department filed the following documents:

   (a) The Order for Hearing and authorizing resolution.
   (b) The Notice of Hearing as mailed.
   (c) The Affidavit of Receipt of the Secretary of State's list.

(d) The Affidavit of Mailing the Notice to all persons on the Secretary of State's list.

(e) The Secretary of State's Certificate and list.

(f) The Statement of Need and Reasonableness.

(g) All materials received following a Notice of Intent to Solicit Outside Opinion published at 2 State Register 1908 (April 17, 1978).

(h) The names of Department personnel who will represent the Department at the hearing, together with the names of any other witnesses solicited by the Department to appear on its behalf.

The documents were available for inspection at the Office of Hearing Examiners from the date of filing to the date of the hearing.

5. The record remained open through March 28, 1979, for the receipt of written comments and statements, the period having been extended by order of the Hearing Examiner to twenty (20) calendar days following the hearing.

6. That this proceeding arises because of a need to implement testing rules pursuant to Minn. Stat. Sec. 32.25 which would serve as a pre-condition to statutory authorization contained therein for basing payment to farmers on the basis of the non-fat-solids for protein content of the milk in conjunction with the traditional butterfat basis. No action was taken by the Department to adopt rules for thirteen (13) years. In the fall of 1977, the Mississippi Valley Milk Producers Association (hereinafter "MVPA") began paying approximately 100 of its member-dairy-farmers in Minnesota a graduated premium for their milk based on its protein content. The Department sought and obtained a court injunction stopping these payments from a judge on July 6, 1978, because of complaints from Land O'Lakes, Inc., and other competitors which the judge described as "large and politically powerful purchasers of milk from farmer/producers in Minnesota." The injunction and the delay necessitated in this rules proceeding has and will cost these Minnesota farmers significant amounts of money. The taxpayers of the state are also generally indirectly losing because of the lost taxes on this unrealized income. Leo Stoltz, with a herd of only 32 cows, calculated an annual loss in protein premiums of $914.97. Vernon Roble, with a herd of 34 to 37 cows, calculated a nine month loss of $881.41. Kenneth Tschumper, with 24 cows, indicates that his premium in March

at the time of the hearings would have been $102.42. Other farmers produced similar consistent loss reports. Projected conservatively, over the time necessary to finally adopt these rules (and license testers) of August, 1979, and estending it to the 100 member producers, the total loss will be fairly estimated at $90,000 to $100,000. However, other sources stated that the total value of milk will not increase or decrease because of the pricing mechanism being used. Instead, the income may be divided differently among producers, with some receiving more for their milk and others receiving less.

7. It seems clear that the issue of whether protein testing should be allowed on an optional basis was decided 14 years ago by the Legislature, at which time the Legislature also stated, "By alternative tests which not only determine the percentage of milk fat but also determines the amount of non-fat solids, when the Commissioner is satisfied that these alternative tests are consistently as accurate as the Babcock Test in determining the percentage of milk fat." It would be contrary to that legislative intent to defer adoption of rules altogether in an effort to stop such testing, as was urged by purchaser/competitors of MVPA.

8. That since the early 1940's, there has been an extensive and increasing recognition on the part of many purchasers of the importance of paying for milk partly on the basis of its non-fat solids content including protein. Although no overall study on the extent and nature of protein pricing was presented, materials in the record indicate that there are a pervasive variety of protein pricing programs being used by purchasers. It is used in France, Canada, and the Netherlands, and in the United States, in New York, California, Wisconsin, Iowa, Illinois, Missouri, Idaho, Vermont, and South Dakota. The uncontradicted testimony is that such emphasis on protein is likely to continue and intensify:

> Already there are countries which specify protein levels when importing semen and some which attempt to specify protein levels when importing cattle. With the world interest in protein content of foods, it seems likely that protein assessment of milk will continue to be emphasized. (Exhibit 3, introduced by Kraft).

The MVPA representative testified that Minnesota is the only state where protein content has not been authorized as a basis for pricing.

An Iowa State University Coop. Extension Publication (DYS-1526) described the Netherlands' situation:

In the Netherlands, protein testing began in the early 1960's and has increased over a time. By 1968, over 50% of the milk was paid for according to fat and protein contents, and a slight increase in the protein percentage was experienced. If more emphasis had been placed on protein premiums, greater progress could no doubt have been m ade.

The Cuba Cheese Company in New York pays on the basis of volume and protein with the normal butterfat differential. The protein differential is based in part upon the weekly wholesale price of cheddar cheese on the Green Bay Exchange. One New York producer reports that "For March, 1978, we received nearly $1,200 for our protein differential. That's a gross payment of nearly 75¢ a hundred." (Exhibit 2, p. 10)

MVPA testified that they began paying on the basis of protein in 1973. They started at that time with a premium of 3¢ per "point" (one-tenth of one percent) over 3.3% protein in Grade A milk and 6¢ per point in manufactured milk. The system as initially established had no deductions in price paid for any levels of protein below 3.3%. In October of 1977, they increased the premium to 4¢ per point over a lower base of 3.2% protein for Grade A milk and 9¢ per point for manufactured milk. In October of 1978, they increased the Grade A payment to 5¢ per point and manufactured milk payment to 10¢ per point. They also established at that time a deduction in price for milk below 2.9% protein. They estimate protein payments in 1978 of $400,000.

AMPI has a plant in Blair, Wisconsin, which started experimenting with protein payments to 40 producers. The experience was successful, and they brought on the other 700 producers. They immediately acquired 70 or 75 new producers. They pay on the basis of point increases over 3.2% protein and have no deductions for milk which comes in below 3.2%.

By last report, the Golden Guernsey Dairy Coop. of Wisconsin (Ex. 3) pays a differential for each point over 3.2%, and the money comes from a "protein fund" made up of a given amount subtracted from the base price of all milk regardless of butterfat and protein test and an additional amount of butterfat differential withheld whenever a butterfat test exceeded a specified percentage, depending on the breed makeup of the herd.

A paper submitted by Land O'Lakes, "The California Experience in

Component Pricing", (hereinafter "Gruebele") summarizes their experience:

> Because of the dramatic increase in milk production, California has become an important source of manufactured dairy products. The percent of total U.S. butter manufactured in California increased from 2.4% in 1960 to 15% in 1976. The percent of total U.S. nonfat dry milk powder milk production increased from 4% in 1960 to 17% in 1976, and the percent of total U.S. cheese manufactured in California increased from 1.2% in 1960 to 3.4% in 1976. California now has the second highest milk production in the country and dairy represents the state's most important agricultural product.....
>
> The component pricing system has been successful in California. Producers, processors, and the Department of Food and Agriculture appear to be happy with component pricing. . . .For California, the component pricing program has met all of the critical conditions necessary for a successful policy. That is, it is a program that is economically sound, administratively feasible, and socially acceptable.

The California protein payment system is the most comprehensive. It is mandatory for all producers (instead of optional as in the herein proposed rules).

All of these "protein" pricing programs involve merely partial recognition of the value of protein as a component, instead of basing the payment solely on percentage of protein or even butterfat and protein. Even the California system for Class I (fluid products) assigns a value to the "fluid carrier, or water" (Gruebele says it is to discourage "the use of imported Grade A powder in place of natural solids" where there is a large differential between the Class I SNF price and the Grade A powder price. Another paper introduced by Land O'Lakes ("Processor Views on the California Experience with Component Pricing for Fluid Milk", Larry Maes, Executive Director, Dairy Institute of California; hereinafter "Maes") says that it is "confusing at first glance" but the purpose is "to reflect two factors which are inherent in all Class I prices." These are: (1) premium for Class I usage as compared to lower usages; and (2) transportation differentials." Whatever the reason, paying for water or "fluid carrier" encourages feeding and breeding for volume. Gruebele indicates:

> Records at dairyman's cooperative creamery show that feeding and breeding for higher milk production under California's pricing system is more profitable than feeding and breeding for higher butterfat and solids-no-fat production per 100 pounds of milk. (P. 15)

While reference is made to the California pricing system, it should be clarified that the California pricing system is a component pricing system and not merely a protein pricing system.

9. That the protein content of milk is very important to the American consumer. The Wisconsin Extension Publication introduced by Kraft (Ex.3) indicates that:

> At present, milk contributes about 22% of the protein requirement in the average American's diet. Consumers are also buying more cheese, ice milks, low fat milks, and yogurts than they did ten years ago. It makes sense to price milk to the dairymen in a way that recognizes this interest in the solids-not-fat or protein components of milk.

A study introduced by the Department (Dr. Stanley N. Gaunt, Professor of Animal Science, University of Massachusetts; (hereinafter "Gaunt") cites figures indicating that as of September, 1975, the amount of protein per dollar spent for milk was exceeded only by turkey and it was nearly three times the amount per dollar for pork and beef.

10. That there has been a definite shift in consumer demand for milk products away from those with high butterfat content and toward those with higher relative protein content. This has caused a shift in the relative value of the components of milk from butterfat to protein. Maes (introduced by Land O'Lakes) indicates that as early as 1960, "There was a clear and well-publicized shift nationally in consumer interest toward lower fat dairy products". Gruebele (also introduced by Land O'Lakes, p. 11) indicates that consequently, "The market value of solids-not-fat has increased dramatically relative to fat". Gaunt (introduced by the Department) indicates that per capita milk consumption from 1942 to 1974 dropped from 736 pounds to 543 pounds (minus 28%), butter from 15.8 pounds to 4.3 (minus 73%), while cheese increased 6.4 to 18.8 pounds (plus 293%). Zurborg indicates that the commodity value of nonfat dry milk increased from 1950 at $.1225 to 1975 at $.62, a 508% increase. During the same period, butter commodity value increased only from .6169 to .8619, an increase of only 14%. He reports that skim milk fluid values on the Chicago market in June increased from $1.13 in 1964 to $6.53 in 1976, an increase of 577%; while fat during the same period increased only 4%. Gaunt confirms these MVPA figures indicating, "Ten years ago, fat accounted for two-thirds of the value of milk; today fat accounts for less than one-third of the value." Exhibit 3 (introduced by Kraft) confirms

the shift in value from fat components to protein components, adding that, "Since the 1970 Agricultural Act, the dairy price support program no longer requires that butterfat be supported at between 75% and 90% of parity." The AMPI report on protein prices (June 15, 1978) sets forth a table showing the value shift over the last 30 years concluding, "The consumer demands less fat and more solids-not-fat, but the producer pay basis has not responded." (Emphasis original)

11. That the possibility of basing pricing partly on protein content will bring about long range improvement in the quality of dairy products, the income of dairy farmers and the profits of handlers of fluid products as well as manufactured products. An MVPA spokesman testified that there has been some increase in average protein levels in their herds in just five years of protein pricing. Kraft indicated that Idaho and Wisconsin have higher average protein content milk, two states where protein pricing is more widespread. Jacobsen indicates that per capita consumption of low fat/skim products in California was 45.3 quarts, 4.2 more than the U.S. average and per capita consumption of whole milk was 83 quarts, 5.2 quarts more than the U.S. average. Zurborg similarly indicates increased sales have been part of the MVPA experience in a paper to the American Dairy Science Association, presented at Michigan State University, East Lansing, July 10, 1978 (Ex. 2):

> We don't segregate our member milk for manufacturing so the increased solids has helped to improve the flavor of our bottled products, particularly the skimmed items. During the past few years, we have had sizable increases in our internally generated milk sales and we give credit to a better bottle of milk as being a part of this success. We all eat and drink foods because we like them. The soft drink people have proved this.

Undoubtedly, advertising of a higher quality product plays a major role in increased fluid sales, when you have a higher quality product to advertise. This combination is a major part of the California sales experience. It is also true on a smaller scale as Rodger Beck, the Director of Member Information for New York DHI reports (Ex. 2, p. 9). In 1976, three Wyoming County, New York dairymen pooled their milk in a single sale to Annis Dairy in Avon, New York, receiving the usual blend price and butterfat differential plus a premium of 6¢ for each one-tenth percent protein over 3.3%. They agreed to set aside their protein payments advertised in eight area pennysavers and on local radio. The result was a resounding success.

Sales from May to October of 1976 increased 114%" As indicated earlier, MVPA pays a lesser protein differential for Grade A bottled milk, recognizing that the protein value there is less than in manufactured products. They testified, however, that on the average only 70% of Grade A milk is bottled and that, therefore, some recovery is possible on the remainder. They also testified, without contradiction, that overall incomes of dairy farmers will be improved in the long run by protein pricing because of the resulting improvement in the basic Minnesota/Wisconsin price.

12. That higher levels of protein in producer milk brings about higher yields of manufactured products. This is the increased return to processors which is not being equitably returned to the producers of high protein milk. Zurborg provides the best summary of the evidence:

> On hard cheeses, we feel that there is an average yield increase of 2 to 2 1/2 pounds of finished product for each pound of protein in raw milk. With cheese averaging 90¢ a pound, this would be 18¢ for each point (.1%). On nonfat dry milk, the yield increases about a pound for each pound of product in the raw milk. Since nonfat dry milk currently is supported at 62¢ a pound, this figures out at about 6.2¢ per point. On cottage cheese manufacturing, an extra pound of protein yields about 6 extra pounds of cottage cheese, and if we conservatively price it at 40¢ a pound, this equals 24¢ a point. Ice cream is about like nonfat dry milk, since its main source of protein is generally milk solids. . . Much Grade A milk is diverted to cottage cheese manufacture, ice cream mix, and other manufactured products. There is no reason that these products cannot carry a premium for Grade A producers.

Rodger Beck, Director of Member Information for New York DHI, provides the following table of increased yields and returns with regard to cheese (Ex. 2, p.10) indicating that, "An increase of .6% in protein test results in $1.84 in value of a product".

Protein	Lb. Cheese/ 100 lbs. Milk	Value Cheese At $1.00/lb.	Diff. Per .1%
3.0	9.18	$ 9.18	$ ---
3.1	9.49	9.49	.31
3.2	9.79	9.79	.30
3.3	10.10	10.10	.31
3.4	10.40	10.40	.30
3.5	10.71	10.71	.31
3.6	11.02	11.02	.31
.6			$1.84

Similarly, information introduced by farmer/producer Weller (Ex. 2, p.7) indicates:

> An additional pound of nonfat solids in a hundred weight of producer milk was worth from 7 to 24¢ to plant operators in additional yields of nonfat dry milk (7¢), American cheese, (22¢), or cottage cheese (24¢) at mid-1977 prices.

Although Land O'Lakes expressed considerable doubt as to the veracity of these increased yields and cross-examined MVPA witnesses vigorously, all of the evidence clearly establishes these increased yields, including that introduced by Land O'Lakes itself. Gruebele, for example, (introduced by Land O'Lakes) indicates that, "Cheddar cheese yields go up about .14 pounds for each .1% increase in protein in milk", and "for each .1% increase in solids-not-fat, powdered milk yields go up .1 pounds. This extra yield is worth 7¢." (P.10) The National Milk Producers Federation Report (also introduced by Land O'Lakes) concedes a "positive relationship between protein and cheese yields". The Wisconsin Bulletin (Ex. 3, introduced by Kraft) confirms increases of "2 to 2 1/2 pounds" of cheese for every pound of protein in a hundred weight of raw milk and an extra pound of protein yields an extra pound of nonfat dry milk or ice cream or six pounds of cottage cheese. Gaunt (introduced by the Department) confirms the increased yields, particularly of cottage and cheddar cheese.

The following sources also confirm Zurborg's testimony, without quoting them extensively, in the interests of brevity: AMPI Report, June 15, 1978; Article by Professor V. H. Nielson, Head of Department of Food Technology, Iowa State University, Ames (submitted by Department; hereinafter: "Nielson"); September, 1977, Guernsey Breeders Journal, pp. 486-487 (each pound of protein yields approximately three pounds of cheddar cheese at 38% moisture content); G. H. Schmidt, Dairy Science Department, Ohio State University (Ex. 2, p. 17); Dr. Ross Mickelson, Kansas State University and Federal Milk Market Administrators Service Unit No. 1, September, 1974, Contribution 903, Kansas Agricultural Experiment Station (Ex. 2, p. 30-12); Blair J. Smith, Associate Professor of Agricultural Economics, and Stephen Snyder, formerly Graduate Assistant in Agricultural Economics, Pennsylvania State University, September, 1978, article (Ex. 2, p. 30-19); (Ex. 2, p. 5).

13. That there is not a close enough correlation between average increases in butterfat percentages and average increases in protein percentages to permit proper or fair compensation for high protein milk producers. Land O'Lakes advances a contrary assertion in its final written comments without submitting any specific evidence:

> Contrary to the testimony of some opponents, there is a close correlation between butterfat and solids-not-fat or protein. This correlation is reported by Dr. Packard and many other researchers. Manufacturers can use this relationship to determine proper butterfat differentials of milk used to produce butter and nonfat dry milk solids.

They indicated that they feel their prices paid farmers are consequently equitable because they pay a higher butterfat differential. (Farmer'producers immediately corrected this statement, indicating without contradiction that Kraft pays a higher butterfat differential and that the differential is minimal compared to the increased value of higher protein milk.)

Land O'Lakes' assertion is directly contradicted by its own alleged source. Dr. Packard indicates in Extension Bulletin No. 73, January 1, 1979, that "The relationship is not precise enough to serve as a pricing mechanism per se." University of Wisconsin experts agree with Dr. Packard (Ex. 3, introduced by Kraft):

> Since the relationship of fat to protein varies from cow to cow and from herd to herd, the nutritional and true market value of milk may vary from one producer to another. Without component pricing, such differences are not properly reflected in individual milk checks.

Gruebele (introduced by Land O'Lakes, p. 15) cites a 1976-78 study of 56 herds, indicating, "One problem that has been identified in California is that the higher producing herds are able to maintain relatively high butterfat tests but quite low solid-not-fat percentages." Nielson is severely critical of this method of compensating for protein content. "The weakness of this scheme is that it ignores the sometimes significant deviations from the average value of the most variable nonfat component of milk, namely protein." These variations are confirmed by Zurborg:

> We have found a tremendous difference between the protein test and fat to protein ratio in various

herds within our membership. As individual cows go, some can have twice the fat to protein ratio and some can even have higher protein tests than fat tests.

This testimony is corroborated by specific data supplied by the New England Committee on Nutritonal Pricing of Milk (Report of Subcommittee on Factors Affecting Milk Composition, Ex. 2, p. 16) which provides the following Holstein sire summary analysis, showing results that are opposite of what would be expected under the Land O'Lakes hypothesis:

Sire	No. of Days	Milk	Fat	Protein
A	30	19,542	3.67	3.25
B	25	16,975	3.82	3.15
C	11	16,106	3.83	3.06
D	10	16,738	4.04	3.08

The AMPI pricing report (and other data in the record) confirms this extreme variability, concluding, "Therefore, any basis of payment should consider the solid components of milk as the separate variables which they are."

14. That protein is not overvalued as a component of milk as was alleged by Land O'Lakes. They first cited a surplus of nonfat dry milk as an indication that protein must be overpriced. Utilization of nonfat dry milk as a primary part of the givernment support price system merely facilitates storage and subsidized shipments. (There is also an increasing surplus of water in milk which is not stored because the taxpayers pay to have it evaporated. As indicated in previous Findings, the current pricing system encourages the further overproduction of this component in milk.) The value assigned other solids-not-fat and water in the base price because only butterfat is recognized as varying and is assigned a price differential. The rules would recognize that protein is the only other valuable major varying component and allow the purchaser the option of assigning it what he feels is a fair differential price.

In their final written comments submitted on the day the record closed, Land O'Lakes advanced another argument for their contention using the Van Slyke cheese formula and average butterfat and casein content which has been considered and rejected. The Van Slyke formula (broken down at length by

testimony of Mr. Bratland) merely shows that increased protein yields increase casein which yields increased pounds of cheese. It is clear that protein is not overpriced as a component and, in fact, is not priced at all. This rules proceeding arises because purchasers are not generally attempting to pay fair value for high protein milk. The willingness of some purchasers to pay a premium irrefutably establihes that fact to the tune of $400,000 in one year in the case of MVPA.

15. That no facts were introduced to show that variations in total protein content due to Mastitis should prevent protein testing. Land O'Lakes and others suggested that this was a problem without providing quantifying data or analysis. Dr. Packard at the University of Minnesota (Extension Bulletin No. 73) cites a Penn State study showing that casein level, "Remained fairly constant, but whey protein, thus total protein, increased significantly" in Mastitis milk. He describes whey proteins as having, "A higher (more nutritious) biological value than casein." The increased whey protein would, of course, reduce cheese yields and that problem is taken care of by the optional quality control provision inserted in the proposed rules by the Department to protect cheese manufacturing buyers. The evidence suggests that regardless of protein testing, Mastitis will be curbed by dairy farmers due to decreased yields. The New York Dairy Improvement Council indicates (Ex. 2, p. 11) that:

> Research has shown that losses in milk production during a 305 day lactation due to infection of one quarter vary from 1,267 to 1,983 pounds of milk. For example, a 1,783 pound loss of $10 per hundred weight milk equals $173.30 per lactation lost income. (Emphasis original)

16. That protein content of milk can be enhanced through feeding and breeding without any decrease in long term yields. Land O'Lakes cited an unpublished study by one of its employees, Paul Christ, as indicating that, "Attempts to increase the protein percentage in milk results in a loss in milk yield and a lower yield in total protein than if breeding selection had been made for total milk yield. . .Total revenue from milk sales would actually be reduced even with a protein differential." Gruebele (introduced by Land O'Lakes) specifically cites Mr. Christ's unpublished paper and refutes the alleged long range adverse impact on the dairy industry, citing California as

an example. Their volume increase per cow continues tooutstrip the national increase. From 1965 to 1977, the California increase was 3,632 pounds per cow from 10,830 to 14,462, as opposed to the national increase of only 2,925 per cow from 8,305 to 11,230. Total milk production increased 40% versus a .73% decrease nationally. (All of these lower national averages include the California increases in their computation and, consequently, the disparity is actually more dramatic.) As indicated earlier in this report, the California rules merely recognize a partial payment on the basis of protein and still make it profitable to breed for volume. That continues to be true in California. MVPA testimony corroborated this refutation of the Land O'Lakes allegation, indicating that their production per cow has increased almost as fact as the rest of the country.

The best, most detailed data available on the subject of breeding is the Iowa Stzte University Co-op Extension Publication DYS-1625, "The Dairy Cow as Protein Producer" (November, 1973, submitted by MVPA and cited with approval in Exhibit 3 introduced by Kraft.) It summarizes an interregional study of data from 22 states including 23,382 records on cows sired by 2,522 sires in 298 herds. Table 7 shows that selecting for total solid yield maximization would produce significant increases in pounds and percentages of fat and protein and significant yield increases only 12% below those obtained by selecting on the basis of total yield maximization. The study concludes that:

> It seems important that the quality of milk offered consumers be improved or at least not decline. Thus, it may be necessary to sacrifice some increase in yield to maintain or improve quality.

Similarly, the nutritional milk pricing committee report cites a six year study at the University of Massachusetts as showing that:

> Changes in protein content of milk could be made if we started testing and farmers received a payment incentive to make the effort profitable. . . Consequently, with the large number of sires to choose from in the various artificial breeding studs, it should be possible to increase both milk yield and protein or solids-not-fat percentage.

No specific study to the contrary has been pointed to by Land O'Lakes or others to support the allegation that dairy farmers will be harmed in the long run by protein testing. As the Iowa State Publication concludes:

> If payment for milk includes protein percentages in the price formula, similar selection for protein yield could result in both increasing milk yield and protein percentage on a basis that would be economically beneficial to dairymen.

The testimony was unanimous that balanced feeding will increase protein content. Gruebele (introduced by Land O'Lakes) found that in California, "With proper feeding rations it has been possible for many dairymen to increase the solids-not-fat tests and butterfat tests up to the inherent ability of the animal." (P. 11) Maes (also introduced by Land O'Lakes) corroborates this evidence that feeding affects the quantity of solids-not-fat.

17. That no facts have been introduced to suggest that the purchasers of milk would tend to segregate high and low protein content milk under the proposed rules any more than they do under the present pricing scheme. Land O'Lakes asserted, without any substantiation based on past experience, that, "High testing milk would move to manufacturing facilities, and low testing milk would move to the fluid market." Milk purchasers are already accomplishing this kind of segregation where transportation costs are not prohibitive. The New England Price Committee Report (Ex. 2, p.26) confirms that this is taking place:

> The present system of pricing also encourages country plants to find high-solids milk and manufacture it into powder or cheese and ship the low solids milk to the city for fluid. Dairy product manufacturers, to the extent they are successful in finding high-solids milk, get a yield bonus without having to pay for it. Fluid milk consumers are paying the same price for less and less milk solids and more water.

Maes (introduced by Land O'Lakes, p. 11) indicates that the experience in California does not support the prediction of increases segregation. He confirms that higher protein herds there, as in Minnesota and elsewhere, generally sell to cheese plants, but:

> The component characteristics of fluid milk produced in California do not appear to have been notably changed by component pricing.

As indicated earlier in this report, MVPA experience with protein pricing has also not led them to segregate high and low solids.

The tendency of purchasers to segregate milk could be minimized under a more equitable pricing system which eliminates the bonus for doing so. The best way of ensuring that the natural profit making motives of purchasers do not harm consumers, however, lies not in these rules but in increasing minimum standards. The National Milk Producers Federation Report (introduced by Land O'Lakes) indicates:

> The present fluid milk standards of the Food and Drug Administration are quite low. . .An increase in the minimum standards would overcome the incentive to obtain milk with a low solids content as a means of reducing raw product costs at least in part. The higher standards would increase the market for milk solids, improve the palatability of fluid milk products, and may lead to higher milk consumption.

Standards for solids-not-fat in California have been gradually increased over the years to 8.15 in 1961, 8.35 in 1963, 8.5 in 1965, and 8.6-8.8 in 1977. Gruebele reports that:

> The dairy industry leaders believe that the higher standards in fluid products under component pricing contributed to the increased per capital Class I sales (fluid products) in California since 1971.

He indicates that California began in 1960, with a per capita consumption 10 quarts lower than the national average (140 versus 150) and ended 20 quarts higher (113 versus 133) in 1977, for a total decline of only 5% versus a national decline of 24%.

18. That there will be an energy savings involved in the long term increase in protein content encouraged by recognition of protein. A study prepared for the Dairy Industry Conference at Iowa State University, submitted March 21, 1978, by J. K. Hillers, V. H. Nielson, A. E. Freeman, and J. Dommerhold submitted by Gerald Bratland, breaks down four processing cost categories: transportation of milk, separation, energy, and labor. It demonstrates that any increase in protein composition of .3% without any change in the fat test would save $1,500 per one million pounds of cheese, in addition to the increased yield. This report is being written at a time when energy conservation is being increasingly recognized as more than a matter of cost savings. This is highlighted in the comments of Dr. R. C. Laben at an Iowa Symposium on protein and breeding (Ex. 2, p. 30-17):

> Rising energy costs provide the most important reason for holding or increasing milk solids concentration by the means we have presently available. Energy costs at every step in dairying from milking, farm cooling, all phases of milk transportation, processing, and marketing will continue to increase. While this cost has been a minor consideration in the U.S., currently it is a real one and the future trend is definite.
>
> Presently rising energy costs support an argument for immediate attention to the concentration of milk solids in dairy breeding. European dairy breeders already face a situation where some direct selection to raise solids concentration at the expense of total yield is being practiced.

19. That the costs of testing for protein will be minor and not prohibitive. Land O'Lakes merely raised the question of whether costs might harm or discriminate against some purchasers, without providing data. They indicated only, "We do not have reliable cost estimates at this time. We do know that the costs for testing milk for protein content is much greater than for testing butterfat." The testimony is contradicted by an earlier article by Paul Christ in the company newsletter, the "Land O'Lakes Mirror" of April, 1978: "Machines are available that will measure the protein content of milk quickly and at low cost." Mr. Christ's contradictory analysis is corroborated by J. W. Sherbon of the Department of Food Science at Cornell University. ("Recent Developments in Determining Protein Content of Dairy Products by Dye Binding", 1978 Journal of Dairy Science 61: 1274, introduced by the Department) "The procedure is fast, precise, and costs no more than the Babcock Test." (The Babcock Test is the standard test for butterfat which Land O'Lakes testified with certainty was considerably less than the cost of protein testing.)

Kroger (introduced by the Department) indicates that the Association of Cooperative Dairies in Zutphen, Holland, has been protein testing more than 20 years, both for milk pricing and as a guide for breeding. In 1966, they processed three million producers' samples at an all-inclusive cost per test of about 3.5¢. The lab was staffed by one supervisor, two technicians, and 12 girls who worked 235 days during the year." Maes indicated that California tests for fat and solids-not-fat on a daily basis, and another source indicates that the "costs of testing for both nonfat solids and butterfat in California are only about 14% higher than for butterfat testing alone." (Ex. 2, p. 7)

A New York DHIC protein testing program was initiated in 1977; 12.7% of the members have enrolled at 3¢ a cow per month. (Ex. 2, p. 8) An Ohio Ag-Services Newsletter was introduced announcing purchase of a Milko Scan testing machine with optional testing at 4¢ per cow. The following detailed cost breakdown of various alternatives was presented in the Report of the New England Nutritional Milk Pricing Committee (Ex. 2, p. 25). The figures have not been contradicted nor questioned:

TESTS FOR MILK PROTEIN

	MK-II[a] Pro-Milk	UDY	PMA[a]	IRMA[b]	ULTRASON[c]
Purchase Price	$2,925	$800	$31,500	$50,000	$10,000
Tests/Hour	50	20	160	150	20
Sample Size	2cc	2cc	2cc	15cc	30cc
Annual Repair & Maintenance	$58.50	$ 16	$630	@ 2,500	$ 200
Per Sample					
Capitalization (5 years)	.006	.004	.019	.032	.048
Labor @ $2.50/hr	.050	.125	.016	.017	.125
Supervision $3,600/yr. 30% of $12,000	.035	.087	.011	.051[d]	.087
Maintenance & Repair	.001	---	.002	.008	.005
	.092	.216	.048	.108	.265

a) - Fully approved tests.

b) - Infrared Milk Analyzer--measures fat and nonfat solids.

c) - Utilizes sound transmission to analyze solutions.

d) - Full-time supervision at $16,000/yr.

20. That the methods for protein testing contained in the proposed rule are sufficiently accurate to allow fair, nondiscriminatory payment to producers. Several persons questioned the accuracy of the testing procedures and devices, but no one had any evidence or expert opinion critical of the determination of the official Association of Analytical Chemists that the proposed methods were accurate. Land O'Lakes conceded that, "The repeatability of the individual testing methods is quite respectable." But the "information we have seen" regarding the comparison of the different methods "leaves much to be desired". They attempted to contrast these proposed tests with the Babcock Test for butterfat, "The Babcock Test is a widely used inexpensive test that is ably conducted by many individuals and organizations." All of the evidence herein suggests that the same statement can be made about the proposed protein tests. The only information on this record of differences in a comparison of the different methods is the study compiled by Professor Packard of the University of Minnesota. This indicates that the differences in measurements between protein equipment tests was .024 to .033, considerably less than the differences in fat tests of .05. Kroger reports that the Scottish Milk Marketing Board Central Testing Laboratory has a Pro-Milk Automatic system coupled with an IBM computer system measuring 1,000 samples per eight-hour day for both protein and fat. "Results indicate good accuracy for the unit with a standard deviation of plus or minus 0.06% for fat and plus or minus 0.04% for protein. This and other uncontradicted evidence in the record establishes that the proposed protein tests are at least as accurate and generally more accurate than the Babcock butterfat test. Some persons at the hearing misquoted Professor Packard, suggesting that he doubted the accuracy of the proposed methods. He states explicitly in "Methods for Determining Protein Content in Milk", an unpublished outline prepared for these hearings and submitted by the Department, that "dye binding and infrared methods are accurate enough". The only other proposed method is the Kjeldahl which is the "reference standard" or calibration method for the methods which he feels are accurate enough. It should also be noted that those are the only methods which will be used as a practical matter for testing for payment, because the Kjeldahl test is too expensive and time-

consuming. The Gaunt study (introduced by the Department) corroborates Professor Packard's conclusion, "The protein percentages in milk can be determined quite accurately by approved methods." Maes (introduced by Land O'Lakes) indicates:

> Since the California program is now in its seventeenth year, I think it reasonable to assume that the technical feasibility of component pricing is demonstrated. (P. 1)

He further indicates that since 1962, California has had "acceptable" testing procedures for measuring solids-not-fat including the less accurate lactometric method (not included in these proposed rules). The "allowed tolerances for lactometer testing are plus or minus 2%". The Packard study found maximum differences (where the equipment was only calibrated at a single protein level) of .18%, which is less than one-half the allowed tolerances in California. The Packard study points out that:

> Laboratory differences in the data we collected were not so much descriptive of the precision of the Pro-Milk unit as the difference in calibration of the unit in each of the laboratories involved.

The collaborative study in the Journal of the AOAC proposed for incorporation by reference in the rule stresses the importance of this laboratory calibration factor:

> Several of the laboratories had recently completed a recalibration of their instruments and had exchanged samples in the process. When the milk data from just these laboratories were considered, the effect of laboratory lost its significance, leaving only the sample and interaction affects significant at the 0.005 level.

The study further concludes that the Pro-Milk system, "Is capable of very high precision".

Professor Packard further indicates that, "An important cause of lack of agreement between the laboratories may lie in the imprecision of the reference test--the Kjeldahl method." This imprecision is stressed by the other experts in the field whose testimony suggests that this could be the entire explanation for the differences noted between methods. John W. Sherbon, Associate Professor of Food Science at Cornell University, in an

article entitled, "Does Protein Testing Give Accurate Results?", submitted by the Department, corroborates Professor Packard:

> A major reason the Kjeldahl test is so expensive is that it is not very precise, so it must be repeated two or three times on every sample in order to have a result that can be trusted. Even with replication, the best you can hope for is results that do not differ one from the other by three to five percent.

Kroger (introduced by the Department) further explains the difficulty of calibration to Kjeldahl:

> The Kjeldahl method also is an estimate, since it measures protein only indirectly. In fact milk protein content by the Kjeldahl method is defined at 6.38 times the amount of the element nitrogen in the milk sample. This conversion factor varies with the composition of the milk (6.37-6.40). The factor of 6.38 corresponds to an average of 15.65% nitrogen in milk protein. Furthermore, nitrogen containing substances in the milk (about 5% of total N). . .Are all included in the Kjeldahl analysis for nitrogen, although they are not considered proteinaceous at all.

Professor Packard finally stresses that the quipment was calibrated to a single level of protein, 3.2% and that calibrating over a wider range would reduce differences. At the level calibrated, the difference was only .05% which is 80 times more accurate than the California allowed tolerances. Packard cites another study on differences in fat testing of .091% (nearly double the .05 reported for protein at the level where the machines were calibrated which he calls "negligible". Sherbon (introduced by the Department) stresses that:

> Any calibration of the dye binding test is applicable only to the type of samples and procedures used for calibration and only with a specified range of protein contents. Without attention to such details, it is difficult to achieve good interlaboratory comparisons. . .As long as we use any form of the Kjeldahl test as the primary reference procedure, the need for calibration and explanations of deviations will continue. I have heard some say that dye binding eventually will become the primary reference for the Kjeldahl and other procedures.

The evidence is unequivocal that the dye binding and infrared methods proposed herein are sufficiently accurate for their intended purposes. Professor Packard indicates that the infrared method is utilized in California to test 60% to 70% of all Grade A milk. Gruebele (introduced by

Land O'Lakes, p. 12) indicates that California uses other tests (not included in the proposed rule) to test protein in addition to the infrared method. "Some of the producer leaders feel that the tolerances for solid-not-fat tests should be tightened. It would be easy to do were all the milk tested with the IRMA: (infrared method), but some firms use less accurate tests. Professor Packard further cites a Penn State study as indicating that, "Netherlands have used dye binding since 1958." Sherbon (introduced by the Department) indicates specifically that the dye binding method measures, "With a much better precision agreement, with one percent for repeated tests". Some hearing participants pressed for further research on the accuracy of these methods. As the paper by Kroger notes, further research will undoubtedly generate the need for additional research, "There is no end to research. As you experiment and study, new questions and problems are constantly encountered."

21. That the frequency of testing in the proposed rules is more than adequate to assure accuracy. The Statement of Need for the rules cites a Ginn and Packard 1969 Study showing that four random samples for butterfat were comparable to testing every sample. This was uncontradicted,but it is important to note that this evidence only establishes that a minimum of four samples is needed and reasonable with regard to butterfat testing. As indicated earlier in this report, the butterfat test tends to be less accurate than the protein test and, consequently, fewer minimum samplings might be a sufficient frequency with regard to the protein test. It is important, as the Statement of Need indicates, to minimize "time-consuming and costly" testing. A more recent study by Gaunt (introduced by the Department) of 4,077 bulk samples in 38 herds showed that testing for protein every two weeks (twice a month) is sufficient to keep the standard of error within plus or minus 0.1%. The New England Nutritional Milk Pricing Committee Report (Ex. 2. p. 21) reviewed this study and other more recent data in concluding:

> Work at the Universities of Massachusetts, Delaware, and Idaho indicate that the correlation between monthly and bi-monthly testing for protein and solids-not-fat lactation records was very high (around .96). This strongly suggests that bi-monthly testing for protein and solids-not-fat is of sufficient accuracy for routine testing of cows for lactations.

It is important that the Department maintain the same minimum testing procedures for protein as are presently used for butterfat. It is recognized that costs are a concern of producers and purchasers alike, however, accuracy of testing is also a concern of the producers and, therefore, uniform programs must be used.

22. That protein testing is an adequate and proper measure of the solids-not-fat content of milk and that the rules should not be changed to measure total solids-not-fat as opposed to protein. Land O'Lakes and others urged strongly that the rules be revised to measure solids-not-fat instead of protein. As Zurborg points out:

> The average solids-not-fat percentage of normal milk is about 8.5%, while the average protein percentage is about 3.2. From this, it can be seen that the protein component constitutes less than one-half of the solids-not-fat content of normal milk.
>
> The basic components in milk are fat, protein, lactose, and minerals. The fat and protein are variables with fat ranging from 2.8% to 5.5% and protein in the area of 2.5% to 4.5%. Lactose and minerals are generally constant at 5% and .7%.

This is confirmed by Gaunt (introduced by the Department) who indicates that "Lactose and mineral levels are fairly constant" and that protein percentages are consequently "quite indicative of the solids-not-fat (SNF) percentage in milk". The University of Wisconsin Bulletin (Ex.3, introduced by Kraft) also confirms that:

> Protein and fat are the most important variable components of milk. The other two basic components are lactose, which remains relatively constant at about 5% and the minerals at 0.7%.

The only place where solids-not-fat measurement is utilized instead of protein is California. Maes (introduced by Land O'Lakes) explains that total solids-not-fat measurement was adopted in 1962, because, "The most available and acceptable procedure was the lactometric method for measuring total solids-not-fat (for this reason, protein payment was not considered)." (P.9) He goes on to indicate that the tolerances necessitated by testing for total solids-not-fat are the only matter of major controversy remaining in California because the lactometer only measures with plus or minus .2%. The New England Nutritional Milk Pricing Committee summarizes the reasons for rejecting testing of total nonfat solids:

> At present, reliable tests for total nonfat solids are very expensive. Inexpensive tests are generally unreliable in field type situations.
>
> Nonfat solid levels are not as good an indicator of cheese yields as protein levels. Furthermore, protein tests are less expensive and automated testing procedures have proven reliable. More and more milk is going into cheese--including the New England markets. It would seem unwise to link up with a test procedure that has inherent weaknesses from the outset . . .
>
> A fourth potential problem with this measure is that inexpensive milk solids (whey) can be purchased and added to milk and sold as the higher valued nonfat solids. Relatively large amounts of whey solids can be added without detection with standard measures of total solids.

Smith and Snyder (Ex. 2, p. 30-19) confirmed that, "Laboratory tests for protein are both more accurate and less expensive than those for solids-not-fat." It is difficult to comprehend why producers who are so concerned about the costs and accuracy of testing are in favor of a solids-not-fat testing plan which would be more expensive and less accurate. The problem of "cheating" under a total SNF testing program appears to be real. The representative from Kraft testified, "According to a survey of the Whey Products Institute, dry whey used by dairies equals about 60% of their use of nonfat dry milk." Dr. R.C. Laben (cited earlier) agrees with the New England Committee and the evidence generally in this record in concluding, "Payment and breeding for solids-not-fat could lead to future inequities akin to some of the present ones. . .It seems more advisable to plan to test and select directly for the solids-not-fat component of the highest economic and nutritional value."

23. The Report of the Hearing Examiner and the review by the Attorney General's Office have both concluded that the Department does not have statutory authority under Minn. Stat. Sec. 32.25 to promulgate rules establishing a pricing mechanism based solely on protein, and the Attorney General's Office has reserved judgment on the question whether the Department has authority to establish a testing procedure for protein. Accordingly, the proposed rules have been revised to clearly indicate their more limited scope of relating to testing of protein only.

CONCLUSIONS

1. That any of the foregoing Findings that are more properly denominated Conclusions are hereby adopted as such.

2. That the Department of Agriculture duly acquired and now has jurisdiction over the within proceeding.

3. That all relevant legal and procedural requirements of statute and rule have been complied with.

4. That the Department has documented its statutory authority to adopt these rules as hereinafter proposed for adoption in this Order.

5. That the Department has documented the need for and reasonableness of its proposed rules as hereinafter proposed for adoption in this Order with an affirmative presentation of facts.

ORDER ADOPTING REVISED RULES

After having heard all of the testimony, having considered all of the evidence adduced, and upon the records, files, and proceedings herein, and applicable statutory standards or criteria, and having confirmed the need for the above-captioned rules and the reasonableness thereof,

NOW, THEREFORE, IT IS ORDERED that the Findings of Fact, Conclusions and Order adopting Rules dated May 24, 1979, are vacated and that the revised Rules identified as Testing of Milk on the Basis of Protein, dated July 20, 1979, attached hereto, and these Revised Findings of Fact, Conclusions, and Order adopting Rules are adopted this 20th day of July, 1979, pursuant to authority vested in me by Minn. Stat. Sec. 15.0412 and Minn. Stat. Sec. 32.25.

STATE OF MINNESOTA

Mark W. Seetin
Commissioner of Agriculture

RULES AS PROPOSED FOR ADOPTION IN FINAL FORM (AS REVISED 7/20/79)

TESTING OF MILK ON THE

BASIS OF PROTEIN

CHAPTER 58

3 MCAR 1.1331 General.

A. Purpose and Authority. The rules contained herein are prescribed pursuant to Minn. Stat. Sec. 32.25 by the commissioner to provide for testing protein content of whole milk.

B. Definitions. For purposes of these rules the following definitions and those in Minn. Stat. Sec. 32.01 shall apply:

1. "Producer" means any person who operates a dairy herd or herds producing milk commercially and whose milk is sold to, or received or handled by, a purchaser as defined in this rule.

2. "Purchaser" means any person purchasing whole milk from a producer and defined as a dairy plant in Minn. Stat. Sec. 32.01, subd. 6.

3 MCAR 1.1332 Testing Procedures.

A. Samples collection and handling. Samples to be used for the testing of protein content shall be collected and handled in the same manner as samples used for bacterial tests as prescribed in "Standard Methods for the Examination of Dairy Products", Thirteenth Edition, published by the American Public Health Association. The minimum size for a fresh milk sample shall be two ounces (0.0592 liter).

B. Sample testing.

1. Only the following methods, as prescribed by the Association of Official Analytical Chemists, shall be used in the testing of whole milk for protein content pursuant to these rules:

a. Kjeldahl, Method No. 1.049 and 16.036, total nitrogen;

b. Dye Binding, Method No. 16.037, acid orange 12;

c. Pro-milk method for determination of protein in milk, amido black 10B, Journal of the Official Methods of Analysis of the Association of Official Analytical Chemists (Vol. 58, No. 4), 1975;

d. Infra-red. Milk Analysis, Method No. 16.097 and 16.080, part 2 protein; or

e. Any other method of equal or greater accuracy approved by the Association of Official Analytical Chemists and approved by the commissioner.

2. Only testing equipment accurately calibrated as prescribed by the methods for calibration set forth in the above cited methods shall be used on conducting sample testing for protein content pursuant to these rules.

3. The commissioner may inspect and test any testing equipment with standardized solutions to determine their accuracy.

4. Frequency of sampling and testing.

a. When the calculation of protein content for whole milk tested pursuant to Minn. Stat. Sec. 32.25 is based on a one (1) month period of production, four (4) or more test results on random samples taken from different deliveries shall be used to compute the arithmetic average of those test samples.

5. Sample retention and handling. All samples collected and used for protein testing pursuant to these rules shall be held at temperatures of 32 degrees F to 40 degrees F until tested and shall be returned to that temperature within two (2) hours of the last test made on the sample. All samples shall be retained at the place of testing until 3:00 p.m. of the day following the last testing date of the sample.

C. Test records.

1. Purchasers shall provide producers with a statement of the protein content of the milk with or in each settlement statement.

2. If the purchaser disqualifies abnormal milk for testing on a protein basis when whole milk is found to be abnormal pursuant to 3 MCAR 1.1188, the

purchaser's records shall indicate the results of the confirmatory tests. Only confirmatory tests approved pursuant to 3 MCAR 1.1188 shall be used in determining the ineligibility of whole milk tested on a protein basis.

3. All test records and results for protein content pursuant to these rules shall be retained by the purchaser for a period of not less than one (1) year. All records relative to such tests shall be available for inspection during normal working or other reasonable hours by persons authorized by the commissioner.

3 MCAR 1.1333 Licensed testers.

A. All persons engaged in the sampling and/or testing of whole milk for protein and purchase of same shall be licensed by the commissioner.

B. Any person desiring to secure such a license shall make application on forms provided by the commissioner. Before a license is issued, the commissioner shall determine that the applicant is competent and qualified to use such testing apparatus for determining protein content of whole milk and to make accurate tests with them.

C. Every license issued by the commissioner shall be for a period ending on the December 31 following issuance and shall not be transferrable.

D. The fee for each initial license shall be $15 and each renewal thereof shall be $6 and shall be paid to the commissioner before any license or renewal thereof is issued.

E. The commissioner shall suspend or cancel any license issued pursuant to these rules, after notice and hearing, found to be in violation of Minn.Stat. Sec. 32.25 or these rules.

APPROVED AS TO FORM AND LEGALITY

AUG. 6 1979 19

WARREN SPANNAUS, ATTORNEY GENERAL

BY

SPECIAL ASSISTANT ATTORNEY GENERAL

STATE OF MINNESOTA
DEPARTMENT OF STATE
FILED
AUG 6 1979
Joan Anderson Growe
Secretary of State
12:15 P.M.

STATE OF MINNESOTA
OFFICE OF HEARING EXAMINERS

FOR THE DEPARTMENT OF AGRICULTURE

In the Matter of the Proposed Adoption of Rules of the Department of Agriculture Governing the Testing of Milk on the Basis of Protein.

REPORT OF THE CHIEF HEARING EXAMINER

WHEREAS, hearings were held on March 6, 7 and 8, 1979, before Howard L. Kaibel, a Hearing Examiner of the State Office of Hearing Examiners, on the above-entitled matter in compliance with Minn. Stat. sec. 15.0412, subd. 4; and

WHEREAS, the Report of the Hearing Examiner made pursuant to Minn. Stat. sec. 15.052, subd. 3, was issued to the Department of Agriculture on April 27, 1979; and

WHEREAS, the Department determined to adopt rules pursuant to Minn. Stat. sec. 15.0421, subd. 4, and an Order Adopting Rules was executed by Mark W. Seetin, Commissioner of Agriculture, on May 24, 1979; and

WHEREAS, the Chief Hearing Examiner issued his Report pursuant to Minn. Stat. sec. 15.052, subd. 4, and 9 MCAR sec. 2.110 on May 29, 1979; and

WHEREAS, the Attorney General disapproved the rule pursuant to his authority in Minn. Stat. sec. 15.0412, subd. 4, on July 3, 1979; and

WHEREAS, the Department then revised the rule in an attempt to meet the objections raised by the Attorney General and issued a revised Order Adopting Rules dated July 20, 1979; and

WHEREAS, the Department has submitted said revised rule to the Chief Hearing Examiner for review pursuant to Minn. Stat. sec. 15.052, subd. 4, and 9 MCAR sec. 2.110; and

WHEREAS, the Chief Hearing Examiner finds that the revised rule is not substantially different from that proposed at the public hearings and that the Department has met all requirements of Minn. Stat. sec. 15.0412, subd. 4.

NOW, THEREFORE, upon receipt of this Report, the Department of Agriculture has the responsibility of resubmitting the complete hearing record and the revised rules as adopted by the Department to the Attorney General, notifying all persons who requested to be informed that the hearing record has been resubmitted to the Attorney General, and publishing in the State Register, all pursuant to Minn. Stat. sec. 15.0412, subd. 4.

Dated this 25 day of July, 1979.

DUANE R. HARVES
Chief Hearing Examiner

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

In the Matter of the Proposed Adoption)
of Rules of the Department of Agricul-)
ture Governing the Testing of Milk on)
the Basis of Protein)

AFFIDAVIT OF MAILING

Florence Prudhomme being first duly sworn, deposes and says:

That on the 26 day of July, 1979, in the City of St. Paul, County of Ramsey, State of Minnesota, she served the attached notice "In the Matter of the Proposed Action of Rules of the Minnesota Department of Agriculture Relating to Testing of Milk on the Basis of Protein, and Rules as proposed for adoption in Final Form (as Revised 7/20/79) Testing of Milk on Basis of Protein, Chapter 58, by depositing in the United States mail at said City of St. Paul, a true and correct copy thereof, properly enveloped, with postage prepaid, to all persons and associations at the addresses listed on the attached listing.

Florence Prudhomme

Subscribed and sworn to before me
this 26 day of July, 1979.

Roger W. Swanson
Notary Public, ~~Ramsey~~ County, MN

My commission expires

ROGER W. SWANSON
Notary Public, Anoka Co. Mn.
My Commission Expires
June 29, 1982

RE: In the Matter of the Proposed Action
of Rules of the Minnesota Department of Agriculture
Relating to Testing of Milk on the Basis of Protein

To All Interested Persons:

Pursuant to your request and in accordance with Minnesota Statutes, Section 15.0412, subdivision 4 and Rule HE 102:

PLEASE TAKE NOTICE that the above-captioned rule (s) have been submitted to the Attorney General's Office on July 26, 1979 for review as to form and legality. Pursuant to Rule ATTYGEN 305, any person may question the legality of the above-captioned rules within ten (10) days after receipt of the rule by the Attorney General. Thereafter, the Office of the Attorney General shall conduct its review. If you wish to question the legality of the above-captioned rules, you should direct your comments to the Attorney General's Office, G-25 State Administration Building, 50 Sherburne Avenue, Saint Paul, Minnesota 55155.

If you are interested in determining what changes, if any, were made in the proposed rules after the hearing and before submission to the Attorney General you may contact

Minnesota Department of Agriculture
Dairy Industries Division
530 State Office Building
St. Paul, MN 55155
(612)296-3647

Authorized Signature

RULES AS PROPOSED FOR ADOPTION IN FINAL FORM (AS REVISED 7/20/79)

TESTING OF MILK ON THE

BASIS OF PROTEIN

CHAPTER 58

3 MCAR 1.1331 General.

A. Purpose and Authority. The rules contained herein are prescribed pursuant to Minn. Stat. Sec. 32.25 by the commissioner to provide for testing protein content of whole milk.

B. Definitions. For purposes of these rules the following definitions and those in Minn. Stat. Sec. 32.01 shall apply:

1. "Producer" means any person who operates a dairy herd or herds producing milk commercially and whose milk is sold to, or received or handled by, a purchaser as defined in this rule.

2. "Purchaser" means any person purchasing whole milk from a producer and defined as a dairy plant in Minn. Stat. Sec. 32.01, subd. 6.

3 MCAR 1.1332 Testing Procedures.

A. Samples collection and handling. Samples to be used for the testing of protein content shall be collected and handled in the same manner as samples used for bacterial tests as prescribed in "Standard Methods for the Examination of Dairy Products", Thirteenth Edition, published by the American Public Health Association. The minimum size for a fresh milk sample shall be two ounces (0.0592 liter).

B. Sample testing.

1. Only the following methods, as prescribed by the Association of Official Analytical Chemists, shall be used in the testing of whole milk for protein content pursuant to these rules:

a. Kjeldahl, Method No. 1.049 and 16.036, total nitrogen;

b. Dye Binding, Method No. 16.037, acid orange 12;

c. Pro-milk method for determination of protein in milk, amido black 10B, Journal of the Official Methods of Analysis of the Association of Official Analytical Chemists (Vol. 58, No. 4), 1975;

d. Infra-red. Milk Analysis, Method No. 16.097 and 16.080, part 2 protein; or

e. Any other method of equal or greater accuracy approved by the Association of Official Analytical Chemists and approved by the commissioner.

2. Only testing equipment accurately calibrated as prescribed by the methods for calibration set forth in the above cited methods shall be used on conducting sample testing for protein content pursuant to these rules.

3. The commissioner may inspect and test any testing equipment with standardized solutions to determine their accuracy.

4. Frequency of sampling and testing.

a. When the calculation of protein content for whole milk tested pursuant to Minn. Stat. Sec. 32.25 is based on a one (1) month period of production, four (4) or more test results on random samples taken from different deliveries shall be used to compute the arithmetic average of those test samples.

5. Sample retention and handling. All samples collected and used for protein testing pursuant to these rules shall be held at temperatures of 32 degrees F to 40 degrees F until tested and shall be returned to that temperature within two (2) hours of the last test made on the sample. All samples shall be retained at the place of testing until 3:00 p.m. of the day following the last testing date of the sample.

C. Test records.

1. Purchasers shall provide producers with a statement of the protein content of the milk with or in each settlement statement.

2. If the purchaser disqualifies abnormal milk for testing on a protein basis when whole milk is found to be abnormal pursuant to 3 MCAR 1.1188, the

purchaser's records shall indicate the results of the confirmatory tests. Only confirmatory tests approved pursuant to 3 MCAR 1.1188 shall be used in determining the ineligibility of whole milk tested on a protein basis.

3. All test records and results for protein content pursuant to these rules shall be retained by the purchaser for a period of not less than one (1) year. All records relative to such tests shall be available for inspection during normal working or other reasonable hours by persons authorized by the commissioner.

3 MCAR 1.1333 Licensed testers.

A. All persons engaged in the sampling and/or testing of whole milk for protein and purchase of same shall be licensed by the commissioner.

B. Any person desiring to secure such a license shall make application on forms provided by the commissioner. Before a license is issued, the commissioner shall determine that the applicant is competent and qualified to use such testing apparatus for determining protein content of whole milk and to make accurate tests with them.

C. Every license issued by the commissioner shall be for a period ending on the December 31 following issuance and shall not be transferrable.

D. The fee for each initial license shall be $15 and each renewal thereof shall be $6 and shall be paid to the commissioner before any license or renewal thereof is issued.

E. The commissioner shall suspend or cancel any license issued pursuant to these rules, after notice and hearing, found to be in violation of Minn.Stat. Sec. 32.25 or these rules.

NOTICE - ATTORNEY GENERAL

1.	Art Beckman	Box 2947	Fargo, ND 58102
2.	James Hellmich	500 Peshtigo Court	Chicago, ILL 60690
3.	Harold Woods	R.R.	Dent, MN 56528
4.	Herb Woods	R.R.	Dent, MN 56528
5.	Ed Kleen	Big Stone Cheese Plant	Big Stone City, SD 57216
6.	Carl E. Zurborg	Miss.Valley Milk Producers Box 4493	Davenport, IA 52808
7.	Wendell A. Watts	Meadow Land Dairy Box 306	Waukon, IA 52172
8.	Karen Engle	Box 75	Long Prairie, MN 56347
9.	Mrs. Helen Miller	Box 25	West Union, MN 56389
10.	Rodney K. Carlson	P.O.Box 116	Minneapolis, MN 55440
11.	Ron Leaf	First District Assn. Box 808	Litchfield, MN 55355
12.	Jerry Wagner		Lastrup, MN 56344
13.	Mr. & Mrs. Lawrence J. Gill	Box 156, Rt. 1	Swanville, MN 56382
14.	Mark L. Pearson	Box 768	St. Cloud, MN 56301
15.	Denzil Cooper	Box 130	Perham, MN 56573
16.	Carl H. Backes	Rt. 2	Sauk Rapids, MN 56379
17.	F.B. Daniel	1717 University Ave.	St. Paul, MN 55104
18.	G.M. Crews	2105 S. Hamilton Rd.	Columbus,Ohio 43227
19.	Carl Arveson	R. 1, Box 219D	Litchfield, MN 55355
20.	Douglas J. Caruso	Farmers Union Milk Co-op 1400 E. Washington	Madison, WI 53903
21.	Clint Washam	9 Park Ave. Court	Eldridge, IA 52808
22.	Warren Wolfe..	Minneapolis Tribune 425 Portland Avenue	Minneapolis, MN 55488
23.	John M. Hanrihan	R.R. 1	Hokah, MN 55941
24.	Gerald Bratland		Spring Grove, MN 55974
25.	Joyalyn Rostad	Box 593	Spring Grove, MN 55974
26.	Ralph Morris, Attorney	E. First National Bank Bldg.	St. Paul, MN 55101
27.	Walt Wosje	Mid-America Dairymen, Inc. 2424 Territorial Road	St. Paul, MN 55114
28.	Tim Murphy (Timothy), Atty.	Sprague National Bank	Caledonia, MN 55921

July 29, 1979

Mr. Lee Sheehy
Office of the Attorney General
G-25 Administration building
St. Paul, Mn. 55155

RECEIVED
AUG 2 1979
ATTORNEY GENERAL
ADMINISTRATIVE AGENCIES

Dear Mr. Sheehy;

I am writing to you in regards to the proposed rules for the testing of protein recently revised by the Department of Agriculture. I wish to express to you several reasons that I believe support the adoption of these rules as being consistant with statutory requirements.

Without a doubt the the statutory basis for these rules is not very extensive and detailed resulting in some difficulty in making an exact interpretation of the legislative intent. The central question ,as I see it, is whether the reference to "the nonfat solids contained therein", is to mean all the nonfat solids collectively or any of the nonfat solids individually. My own interpretation on the lack of clarity here is that the legislative process is a rather cautious one. Had the legislature at th e time this was passed had strong feelings that the intent was to be all nonfat solids taken together, they would have clearly indicated such. They did not, and I consequently believe that we can take the above reference to allow for purchases on the basis of butterfat and any of the nonfat solids individually. In this case , of course, the nonfat solid of importance is protein.

I think this conclusion is supported also by understanding that the purpose of the relavent legislation some 14 years ago was to encourage innovation in the marketing and purchase of milk. This was done as a recognition of the changing values of milk components, specifically butterfat and protein.

That the statute allows for the consideration of a single nonfat solid , in this case protein, and that such consideration will be of immediate and long-term advantage to Minnesota dairymen, is overwhelmingly supported throughout the final finding of facts prepared by the Department of Agriculture. This ismuch more pointed and evident than in the initial findings of fact prepared by the Department.

I wish especially to refer to paragragh 22 in the findings as it does have some relavence for reconcilling the statute term of nonfat solids with these rules for the testing of protein. Clearly paragragh 22 indicates that if the statute is misinterpreted against total nonfat solids and in favor of protein, that the end result is still by far to the greatest benefit to dairymen. Because protein is the only variable component of nonfat solids and because it is of the highest economic value , as brought out elsewhere, a total nonfat testing requirement would not provide anymore , if as much, benefit, as the proposed rules on protein. In addition, the protein testing methods are more reliable, less expensive and handier.

In conclusion, while the statutory authority for these rules leaves alot to be desired, I believe that a strong case can be made that the rules as propsed are consistant with the law, and that the implimentation of these rules will result in a milk purchasing system that is flexible, workable, and beneficial to all concerned.

Sincerely,

Ken Tschumper

Ken Tschumper
Dairy farmer and patron
of Mississippi Valley
Milk Producer's Ass.

Swiss Valley FARMS

July 31, 1979

RECEIVED
AUG 2 1979
ATTORNEY GENERAL
ADMINISTRATIVE AGENCIES

Mr. Lee Sheehy
Attorney General's Office
G-25 State Administration Building
50 Sherburne Avenue
St. Paul, Minnesota 55155

Dear Mr. Sheehy:

This letter is in regard to the payment of protein premiums to members of Mississippi Valley Milk Producers Association in Minnesota.

Considerable information has already been submitted and digested by your office. I will try to make this letter as concise and direct as possible. Several questions need to be addressed directly in this conflict.

First, what is the definition of "nonfat solids" in Minnesota Statute 32.25? Does it state "total nonfat solids?" No. Is protein a "nonfat solid?" Yes. What was the intent of the State of Minnesota? We feel it was to price milk according to the content of the most variable constituent(s). That is, to vary the price of milk in harmony with the rise and fall of the presence of its main fluctuating constituents. Why base a fluctuating price on a non-varying component? Fat is the most variable component followed by protein. Protein makes up about 40% of the total solids-not-fat while lactose makes up about 54% of the total solids-not-fat but displays only minimal variations. Ash (minerals) which makes up the remaining bulk of the total solids-not-fat also exhibits little variation. Lactose and ash have quite narrow ranges since they are the main determinants of the osmotic pressure of the milk and that pressure, in turn, is equal to the rather constant osmotic pressure of the cow's blood.

The term solids-not-fat and the use of the lactometer in the Minnesota provisions indicated recognition of a pricing system based on something other than fat content. Since the big variable in total solids-not-fat is protein, it is clear that payment for protein is within the statute.

Question number two--Minnesota Statute 32.25 refers to "bases of payment." Is a protein premium a "base"? The answer is NO! The

butterfat test is the base. Minnesota Statute 32.25 does not prohibit a protein premium even if solids-not-fat were construed to be total solids-not-fat. Otherwise, there could be no difference between Grade A milk and manufacturing grade milk. There could, likewise, be no quality bonus, no deduct for antibiotices or added water and no volume bonus. However, in all these cases, butterfat is the base and the other (including protein) is added on top of the base. Unquestionably, a premium for protein does not violate either the letter or the intent of Minnesota Statute 32.25.

All that was actually required to meet the provisions of the law was recently set forth in Chapter 58 and submitted to the Attorney General's Office on July 26, 1979 by the Minnesota Department of Agriculture. The title of that chapter was "Testing of Milk on the Basis of Protein."

The "Revised Findings of Fact, Conclusions, and Order, Adopting Rules Dated July 20, 1979" stated that you advised the Department that they did not have power to establish a "pricing mechanism based solely on protein." This I agree with. However, there has been no request nor intention to base milk prices solely on protein. Butterfat is still the base (as per Minnesota law) and protein is an additional factor of relatively minor total dollar return value.

Question number three--Does a protein premium encourage cheating by encouraging addition of protein, especially whey protein? No. In fact there is less danger than if a total solids-not-fat premium was offered. In this later case, many more adulterants could be used to gain the premium.

Question four--Is the Kjeldahl accurate? Yes. Quite accurate. Between labs it may lack precision, especially if run infrequently, but its accuracy is accepted around the world by multi-thousands of protein chemists.

Question five--Does a protein premium really give a producer more money? Yes, very definitely. We have hundreds of examples to show that is true. As the director of all MVMPA labs, I can state emphatically that butterfat points are not shaved to pay protein points as some have stated. Those critics must speak for themselves and their own sense of values. We strive to cross check all fat and protein analyses with outside laboratories to insure accuracy.

In summary, a protein bonus does not violate 32.25. The test itself is an accurate and reliable one. The idea is to return to the producer

part of the increased profits the co-op realizes as a result of his superior milk, which probably results from better herdsmandship. The protein payment cannot be legally interpreted as the basis of our payment, but rather as a small bonus or reward for a job well done.

Thank you for your time. If any supportive information is needed, please contact me.

Respectfully,

MISSISSIPPI VALLEY MILK PRODUCERS
ASSOCIATION, INC.

Clinton J Washam

Dr. Clinton J. Washam
Vice President--Research & Quality Assurance

CJW:md

cc: Carl E. Zurborg
Elmer F. Paper
Gerald Bratland
Walt Suntken
Gene Peters

Spring Grove, Minn. 55974
July 27, 1979

Attorney General's Office
G-25 State Administration Building
50 Sherburne Avenue
St. Paul, Minn. 55155

Dear Sir:

Houston County dairy farmers who are members of MVMPA have asked me to submit their plea and evidence of facts for their struggle to receive economic justice with equity pricing in regard to State Statute 32.25.

I am enclosing some D.H.I.A. test sheets along with milk receipts to go along with the price comparison sheet submitted to you during your visit to Caledonia. Land O Lakes made a false charge in their statements that protein pricing was paid for by reducing the base price, dividend return, fat tests and differential of fat. I have used my milk receipts prior to the injunction to demonstrate their false statements. The two green slips are my milk statements for December 1977 to Jan 1978 and also my D.H.I.A. test sheet for the same period. L.O.L. charge number one. The base price per hundred wt. is lowered. L.O.L. base price was $9.38 and M.V. $9.45. Charge no. 2 butterfat differential is lowered, both paid 11.6¢ a point. Charge no. 3 that test is reduced so farmers are cheated. My slips show a 4.07 & 4.18 test from M.V.M.P.A. Dairy farmers constantly use D.H.I.A. test sheets to keep milk purchasing plants honest. My D.H.I.A. test sheet for that period that I have enclosed had 4.0%. Since switching from L.O.L. to Mississippi Valley my pay check tests have never been below my D.H.I.A. test. When we sold to L.O.L. it was a constant struggle. Charge no. 4 that it's taken away in dividend return, as you can see M.V. patron allocations were higher than L.O.L. The hauling rates were the same. My protein tests and premium total is also on the green slip. If L.O.L. attorneys wish to make such charges they should submit it in evidence.

My protein premiums for that period was over $60.00. This was over and above what anyone else would pay. From June 1977 to July 1978 before the injunction, I have calculated that with protein premium higher, base price and improvement of butterfat tests from purchasing plants that I recieved over $2,000.00 more than if my milk would have sold to L.O.L. L.O.L. is operating on the idea that if you can get it for nothing why pay for it. M.V. idea of protein premium is more equitable, profits should be returned to the producers who gives the organization its yield of profits. We believe this to be restraint of trade enabling L.O.L. to use state government to run their monopoly in the state.

I have enclosed my test sheet for June 1978. I would like you to have your attention to the protein figures on the test sheet. Protein tests are done on official tests on the National D.H.I.A. from California to Maine. My average test was 3.6% protein. A individual cows protein production is marked S for solids. Since protein is the most important solid it is recognized as the same. M.V. pays 5¢ a point from the national average test of 3.2. For June my milk should have been worth 20¢ a hundred more. If I was a grade B producer and had

had this high prote● it is worth 10¢ a point ●40¢ a hundred. Its very understandable dairyman are angry over the misled action of L.O.L.

L.O.L. has made statements about Mr. Schumans testimony submitted from the abstract of the injunction page 58 under oath. Q. What was your interst with regard to alternative tests? A. Can I give you just a little background? As a dairy farmer eighty percent of the value at that time was in the butterfat, the value of the milk but we saw the protein value of the milk was becoming quite a bit more valuable so we wanted to provide a means whereby this value could be recognized and I think when you look at the value of the milk today the protein value far out weighs the fat value, so we at that time with that bill gave two alternatives to the state. One, to test by the Babcock test as they had been before, solely based on fat. The other test could be based on protein as well to give that added value to the milk. Mr. Schuman under oath demonstrated the ~~content~~ LW of the law in his last statement , "The other test would be based on protein as well to give that added value to the milk."

Discrimination against members of M.V. is clear. One coop in the state buys milk with a same total premium for protein to all it's members but never have been hauled into court because L.O.L. told the Ag. Department to do so. Another point is why soen't the stateorder L.O.L. to stop their premium program for quality that was just started. The state statute app ears not to allow since the Ag. department doesn't have this done. The state should be more consistant in its actions rather than invade the rights of a minority. Their is also a premium program that exists for a payment if no water is found in a producers tank.

We have submitted countless materials to show that our statements are backed with documentations. The hearing examiners has reviewed for facts and I'm sure our opinions are available their.

Due to the expense for us to submit this in legal form to argue the merits of protein and solids in legal form, we hope our simple method will be acceptable to you. We would like to point out the statute reads "for the testing of "non-fat solids", it doesn't say "all" solids need to be tested.

L.O.L. have never wanted a complete solid non fat program. If they had they would have submitted their position to the Ag. Department when they requested this in the state register in April 1978.

The opportunity for dairy farmers to market their product with the freedom of choice shouldn't be denied. It also should be the freedom of choice who ever wants to pay protein premiums to offer a more honest return to their members should be allowed. We hope action by the state will be positive for us to return the economic loss to many individuals who have been denied economic justice.

Thank you for your attention.

Respectfully submitted,

Gerald Bratland

Gerald Bratland

COMPLETENESS AND ACCURACY of records are a joint responsibility of the herd owner and the DHIA supervisor. Please inspect all report forms promptly and provide your DHIA supervisor with the proper information for correcting any mistakes and missing data with the next barn sheet submitted.

QUESTIONS regarding the conduct of your record program or the use of these records should be directed to your state, area or county extension personnel.

EXPLANATION OF TERMS USED:

Listing Order = If desired, barn sheets and herd reports may have animals listed in different order. The Barn Sheet (DHIA-201) should be in appropriate order for the convenience of the supervisor in recording milk weights and taking samples. The herd owner may select another order for the Sample Day and Lactation Report (DHIA-200) convenient for use in management. Code both spaces as follows:

1 = By Computer Number, entire herd
2 = By Barn Name, entire herd
3 = By Computer Number, within strings
4 = By Barn Name, within strings

The listing order for the Sample Day and Lactation Report (DHIA-200) may also be specified on the Barn Sheet (DHIA-201) in the space designated 'Listing Order, Report (200)', by inserting an alphabetic code (A to N) denoting the column for which listing is desired. The whole herd will be listed in one continuous sequence. However, if listing is desired within strings, add 'S' in that space following the letter code.

Strings = Large herds may be divided into strings or groups of animals that are managed as a unit. Each string may be listed separately upon request of the herd owner.

Income Over Feed Cost = (Lactation To Date) is accumulated beginning with a dry date or date entered herd. A record beginning with a dry date shows negative until the value of production exceeds the feed cost for the dry period and for the lactation to date. Income Over Feed Cost (test day data) shows the current profitability of the animal.

Persistency = A percentage figure which tells how well the animal is holding up in production during her lactation. It is the extended 305-2x-ME record for the lactation-to-date for this test shown as a percentage of the comparable figure for last month. A persistency greater than 100% indicates that the lactation curve is holding up better than the average for her breed, age, and season of freshening.

PLM or Protein = Herds on Protein Lactose Minerals (PLM) or Protein test may have these data listed. Lactation-to-date pounds of PLM or Protein will be listed in place of either the Lactation to date income over feed cost or the persistency at the herd owner's request.

305-2x-ME = The current record standardized length of lactation to 305 days, to twice-a-day milking, to a mature equivalent basis and to an average month of freshening. Factors appropriate for each animal's breed, age, month of freshening, and area of the country are used to obtain her mature equivalent record.

Difference From Herdmates = A comparison of the current 305-2x-ME record with the average of herdmates (within herd, breed, and season). If less than five herdmates are available, no comparison is made.

Due Date = Due date is based on the last reported date bred. Gestation lengths appropriate to each breed are used, however some variation will be experienced. Care should be taken to provide all succeeding dates for re-breedings. An asterisk in the due date shows that this individual has been reported as diagnosed pregnant.

Action Needed or Service Sire = Action needed will be listed unless the herd owner chooses to have service sires printed in this space.

Days Milked 3x = For animals milked three times a day, the number of days milked three times is printed below the number of days in her lactation-to-date only if the days differ.

BREED CODES

Dairy Cows

A. Ayrshire
B. Brown Swiss
D. Red Dane
G. Guernsey
H. Holstein
J. Jersey
M. Milking Shorthorn
P. Red Polled
W. Red and White
X. Crossbred and other

For breed of herd, at least 75% of the animals must be of an individual breed. If 50% or more of the designated breed is registered, the breed code is preceded by R. Otherwise, the breed code is preceded by G (Grade).

Dairy Goats

A. Alpine
E. Experimental
L. La Mancha
N. Nubian
P. Pygmy
S. Saanen
T. Toggenburg
U. Unknown
X. Crossbred and other

ACTION NEEDED

B = Breeding reminder. Date listed is 45 days after freshening for cows and 175 days for dairy goats. Breed cows during heat 45 to 90 days after calving for a normal 12 to 13 month calving interval. Breed dairy goats during heat 175 to 220 days after freshening for a 12 month kidding interval.

D = Drying reminder. Date listed is 60 days prior to due date.

F = Feeding reminder for dry cows. Date listed is two weeks prior to due date. Increase level of grain mix fed to dry cows up to one pound per hundred pounds of body weight, if needed, during the two weeks prior to calving.

P = Pregnancy diagnosis reminder. Date listed is 42 days after latest date bred. If the animal doesn't come in heat in the next few days, she has passed two heat periods since being bred and should be checked to confirm pregnancy.

CONDITIONS AFFECTING RECORD

A = Record ended by abortion.
E = Estimated.
I = Injury or other reason.
K = Ketosis or other disease.
L = Low Production
M = Mastitis or udder problems.
N = Nurse animal.
Q = Mechanical. (Lost sample or other problems of this nature.)
R = Reproductive failure.
S = Estimated two or more consecutive tests.
U = Unofficial
V = Animal for which data should have been included on previous report.
X = Record did not start with fresh date shown.
Z = Died.
$ = Sold for dairy purposes.

BRATLAND, GERALD R2 VIKING VALE FM SPRING GROVE MN 55974

HERD CODE	BREED	TEST INTERVAL LENGTH	TEST INTERVAL FROM	TEST INTERVAL THRU SAMPLE DATE	DATE RECEIVED	DATE MAILED	ASSOC.	SUPER-VISOR	PLM or PROTEIN	OPTIONS REQUESTED	TYPE OF RECORD	LISTING ORDER COMP. NO.	LISTING ORDER BARN NAME	LISTING ORDER HERD	LISTING ORDER STRING	SAMPLE DATE	PAGE
42-00-9129	RB	35	5-18	6-21-79	6-25	6-26	03	RK	PROT		OFFICIAL DHIR	X	X			6-21-79	1

DHIA-200

SAMPLE DAY AND LACTATION REPORT

COMPUTER NUMBER	IDENTIFICATION NUMBER (A)	BREED	SAMPLE DAY DATA: MILK POUNDS (B)	FAT %	FAT $PRD	INCOME OVER FEED COST (C)	GRAIN MIX FED	GRAIN MIX NEEDED	STRING	BARN NAME OR NUMBER	LACTATION TO DATE: LACT NO.	DAYS DRY	FRESHENING DATE (D)	AGE (E)	DAYS (F)	MILK (G)	FAT %	FAT POUNDS (H)	COND. ADJ. REC.	INCOME FEED COST LBS.	PERSISTENCY %	305-2X-M.E. MILK (J)	305-2X-M.E. FAT (K)	DIFFERENCE FROM HERDMATES MILK (L)	DIFFERENCE FROM HERDMATES FAT (M)	DUE DATE (N)	ACTION NEEDED OR SERVICE SIRE
100	545984	B	----	DRY	---	-.67			1	ESYBIL		65	3-14	8-11								12690	510	-1201	-31		B
120	564507	B	14.2	3.7	4.2	.78	5	3	1	LORI		63	8-24	7-09	302	14420	3.6	518		542S	98%	15580	555	+1601	-1		B
121	564508	B	34.1	3.7	3.9	2.80	10	7	1	SISSIE		85	9-15	7-10	280	12190	4.0	492		495S	104%	13310	527	-941	-37		B
127	543649	B	54.9	3.9	3.7	5.21	15	13	1	SIGNE		16	9-20	9-08	275	16760	3.8	633		605S	104%	18830	705	+4981	+156		B
129	566651	B	40.4	3.6	3.7	3.42	15	10	1	RUTH	6	71	12-20	7-10	184	10540	3.7	392		390S	97%	15230	561	-1782	-107		B
134	578629	B	----	DRY	---	-.69			1	JUNE	5	4	6-11	6-08								15890	569	+2069	+25		B
136	573141	B	56.0	4.1	3.9	5.50	15	14	1	SWANKY	6	211	6-07	7-10	15	840	4.0	34		33							B 7-22
141	575486	B	78.3	4.8	3.3	8.64	25	33	1	GAY	5	71	5-23	7-04	30	2350	4.8	113		78							B 7-07
147	550441	B	29.4	5.0	4.2	2.67	15	7	1	RACHEL		351	10-14	9-01	251	11370	5.4	617		480S	97%	13320	716	-2229	+117		B
153	595207	B	60.1	4.2	3.4	5.94	20	20	1	RANDI	5	111	4-01	6-01	82	5050	3.8	192		187	105%	15100	580	-2533	-119		B
154	595208	B	27.2	3.4	3.9	2.07	10	6	1	DOREEN	4	59	7-15	5-04	342	13020	3.6	473		542S		13380	482	-905	-85		B
156	597955	B	58.4	3.0	3.6	4.83	20	20	1	ETTA	4	251	11-04	5-05	230	15850	3.6	563		555S	101%	19850	684	+4710	+77		B
157	608028	B	----	DRY	---	-.64			1	PHOEBE	4	4	7-01	5-06								14490	642	+237	+86		B
158	590857	B	73.2	4.3	3.6	7.71	20	31	1	AMITY	4	196	4-24	6-05	59	4560	4.1	186		157		18640	768	+1139	+78		B
161	597962	B	63.2	3.4	3.4	5.65	20	21	1	SERENE	4	28	1-10	5-05	163	11050	3.8	419		378S	101%	17870	671	+389	-15		B
163	602308	B	----	DRY	---	-.64			1	ANN	3	37	4-21	4-03								17920	676	+4251	+138		B
165	602299	B	83.1	3.8	3.3	8.09	25	30	1	T J	4	32	5-21	5-08	32	2660	3.8	101		88							B 7-05
173	608937	B	64.4	4.2	3.5	6.48	20	23	1	VISTA	3	70	1-17	4-08	156	14140	4.1	574		467S	98%	24180	972	+7085	+307		B
178	619363	B	79.6	2.3	3.5	6.28	20	27	1	SENRIT	3	35	2-15	4-04	127	10120	3.6	361		351	101%	21270	751	+4027	+65		B
180	621451	B	59.0	3.7	3.7	5.46	20	22	1	STACY	3	109	6-01	4-05	21	1240	3.7	46		46							B 7-16
183	619365	B	81.7	4.0	3.3	8.44	20	36	1	DENISE	3	93	5-17	4-04	36	2940	4.0	118		97							B 7-01
184	621452	B	18.5	4.9	4.0	1.47	10	4	1	LASSIE	2	24	8-17	3-06	309	13210	4.3	563		532S		16160	665	+2279	+119		B
185	621450	B	----	DRY	---	-.60			1	STEPH	2	2	7-21	3-07								15760	655	+1718	+104		B
188	621980	B	35.4	3.9	3.7	2.96	15	8	1	PETY	2	57	12-06	3-08	198	11340	3.9	444		416S		17310	659	+411	-4		B
190	621974	B	30.6	5.2	3.8	2.94	15	9	1	HATTI	2	31	12-09	3-03	195	8510	4.5	382		314S	99%	13660	591	-3411	-74		B
191	621977	B	35.3	3.2	3.8	2.60	15	9	1	BOBBI	2	36	12-14	3-02	190	9250	4.1	379		356S	98%	15290	605	-1539	-54		B
192	621979	B	21.0	2.6	3.8	1.06	10	3	1	RHODA	2	62	11-12	3-07	222	11390	3.6	415		429S	95%	16180	563	+697	-54		B
193	621972	B	50.3	3.5	3.5	4.25	20	16	1	MARY	2	38	12-16	3-05	188	12600	4.1	512		455S	99%	20560	813	+3916	+162		B
194	621971	B	46.3	4.1	3.7	4.38	15	15	1	BABE	2	50	2-01	3-06	141	8800	4.3	376		319S	97%	17940	752	+460	+63		B
196	620994	B	----	DRY	---	-.66			1	JOY	11	32	12-09	2-09								13030	557	-2282	-27		B
197	630247	B	54.2	3.2	3.5	4.47	20	19	1	SILVER	2	41	2-19	3-01	123	7770	4.0	309		273	99%	18600	727	+1114	+35		B
198	615956	B	44.2	4.4	3.7	4.12	20	12	1	MARIE		22	2-02	3-11	140	7970	3.9	313		283S	99%	15730	612	-1875	-84		B
200	630246	B	22.0	4.5	3.8	1.75	10	6	1	LOU	1		11-14	2-08	220	6970	4.4	304		269S	98%	11060	455	-4769	-169		B
201	636294	B	41.1	4.8	3.5	4.15	15	19	1	TISH	1		11-12	2-04	222	8130	4.2	339		294S	103%	13220	525	-2474	-94		B
202	630250	B	44.7	3.8	3.7	4.00	15	18	1	APRIL	1		12-01	2-07	203	12420	3.4	420		453S	98%	20740	678	+4078	+18		B
203	632648	B	40.1	4.4	4.1	3.79	15	17	1	RAETTE	1		11-15	2-07	219	8830	4.3	379		353S	102%	14230	581	-1401	-35		B
204	636301	B	43.2	4.8	3.8	4.43	15	22	1	MARCY	1		1-02	2-01	171	7350	4.4	324		282S	100%	15270	657	-2396	-29		B
205	642363	B	44.4	3.9	3.8	4.02	15	22	1	SWEET	1		12-23	1-10	181	8630	3.8	332		319S	100%	18220	681	+1418	+22		B
206	636296	B	37.4	4.8	4.1	3.66	15	19	1	JEANIE	1		1-01	2-00	172	8500	4.2	353		340S	98%	17820	723	+288	+40		B
207	636295	B	51.9	3.5	3.8	4.43	20	23	1	VIOLET	1		1-15	2-02	158	8860	3.9	349		308S	99%	19470	749	+2025	+68		B
208	636299	B	50.6	3.9	3.5	4.55	20	22	1	ROSID	1		1-06	2-04	167	9240	3.5	326		322S	100%	18790	647	+1309	-40		B
209	642362	B	42.1	3.9	3.7	3.75	15	19	1	SDREAM	1		2-16	2-00	126	5540	3.9	214		213	101%	15500	590	-2116	-107		B
210	642365	B	45.5	8.3	3.7	6.96	15	33	1	RALLY	1		3-01	1-11	113	5650	4.9	276		212	97%	17790	850	+278	+164		B
211	642366	B	46.3	3.7	3.6	4.12	15	22	1	EMRYSS	1		2-16	1-10	126	5420	3.7	198		191	104%	15860	567	-1740	-132		B
HERD AVG.	% IN COWS MILK								% PROT NEEDED			B/WT															
	44 86		41.0	4.0	3.6	3.72	14	15		16.	60	1270	4-06	168							100%	16560	648	+433	+14		

IOWA STATE UNIVERSITY, STATE COOPERATIVE EXTENSION SERVICES AND ANIMAL IMPROVEMENT PROGRAMS LABORATORY, ARS, USDA, COOPERATING

COMPLETENESS AND ACCURACY of records are a joint responsibility of the herd owner and the DHIA supervisor. Please inspect all report forms promptly and provide your DHIA supervisor with the proper information for correcting any mistakes and missing data with the next barn sheet submitted.

QUESTIONS regarding the conduct of your record program or the use of these records should be directed to your state, area or county extension personnel.

EXPLANATION OF TERMS USED:

Listing Order = Animals may be listed in order by computer number or by barn name at the herd owner's option. In addition, all animals in the herd may be listed in one sequence or they may be divided into strings.

Strings = Large herds may be divided into strings or groups of animals that are managed as a unit. Each string may be listed separately upon request of the herd owner.

Income Over Feed Cost = (Lactation To Date) is accumulated beginning with a dry date or date entered herd. A record beginning with a dry date shows negative until the value of production exceeds the feed cost for the dry period and for the lactation to date. Income Over Feed Cost (test day data) shows the current profitability of the animal.

Persistency = A percentage figure which tells how well the animal is holding up in production during her lactation. It is the extended 305-2x-ME record for the lactation-to-date for this test shown as a percentage of the comparable figure for last month. A persistency greater than 100% indicates that the lactation curve is holding up better than the average for her breed, age, and season of freshening.

PLM or Protein = Herds on Protein Lactose Minerals (PLM) or Protein test may have these data listed. Lactation-to-date pounds of PLM or Protein will be listed in place of either the Lactation to date income over feed cost or the persistency at the herd owner's request.

305-2x-ME = The current record standardized for length of lactation to 305 days, to twice-a-day milking, to a mature equivalent basis and to an average month of freshening. Factors appropriate for each animal's breed, age, month of freshening, and area of the country are used to obtain her mature equivalent record.

Difference From Herdmates = A comparison of the current 305-2x-ME record with the average of herdmates (within herd, breed, and season). If less than five herdmates are available, no comparison is made.

Due Date = Due date is based on the last reported date bred. Gestation lengths appropriate to each breed are used, however some variation will be experienced. Care should be taken to provide all succeeding dates for re-breedings. An asterisk in the due date shows that this individual has been reported as diagnosed pregnant.

Action Needed or Service Sire = Action needed will be listed unless the herd owner chooses to have service sires printed in this space.

Days Milked 3x = For animals milked three times a day, the number of days in the lactation that she was milked three times is printed on the line above her lactation-to-date.

BREED CODES

Dairy Cows

A. Ayrshire
B. Brown Swiss
D. Red Dane
G. Guernsey
H. Holstein
J. Jersey
M. Milking Shorthorn
P. Red Polled
W. Red and White
X. Crossbred and other

For breed of herd, at least 75% of the animals must be of an individual breed. If 50% or more of the designated breed is registered, the breed code is preceded by R. Otherwise, the breed code is preceded by G (Grade).

Dairy Goats

A. Alpine
E. Experimental
L. La Mancha
N. Nubian
P. Pygmy
S. Saanen
T. Toggenburg
U. Unknown
X. Crossbred and other

ACTION NEEDED

B = Breeding reminder. Date listed is 45 days after freshening for cows and 175 days for dairy goats. Breed cows during heat 45 to 90 days after calving for a normal 12 to 13 month calving interval. Breed dairy goats during heat 175 to 220 days after freshening for a 12 month kidding interval.

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CONDITIONS AFFECTING RECORD

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K = Ketosis or other disease.
L = Low Production.
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Q = Mechanical. (Lost sample or other problems of this nature.)
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Z = Died.
$ = Sold for dairy purposes.

BRATLAND, GERALD R2 VIKING VALE FM SPRING GROVE MN 55974

HERD CODE	BREED	TEST INTERVAL LENGTH	TEST INTERVAL FROM	TEST INTERVAL THRU SAMPLE DATE	DATE RECEIVED	DATE MAILED	ASSOC.	SUPERVISOR	PLM or PROTEIN	OPTIONS REQUESTED	TYPE OF RECORD	LISTING ORDER COMP. NO.	LISTING ORDER BARN NAME	LISTING ORDER HERD	LISTING ORDER STRING	SAMPLE DATE	PAGE
42-00-9129	RB	30	12-14	1-12-78	1-20	1-21	03	JL	NO		OFFICIAL DHIR	X		X		1-12-78	2 OF

DHIA-200

SAMPLE DAY AND LACTATION REPORT

COMPUTER NUMBER	IDENTIFICATION NUMBER	BREED	SAMPLE DAY DATA: MILK POUNDS	FAT %	FAT POUNDS	INCOME OVER FEED COST	GRAIN MIX FED	GRAIN MIX NEEDED	STRING	BARN NAME OR NUMBER	LACTATION TO DATE: LACT NO.	DAYS DRY	FRESHENING DATE	AGE	DAYS	MILK	FAT %	FAT POUNDS	COND AFF. REC.	INCOME OVER FEED COST	PERSISTENCY %	305-2X-M.E. MILK	305-2X-M.E. FAT	DIFFERENCE FROM HERDMATES MILK	DIFFERENCE FROM HERDMATES FAT	DUE DATE	ACTION NEEDED OR SERVICE SIRE
HERD AVG.	% IN COWS MILK								%	PROT NEEDED			B/WT														
	51 80		33.9	4.0	1.4	2.30	12	9		19		53	1280	4-05	154						96%	15130	571	+455	+15		

IOWA STATE UNIVERSITY, STATE COOPERATIVE EXTENSION SERVICES AND ANIMAL IMPROVEMENT PROGRAMS LABORATORY, ARS, USDA, COOPERATING

	LOL	Butterfat Differential	MVMPA	Butterfat Differential
1978				
January	9.38	11.6	9.45	11.6
February	9.44	11.6	9.50	11.6
March	9.47	11.6	9.55	11.6
April	9.63	12.1	9.80	12.1
May	9.72	12.3	9.85	12.3
June	9.72	12.3	9.85	12.3
July	9.83	12.4	9.93	12.4
August	10.09	13.4	10.20	13.4
September	10.33	13.3	10.50	13.4
October	10.64	13.3	10.75	13.3
November	10.92	13.9	11.05	13.9
December	11.12	13.7	11.23	13.7
Average for year	10.02.4	12.6	10.13.8	12.6
Patrons allocations	21.6¢		29.27¢	
30% cash payment	.0648¢		.0878¢	
1979				
January	11.12	13.0	11.28	12.8
February	11.15	13.0	11.26	12.8
March	11.25	13.0	11.26	13.1
April	11.20	13.5	11.35	13.9
May	11.23	14.0	11.25	14.0
Average for 5 Mo.	11.19	13.3	11.28	13.3

MISSISSIPPI VALLEY MILK PRODUCERS ASSOCIATION, INC.

PRODUCER 1978-0

ROUTE 191

P.O. Box 4493 Davenport, Iowa 52808

No. 446159

MEMBER STATEMENT

12/20/77

DAY	WEIGHT
1	3,441
2	
3	3,502
4	
5	3,462
6	
7	3,431
8	
9	3,321
10	
11	3,371
12	
13	3,381
14	
15	3,502

DAY	WEIGHT
16	
17	3,301
18	
19	3,331
20	
21	3,306
22	
23	3,231
24	
25	3,271
26	
27	3,251
28	
29	3,306
30	
31	

PERIOD ENDING	POUNDS	CLASS	BUTTER FAT BASE 3.5 TEST	BUTTER FAT BASE 3.5 DIFF.	BASE MILK PRICE	PRICE AT TEST	PROTEIN BASE 3.3 TEST	PROTEIN BASE 3.3 DIFF.	PROTEIN BASE 3.3 PREM.	GROSS
11/30/77	50,408	1	4.18	.116	9.401	0.1888	3.50	.040	60.49	$5,196.46

HAULING	COOP INVEST	ADA	MARKET SERVICE	ADVANCE	SUPPLIES	DAIRY PRODUCTS	ASSIGNMENTS CODE	ASSIGNMENTS AMOUNT	MISC. CODE	MISC. AMOUNT	NET CHECK
151.22	40.32			2,192.88	27.61	9.36					$2,703.22
							3	71.85			

MISC. CODE

01–M.V.M.P.A. LOANS
02–ASSIGNMENTS
03–INSURANCE
04–

MISSISSIPPI VALLEY MILK PRODUCERS ASSOCIATION, INC.

PRODUCER 1972-0

P.O. Box 4493 Davenport, Iowa 52808

No. 452127

ROUTE 191

MEMBER STATEMENT

1/20/78

DAY	WEIGHT
1	3,281
2	
3	3,276
4	
5	3,351
6	
7	3,462
8	
9	3,487
10	
11	3,331
12	
13	3,472
14	
15	3,401
16	
17	3,482
18	
19	3,492
20	
21	3,502
22	
23	3,462
24	
25	3,411
26	
27	3,421
28	
29	3,281
30	
31	3,279

BUTTERFAT TESTS

409 412 399 406 000

PERIOD ENDING	POUNDS	CLASS	BUTTER FAT BASE 3.5 TEST	BUTTER FAT BASE 3.5 DIFF.	BASE MILK PRICE	PRICE AT TEST	PROTEIN BASE 3.3 TEST	PROTEIN BASE 3.3 DIFF.	PROTEIN BASE 3.3 PREM.	GROSS
12/31/77	54,391	1	4.07	.117	9.401	0.0669	3.50	.040	65.27	$5,540.76

HAULING	COOP INVEST	ADA	MARKET SERVICE	ADVANCE	SUPPLIES	DAIRY PRODUCTS	ASSIGNMENTS CODE AMOUNT	MISC. CODE AMOUNT	NET CHECK
163.17	43.51			2,164.88	56.50	18.72	2 27.70 4 33.40 3 71.85		$2,961.03

MISC. CODE

01-M.V.M.P.A. LOANS
02-ASSIGNMENTS
03-INSURANCE
04- GIFT BOX

Beloit Daily News
July 19, 1979

High milk protein pays for farmers

MADISON, Wis. (AP) — Some Wisconsin farmers are paid more if they supply dairies with milk containing high levels of protein, a state agriculture official says.

Claire Jackson, administrator of the Trade Division of the Department of Agriculture, Trade and Consumer Protection, said three dairies serving Wisconsin farmers pay premiums for high-protein milk.

The dairies include Golden Guernsey of Milwaukee, Associated Milk Producers, Inc., at Blair, Wis., and Mississippi Valley Milk Producers Association, Inc., headquartered Davenport, Iowa, he said.

The practice represents a departure from the time-honored method of basing payments on butterfat content, Jackson added.

"There's excitement about going into this area," Jackson said. "There's a lot of ramifications in this whole thing."

One of them, Jackson said, is whether cows may be fed to increase the protein content of their milk.

The concept of paying more for high-protein milk is not new, Jackson said.

"Protein sampling, testing and payment has been around the state for 15 years, to some extent," he said.

The Babcock butterfat test was developed in 1894, Jackson said, and "we've been essentially paying farmers on a basis of fluid plus butterfat since that time."

Jackson said protein has not replaced butterfat as a basis of payments, but represents an additional factor in determination of payment.

"The theory of the whole thing is that we ought to be able to measure the marketable constituents of the milk," he said.

July 25, 1979

Mr. Lee Sheehy
925 Administration
State Office Building
St. Paul, MN 55155

Dear Mr. Sheehy:

We are involved in a controversy where a segment of the dairy industry does not receive fair treatment. Through the hearings in March and the subsequent activity, a newspaper article quoted that the attorney for the co-ops said the Commissioner's rules were subverting the intent of the legislature. I believe that the legislature wanted an innovative approach, and the co-ops involved are subverting the instructions to the Commissioner.

The whole idea then and now is to make the pricing system for fair to all milk producers. In my research, I have found that low solids producers were paid within 3% of the yield in their production while the high solids producers were paid 22% below the yield of their production in a cheese operation.

The argument that there would be no new money for the dairy industry is only a mask to keep from fairly distributing these same dollars. Processing margins should be 9% or 10% to cover the costs of processing, yet some is processed for 3%, other more than 20%!

I do not believe in setting price either by government decree or collusion between processors, but prices follow so closely there is probably pricing by formula. I do not believe it is morally right to restrict a processor from using an innovative approach to a more fair pricing system and desire to see the state remove any restriction on alternate pricing systems. The regulatory function of the Agriculture Department is necessary and should specify acceptable protein tests and tests for solids, not fat. The mix of utilization in Minnesota makes it quite difficult to specify a single testing and payment method.

My belief is that protein is best for cheese and powder is simply all non-fat solids. I would like to see a supply and demand work in this area. I do not believe in government suppression of a more fair pay plan, and your thought and careful consideration is requested.

Yours sincerely,

Wentworth W. Mann

Wentworth W. Mann
Route 1, Box 72
Princeton, MN 55371

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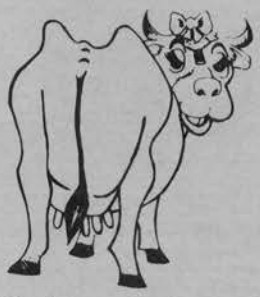

Oops! Pardon my business end.

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ATTORNEY GENERAL
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July 30, 1979

Mr. Lee Sheehy
Office of Attorney General
G-25 Administration Bldg.
State of Minnesota
St. Paul, MN 55155

Dear Mr. Sheehy:

This letter deals with the matter of protein pricing of milk in Minnesota. I have been told that the final decision rests with your office.

By way of identification, I am a dairy farmer in Buffalo, Minnesota, and have direct interest in this matter. I appeared as a witness in favor of protein pricing at the Shakopee hearing.

Despite the protestations of Messrs. Morris and Silver representing Land O'Lakes and Mid-America Dairymen, there is no valid reason, either in law or equity to deny the dairy industry in Minnesota the right to use protein as a measure of the value of milk.

As a matter of fact, the record of the original injunction hearings against Mississippi Valley in Caledonia reveals that the lawmaker who presented the present statute made it clear that the intent of the law was to permit price innovation of all kinds in the pricing of milk. The opponents to this position are using semantics instead of logic in trying to separate the term "solids-not-fat" from the term "protein".

Any dairy science undergraduate knows that protein is a solid-not-fat of milk. Any argument to the contrary is based on lack of knowledge of the facts of dairy chemistry or is designed to obfuscate the issue.

Somewhere in this chaos of arguments and counter-arguments we hope that you realize that:

(1) Many dairy farmers in Minnesota are being denied payments due them. We are asking only to be paid for what we produce.

(2) We have followed the letter of the law and attended lengthy hearings, produced solid evidence and taken a great deal of time away from our farms to be heard on this issue. We do not have paid lobbyists, attorneys nor house organs to publish our views. This has been a truly "grass roots" effort.

(3) Incorporating protein payments as a legal option for payment of milk is a positive forward move for the dairy economy in the state of Minnesota. We are a leading dairy state but now stand as the only state which forbids such payments.

(4) Bonus incentive payments, quality and volume premiums have long been employed in the purchase of milk in Minnesota. Why this particular protein payment plan should be the one questioned by the Minnesota Department of Agriculture and opposed so vehemently by Land O'Lakes, Meadowland and Mid-America has long been a mystery to me. Equity is equity and I only pray that those of us who milk cows for a living are heard at the Capitol equitably. We do not carry the power nor the influence that the large processors do but because we feed America we must be paid equitably so that we can continue.

Swiss Valley FARMS

Put in Agric Milk Protein Pricing file. 45

July 23, 1979

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JUL 25 1979
ATTORNEY GENERAL
ADMINISTRATIVE AGENCIES

Mr. Lee Sheehy, Special Assistant Attorney General
G-25 Administration Building
St. Paul, MN 55155

Dear Mr. Sheehy:

We would like to offer further information in regard to the subject of pricing non-fat solids in the State of Minnesota and in regard to your proposed ruling on the subject.

First of all, there is no doubt that higher protein milk will yield more cheese and non-fat dry milk. This has been proven many times at university studies and we are enclosing a copy of the most recent paper that we have on the subject which was presented June 24-27, 1979 at the 74th meeting of the American Dairy Science Association at Utah State University. As you can clearly see, higher protein content in the milk will yield significantly higher cheddar cheese. Also, you can see that while casein is a factor in the output, there is a very definite direct relationship between total protein and the actual cheese yield.

The methodoligy for determining protein is very accurate and is done world-wide on all types of animal and human foods. We are sure that you are familiar that the Association of Official Agricultural Chemist have done work on this subject and they have approved various methods for the testing of protein.

In the Dairy Industry, non-fat solids are those components that make up the total non-fat solids in milk. It is a specific term referring to all of the solids in milk which is not fat. Non-fat solids can refer to protein, lactose, ash or other minerals in the milk. Because of the tendency for people to short-cut terminology, many people have simply referred to total non-fat solids as non-fat solids. For this reason, we are confident that the Legislature intended, as in previous testimony, that it was setting up a flexible means of payment to dairy farmers for the those components in milk which are non-fat solids.

As you know, our members have suffered a severe economic damage since

last July because of the action by the Minnesota Department of Agriculture and the State of Minnesota. We are very hopeful that you will see fit to set forth the ruling that will allow our members to be paid for the protein in their milk at the earliest possible date.

We are confident that this will not only benefit producers but also consumers who are our customers in the Dairy Industry.

If there is any further information that we might provide to you on this subject, please be sure to let us know.

Very truly yours,

MISSISSIPPI VALLEY MILK PRODUCERS
ASSOCIATION, INC.

Carl E. Zurborg

Carl E. Zurborg
Chief Executive

CEZ:md

Enclosure

The Effect of Milk Composition on the Yield and Quality of Cheddar Cheese II. The Effect of Breed

Edward W. Custer
Dairy Science Department
Mississippi State University
Mississippi State, Mississippi

Presented at the Seventy-Fourth Annual
Meeting of the American Dairy Science Association
Utah State University
Logan, Utah

June 24-27, 1979

TABLE I. MEAN OF RAW MILK USED FOR MANUFACTURING CHEDDAR CHEESE

	Ayrshire	Guernsey	Holstein	Jersey
Fat	3.58	4.40	3.40	4.59
S.N.F.	8.97	9.15	8.75	9.36
Total Solids	12.55	13.55	12.15	13.95
Casein	2.58	2.65	2.41	2.83
Protein	3.45	3.59	3.27	3.79

TABLE II. MEAN OF STANDARDIZED MILK USED FOR MANUFACTURING CHEDDAR CHEESE

	Ayrshire	Guernsey	Holstein	Jersey
Fat	3.64	3.94	3.57	4.18
S.N.F.	8.95	9.16	8.74	9.39
Total Solids	12.59	13.10	12.21	13.57
Casein	2.57	2.72	2.38	2.86
Protein	3.43	3.59	3.26	3.81

TABLE III. SEPARATION OF MEANS FOR COMPONENTS OF STANDARDIZED MILK USED IN MANUFACTURING CHEDDAR CHEESE

BREED	FAT	S.N.F.	CASEIN	PROTEIN
Jersey	4.175^{a}	9.391^{a}	2.862^{a}	3.807^{a}
Guernsey	3.940^{b}	9.160^{b}	2.722^{b}	3.593^{b}
Ayrshire	3.640^{c}	8.946^{c}	4.569^{c}	3.429^{c}
Holstein	3.570^{c}	8.736^{d}	2.377^{d}	3.256^{d}

*Means not followed by common letter differ significantly (<.01) as determined by DNMRT.

TABLE IV. CHEESE ANALYSES

	Ayrshire	Guernsey	Holstein	Jersey
Fat	31.75	32.75	32.95	33.65
Moisture	36.26	36.37	36.76	35.06
Protein	25.66	25.37	25.13	25.35
F.D.B.	49.81	51.47	52.10	51.82
Yield	10.03	10.62	9.67	11.33
Yield, 38% Moisture	10.23	10.90	9.87	11.87
C/F	0.71	0.69	0.67	0.68

	Ayrshire	Guernsey	Holstein	Jersey
Predicted yield using Van Slyke formula	9.98	10.77	9.65	11.16
Actual yield	10.03	10.62	9.67	11.33
Difference between predicted and actual yield	0.05	0.15	0.02	0.17

Van Slyke formula (1894)

$$\frac{(0.93\ \text{Fat} + \text{Casein} - 0.1) \times 1.09}{100 - \text{Moisture Content}} = \text{Cheese Yield}$$

DHIA AVERAGES FOR HERDS USED IN STUDY

	Ayrshire		Guernsey		Holstein		Jersey	
	kg milk	% fat	kg milk	% fat	kg milk	% fat	kg milk	% fat
1977	6242	3.6	5727	4.3	7545	3.1	5480	4.4
1978	5734	3.6	5374	4.4	7248	3.2	4950	4.5

FAT LOSS IN MANUFACTURING CHEESE USING AYRSHIRE, GUERNSEY, HOLSTEIN, AND JERSEY MILK

	Ayrshire	Guernsey	Holstein	Jersey
Vats	10	10	10	10
Total Cheese Milk-kg.	6,646	12,002	21,125	9,221
Total Cheese-kg.	666	1,277	2,047	1,045
Total Fat in Cheese Milk-kg.	242	473	754	386
Total Fat in Cheese-kg.	211	418	674	352
Total Fat Loss-kg.	31	55	80	34
Total Fat Loss-%	12.81	11.54	10.61	8.80
Total Fat Loss in Whey-kg.	30	51	77	31
Total Fat Loss in Whey-%	12.40	10.32	10.21	8.03
Total Fat Loss Unaccounted-kg.	1	4	3	3.0
Total Fat Loss Unaccounted-%	.41	.72	.40	.77

ATTORNEY GENERAL

PEDER B. HONG
Special Assistant
Attorney General

July 3, 1979

LEE E. SHEEHY
Special Assistant
Attorney General

296-1288

In the Matter of the Proposed Adoption of the Rules of the Department of Agriculture Governing the Purchase of Milk on the Basis of Protein.

As you are aware, I have received a supplemental response submitted on behalf of Land O' Lakes and Mid-America Dairymen dated July 2, 1979, from Messrs Morris and Silver. Upon receipt of this letter, as you may recall, I called to discuss whether or not the Department would like to file any response. In light of the Department's decision not to file any additional response, I am making the decision based on the entire record as it presently stands.

This office's responsibility is to review proposed agency rules for "form and legality". Given this charge, concern must be expressed over the lack of clarity in the record relating to the paramount legal issue of the agency's statutory authority to adopt the proposed rules. The Hearing Examiner concluded "(t)hat neither Department nor any of the hearing participants have introduced documentation showing the need for, reasonableness of or statutory authority for any of the alternative provisions for regulating methods of protein pricing at this time." (Emphasis added.) See Hearing Examiner Finding No. 35. While the Department adopted many of the Hearing Examiner's Findings verbatim, it deleted this paragraph and left unaddressed in the agency Findings of Fact, Conclusions and Order Adopting Rules the substantial question raised therein, namely, the source of statutory authority for protein pricing. Yet, the "Purpose and Authority" sections of the rules say:

> "The rules contained herein are prescribed pursuant to Minn. Stat. § 32.25 by the Commissioner to provide an optional method for the purchasing of whole milk, the purchase price of which shall be calculated upon the basis of 100 lbs. of whole milk at 3.5 lbs. of milk fat." (Emphasis added). Proposed 3 MCAR 1.1331.

Other references throughout the rule imply a clear intention to establish a pricing mechanism based solely on protein. See, for example, proposed 3 MCAR 1.1332 C. 3.

Attorneys for Land O' Lakes, Inc., and Mid-America Dairymen have in written documents filed with this office, raised serious concerns relating to the existence of the agency's statutory authority for the rules as presently proposed for adoption. Copies of these written documents have been made available to the Department. In response to these and other arguments, the agency has apparently adopted the position that the rules are merely an implementation of their power to establish the "manner" and "equipment" by which tests for non-fat solids may be undertaken, a power given to the agency under Minn. Stat. § 32.25. As noted above, however, the rules do appear to establish a protein pricing system.

A central question remains: What is the agency's statutory authority for establishment of a pricing mechanism based solely on protein? The statute seems clear as to the proper factors to be considered in a pricing mechanism, as I indicated in my earlier memo with which the agency concurred. The agency's own selective editing of the Hearing Examiner's Report indicates that they do not believe that protein and non-fat solids are, as the Hearing Examiner concluded, "a distinction without a difference." See Hearing Examiner Finding No. 34.

Therefore, based on the record submitted to this office, it has been determined that the agency does not have statutory authority to promulgate the rules as presently constituted establishing a pricing mechanism based solely on protein. This office reserves judgment on the question of whether the agency has authority to merely establish a testing procedure for protein.

If you have any questions, do not hesitate to contact me.

LES/bw
cc: Duane Harves
Marshall Whitlock
Melvin B. Goldberg
Ralph K. Morris
Allen Silver

MICHAEL J. DOHERTY (1882-1973)
WILFRID E. RUMBLE (1891-1971)
FRANCIS D. BUTLER
J. C. FOOTE
IRVING CLARK
HAROLD JORDAN
THEOPHIL RUSTERHOLZ
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OF COUNSEL
DANIEL W. O'BRIEN

June 11, 1979

RECEIVED
JUN 11 1979
ATTORNEY GENERAL
ADMINISTRATIVE AGENCIES

Mr. Lee Sheehy
Office of Attorney General
G25 Administration Building
St. Paul, Minnesota 55155

Dear Mr. Sheehy:

This letter is submitted in response to the proposed adoption of a rule of the Department of Agriculture governing the purchase of milk on the basis of protein. We are submitting this comment on behalf of Land O'Lakes, Inc. and Mid-America Dairymen. We urge the Attorney General to disapprove the proposed rule on the basis that it exceeds the statutory authority of the Commissioner of Agriculture, and is in conflict with Minn. Stat. §32.25.

A. Minn. Stat. §32.25 authorizes promulgation of rules only with respect to testing of nonfat solids, not protein.

Under the Administrative Procedures Act, Minn. Stat. §15.0412, an agency may enact rules "only pursuant to authority delegated by law". Here Minn. Stat. §32.25 provides for promulgation of rules and regulations for the testing of nonfat solids. There is no delegation by the legislature to the Commissioner to adopt any rule based on only one of the components of nonfat solids, such as protein.

Nonfat solids, or solids-not-fat, consist of all of the solid components of milk other than butterfat, mainly protein, lactose and minerals. The Hearing Examiner in his Findings of Fact, paragraph 34, stated that 95% of the solids-not-fat content of milk is protein. However, the record shows that the average solids-not-fat percentage of normal milk is 8.5%, while the average protein percentage is only about 3.2% (Zurborg, cited by the Commissioner at paragraph 29). Thus the protein component consists of less than half of the solids-not-fat content. The Commissioner apparently recognized that protein and solids-not-fat are not the same. His Findings of Fact, paragraph 29, closely parallel the Examiner's paragraph 34, except that the Commissioner has

eliminated the statement that 95% of the solids-not-fat content of milk is protein. He has added the above citation from Zurborg, recognizing that protein constitutes less than half of solids-not-fat. The Commissioner has also eliminated the Examiner's statement that "the distinction between protein and total nonfat solids is a distinction without a difference". Obviously he recognizes that there is a difference but apparently concludes on policy grounds that protein would be a better measurement. However, this is a determination which is beyond his authority to make. Protein and solids-not-fat are not interchangeable elements in measuring the value of milk, and the Commissioner cannot ignore the legislative designation of "nonfat solids" and substitute a single nonfat solid component.

The Commissioner seems to feel that protein is the only solid-not-fat which has a value and which should be measured. For example, he cites the fact that cheese production increases 2 to 2-1/2 pounds for each pound of protein in raw milk (Finding of Fact, paragraph 17). However, protein testing does not directly measure the element which leads to the increased value, anymore than does solid-not-fat testing. Protein testing measures both casein, the component which contributes to the yield of cheese, and whey proteins which disappear in the cheese-making process (Packard, page 2). Thus, using protein as a measure of value in cheese-making will overvalue milk with high concentrations of whey protein, and undervalue milk with high concentrations of casein. With respect to other dairy products, solids-not-fat is a more accurate gauge. For example, nonfat dry milk is made from all milk nutrients and thus solids-not-fat is the component of value, not just protein.

The various components of solids-not-fat can vary widely. Maes, cited by the Commissioner in his Findings of Fact, paragraph 11, states that "Component values within solids-not-fat vary widely in relation to each other. The same variables which affect total solids-not-fat products (breed of herds, temperature, climate, geography or location, feed, milk production per cow, health of cow, etc.) may also cause changes in relationships between protein, lactose and minerals in the solids-not-fat."

The Commissioner repeatedly relies upon studies and evaluation of solids-not-fat pricing without distinguishing this from protein pricing. Thus, many of his findings of fact and conclusions are questionable when applied to protein pricing. For example, in Finding of Fact, paragraph 14, he cites Gruebele that "The market value of solids not fat has increased dramatically relative to fat", and the AMPI report on protein prices (June 15, 1978) that "The consumer demands less fat and more solids not fat. . .". The Commissioner relies heavily upon the California component pricing system in support of protein pricing. He

refers to the California system as "The California protein payment system" (Finding of Fact, paragraph 11), and states that the California rules "recognize a partial payment on the basis of protein" (paragraph 21). The Commissioner repeatedly cites the California pricing system to argue that protein pricing will increase milk production (paragraphs 11 and 21), improve the quality of milk and increase the income of dairy farmers and profits of handlers (paragraph 16). He also cites the California testing experience to argue that methods of protein testing are sufficiently accurate to allow fair, nondiscriminatory payment to producers. However, the record is clear that California does not have a system of protein pricing. Solids-not-fat is the measurement of California's component pricing system, not protein (paragraph 29). The Commissioner repeatedly ignores this important distinction in spite of his own later recognition that the California "nonfat solids" measurement system is different from the "protein only test". Finding No. 29, includes the following statement:

> The only place where solids-not-fat measurement is utilized instead of protein is California. Maes explains that total solids-not-fat measurement was adopted in 1962, because "the most available and acceptable procedure was the lactometric method for measuring total solids-not-fat (for this reason, protein payment was not considered)".

California's use of solids-not-fat as the standard rather than protein is helpful in determining the intent of the Minnesota legislature in using the term "nonfat solids" in §32.25. The Minnesota legislature followed California in referring to the solids-not-fat measurement. Inasmuch as the applicable amendment to Minn. Stat. §32.25 was enacted in 1963 (L. 1963, C. 90), only a year after California adopted its nonfat solids measurement, it is apparent that the legislature also intended use only of solids-not-fat, and did not consider a protein standard.

The Commissioner apparently blurs the distinction between protein and solids-not-fat because he feels that protein is the most significant of the solids-not-fat and that protein testing is an adequate and proper measure of the solids not fat content of milk. (Paragraph 29). However, this is a determination that the legislature did not leave to the Commissioner. Moreover, significant contradictory evidence was submitted. For example, the report of the National Milk Producers Federation (cited by the Commissioner at paragraph 17) notes the arguments in favor of a "solids nonfat" standard as opposed to a "protein" standard:

> Advocates of milk solids nonfat argue that reliance on a single component, such as protein, should be avoided. Use of protein, it is contended, could encourage substitution of milk solids nonfat by caseinates or even vegetable protein. Moreover, nonfat dry milk, made from all milk nutrients, has a specific market value.

We do not contend that the Attorney General should decide whether "protein" pricing or "solid-not-fat" pricing is more equitable. We merely note that the Attorney General must consider that the two measurements are in fact different, with advocates on each side of the issue as to which measurement is preferable. Which is preferable is a legislative determination. The legislative choice of "nonfat solids" as the component of measurement cannot be overturned by an administrative determination. An agency cannot properly exceed the scope of its delegated authority.

The Hearing Examiner and the Commissioner of Agriculture have ignored the restriction placed upon them by the Legislature and have illegally assumed the role of adopting a measurement not authorized by the Legislature. Until such time as the Legislature acts on this matter, the Hearing Examiner and the Commissioner, regardless of their personal preferences, must be bound by the statute which requires the consideration of the solids-not-fat measurement also utilized in California. The Commissioner states that "It seems clear that the issue of whether protein pricing should be allowed on an optional basis was decided 14 years ago by the legislature" (paragraph 8). More properly, the issue decided was that the purchase price of milk could be determined on the basis of milkfat and nonfat solids after promulgation of "rules and regulations for the testing of nonfat solids". Substitution of protein pricing can only be mandated by the legislature.

B. Minn. Stat. §32.25 requires adjustments both upward and downward for nonfat solids.

The Commissioner determined that none of the three alternative protein pricing methods which were considered should be adopted, and instead determined that purchasers should adjust their pricing to, what the Hearing Examiner called, "the realities of the marketplace". (Examiner's Finding of Fact, paragraph 35). Unfortunately, the realities of the marketplace are likely to result in general adoption of a system similar to Alternative II, allowing premiums above a standard protein content with no deduction for lower content. This is the alternative which the Examiner admitted "received practically no support from either purchasers or producers" (Examiner's Finding of Fact, paragraph 37). However, adoption of a straight premium with no deducts by any purchaser probably will result in substantial shifts by producers since they may be eligible for a protein bonus, without any possibility of a deduction

for low protein. The realities of the marketplace will require other purchasers to offer the same premium plan without a deduction for low protein. Therefore, the effect of the Commissioner's determination will be use of protein pricing as a procurement gimmick, akin to giving green stamps for switching from one purchaser to another.

Although Minn. Stat. §32.25 does not expressly require adjustments upward and downward based on solids nonfat content, this surely was the intent of the legislature. It is obvious that if a milk component is going to be the basis for standardized pricing, higher amounts of the component should bring a higher price, and lower amounts should bring a lower price. In other words, if high protein milk is worth more, low protein milk is worth less. This is the approach the legislature used with respect to milk fat content, and logically intended to be used with respect to solids-not-fat once the Commissioner promulgated regulations for testing. Such a differential could not have been expressly stated at the time the statute was enacted because until adoption of regulations governing testing it would not have been possible to know the norm for solids-not-fat.

Furthermore, it is evident that in 1963 when the relevant portion of §32.25 was enacted, there were not adequate tests to properly measure solids-not-fat content so as to expressly require a payment diffential up and down of .1%. As indicated previously, California adopted a solids-not-fat measurement in 1962 when the most acceptable testing procedure was the lactometric method. However, the locometer only measures with a tolerance of plus or minus .2% (Maes, page 9). It is obvious that the Minnesota legislature in 1963 felt that a solids-not-fat measurement would be acceptable only after more precise testing methods were developed. Thus, the legislature authorized use of alternative tests to the Babcock test "when the Commissioner is satisfied that these alternative tests are consistently as accurate as the Babcock test in determining the percentage of milk fat". Clearly Babcock was capable of determinations of .1% or better since the legislature expressly provided for an adjustment up or down for butterfat variations of .1%. The locometer was not capable of such determinations, thus no express requirement for an adjustment up or down based on nonfat solids was included. However, the implication is clear that a uniform adjustment up and down would have been included for nonfat solids, just as it was for butterfat, and must be included, if the proposed rule allows pricing on the basis of nonfat solids.

C. The proposed Rule will not benefit Minnesota dairy farmers, handlers or consumers.

The Commissioner concluded that without question dairy farmers

will receive additional money for milk through adoption of protein pricing, and that both farmers and taxpayers are losing money by delay in implementation (Finding of Fact, paragraph 6). However, the fact is that the method of pricing will not increase the overall worth of milk or the total number of dollars available to purchase it. Rather, changing the method will merely redistribute money, with a relatively few producers receiving more for their milk and many producers receiving a little less. If this is not done directly through a lower payment for low protein milk, it will be done indirectly through a reduced butterfat differential, a reduced basic pay price to all producers, or reduced patronage earnings to producer-members of cooperatives. Accordingly, the pricing mechanism will not, as concluded by the Hearing Examiner and Commissioner, add to the total tax revenues recovered by the State. In fact, the Commissioner admitted that the 100 producer members of the Mississippi Valley Milk Producers Association are "the only farmers at this time who will be able to gain any advantage from these proposed rules". (Finding of Fact, paragraph 7).

The Examiner relied upon an informal poll taken at the hearing at Sauk Centre to argue that producers favored protein pricing. However, this poll was taken after only one witness had testified, a witness who spoke in favor of protein pricing. The poll was taken before producers were exposed to contrary arguments. If adoption of a pricing scheme is to be based on a poll, it should include all Minnesota dairy farmers.

The benefit to consumers has also been greatly overstated. The Commissioner states that the protein content of milk is important to the American consumer (Finding of Fact, paragraph 12), and that there has been a shift in consumer demand to milk products with high protein content (paragraph 14). However, there is no reason to believe that consumers want or need high protein milk, or that the proposed rule will provide it. Fortified fluid milk products which are high in protein are currently available, but sales are in fact going down. Federal milk order statistics show that sales of low fat milk with solids added have decreased from 74% of the total low fat milk sold in 1970 to 35% in 1977. Furthermore, American consumers already consume three to four times the amount of protein required daily. The California experience also demonstrates that to the extent high protein milk is the purpose of the rule, consumers will be short-changed. In California, the volume of solids-not-fat per hundredweight of milk actually decreased from 1965 to 1977 under California's solids-not-fat system (Gruebele, p. 13).

In conclusion, while we recognize that there are many supporters of the concept of pricing milk on a protein basis, the law requires that adoption of rules and regulations be based on facts and evidence, not on

personal preference or who shouts the loudest at a public hearing. In the short period of time we have had an opportunity to review the findings and conclusions we respectfully believe that many of the substantive conclusions and findings are not supported by the objective evidence. In this connection, we might add the entire process is severely hampered by the apparent lack of an available transcript of the proceedings. Indeed, the findings and conclusions indicate that the decision is based "on the notes of the Hearing Examiner". We have attempted, however, to raise a few of the findings and conclusions which we consider erroneous.

Even more significant, however, is the disregard of the Hearing Examiner and the Commissioner of the clear restrictions placed on them by the legislature. As indicated in the discussion, all rules and regulations must conform to the statutes adopted by the legislature. In this case the Minnesota Legislature follows the California system of authorizing rules and regulations with respect to solids-not-fat. Notwithstanding the fact that even the Hearing Examiner and the Commissioner (as well as the authorities cited in the findings and conclusions) clearly and specifically recognize the difference between the "protein measurement" and the "solids-not-fat measurement", the Commissioner ignored requests for rules and regulations on the solids-not-fat test and ordered a rule utilizing the alternative protein measurement. Regardless of how strongly the Commissioner may feel on any particular subject, rules and regulations must be in conformance with the statute, and if the admittedly different protein measurement is to be substituted for the solids-not-fat measurement authorized by the legislature, an amendment to the statute must be adopted by the legislature. Alternatively, if the Commissioner wants to discuss rules and regulations on solids-not-fat, further hearings must be held to consider pricing based on all components of solids-not-fat.

Respectfully submitted,

DOHERTY, RUMBLE & BUTLER

RKM:AIS:jd

Ralph K. Morris

Alan I. Silver

cc: Peder Hong, Esq.

> The dairy industry leaders believe that the higher standards in fluid products under component pricing contributed to the increased per capita Class I sales (fluid products) in California since 1971.

He indicates that California began in 1960, with a per capita consumption 10 quarts lower than the national average (140 versus 150) and ended 20 quarts higher (113 versus 133) in 1977, for a total decline of only 5% versus a national decline of 24%.

27. That nothing in the record suggests there would be any advantage in waiting for a federal protein pricing program or that the effort to achieve a national recognition of protein pricing has been hurt in any way by the various protein pricing programs going on currently in the country. Land O'Lakes and others urged strongly that the Department delay until a federal program can be established, without citing any benefits to be obtained or disadvantages to proceeding. Zurborg calls this:

> Paralysis of analysis, there are people who are saying that we need pilot programs and much more analysis before the industry can pay on a protein basis. Others sit by writing critical reports while nothing is being done about removing the inequities.

Maes analysis of the California experience (introduced by Land O'Lakes, p. 13) asked the question, "Can the California experience be considered a blueprint for a national component pricing program?" Implicit in the question is the assumption that the national deliberations on some kind of federal program are looking to the experience compiled by California, MVPA and others, experience which would also be permitted under this rule in Minnesota.

28. That there will be an energy savings involved in the long term increase in protein content encouraged by recognition of protein in pricing. A study prepared for the Dairy Industry Conference at Iowa State University, submitted March 21, 1978, by J. K. Hillers, V. H. Nielson, A. E. Freeman and J. Dommerholt submitted by Gerald Bratland, breaks down four processing cost categories: transportation of milk, separation, energy and labor. It demonstrates that any increase in protein composition of .3% without any change in the fat test would save $1,500 per one million pounds of cheese, in addition to the increased yield. This Report is being written at a time when energy conservation is being increasingly recognized as more than a matter of cost savings. This is highlighted in the comments of Dr. R. C. Laben at an Iowa Symposium on protein and breeding (Ex. 2, p. 30-17):

> Rising energy costs provide the most important reason for holding or increasing milk solids concentration by the means we have presently available. Energy costs at every step in dairying from milking, farm cooling, all phases of milk transportation, processing and marketing will continue to increase. While this cost has been a minor consideration in the U.S., currently it is a real one and the future trend is definite.
>
> Presently rising energy costs support an argument for immediate attention to the concentration of milk solids in dairy breeding. European dairy breeders already face a situation where some direct selection to raise solids concentration at the expense of total yield is being practiced.

> If payment for milk includes protein percentage in the price formula, similar selection for protein yield could result in both increasing milk yield and protein percentage on a basis that would be economically beneficial to dairymen.

The testimony was unanimous that balanced feeding will increase protein content. Gruebele (introduced by Land O'Lakes) found that in California, "With proper feeding rations it has been possible for many dairymen to increase the solids not fat tests and butterfat tests up to the inherent ability of the animal." (P. 11) Maes (also introduced by Land O'Lakes) corroborates this evidence that feeding affects the quantity of solids not fat.

26. That no facts have been introduced to suggest that the purchasers of milk would tend to segregate high and low protein content milk under the proposed rules any more than they do under the present pricing scheme. Land O'Lakes asserted, without any substantiation based on past experience, that, "High testing milk would move to manufacturing facilities and low testing milk would move to the fluid market." Milk purchasers are already accomplishing this kind of segregation where transportation costs are not prohibitive. The New England Price Committee Report (Ex. 2, p. 26) confirms that this is taking place:

> The present system of pricing also encourages country plants to find high-solids milk and manufacture it into powder or cheese and ship the low solids milk to the city for fluid. Dairy product manufacturers, to the extent they are successful in finding high-solids milk, get a yield bonus without having to pay for it. Fluid milk consumers are paying the same price for less and less milk solids and more water.

Maes (introduced by Land O'Lakes, p. 11) indicates that the experience in California does not support the prediction of increased segregation. He confirms that higher protein herds there, as in Minnesota and elsewhere, generally sell to cheese plants, but:

> The component characteristics of fluid milk produced in California do not appear to have been notably changed by component pricing.

As indicated earlier in this Report, MVPA experience with protein pricing has also not led them to segregate high and low solids.

The tendency of purchasers to segregate milk could be minimized under a more equitable pricing system which eliminates the bonus for doing so. The best way of ensuring that the natural profit making motives of purchasers do not harm consumers, however, lies not in these rules but in increasing minimum standards. The National Milk Producers Federation Report (introduced by Land O'Lakes) indicates:

> The present fluid milk standards of the Food and Drug Administration are quite low. . . .An increase in the minimum standards would overcome the incentive to obtain milk with a low solids content as a means of reducing raw product costs, at least in part. The higher standards would increase the market for milk solids, improve the palatability of fluid milk products and may lead to higher milk consumption.

Standards for solids not fat in California have been gradually increased over the years to 8.15 in 1961, 8.35 in 1963, 8.5 in 1965 and 8.6-8.8 in 1977. Gruebele reports that:

25. That protein content of milk can be enhanced through feeding and breeding without any decrease in long term yields. Land O'Lakes cited an unpublished study by one of its employees, Paul Christ, as indicating that "attempts to increase the protein percentage in milk results in a loss in milk yield and a lower yield in total protein than if breeding selection had been made for total milk yield. . . .Total revenue from milk sales would actually be reduced even with a protein differential." Gruebele (introduced by Land O' Lakes) specifically cites Mr. Christ's unpublished paper and refutes the alleged long range adverse impact on the dairy industry, citing California as an example. Their volume increase per cow continues to outstrip the national increase. From 1965 to 1977, the California increase was 3,632 pounds per cow from 10,830 to 14,462, as opposed to the national increase of only 2,925 per cow from 8,305 to 11,230. Total milk production increased 40% versus a .73% decrease nationally. (All of these lower national averages include the California increases in their computation and consequently, the disparity is actually more dramatic.) As indicated earlier in this Report, the California rules (and the rules herein proposed for Minnesota) merely recognize a partial payment on the basis of protein and still make it profitable to breed for volume. That continues to be true in California and will continue to be true in Minnesota under these rules, only less so. MVPA testimony corroborated this refutation of the Land O'Lakes allegation, indicating that their production per cow has increased almost as fast as the rest of the country.

The best, most detailed data available on the subject of breeding is the Iowa State University Co-op Extension Publication DYS-1526, "The Dairy Cow as Protein Producer" (November, 1973, submitted by MVPA and cited with approval in Exhibit 3 introduced by Kraft.) It summarizes an interregional study of data from 22 states including 23,382 records on cows sired by 2,522 sires in 298 herds. Table 7 on page 9 shows that selecting for total solid yield maximization would produce significant increases in pounds and percentages of fat and protein and significant yield increases only 12% below those obtained by selecting on the basis of total yield maximization. The study concludes that:

> It seems important that the quality of milk offered consumers be improved, or at least not decline. Thus, it may be necessary to sacrifice some increase in yield to maintain or improve quality.

Similarly, the nutritional milk pricing committee report cites a six year study at the University of Massachusetts as showing that:

> Changes in protein content of milk could be made if we started testing and farmers received a payment incentive to make the effort profitable. . . .Consequently, with the large number of sires to choose from in the various artificial breeding studs, it should be possible to increase both milk yield and protein or solids not fat percentage.

No specific study to the contrary has been pointed to by Land O'Lakes or others to support the allegation that dairy farmers will be harmed in the long run by protein pricing. As the Iowa State Publication concludes:

The AMPI pricing report (and other data in the record) confirms this extreme variability, concluding, "Therefore, any basis of payment should consider the solid components of milk as the separate variables which they are."

23. That protein is not overvalued as a component of milk as was alleged by Land O'Lakes. They first cited a surplus of nonfat dry milk as an indication that protein must be overpriced. Utilization of nonfat dry milk as a primary part of the government support price system merely facilitates storage and subsidized shipments. (There is also an increasing surplus of water in milk which is not stored because the taxpayers pay to have it evaporated. As indicated in previous Findings, the current pricing system encourages the further overproduction of this component in milk.) The value assigned protein under the current pricing mechanism is equal to the value assigned other solids not fat and water in the base price because only butterfat is recognized as varying and is assigned a price differential. The rules would recognize that protein is the only other valuable major varying component and allow the purchaser the option of assigning it what he feels is a fair differential price.

In their final written comments submitted on the day the record closed, Land O'Lakes advances another argument for their contention using the Van Slyke cheese formula and average butterfat and casien content which has been considered and rejected. The Van Slyke formula (broken down at length by testimony of Mr. Bratland) merely shows that increased protein yields increase casien which yields increased pounds of cheese. It is clear that protein is not overpriced as a component and in fact is not priced at all. This rules proceeding arises because purchasers are not generally attempting to pay fair value for high protein milk. The willingness of some purchasers to pay a premium, irrefutably establishes that fact, to the tune of $400,000 in one year in the case of MVPA.

24. That no facts were introduced to show that variations in total protein content due to Mastitis should prevent protein pricing. Land O' Lakes and others suggested that this was a problem without providing quantifying data or analysis. Dr. Packard at the University of Minnesota (Extension Bulletin No. 73) cites a Penn State study showing that casien level "remained fairly constant, but whey protein, thus total protein, increased significantly" in Mastitic milk. He describes whey proteins as having "a higher (more nutritious) biological value than casien." The increased whey protein would, of course, reduce cheese yields and that problem is taken care of by the optional quality control provision inserted in the proposed rules by the department to protect cheese manufacturing buyers. The evidence suggests that regardless of protein pricing, Mastitis will be curbed by dairy farmers due to decreased yields. The New York Dairy Improvement Council indicates (Ex. 2, p. 11) that:

> Research has shown that losses in milk production during a 305 day lactation due to infection of <u>one quarter</u> vary from 1267 to 1983 pounds of milk. For example, a 1783 pound loss of $10 per hundred weight milk equals $173.30 per lactation lost income. (Emphasis original)

22. That there is not a close enough correlation between average increases in butterfat percentages and average increases in protein percentages to permit proper or fair compensation of high protein milk producers. Land O'Lakes advances a contrary assertion in its final written comments without submitting any specific evidence:

> Contrary to the testimony of some proponents, there is a close correlation between butterfat and solids not fat or protein. This correlation is reported by Dr. Packard and many other researchers. Manufacturers can use this relationship to determine proper butterfat differentials of milk used to produce butter and nonfat dry milk solids.

They indicated that they feel their prices paid farmers are consequently equitable because they pay a higher butterfat differential. (Farmer-producers immediately corrected this statement, indicating without contradiction that Kraft pays a higher butterfat differential and that the differential is minimal compared to the increased value of higher protein milk.)

Land O'Lakes' assertion is directly contradicted by its own alleged source. Dr. Packard indicates in Extension Bulletin No. 73, January 1, 1979, that, "The relationship is not precise enough to serve as a pricing mechanism per se." University of Wisconsin experts agree with Dr. Packard (Ex. 3, introduced by Kraft):

> Since the relationship of fat to protein varies from cow to cow and from herd to herd, the nutritional and true market value of milk may vary fron one producer to another. Without component pricing, such differences are not properly reflected in individual milk checks.

Gruebele (introduced by Land O'Lakes, p. 15) cites a 1976-78 study of 56 herds, indicating, "One problem that has been identified in California is that the higher producing herds are able to maintain relatively high butterfat tests but quite low solid not fat percentages." Nielson is severely critical of this method of compensating for protein content, "The weakness of this scheme is that it ignores the sometimes significant deviations from the average value of the most variable nonfat component of milk, namely protein." These variations are confirmed by Zurborg:

> We have found a tremendous difference between the protein test and fat to protein ratio in various herds within our membership. As individual cows go, some can have twice the fat to protein ratio and some can even have higher protein tests than fat tests.

This testimony is corroborated by specific data supplied by the New England Committee on Nutritional Pricing of Milk (Report of Subcommittee on Factors Affecting Milk Composition, Ex. 2, p. 16) which provides the following Holstein sire summary analysis, showing results that are opposite of what would be expected under the Land O'Lakes hypothesis:

Sire	No. of Daus	Milk	Fat	Protein
A	30	19,542	3.67	3.25
B	25	16,975	3.82	3.15
C	11	16,106	3.83	3.06
D	10	16,738	4.04	3.08

(Ex. 2, p. 10) indicating that, "An increase of .6% in protein test results in $1.84 in value of a product".

Protein	lb. Cheese/ 100 lbs. Milk	Value Cheese At $1.00/lb.	Diff. Per .1%
3.0	9.18	9.18	—
3.1	9.49	9.49	.31
3.2	9.79	9.79	.30
3.3	10.10	10.10	.31
3.4	10.40	10.40	.30
3.5	10.71	10.71	.31
3.6	11.02	11.02	.31
.6			$1.84

Similarly, information introduced by farmer-producer Weller (Ex. 2, p. 7) indicates:

> An additional pound of nonfat solids in a hundred weight of producer milk was worth from 7 to 24¢ to plant operators in additional yields of nonfat dry milk (7¢), American cheese, (22¢), or cottage cheese (24¢) at mid-1977 prices.

Although Land O'Lakes expressed considerable doubt as to the veracity of these increased yields and cross-examined MVPA witnesses vigorously, all of the evidence clearly establishes these increased yields, including that introduced by Land O'Lakes itself. Gruebele, for example, (introduced by Land O' Lakes) indicates that, "Cheddar cheese yields go up about .14 pounds for each .1% increase in protein in milk", and "for each .1% increase in solids not fat, powdered milk yields go up .1 pounds. This extra yield is worth 7¢." (P. 10) The National Milk Producers Federation Report (also introduced by Land O'Lakes) concedes a "positive relationship between protein and cheese yields". The Wisconsin Bulletin (Ex. 3, introduced by Kraft) confirms increases of "2 to 2½ pounds" of cheese for every pound of protein in a hundred weight of raw milk and an extra pound of protein yields an extra pound of nonfat dry milk or ice cream or six pounds of cottage cheese. Gaunt (introduced by the Department) confirms the increased yields particularly of cottage and cheddar cheese.

The following sources also confirm Zurborg's testimony, without quoting them extensively, in the interests of brevity: AMPI Report, June 15, 1978; Article by Professor V. H. Nielson, Head of Department of Food Technology, Iowa State University, Ames (submitted by Department; hereinafter: "Nielson"); September, 1977 Guernsey Breeders Journal, pp. 486-487 (each pound of protein yields approximately three pounds of cheddar cheese at 38% moisture content); G. H. Schmidt, Dairy Science Department, Ohio State University (Ex. 2, p. 17); Dr. Ross Mickelson, Kansas State University and Federal Milk Market Administrators Service Unit No. 1, September, 1974, Contribution 903, Kansas Agricultural Experiment Station (Ex. 2, p. 30-12); Blair J. Smith, Associate Professor of Agricultural Economics and Stephen Snyder, formerly Graduate Assistant in Agricultural Economics, Pennsylvania State University, September, 1978 article (Ex. 2, p. 30-19); (Ex. 2, p. 5).

per capita consumption of whole milk was 83 quarts, 5.2 quarts more than the U.S. average. Zurborg similarly indicates increased sales have been part of the MVPA experience in a paper to the American Dairy Science Association, presented at Michigan State University, East Lansing, July 10, 1978 (Ex. 2):

> We don't segregate our member milk for manufacturing so the increased solids has helped to improve the flavor of our bottled products, particularly the skimmed items. During the past few years, we have had sizable increases in our internally generated milk sales and we give credit to a better bottle of milk as being a part of this success. We all eat and drink foods because we like them. The soft drink people have proved this.

Undoubtedly, advertising of a higher quality product plays a major role in increased fluid sales, when you have a higher quality product to advertise. This combination is a major part of the California sales experience. It is also true on a smaller scale as Rodger Beck, the Director of Member Information for New York DHI reports (Ex. 2, p. 9). In 1976, three Wyoming County, New York dairymen pooled their milk in a single sale to Annis Dairy in Avon, New York, receiving the usual blend price and butterfat differential plus a premium of 6¢ for each one-tenth percent protein over 3.3%. They agreed to set aside their protein payments for an advertising fund until sales at the dairy increased by 25%. "The product was advertised in eight area penny-savers and on local radio. The result was a resounding success. Sales from May to October of 1976 increased 114%." As indicated earlier, MVPA pays a lesser protein differential for Grade A bottled milk, recognizing that the protein value there is less than in manufactured products. They testified, however, that on the average only 70% of Grade A milk is bottled and that therefore some recovery is possible on the remainder. They also testified, without contradiction, that overall incomes of dairy farmers will be improved in the long run by protein pricing because of the resulting improvement in the basic Minnesota-Wisconsin price.

21. That higher levels of protein in producer milk brings about higher yields of manufactured products. This is the increased return to processors which is not being equitably returned to the producers of high protein milk. Zurborg provides the best summary of the evidence:

> On hard cheeses, we feel that there is an average yield increase of 2 to 2½ pounds of finished product for each pound of protein in raw milk. With cheese averaging 90¢ a pound this would be 18¢ for each point (.1%). On nonfat dry milk, the yield increases about a pound for each pound of product in the raw milk. Since nonfat dry milk currently is supported at 62¢ a pound, this figures out at about 6.2¢ per point. On cottage cheese manufacturing, an extra pound of protein yields about 6 extra pounds of cottage cheese, and if we conservatively price it at 40¢ a pound, this equals 24¢ a point. Ice cream is about like nonfat dry milk, since its main source of protein is generally milk solids. . . .Much Grade A milk is diverted to cottage cheese manufacture, ice cream mix and other manufactured products. There is no reason that these products cannot carry a premium for Grade A producers.

Rodger Beck, Director of Member Information for New York DHI, provides the following table of increased yields and returns with regard to cheese

> Is below its minimum standards for fluid milk drinks (essentially 8.7% minimum SNF for whole milk, 9% for skim milk and 10% for low fat milk). Thus fortification of fluid products with added SNF is common in California.

He indicates that the reason for the decline in:

> . . .fortification is obvious. Milk processors simply have rejected paying the price of fortifying. A CCC purchase price of 73.75¢ a pound for non fat dry milk today compared to 23.35¢ per pound in 1970 tells us a lot very quickly about that situation.

Moreoever, there is evidence that much of the "fortification" is actually the addition of lactose or milk sugar. The editorial in Hoards Dairyman reports on a study by Kroger that:

> . . .analyzed 22 samples of fortified milk from 17 manufacturers and found "most of the one to two percent solids added is lactose." So the handlers were not adding nonfat solids to skim and 2% milk but the much cheaper lactose. Milk sugar is a fine ingredient of milk but it certainly does not contain the nutrition that is in nonfat solids.

The Kroger article introduced by the Department confirms this allegation and indicates that all of the "fortified" samples contained less than 4% protein, with a range of 3.15-3.95.

19. That the combination of consumer ignorance, taste decline, watering and quality decline are resulting in a steady decline in milk consumption and increased consumption of competitive products. A letter from dairy farmer, Russell J. Wirt, discusses this concern:

> I believe that if we allow the bottle of milk available to the consumer to continue to be lowered in solids, we are leaving the dairy industry more vulnerable to substitute products. Sometimes people only processing product are more interested in profit to the company, than how the product might gain or lose sales for the industry. If they can return as much profit from processing lower quality products or substitutes, this can be good business for them but not for dairymen.

Mr. Wirt's concern should be shared by the dairy industry and consumers alike as the record documents a steady decline in per capita consumption of milk while "soft drinks -- a major competitor for milk -- continue to grow. Nationally, in fact, soft drinks exceed the fluid milk products in per capita consumption." (Hoards Dairyman, February, 1977, p. 6; emphasis added).

20. That basing pricing partly on protein content will bring about long range improvement in the quality of dairy products, the income of dairy farmers and the profits of handlers of fluid products as well as manufactured products. An MVPA spokesman testified that there has been some increase in average protein levels in their herds in just five years of protein pricing. Kraft indicated that Idaho and Wisconsin have higher average protein content milk, two states where protein pricing is more widespread. Jacobsen indicates that per capita consumption of low fat-skim products in California was 45.3 quarts, 4.2 more than the U.S. average and

An editorial in Hoards Dairyman (August 25, 1972, Ex. 2, p. 30-15) summarizes a survey supervised by the Kansas Federal Order Administrator covering 73 handlers in 11 federal milk orders in nine states indicating that at some time during the month of February, 59% of the handlers put milk on the market which contained less than the legal minimum 3.25% butterfat content.

> *Milk received from farmers averaged 3.78% fat but retail whole milk was only 3.32% a reduction of 12%.
>
> *Some whole milk at retail tested as slow as 3% fat.
>
> *Samples of 2% milk averaged 1.9% but some samples were as low as 1%. . . .
>
> Looking back over the years and using other USDA data, we find that Minneapolis-packaged milk averaged 3.8% fat in 1940 and only 3.2% in 1971, a 14% decrease in butterfat content.
>
> As we review data available to us, it appears that handlers, nationwide, may be removing 200 million pounds of fat from the milk received from dairymen before placing the "whole" milk in the bottle or carton. This is equivalent to 250 million pounds of butter, almost as much as the government had to purchase in its costly price support operations last year. And it's enough butter to supply the average annual per capita consumption of 50 million people.

Handlers have also steadily and increasingly abandoned "fortification" or "standardization" of the quality of low fat milk by adding nonfat dry milk solids. Land O'Lakes testified that, "Sales of low fat milk with solids added have decreased from 74% of the total low fat milk sold in 1970 to 35% in 1977." The nutritional impact is discussed by Jacobsen:

> The nutritional superiority of fortified fluid milk drinks compared to plain fluid milk drinks is substantial. Isn't it a paradox that in this day of a national nutritional food policy we continue to permit some erosion of the nutritional composition of fluid milk products because of diluted standards?

Zurborg explains:

> While it is true that standardization with nonfat dry milk improves flavor, the fact is that most people in our area simply are not doing it. Competition is so keen in the fluid milk business that if you standardize and your competitor does not, you are rapidly undersold. With lower total solids and resulting watery flavor, our concern is that the consumer will be buying less fluid milk in the future, unless something is done to build more solids into the skim products. . . .The entire dairy industry has a lot at stake.

An exception to the decline in fortification is California which has higher minimum standards than the prevailing federal standards. Average producer milk is 8.67% solids not fat which:

showing at 4.7% water they would begin to deduct the price. . .you can add 100 pounds of water to a ton of milk. . . .Another competitor in our area has its water tolerance set at 5.1%.

A letter from another dairy farmer, Russell Wirt, alleges:

A number of co-ops if they are completely open, have problems with water added to milk. Mr. Richard Bonde who for years was a Grade A milk market expert for Land O'Lakes has told me that 20% of that co-op's milk had identifiable addition of water at that time.

18. That milk purchaser-handlers are further lowering the quality of the final product received by consumers, encouraged by low federal minimum solids standards and lax enforcement. The Equity in Milk Pricing Handbook alleges without contradiction that the New England Price Committee Regional Study found the following results:

March-April fluid milk samples from 23 plants found 78% (18 of 23) contained less than 8 grams of protein per 8-ounce serving. The present nutritional labeling law leads the consumer to believe that one-half pint of milk contains 8 grams of protein.

July-August samples from 15 plants revealed that all milks offered for sale in that period did not meet the 8 grams criterion. The average protein of all milks sampled was only 3.06% - less than 7.5 grams of protein per serving.

Yet in this same period, only one plant packaged milk testing less than 8.25% solids-not-fat. This abnormal ratio of total SNF to protein certainly is indicative of lactose fortification.

November-December samples from 18 plants found that 66% of the samples were below 8 grams of protein (3.28% protein) but the average protein was the highest of the study - 3.27%.

Over the study period, solids-not-fat ranged from 6.31% to 9.67% (8.25% legal minimum) with 9 samples below 8.25%.

Protein content ranged from 2.9% to 3.68%.

Butterfat ranged from 2.6% to 4.5% with 10 samples below legal minimums.

This study dramatically points out the extreme variations in quality of milk offered in the New England marketplace. These market tests reveal the sad story that the poorest tasting, least nutritious milk is sold in July and August when competition from carbonated and other similar beverages is at its keenest. (Emphasis original)

A study introduced by the Department (Manfred Kroger, American Dairy Review, 35(9): 18, September, 1973, "Milk Protein Determinations"; hereinafter "Kroger") confirms the New England results in testing 99 market milk samples from 33 sources in or near Pennsylvania:

The average protein of the milk reaching the consumer was 3.20%. It included one Golden Guernsey sample of 3.60% protein. Excluding this sample the range of the other 98 samples was 3.01-3.34%.

> sires over 500 pounds predicted difference, only 99 are fat test improvers, and of those over 1,000 pounds PD milk only 26 are break-even or better on fat test. . . .From the economic standpoint, high energy and labor costs and the strong demand for hard product make it appear foolhardy to produce milk that costs more to deliver and process and yields less hard product.

The study submitted by Professor Packard of the University of Minnesota cites a Missouri study in concluding, "As cows are bred for greater milk yield alone, percentage of components tend to decline."

The U.S. Department of Agriculture Program Analysis Report introduced by Kraft provides further confirmation:

> The present method of pricing encourages, feeding, breeding and management practices to increase volume. The wide spread shift to Holsteins and the accompanying upward trend in output per cow and downward trend in average butterfat content of milk produced is evidence that farmers have opted for volume rather than higher total solids content.

Testimony at the hearings further substantiated these conclusions, such as the testimony of a farmer in Caledonia that "everybody knows" that increased yield is the key to increased profits. (See further, Ex. 3, introduced by Kraft.) A Texas DHI (Dairy Herd Improvement) survey included in written comments shows that over 16 years the percent of butterfat in herds there steadily declined from 3.8% to 3.6%. There was a 4,108 pound increase in milk (a 45% increase), only 126 pounds of which is butterfat (only a 35% increase). The predominant increase has been water. A letter from Harold Woods, Dent, Minnesota, compares the present pricing mechanism to that for other farm commodities, "The present system of buying milk is the same as a grain elevator paying the same price per pound for corn that is 35% moisture as they do for corn that is 13% moisture."

The New England Nutritional Milk Pricing Committee studied the situation carefully and concluded:

> Fluid can be easily counterfeited. . . .Our present pricing scheme encourages farmers to feed, breed and call their herds for volume of milk production. Little incentive is given for fat production and no monetary differential is offered for other milk solids. . . .Water mixed in milk is worth about $5.50 to $6.00 per houndred pounds at present blend prices. Small additions of water are difficult to measures reliably.

The Equity in Milk Pricing Handbook submitted by proponents points out:

> This has encouraged watering of milk whether done illegally with the hose, or legally by breeding and feeding for the production of large volumes of low solids milk. For example, under this pricing system, 100 pounds of milk testing 4% fat would have a value of $10.35. If diluted to 3.5% either by the hose or by the cow it would become 114.28 pounds of milk worth $11.14. A payment system which encourages such a practice is not in the best interest of the dairy industry as a whole, and especially not good for the cheese industry.

A letter from dairy farmer, Gerald Bratland, indicates:

> The receiving plant (the largest co-op in Minnesota) I sold to over a year ago came out with a published sheet

table showing the value shift over the last 30 years concluding, "The consumer demands less fat and more solids not fat, but the producer pay basis has not responded." (Emphasis original)

16. That consumers prefer the taste of high solids milk and dislike the "watery" taste of lower solids milk. James E. Devero, Research Associated for the United Dairy Industry Association, presented a paper to the American Dairy Science Association Annual Meeting, July 28, 1972, reviewing 12 extensive studies on this subject. He concludes:

> Perhaps the most singular commonality coursing through the complete research is that additions of solids not fat improve the flavor and acceptability of beverage milks. As a corollary, additions of solids not fat are more easily detected than fat additions and solids not fat additions will have a greater influence on consumer acceptance than fat additions.

Reiteration of these unamimous studies in this Report is omitted in the interest of brevity, but the fact has been unequivocally established. (See further, Ex. 2, pp. 6-7 and 30-19.) Gaunt (introduced by the Department) indicates that, "Beverage milk seems to be most palatable at about 9.5% solids not fat."

17. That the present pricing system has encouraged the steadily increasing legal and illegal watering of milk by producers. Zurborg indicates:

> There has been a definite downward trend in the amount of solids in our raw milk over the past 30 years. Most of our farmers have been breeding for volume, with no respect for the solids not fat portion. This has shown up very vividly in the "watery" and "chalky" taste that we can recognize in skim milk products through much of the country today.

Gaunt (introduced by the Department) confirms this trend:

> Over the years the emphasis on volume at the expense of solids in milk has encouraged producers to breed and select for volume without regard for solids content. A few farmers have even found that they can increase volume by adding a pail or two of water to each tank of milk and not get caught. Multiple component pricing will decrease or eliminate the incentive to water milk.

Mr. Thomas L. Lyon, General Manager of the Midwest Breeding Cooperative, Shawano, Wisconsin, in a speech to the Iowa State University in March of 1977 (Ex. 2, p. 16), confirms the affect of this breeding practice:

> For some time now, the dairy production industry has been pounds of milk oriented. Dairy production scientists generally subscribe to the concept that more pounds of milk produced is the most effective means of dairymen increasing their net income. . . .Observation would indicate that sire selection pressure has had some bearing upon changing the national butterfat average from 3.95% to 3.65% over the past quarter century.

He further indicates that the low butterfat differential paid in eastern states is "reflected in their having the lowest fat averages in the 55 federal marketing orders". In a special written comment for this proceeding, Mr. Lyon indicates that the pressure to breed for volume is continuing:

> The cattle breeding industry has responded. The most current USDA sire summary evaluation of 667 active Holstein AI sires shows 247 to have predicted difference levels exceeding 1,000 pounds milk. This compares to 20 in 1968. Of the current total of 606

> At present, milk contributes about 22% of the protein requirement in the average American's diet. Consumers are also buying more cheese, ice milks, low fat milks and yogurts than they did 10 years ago. It makes sense to price milk to the dairymen in a way that recognizes this interest in the solids-not-fat or protein components of milk.

A study introduced by the Department (Dr. Stanley N. Gaunt, Professor of Animal Science, University of Massachusetts; hereinafter "Gaunt") cites figures indicating that as of September, 1975, the amount of protein per dollar spent for milk was exceeded only by turkey and it was nearly three times the amount per dollar for pork and beef.

14. That consumers appear to have a very low level of knowledge of the relatively low fat content of milk. Jacobsen cites a study by the United States Department of Agriculture in 1970, which showed that:

> 1. Only 8% of the homemakers could tell you how much fat there was in whole milk;
>
> 2. Sixty-seven percent of the homemakers estimated that whole milk tested higher than 20% in milk fat;
>
> 3. As for low fat milk, 35% of the homemakers estimated that it was higher than 6% in milk fat.

Clearly, consumers are not generally aware that even whole milk is over 96% fat-free. Undoubtedly, this is part of the reason for the decline in per capita consumption of whole milk from the time of that study to now, from 214 pounds to 167 pounds.

15. That there has been a definite shift in consumer demand for milk products away from those with high butterfat content and toward those with higher relative protein content. This has caused a shift in the relative value of the components of milk from butterfat to protein. Maes (introduced by Land O'Lakes) indicates that as early as 1960, "There was a clear and well-publicized shift nationally in consumer interest toward lower fat dairy products." Gruebele (also introduced by Land O'Lakes, p. 11) indicates that consequently, "The market value of solids not fat has increased dramatically relative to fat." Gaunt (introduced by the Department) indicates that per capita milk consumption from 1942 to 1974 dropped from 736 pounds to 543 pounds (minus 28%), butter from 15.8 pounds to 4.3 (minus 73%), while cheese increased 6.4 to 18.8 pounds (plus 293%). Zurborg indicates that the commodity value of non-fat dry milk increased from 1950 at $.1225 to 1975 at $.62, a 508% increase. During the same period, butter commodity value increased only from .6169 to .8619, an increase of only 14%. He reports that skim milk fluid values on the Chicago market in June increased from $1.13 in 1964 to $6.53 in 1976, an increase of 577%; while fat during the same period increased only 4%. Gaunt confirms these MVPA figures indicating, "Ten years ago, fat accounted for two-thirds of the value of milk; today fat accounts for less than one-third of the value." Exhibit 3 (introduced by Kraft) confirms the shift in value from fat components to protein components, adding that, "Since the 1970 Agricultural Act, the dairy price support program no longer requires that butterfat be supported at between 75 and 90% of parity." The AMPI report on protein prices (June 15, 1978) sets forth a

"protein fund" made up of a given amount subtracted from the base price of all milk regardless of butterfat and protein test and an additional amount of butterfat differential withheld whenever a butterfat test exceeded a specified percentage, depending on the breed makeup of the herd.

A paper submitted by Land O'Lakes, "The California Experience in Component Pricing", (hereinafter "Gruebele") summarizes their experience:

> Because of the dramatic increase in milk production, California has become an important source of manufactured dairy products. The percent of total U.S. butter manufactured in California increased from 2.4% in 1960 to 15% in 1976. The percent of total U.S. nonfat dry milk powder milk production increased from 4% in 1960 to 17% in 1976, and the percent of total U.S. cheese manufactured in California increased from 1.2% in 1960 to 3.4% in 1976. California now has the second highest milk production in the country and dairy represents the state's most important agricultural product. . . .
>
> The component pricing system has been successful in California. Producers, processors and the Department of Food and Agriculture appear to be happy with component pricing. . . .For California, the component pricing program has met all of the critical conditions necessary for a successful policy. That is it is a program that is economically sound, administratively feasible and socially acceptable.

The California protein payment system is the most comprehensive. It is mandatory for all producers (instead of optional as in the herein proposed rules).

All of these "protein" pricing programs (like the one in these proposed rules) involve merely partial recognition of the value of protein as a component, instead of basing the payment solely on percentage of protein or even butterfat and protein. Even the California system for Class 1 (fluid products) assigns a value to the "fluid carrier, or water" (Gruebele, p. 2). The purpose behind this payment for water is unclear. Gruebele says it is to discourage "the use of imported Grade A powder in place of natural solids" where there is a large differential between the Class 1 SNF price and the Grade A powder price. Another paper introduced by Land O'Lakes ("Processor Views on the California Experience with Component Pricing for Fluid Milk", Larry Maes, Executive Director, Dairy Institute of California; hereinafter "Maes") says that it is "confusing at first glance" but the purpose is "to reflect two factors which are inherent in all Class 1 prices. These are: (1) premium for Class 1 usage as compared to lower usages; and (2) transportation differentials." Whatever the reason, paying for water or "fluid carrier" encourages feeding and breeding for volume. Gruebele indicates:

> Records at dairyman's cooperative creamery show that feeding and breeding for higher milk production under California's pricing system is more profitable than feeding and breeding for higher butterfat and solids-not-fat production per 100 pounds of milk. (P. 15)

13. That the protein content of milk is very important to the American consumer. The Wisconsin Extension Publication introduced by Kraft (Ex. 3) indicates that:

12. That since the early 1940's, there has also been an extensive and increasing recognition on the part of many purchasers of the importance of paying for milk partly on the basis of its protein content. Although no overall study on the extent and nature of protein pricing was presented, materials in the record indicate that there are a pervasive variety of protein pricing programs being used by purchasers. It is used in France, Canada and the Netherlands and in the United States in New York, California, Wisconsin, Iowa, Illinois, Missouri, Idaho, Vermont and South Dakota. The uncontradicted testimony is that such emphasis on protein is likely to continue and intensify:

> Already there are countries which specify protein levels when importing semen and some which attempt to specify protein levels when importing cattle. With the world interest in protein content of foods, it seems likely that protein assessment of milk will continue to be emphasized. (Exhibit 3, introduced by Kraft)

The MVPA representative testified that Minnesota is the only state where protein price recognition is illegal.

An Iowa State University Coop. Extension Publication (DYS-1526) describes the Netherlands' situation:

> In the Netherlands, protein testing began in the early 1960's and has increased over a time. By 1968, over 50% of the milk was paid for according to fat and protein contents, and a slight increase in the protein percentage was experienced. If more emphasis had been placed on protein premiums, greater progress could no doubt have been made.

The Cuba Cheese Company in New York pays on the basis of volume and protein with the normal butterfat differential. The protein differential is based in part upon the weekly wholesale price of cheddar cheese on the Green Bay Exchange. One New York producer reports that, "For March, 1978, we received nearly $1200 for our protein differential. That's a gross payment of nearly 75¢ a hundred." (Exhibit 2, p. 10)

MVPA testified that they began paying on the basis of protein in 1973. They started at that time with a premium of 3¢ per "point" (one-tenth of one percent) over 3.3% protein in Grade A milk and 6¢ per point in manufactured milk. The system as initially established had no deductions in price paid for any levels of protein below 3.3%. In October of 1977, they increased the premium to 4¢ per point over a lower base of 3.2% protein for Grade A milk and 9¢ per point for manufactured milk. In October of 1978, they increased the Grade A payment to 5¢ per point and manufactured milk payment to 10¢ per point. They also established at that time a deduction in price for milk below 2.9% protein. They estimate protein payments in 1978, of $400,000.

AMPI has a plant in Blair, Wisconsin which started experimenting with protein payments to 40 producers. The experience was successful and they brought on the other 700 producers. They immediately acquired 70 or 75 new producers. They pay on the basis of point increases over 3.2% protein and have no deductions for milk which comes in below 3.2%.

By last report, the Golden Guernsey Dairy Coop. of Wisconsin (Ex. 3) pays a differential for each point over 3.2% and the money comes from a

Cook and Professor of Dairy Science A. Bring, Exhibit 3, introduced by Kraft) This was during the period that butterfat was thought to be the sole valuable component of milk, a time when one farmer testified that skim milk was fed to the hogs and a person would be looked down on for drinking it.

11. That since the early 1940's, most purchasers have switched to paying for milk on the basis of a base price for volume with a differential for variation in butterfat content. It is important to note that "not all pricing schemes subtract the differential from the base price when the test is below the base level". (University of Wisconsin Bulletin, cited above, emphasis original) Operation of this pricing mechanism is described generally by Robert E. Jacobsen, Professor of Agricultural Economics at Ohio State University (hereinafter: "Jacobsen"):

> Consider this blend price example. A typical blend price this winter is about $11 per hundred weight and the fat differential is about 13.4¢. Given those two factors, the following facts become automatic:
>
> 1. Out of the $11 blend price, your 6.7 pounds of fat (average fat test) is worth $4.91 or $1.40 per pound.
>
> 2. The 96.5 pounds of skim is worth $6.09 or 6.31¢ per pound.
>
> 3. The fat is measured precisely and accounts for 44% of the milk's value. The 96.5 pounds of skim milk is also measured precisely and accounts for 56% of the milk's value.
>
> But consider that 96.5 pounds of skim. Its price ($6.09 or 6.3¢ per pound) is not affected by whether it carries 8 pounds or 9 pounds of SNF (nonfat solids); its price is not affected by whether it carries 3 or 4 pounds of protein.

The operation of this pricing mechanism from the perspective of the producer-farmer is summarized in an editorial in Hoards Dairyman (May 25, 1977) entitled, "High Price for Water". It provides the following chart of what income each cow would gross producing an equal amount of butterfat (600 pounds) at different percentages and total yields at an assumed price of $10 per hundred weight and 10¢ per point of butterfat differential:

Percent fat	Pounds milk	Price per cwt.	Gross income
6.0	10,000	$12.50	$1,250
5.5	10,909	12.00	1,309
5.0	12,000	11.50	1,380
4.5	13,333	11.00	1,467
4.0	15,000	10.50	1,575
3.5	17,143	10.00	1,714
3.0	20,000	9.50	1,900
2.5	24,000	9.00	2,160
2.0	30,000	8.50	2,550

The system obviously provides significant financial incentive to produce milk for its "volume" or water content regardless of its butterfat or protein content.

that we would have solids payment within a year. He said, "After all the truth will eventually prevail".

He was conveniently called to Chicago at the time of the hearing in Sauk Centre. (See, written comments received subsequent to hearing.)

In general, the opponents, presented very few facts or expert opinions. Their testimony in opposition to the proposed rules consisted mainly of questions and doubts, rather than hard evidence.

The producer-farmer-proponents of the proposed rules in contrast, presented detailed facts, studies, data and hard evidence on virtually all of the issues raised. Supporters included the Minnesota Farm Bureau Federation (a written comment from the president), the North Central Region of the Associated Milk Producers (a unanimous resolution of AMPI voting delegates), and the Farmers Union Milk Marketing Coop. (resolution). The testimony and written comments of individual dairy farmer producers was overwhelmingly in favor of protein pricing in general and the rules specifically.

Land O'Lakes attempts in its final written comments to dismiss this lack of producer opposition, by suggesting that the opponents were intimidated by the informal questioning of witnesses who consented to be questioned. A supporter of the rules, on the contrary, submitted written comments commending "the informal handling of the hearings that allowed discussion and questioning of witnesses" though he was too "gun-shy" to come forward at the hearing after Paul Christ of Land O'Lakes cross-examined the MVPA witness. Land O'Lakes is clearly using informality as an excuse for the nearly total lack of opposition among producers to more equitable pricing. There were undoubtedly both supporters and opponents who were intimidated by the strong clash of opinion on the proposed rules. There also were not very many producers on Land O'Lakes' side of the issue. (It should be noted that rules hearings are supposed to be informal, non-courtroom proceedings -- even though that makes some lawyers uncomfortable. The rules specifically provide for public questioning of consenting witnesses and witnesses were repeatedly reminded that they need not consent.)

9. It seems clear that the issue of whether protein pricing should be allowed on an optional basis was decided 14 years ago by the Legislature. It would be contrary to that legislative intent to defer adoption of testing rules altogether in an effort to stop such pricing, as was urged by purchaser-competitors of MVPA. Land O'Lakes raised just about every conceivable argument against protein pricing in general in this effort to circumvent the statute. Most of these arguments should really be directed to the Legislature in an effort to repeal the statute, rather than at implementing rules. Nonetheless, in the interests of a complete record, this report will discuss most of the significant arguments raised.

10. That from the 1880's until the early 1940's, farmers were paid for their milk on a straight butterfat basis. (University of Wisconsin Extension Bulletin ZA 7760814, Professors of Agricultural Economics R. Cropp and H.

license testers) of August, 1979, and extending it to the 100 member producers, the total loss will be fairly estimated at $90,000 to $100,000.

7. That the proposed rules which are the subject of this proceeding do not involve pricing of milk purely or even primarily on the basis of its protein content. The proceeding might more properly have been labeled "multiple component" pricing because the emphasis in the current pricing mechanism on returns for volume and butterfat content would be retained (as hereinafter further explained in a subsequent Finding). The proposed rule is, at best, a tiny step in the direction of more equitable pricing. It would leave such pricing optional with the purchasers of milk. All such purchasers expressed opposition to such pricing as proposed "at this time" except MVPA. Its 100 producer members appear to be the only farmers at this time who will be able to gain any advantage from these proposed rules.

8. That purchasers of milk testified in opposition to the proposed rules (except MVPA), led most vigorously by Land O'Lakes. Producers contended that purchasers were opposed to the rules because the prevailing pricing mechanism allows them to purchase high protein milk without returning the increased value to farmers:

> Nonfat solids value went up almost sixfold between 1965 and 1976, but the price differential per "point" to the dairymen stayed practically the same, because it reflected only the value of fat, which changed very little. Those who shipped milk with higher nonfat solids and protein did not get full credit for the added value of nonfat constituents in the higher fat test milk. (Exhibit 2, p. 5)

This purchaser opposition was criticized by the general manager of MVPA:

> Basically, if milk can be purchased with high protein without paying for it, why not? We recognize that our organization is different from many in that we are interested in trying to have equity for payment of milk from members rather than looking at the strict economics of the total dollar yield for the corporation. (Zurborg, Journal of Dairy Science, Vol. 61, No. 6, 1978, p. 803; hereinafter: "Zurborg")

While purchasers generally opposed these or any other rules allowing some protein payment "at this time," they have allegedly led at least some producers of high protein milk to believe such pricing is eminent. Mr. Herb Woods of Dent, Minnesota, wrote, for example:

> About three or four years ago, Charles Lyons, manager of Kraft Creamery at Melrose, Minnesota, made two trips to my farm trying to get me to switch my milk to Kraft.
>
> He told us how they wanted the high test milk for cheese and how they were expecting to go on a solids or protein basis of payment within a year. This sounded good to us with our five percent Jersey milk. We changed plants and at one time he told us how much more cheese (about 30 percent) they got from a vat of our milk than from the average milk.
>
> We have been working and waiting for the plan to go into effect.
>
> After a producer meeting the other day he told my brother and I that he would bet us a pint of brandy

(d) A Statement of the number of persons expected to attend the hearing and estimated length of the Agency's presentation.

2. That on December 11, 1978, a Notice of Hearing and a copy of the proposed rules were published at 3 State Register 1217.

3. That on January 31, 1979, the Department mailed the Notice of Hearing to all persons and associations who had registered their names with the Secretary of State for the purpose of receiving such notice.

4. That on February 1, 1979, the Department filed the following documents:

(a) The Order for Hearing and authorizing resolution.
(b) The Notice of Hearing as mailed.
(c) The Affidavit of Receipt of the Secretary of State's list.
(d) The Affidavit of Mailing the Notice to all persons on the Secretary of State's list.
(e) The Secretary of State's Certificate and list.
(f) The Statement of Need and Reasonableness.
(g) All materials received following a Notice of Intent to Solicit Outside Opinion published at 2 State Register 1908 (April 17, 1978).
(h) The names of Department personnel who will represent the Agency at the hearing together with the names of any other witnesses solicited by the Agency to appear on its behalf.

The documents were available for inspection at the Office of Hearing Examiners from the date of filing to the date of the hearing.

5. The record remained open through March 28, 1979, for the receipt of written comments and statements, the period having been extended by order of the Hearing Examiner to 20 calendar days following the hearing.

6. That this proceeding arises because of a need to implement an amendment to the milk pricing statute (Minn. Stat. Sec. 32.25) in 1965, which authorized basing payment to farmers on the nonfat solid or protein content of the milk. The amendment specifically required that the Department adopt testing rules before such payments would be allowed. No action was taken by the Department to adopt rules for 13 years. In the fall of 1977, the Mississippi Valley Milk Producers Association (hereinafter "MVPA") began paying approximately 100 of its member-dairy-farmers in Minnesota a graduated premium for their milk based on its protein content. The Department sought and obtained a court injunction stopping these payments from a judge on July 6, 1978, because of complaints from Land O'Lakes, Inc. and other competitors which the judge described as "large and politically powerful purchasers of milk from farmer-producers in Minnesota." The injunction and the delay necessitated in this rules proceeding has and will cost these Minnesota farmers significant amounts of money. The taxpayers of the state are also generally indirectly losing because of the lost taxes on this unrealized income. Leo Stoltz, with a herd of only 32 cows, calculated an annual loss in protein premiums of $914.97. Vernon Roble, with a herd of 34 to 37 cows, calculated a nine month loss of $881.41. Kenneth Tschumper, with 24 cows, indicates that his premium in March at the time of the hearings would have been $102.42. Other farmers produced similar consistent loss reports. Projected conservatively, over the time necessary to finally adopt these rules (and

STATE OF MINNESOTA
OFFICE OF HEARING EXAMINERS

FOR THE DEPARTMENT OF AGRICULTURE

In the Matter of the Proposed Adoption of Rules of the Department of Agriculture Governing the Purchase of Milk on the Basis of Protein.

REPORT OF HEARING EXAMINER

The above-entitled matter came duly on for hearing before Hearing Examiner Howard L. Kaibel, Jr., on March 6, 1979, at 7:30 p.m. in the Sauk Centre, Minnesota, City Hall. Additional hearings were conducted in Shakopee, Minnesota at the Scott County Courthouse at 7:30 p.m. on March 6, 1979; and at the Houston County Courthouse in Caledonia, Minnesota on March 8, 1979, commencing at 7:30 p.m.

Members of the Department of Agriculture (hereinafter "Department") panel included: Orlowe Osten of the Dairy Industries Division; Randall D. Young of the Planning Division; and Peder Hong, Special Assistant Attorney General. The hearings continued until all persons or representatives of interested persons or organizations desiring to be heard were heard. No transcript of the proceedings has been ordered or prepared, and this Report is consequently based on the notes of the Hearing Examiner.

Pursuant to Minn. Stat. Sec. 15.0412, subd. 4, this Report shall be available for review to all affected individuals upon request for at least five days.

Thereafter, the Department shall, if it proposes to adopt the rules as originally proposed or amended, submit a copy of the Order Adopting Rules, a copy of any additional agency findings, a copy of the rules as originally proposed, and a copy of the rules as adopted to the Chief Hearing Examiner for review pursuant to Minn. Stat. Sec. 15.052, subd. 4. The submission to the Chief Hearing Examiner shall precede review by the Attorney General. The Chief Hearing Examiner shall complete his review and submit his report to the Department on the issues of substantial changes in the rule and compliance with Minn. Stat. Sec. 15.0412 within ten calendar days. The Department will be responsible for filing the rules with the Attorney General and for notifying persons who have indicated that they wish to be notified of such filing.

Based upon all the records and proceedings herein, the Examiner makes the following:

FINDINGS OF FACT

1. That on November 22, 1978, the Department filed the following documents with the Chief Hearing Examiner:

(a) A copy of the proposed rules.
(b) The Order for Hearing proposed to be issued.
(c) The Notice of Hearing proposed to be issued.

① Capper-Volzstead Act

② Restraint of Trade
- Judge Kelley's Ruling Applies

③ Dissemination
- Other premium programs auth.?
- Lake Co. Lake, Lake Premium

④ No written approval for other than Babcock

⑤ Distortion of the market system

⑥ Calif. System

⑦ Rules Cheat Producers
- Test Suit cheat producers (Fed. Testy of Miss. Valley Marketing
→ States with poster pricing are left off
Producers in

⑧ Sherman Testimony
- Mr. Christ didn't testify at hearing either
-

reviewed the language of Minn. Stat. § 32.25 (1978) many times and does not find therein the obviousness of legislative intent which apparently Mssrs. Morris and Silver are able to find. If the Legislature had intended a "uniform adjustment," it could easily have said so. Because it did not so state, the Department is left with an ambiguity concerning the intention of the legislature and has elected to rely on the conclusions of the Office of Hearing Examiners on this question. See, Report of Hearing Examiner, Paragraph 35.

III. The record in this matter complies with statutory requirements.

Mssrs. Morris and Silver have complained indirectly that a transcript has not been available to review in these proceedings. The statutory requirement is: "If the agency, the chief hearing examiner or the attorney general request, the hearing examiner shall cause a transcript to be prepared of the hearing." Minn. Stat. § 15.0412, Subd. 4 (1978). It is the Department's understanding that neither Land O'Lakes nor Mid-America Dairymen has ever requested that a transcript be prepared. These parties were represented at all the hearings on these rules and are, accordingly, directly familiar with the details of the proceedings. The Department cannot prejudge how it would have reacted to a request for a transcript in these circumstances since no request was ever made.

IV. Payments pursuant to Minn. Stat. § 32.25 (1978).

You have stated your "initial impression" that nonfat solids may be used in pricing in two instances only, namely: (1) the pricing of skim milk and buttermilk; and (2) in conjunction with milk fat in the pricing of whole milk. The Department concurs with your impression that a pricing program relating to nonfat solids in whole milk must be conjoined with the standard butterfat method and not be substituted wholly in place of the former method and intends so to construe the rules.

PBH:po

cc: Duane R. Harves, Esq.
Marshall Whitlock
Melvin Goldberg
Ralph K. Morris, Esq.
Alan I. Silver, Esq.

Mssrs. Morris and Silver cannot take comfort in the circumstances under which the 1963 legislation was enacted. If the Legislature had intended that the lactometer test used in California for all solids-not-fat in 1962 be the designated test and that lactose and minerals necessarily be tested, it would not have given the Department discretion with respect to the manner and equipment of testing. It would have directly specified the lactometer test. Since it did not, the Legislature intended to give the Department of Agriculture discretion with respect to the manner and equipment and the components to be used in solids-not-fat testing.

Such flexibility is consistent with the underlying theory of administrative law. As the Minnesota Supreme Court stated in Welsand v. R.R. & Whse. Comm., 251 Minn. 508, 509, 88 N.W. 2d 834, ___ (1958):

> "In vesting regulatory power in an administrative agency, the legislature need not expressly delineate with particularity or exactness each and every phase of the power so conferred, but may, in order to give the administrative function reasonable flexibility, leave the exact scope of the rule-making power to reasonable implication and this includes an implied power to formulate necessary classifications and definitions within the designated area of regulation. One of the basic purposes of administrative regulation is to leave preciseness and detail of application to administrators who supposedly will bring an expert's familiarity to bear upon the problems under consideration." (Emphasis added).

In summary, the Department of Agriculture believes that the alternative being proposed is not only within its statutory authority, but is also the most reasonable and necessary among the alternatives open to the Department. The Department refers you to paragraph 29 of the Findings of Fact, Conclusions, and Order adopting rules in this regard.

II. The Department of Agriculture does not agree with the position that Minn. Stat. § 32.25 (1978) requires incremental payments and deductions analogous to the payment system for butterfat.

Minn. Stat. § 32.25 (1978) refers not to rules and regulations for the creation of a payment system, but rather simply to rules and regulations for testing of nonfat solids. The Department has carefully

The question by Mr. Murphy:

"Since that date, has the Department of Agriculture gotten around to promulgating those rules, those regulations, to your knowledge?"

"At that time..."

The Answer:

"At that time we wrote the bill, the Department indicated it was no valid test for protein. So, the bill was written in such a way it would not take effect until they had come out with a valid test for it. And that was, been 15 years ago. That's quite awhile to wait for those rules and regulations, I guess."

In summary, the second argument of the Department is based not on the discretion vested in the Department with respect to the manner and equipment for testing nonfat solids, but the discretion vested in the Department with respect to the phrase "nonfat solids." Essentially Mssrs. Morris and Silver are arguing that the term "nonfat solids" is unambiguous. The Department, based upon the court testimony of Mr. Shuman as read into the record in the rules hearing, is under the impression that the concept "nonfat solids" is ambiguous as intended by the 1963 Legislature and must be interpreted. See, generally, Minn. Stat. §§ 645.16 - .17 (1978). While Mssrs. Morris and Silver may argue that the words "nonfat solids" are not ambiguous, see Minn. Stat. § 645.16 (1978), the Department believes that those words "...in their application to an existing situation... [are not]... clear and free from all ambiguity..." Id. Accordingly, the words of the law are to be interpreted to ascertain the intention of the Legislature. Id.

Here, the Department urges that weight be given to the testimony of the bill's author with respect to the occasion and necessity for the law, the circumstances under which it was enacted, and the object to be attained. Mr. Shuman has testified that the alternative test was intended to be based on protein and that in 1963 there was no valid test for protein. The Department has found both that there is a valid test for protein at present and that the intent of the Legislature can be executed.

to be tested, the Department urges that the Legislature left the manner and equipment of testing and hence, the specific components to be tested, to be determined by the Department. If the contrary were true, the Legislature could have simply specified that the California method be adopted since that method, as Mr. Morris has stated, was in place prior to the enactment of Minn. Laws 1963, ch. 90. Here, the Department has determined protein testing to be the most accurate, least expensive practical alternative and specified manner and equipment accordingly.

The Department takes a related, but alternative, additional position in this matter as well. The alternative position is based upon agency discretion and is based upon the doctrine that the delegation of a greater power includes the lesser power. If the Department has authority to promulgate rules for the testing of all solids-not-fat in milk, it also has the power to promulgate rules for some solids-not-fat, namely in this case protein but not lactose and minerals. In point of fact, the Legislature in 1963 had little or no interest in lactose and minerals. At that time these components in milk had little or no economic value. The Legislature was concerned with protein.

At the Caledonia hearing on the proposed rules Gerald Bratland read from testimony given in court proceedings in which the Department of Agriculture obtained a temporary injunction restraining Mississippi Valley from using a protein bonus payment system and read the court testimony of Mr. Shuman, the author of Minn. Laws 1963, ch. 90 as follows:

> "What was your intent with your regard to alternative tests?"
>
> The Answer:
>
> "Can I give you just a little background. As a dairy farmer, 80 percent of the value at that time was in butterfat... the value of the milk. We saw the protein value of milk was becoming quite a bit more valuable so we wanted to provide a means whereby this value could be recognized and I think when you look at the value of milk today that protein value far outweighs the fat value. So, we at that time with the bill gave two alternatives to the state. One to test by the Babcock as the had been before solely based on fat. The other test to be based on protein as well to give that added value to the milk."

ADMIN 1000 (Rev. 1/78)
SF-00006-01

STATE OF MINNESOTA

DEPARTMENT ATTORNEY GENERAL

Office Memorandum

TO : Lee E. Sheehy, Esq.
Special Assistant
Attorney General
G-25 State Administration Bldg.

DATE: June 21, 1979

FROM : Peder B. Hong
Special Assistant
Attorney General

PHONE: 296-2856

SUBJECT: In the Matter of the Proposed Adoption of Rules of the Department of Agriculture Governing the Purchase of Milk on the Basis of Protein

The Department of Agriculture acknowledges receipt of your memorandum of June 14, 1979 and makes the following responses.

I. The Department of Agriculture has complied with the rulemaking authority set forth at Minn. Stat. § 32.25 (1978).

The Department of Agriculture disagrees with the strict interpretation of Minn. Stat. § 32.25 (1978) advanced by Attorneys Morris and Silver on behalf of their clients Land O'Lakes, Inc. and Mid-America Dairymen. Their interpretation appears to be that a complete testing of all nonfat solids is required. However, Minn. Stat. § 32.25, even strictly construed, provides that the test [for nonfat solids] "...shall be performed in the manner and with equipment prescribed by rules and regulations promulgated by the commissioner..." Minn. Stat. § 32.25, Subd. 1 (1978).

The Department believes that it has properly promulgated rules which prescribe the manner and the equipment by which nonfat solids shall be tested. Paragraph 29 of its Findings of Fact, Conclusions, and Order adopting rules points out that the Department of Agriculture considered alternative tests for testing nonfat solids. It has concluded that alternative tests are more expensive and less accurate than the protein test. It has also concluded that testing for protein is a better indicator of cheese yields than alternative tests. It has also found that lactose and mineral levels in milk are fairly constant as compared with protein levels. The Department believes that the testing of protein gives a fair picture of the solids-not-fat chemistry of milk. The Department believes that the Legislature intended to leave the "manner" and "equipment" to be used for testing nonfat solids within the discretion of the commissioner and did not make a per se legislative finding that the test to be implemented test protein, whey protein, lactose, and minerals in their entirety. In short, whereas Land O'Lakes and Mid-America Dairymen attempt to make the argument that the Legislature determined what components of milk were

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a protein basis shall be retained by the purchaser for a period of not less than one (1) year. All records relative to such tests and payments shall be available for inspection during normal working or other reasonable hours by persons authorized by the commissioner.

3 MCAR 1.13343 Licensed testers.

A. All persons engaged in the sampling and/or testing of whole milk to determine its value for payment to producers shall be licensed by the commissioner.

B. Any person desiring to secure such a license shall make application on forms provided by the commissioner. Before a license is issued, the commissioner shall determine that the applicant is competent and qualified to use such testing apparatus for determining protein content of whole milk and to make accurate tests with them.

C. Every license issued by the commissioner shall be for a period ending on the December 31 following issuance and shall not be transferrable.

D. The fee for each initial license shall be $15 and each renewal thereof shall be $6 and shall be paid to the commissioner before any license or renewal thereof is issued.

E. The commissioner shall suspend or cancel any license issued pursuant to these rules, after notice and hearing, found to be in violation of Minn. Stat. Sec. 32.25 or these rules.

2. Only testing equipment accurately calibrated as prescribed by the methods for calibration set forth in the above cited methods shall be used on conducting sample testing for protein content pursuant to these rules.

3. The commissioner may inspect and test any testing equipment with standardized solutions to determine their accuracy.

4. Frequency of sampling and testing.

a. When the calculation of protein content for payment for whole milk purchased pursuant to these rules is based on a one (1) month period of production, four (4) or more test results on random samples taken from different deliveries shall be used to compute the arithmetic average of those test samples.

5. Sample retention and handling. All samples collected and used for protein testing pursuant to these rules shall be held at temperatures of 32 degrees F to 40 degrees F until tested and shall be returned to that temperature within two (2) hours of the last test made on the sample. All samples shall be retained at the place of testing until 3:00 p.m. of the day following the last testing date of the sample.

C. Test records.

1. Purchasers shall provide producers with a statement of the protein content of the milk with or in each settlement statement.

2. If the purchaser disqualifies abnormal milk from purchase on a protein basis, When when whole milk is found to be abnormal pursuant to 3 MCAR 1.1188, the purchaser's records shall indicate the results of the confirmatory tests. Only confirmatory tests approved pursuant to 3 MCAR 1.1188 shall be used in determining the ineligibility of whole milk purchased on a protein basis.

3. All test records and results for protein content pursuant to these rules and the computation of payments to producers selling whole milk on

~~NOTE: 3 MCAR 1.1331 A. would read:~~

~~"... 3.5 pounds of milk fat and 3.0 to 3.2 pounds of protein per hundredweight.~~

~~B. The purchaser shall not discriminate in the buying of such milk pursuant to Minn. Stat. Sec. 32.11 and all producers selling to such purchaser shall be subject to the provisions of this rule.~~

3 MCAR 1.1333~~2~~ Testing Procedures.

A. Samples collection and handling. Samples to be used for the testing of protein content shall be collected and handled in the same manner as samples used for bacterial tests as prescribed in "Standard Methods for the Examination of Dairy Products", Thirteenth Edition, published by the American Public Health Association. The minimum size for a fresh milk sample shall be two ounces (0.0592 liter).

B. Sample testing.

1. Only the following methods, as prescribed by the ~~Official~~ Association of Official Analytical Chemists, shall be used in the testing of whole milk for protein content pursuant to these rules:

a. Kjeldahl, Method No. 1.049 and 16.036, total nitrogen;

b. Dye binding, Method No. 16.037, acid orange 12;

c. Pro-milk method for determination of protein in milk, amido ~~black~~ black 10B, Journal of the Official Methods of Analysis of the Association of Official Analytical Chemists (Vol. 58, No. 4), 1975;

d. Infra-red. Milk Analysis, Method No. 16.097 and 16.080, part 2 protein; or

e. Any other method of equal or greater accuracy approved by the ~~Official~~ Association of Official Analytical Chemists and approved by the commissioner.

2.--That when the milk fat test or the protein test of such whole milk varies from the aforementioned weights per hundredweight, a uniform adjustment in the declared purchase price shall be made for each one-tenth of one percent of milk fat or protein above or below the aforementioned weights;

ALTERNATIVE "2" FOR 3 MCAR 1.1332 A: *

A.--Any purchaser may base the price paid for such milk on both the milk fat and protein content of such milk, provided:

1.--The purchase price is determined by the declared purchase price for 100 pounds of whole milk calculated at 3.5 pounds of milk fat and 3.2 pounds of protein content per hundredweight;

2.--That price adjustments for milk fat shall be set pursuant to Minn. Stat. Sec. 32.25, subd. 1;

3.--That when the protein test of such whole milk varies from the 3.2 pounds per hundredweight, a uniform adjustment in the declared purchase price shall be made for each one-tenth of one percent of protein above 3.2 pounds per hundredweight;

ALTERNATIVE "3" FOR 3 MCAR 1.1332 A: *

A.--Any purchaser may base the price paid for such milk on both the milk fat and protein content of such milk, provided:

1.--The purchase price is determined by the declared purchase price of 100 pounds of whole milk calculated at 3.5 pounds of milk fat and 3.0 to 3.2 pounds of protein content per hundredweight;

2.--That when the milk fat test or the protein test of such whole milk varies from the aforementioned weights per hundredweight, a uniform adjustment in the declared purchase price shall be made for each one-tenth of one percent of milk fat or protein above or below the aforementioned weights;

RULES AS PROPOSED FOR ADOPTION IN FINAL FORM

PURCHASE OF MILK ON THE BASIS OF PROTEIN

CHAPTER 58

3 MCAR 1.1331 General.

A. Purpose and Authority. The rules contained herein are prescribed pursuant to Minn. Stat. Sec. 32.25 by the commissioner to provide an optional method for the purchasing of whole milk, the purchase price of which shall be calculated upon the basis of 100 pounds of whole milk at 3.5 pounds of milk fat. ~~and 3.2 pounds of protein per hundredweight.~~

B. Definitions. For purposes of these rules the following definitions and those in Minn. Stat. Sec. 32.01 shall apply:

1. "Producer" means any person who operates a dairy herd or herds producing milk commercially and whose milk is sold to, or received or handled by, a purchaser as defined in this rule.

2. "Purchaser" means any person purchasing whole milk from a producer and defined as a dairy plant in Minn. Stat. Sec. 32.01, subd. 6.

~~3 MCAR 1.1332 Criteria for Purchasing Milk on the Basis of Protein.~~

~~ALTERNATIVE "1" FOR 3 MCAR 1.1332 A:*~~

~~A. Any purchaser may base the price paid for such milk on both the milk fat and protein content of such milk, provided:~~

~~1. The purchase price is determined by the declared purchase price of 100 pounds of whole milk calculated at 3.5 pounds of milk fat and 3.2 pounds of protein content per hundredweight;~~

Schumann is also incorrect in his statement that the protein value of milk was becoming quite a bit more valuable in 1963. We have attached to this letter a copy of a portion of 1977 Dairy Producer Highlights, published by the National Milk Producers Federation. Page 26 contains a chart showing that CCC prices for nonfat dry milk were not substantially higher in 1963 than they had been in 1949. In fact, the price was lower in 1963 than it had been in 1951. The real recognition of the value of protein did not occur until the late 60's, after L. 1963, C. 90 was enacted, when the price of nonfat dry milk skyrocketed.

In short, not only is Mr. Schumann's testimony improper, his recollection appears to be in conflict with the statute. The Department is relying heavily upon a second-hand account of the out of context statement of a former legislator, who was not cross-examined by an adverse party, and whose testimony is at odds conflicts with the legislative history of the statute. The Department is using that statement to establish the intent of the entire legislature 15 years earlier.

Finally, the Department says that if the legislature in 1963 wanted to adopt nonfat solids as a pricing standard, rather than protein, it would have merely copied California and designated the lacometer as a method of testing, rather than delegating testing standards to the Commissioner. In fact, the record is clear that the lacometer was not capable of determinations as accurate as .1%. Thus, the legislature did not designate the lacometer as the method of testing, and did not expressly provide the .1% differential for solids-not-fat as it did with 3.5% milk-fat content under the more accurate Babcock test. The legislature left the Department of Agriculture discretion to come up with the manner and equipment for testing, but only of nonfat solids. The words of the legislature could not be more clear.

In summary, the Department of Agriculture has recognized that protein is merely one element of solids-not-fat, and that the two standards of measurement are not the same. In light of the legislature's clear statement that the commissioner is to promulgate rules and regulations for the testing of nonfat solids, it is evident that the Proposed Rule Governing the Purchase of Milk on the Basis of Protein, exceeds the statutory authority of the Commissioner of Agriculture, and is in conflict with Minn. Stat. §32.25. Therefore, we again urge the Attorney General to disapprove the proposed rule or in the alternative, order further hearings to consider pricing based on all components of solids-not-fat.

Respectfully submitted,

DOHERTY, RUMBLE & BUTLER

Ralph K. Morris

Alan I. Silver

RKM/AIS/cre

cc: Peder Hong, Esq.

Reliance upon Mr. Schumann's testimony is also improper since he did not testify at any of the administrative hearings. His testimony was read into the record by Mr. Bratland, a farmer who supported protein pricing. We do not know if Mr. Schumann's testimony is accurate, or whether it was read out of context. Of course, Mr. Schumann was not subject to cross-examination at the hearing at Caledonia, since he was not present. During his testimony as part of the court proceedings, he was subject to cross-examination only by the Department of Agriculture, the same party which is now relying upon his testimony to support its rule on protein pricing. In addition, Schumann was testifying on a different issue during the Court proceedings. The case did not involve the question of whether the term "nonfat solids" in Minn. Stat. §32.25 really meant protein. Schumann was never asked this question, and thus his reference to protein should not be used to support the argument that the legislature meant protein when it enacted Minn. Stat. §32.25.

Finally, the force of Schumann's testimony is negated by the fact that it conflicts with the legislative history of Minn. Stat. §32.25. He states that "we saw the protein value of milk was becoming quite a bit more valuable so we wanted to provide a means whereby this value could be recognized . . ." This testimony implies that milk-fat was the only available standard of payment prior to 1963, and that L. 1963, C. 90 was passed as a result of growing recognition of the value of protein. However, it is clear that the statute prior to 1963 allowed payment on the basis of nonfat solids. The relevant portion of the Statute as it read prior to 1963 was as follows:

> [I]n purchasing whole milk from which the milk-fat or cream is to be separated and the skimmed milk sold or processed separately, . . . the purchaser of such whole milk may pay for same on the basis of the fat and the non-fat solids contained therein.

The inclusion of nonfat solids as an alternative basis for payment was first added to the law in 1945, as part of L. 1945, C. 164. (The legislative history is explained in 32 Minn. L. Rev. 366, 368 (1948).) Obviously, the legislature in 1945 did not recognize the value of protein, and did not have protein in mind when using the term "nonfat solids". (See Commissioner's Findings of Fact, paragraph 9, where he states that through the early 1940's skim milk had little value and was sometimes fed to the hogs.) The 1963 amendment co-authored by Schumann merely continued use of the term "nonfat solids", although restricting its use as a basis for payment until promulgation of tests by the Commissioner. The amendment did not, as testified by Schumann, allow nonfat solids pricing for the first time. If the legislature had wanted to change the meaning of "nonfat solids" to protein in 1963, it would have done so.

The judicial reluctance to rely upon legislative history, other than records of the legislative process itself, is well-illustrated by the case of Starkweather v. Blair, 245 Minn. 371, 71 N.W. 2nd, 869, (1955). In that case, the plaintiff had been an employee of the Division of Game and Fish of the Minnesota Department of Conservation until his position was eliminated by the 1953 legislature's failure to appropriate funds. The plaintiff challenged the elimination of his position as an unconstitutional bill of attainder, directed at him personally as a result of hostility on the part of members of the Minnesota State Senate. The plaintiff introduced testimony concerning the motive of the legislature in eliminating his position. However, the Minnesota Supreme Court held that this was improper:

> "We have frequently held that the motives of the legislative body in enacting any particular legislation are not the proper subject of judicial inquiry. It must be kept in mind that there is an obvious difference between examining the journals of the legislature in seeking to determine legislative intent, i.e., what the legislature intended by the language they had used, and in seeking to determine the motives of the legislature in passing an act. As long as the legislature does not transcend the limitations placed upon it by the constitution, its motives in passing legislation are not the subject matter of proper judicial inquiry. . . .
>
> In our legislature there is no record of debates or other action taken, either in committee or otherwise, except such as are reported in the journals of the House and Senate. Laws would rest on an insecure foundation if courts were to seek to determine motives of individual members of the legislature in passing laws by resort to extraneous evidence which was not part of the journal entry." 71 N.W. 2nd at 876. (emphasis added)

Since the time of the Starkweather case, the legislature has instituted a procedure for tape recording debates of committees and of legislative hearings. However, the taping system was not in effect in 1963, and thus there is no way to find an official record of the legislative history of the L. 1963, C. 90. Reliance upon the testimony of Mr. Schumann given in 1978 as part of a judicial proceeding is exactly the procedure condemned by the Minnesota Supreme Court in Starkweather.

> When the words of a law in an application to an existing situation are clear and free from all ambiguity, the letter of the law shall not be disregarded under the pretext of pursuing the spirit."

Here both the letter of the law and its spirit would indicate that the legislature meant exactly what it said - that pricing may be based upon nonfat solids "after the commissioner has promulgated, as provided in this subdivision, rules and regulations for the testing of nonfat solids."

As an alternative to the above argument, the Department takes the position that the delegation of a greater power includes the lesser. However, in talking about a protein standard as opposed as to a solids-not-fat standard, we are talking about a different standard, not one which is greater or lesser. The Department apparently admits that protein and solids-not-fat are different. The Memorandum response of the Department does not dispute our contention that the two measurements are different. Moreover, further evidence of this is that the commissioner's Findings of Fact, paragraph 29, is virtually identical to the examiner's paragraph 34, except that the commissioner has dropped the statement that "the distinction between protein and total nonfat solids is a distinction without a difference". Obviously, the commissioner recognized that there is a difference, and the statutory authority to promulgate rules with respect to one standard does not constitute authority to promulgate rules with respect to another standard.

The Department relies heavily upon the purported statement of "Mr. Schumann", one of the legislative sponsors of L. 1963, C. 90. This statement was read into the record by Gerald Bratland at the Caledonia hearing. However, we believe that reliance upon the statement is improper. First, under Minn. Stat. §645.16, as cited above, legislative intent is unimportant. The term "nonfat solids" is clear and unambiguous, and there is no reason to go beyond the plain words of the statute. Even if the term "nonfat solids" is considered to be unclear, the reliance upon Mr. Schumann's statement to clear up the ambiguity is improper. The Minnesota Supreme Court has held on numerous occasions that the opinion of an individual legislator should not be considered in construing a statute. Dunnell states the rule as follows: "In determining the intention of the legislature, the intention or motives of individual members cannot be considered." 17B Dun. Dig. (3rd Ed.) §8941 (1970). Obviously, relying upon individual legislators to interpret the meaning of bills passed while they were in the legislature would create great confusion, and would really not give an accurate view of the many conflicting motives which might have influenced the vote on a particular law. There were eight legislative sponsors of L. 1963, C. 90, and they probably would have eight different recollections of the purpose and meaning of the law. In fact, we have contacted an author of the bill in the Senate whose recollection is entirely different from that of Mr. Schumann.

Notice of the proposed rule as published in 3 State Register 1217 (December 11, 1978), referred to Proposed Rules Governing the Purchase of Milk on the Basis of Protein. Indeed, the affidavit of Paul Christ, which is enclosed along with this letter, indicates that when Mr. Christ attempted to raise the issue of solids-not-fat pricing at one of the hearings, he was told by the Hearing Examiner that this was outside of the scope of the hearing, which was limited to protein pricing. The statement in paragraph 29 of the findings of fact of the Commissioner was included only as a result of Land O'Lakes' submission of evidence following the hearings, indicating that solids-not-fat pricing would be preferable to a protein standard. This paragraph was included by the Hearing Examiner and the Department in order to justify their departure from the clear mandate of the legislature. The fact is that the Hearing Examiner and the Department never really considered solids-not-fat pricing. The Department's current position that it considered alternative tests, is really just a belated attempt to "save" the Department's proposed rule which is limited solely to protein.

The record is clear that solids-not-fat and protein are different measurements. The California legislature had promulgated solids-not-fat rules in 1962, the year before the Minnesota legislature enacted L. 1963, C. 90. California has used the solids-not-fat measure as a standard for 16 years, rather than protein. There is no reason to think that the Minnesota legislature meant protein, when it used the term "nonfat solids". Minn. Stat. §32.25 also uses the identical term "nonfat solids" in setting a basis for payment for skim milk and buttermilk. Surely the Department does not contend that the legislature intended that skim milk be purchased on the basis of protein. The industry has in accordance with the statute, traditionally paid for skim milk on the basis of all nonfat solid components. It would have made no sense for the legislature to use nonfat solids to mean protein when applied to whole milk, but to mean all nonfat solids when applied to skim milk. Identical words in a statute should be given the same meaning.

There is nothing ambiguous in the term "nonfat solids" as suggested by the Department. Under Minnesota Stat. §645.16, the Attorney General is not free to ignore the distinction between protein and nonfat solids. This Statute, in relevant part, reads as follows:

> "The object of all interpretation and construction of laws is to ascertain and effectuate the intention of the legislature. Every law shall be construed, if possible, to give effect to all its provisions.

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July 2, 1979

Mr. Lee Sheehy
Office of Attorney General
G-25 Administration Building
St. Paul, Minnesota 55155

Dear Mr. Sheehy:

We have had the opportunity to review the memorandum of the Department of Agriculture submitted June 21, 1979 with respect to protein pricing. We, again, wish to reaffirm our opposition to the proposed rule of the Department, and urge the Attorney General to disapprove the rule since it exceeds the statutory authority of the Commissioner of Agriculture and is in conflict with the Minn. Stat. §32.25.

The Department of Agriculture apparently recognizes that its only authority under Minn. Stat. §32.25 is to promulgate rules prescribing the manner and equipment for testing of nonfat solids. However, the Department takes the position that a rule allowing measurement only of protein, somehow comes within the statutory scheme prescribing measurement of nonfat solids. In view of the lengthy hearings devoted solely to protein as a basis of measurement, we view the Department's memorandum as a mere belated attempt to fit protein pricing into the statutory scheme.

The June 21 memorandum states that "the Department of Agriculture considered alternative tests for testing nonfat solids". The Department seems to imply that the three rules hearings which were held were devoted to the issue of solids-not-fat testing. The fact is that only protein testing was considered at the hearings. Much of the confusion results from the Hearing Examiner making an assumption, later apparently considered to be erroneous even by the Department, that protein tests are the same as nonfat solids measurement.

29. That protein pricing will also cause the industry to reduce wasted solids and sewer and environmental costs. Gruebele (introduced by Land O'Lakes, p. 11) indicates that this has been the experience in California:

> Dairyman's Cooperative Creamery has implemented a number of programs to curb losses in solids, including salvaging the first rinse in cleaning plant equipment, saving the fines in the cottage cheese operation, changing the drying equipment and several other steps to conserve plant losses. These programs also help to reduce the BOD in the sewage system and in our case reduces the cost of waste treatment.

30. That the present pricing system is inequitable and that partial payment on the basis of protein content would be more equitable. The testimony of Land O'Lakes avoids this issue, but an article they introduced (Maes, p. 14) indicates that "component pricing does have merits in terms of improved equity between buyers and development of more uniformly consistent composition of fluid milk products". A Land O'Lakes advertisement for milk replacers submitted by Gerald Bratland asks the question, "Want the protein and quality you pay for?" The producers testifying in these hearings overwhelmingly replied with the paraphrase. They want to be paid for the protein and quality they provide to Land O'Lakes and must pay for in the products they buy from Land O'Lakes. Kraft specifically agreed that the present pricing system is inequitable in response to producers' questioning. Both Land O'Lakes and Kraft, however, argued strongly for "equity" in objecting to the pricing alternative favored by MVPA and most producers, which would allow roughly 15% of producers some time to improve the protein content of their herds. Land O'Lakes argued, "Producers of average testing milk will be subsidizing producers of low testing milk. There is no equity in such a plan." Kraft argued in final comments, "Kraft also objects to this proposal because it is not equitable to all producers."

31. That the costs of testing will be minor and not prohibitive. Land O'Lakes merely raised the question of whether costs might harm or discriminate against some purchasers, without providing data. They indicated only, "We do not have reliable cost estimates at this time. We do know that the costs for testing milk for protein content is much greater than for testing butterfat." The testimony is contradicted by an earlier article by Paul Christ in the company newsletter, the "Land O'Lakes Mirror" of April, 1978: "Machines are available that will measure the protein content of milk quickly and at low cost." Mr. Christ's contradictory analysis is corroborated by J. W. Sherbon of the Department of Food Science at Cornell University. ("Recent Developments in Determining Protein Content of Dairy Products by Dye Binding", 1978 Journal of Dairy Science 61: 1274, introduced by the Department) "The procedure is fast, precise, and costs no more than the Babcock test." (The Babcock test is the standard test for butterfat which Land O'Lakes testified with certainty was considerably less than the cost of protein testing.)

Kroger (introduced by the Department) indicates that the Association of Cooperative Dairies in Zutphen, Holland has been protein testing more than 20 years, both for milk pricing and as a guide for breeding. In 1966, they

processed three million producers' samples at an all-inclusive cost per test of about 3.5¢. The lab was staffed by one supervisor, two technicians and 12 girls who worked 235 days during the year." Maes indicated that California tests for fat and solids not fat on a daily basis, and another source indicates that the "costs of testing for both nonfat solids and butterfat in California are only about 14% higher than for butterfat testing alone." (Ex. 2, p. 7) A New York DHIC protein testing program was initiated in 1977. 12.7% of the members have enrolled at 3¢ a cow per month. (Ex. 2, p. 8) An Ohio Ag-Services Newsletter was introduced announcing purchase of a Milko Scan testing machine with optional testing at 4¢ per cow. The following detailed cost breakdown of various alternatives was presented in the Report of the New England Nutritional Milk Pricing Committee (Ex. 2, p. 25). The figures have not been contradicted nor questioned:

TESTS FOR MILK PROTEIN

	MK-II [a] Pro-Milk	UDY	PMA [a]	IRMA [b]	ULTRASON [c]
Purchase Price	$2,925	$800	$31,500	$50,000	$10,000
Tests/Hour	50	20	160	150	20
Sample Size	2cc	2cc	2cc	15cc	30cc
Annual Repair & Maintenance	$58.50	$16	$630	$ 2,500	$ 200
Per Sample					
Capitalization (5 years)	.006	.004	.019	.032	.048
Labor @ $2.50/hr.	.050	.125	.016	.017	.125
Supervision $3,600/yr. 30% of $12,000	.035	.087	.011	.051 [d]	.087
Maintenance & Repair	.001	--	.002	.008	.005
	.092	.216	.048	.108	.265

a - Fully approved tests.

b - Infrared Milk Analyzer--measures fat, protein.

c - Utilizes sound transmission to analyze solutions.

d - Full-time supervision at $16,000/yr.

32. That the methods for protein testing contained in the proposed rule are sufficiently accurate to allow fair, nondiscriminatory payment to producers. Several persons questioned the accuracy of the testing procedures and devices, but no one had any evidence or expert opinion critical of the determination of the official Association of Analytical Chemists that the proposed methods were accurate. Land O'Lakes conceded that, "The repeatability of the individual testing methods is quite respectable." But the "information we have seen" regarding the comparison of the different methods "leaves much to be desired". They attempted to contrast these proposed

tests with the Babcock test for butterfat, "The Babcock test is a widely used inexpensive test that is ably conducted by many individuals and organizations." All of the evidence herein suggests that the same statement can be made about the proposed protein tests. The only information on this record of differences in a comparison of the different methods is the study compiled by Professor Packard of the University of Minnesota. This indicates that the differences in measurements between protein equipment tests was .024 to .033, considerably less than the differences in fat tests of .05. Kroger reports that the Scottish Milk Marketing Board Central Testing Laboratory has a Pro Milk Automatic system coupled with an IBM computer system measuring 1,000 samples per eight-hour day for both protein and fat. "Results indicate good accuracy for the unit with a standard deviation of plus or minus 0.06% for fat and plus or minus 0.04% for protein. This and other uncontradicted evidence in the record establishes that the proposed protein tests are at least as accurate and generally more accurate than the Babcock butterfat test. Some persons at the hearing misquoted Professor Packard, suggesting that he doubted the accuracy of the proposed methods. He states explicitly in "Methods for Determining Protein Content in Milk", an unpublished outline prepared for these hearings and submitted by the Department, that "dye binding and infrared methods are accurate enough". The only other proposed method is the Kjeldahl which is the "reference standard" or calibration method for the methods which he feels are accurate enough. It should also be noted that those are the only methods which will be used as a practical matter for testing for payment, because the Kjeldahl test is too expensive and time-consuming. The Gaunt study (introduced by the Department) corroborates Professor Packard's conclusion, "The protein percentages in milk can be determined quite accurately by approved methods." Maes (introduced by Land O'Lakes) indicates:

> Since the California program is now in its seventeenth year, I think it reasonable to assume that the technical feasibility of component pricing is demonstrated. (P. 1)

He further indicates that since 1962, California has had "acceptable" testing procedures for measuring solids not fat including the less accurate lactometric method (not included in these proposed rules). The "allowed tolerances for lactometer testing are plus or minus 2%". The Packard study found maximum differences (where the equipment was only calibrated at a single protein level) of .18%, which is less than one-half the allowed tolerances in California. The Packard study points out that:

> Laboratory differences in the data we collected were not so much descriptive of the precision of the Pro Milk unit as the difference in calibration of the unit in each of the laboratories involved.

The collaborative study in the Journal of the AOAC proposed for incorporation by reference in the rule stresses the importance of this laboratory calibration factor:

> Several of the laboratories had recently completed a recalibration of their instruments and had exchanged samples in the process. When the milk data from just

> these laboratories were considered, the effect of laboratory lost its significance, leaving only the sample and interaction affects significant at the 0.005 level.

The study further concludes that the Pro Milk system "is capable of very high precision".

Professor Packard further indicates that, "An important cause of lack of agreement between the laboratories may lie in the imprecision of the reference test--the Kjeldahl method." This imprecision is stressed by the other experts in the field whose testimony suggests that this could be the entire explanation for the differences noted between methods. John W. Sherbon, Associate Professor of Food Science at Cornell University, in an article entitled, "Does Protein Testing Give Accurate Results?", submitted by the Department, corroborates Professor Packard:

> A major reason the Kjeldahl test is so expensive is that it is not very precise, so it must be repeated two or three times on every sample in order to have a result that can be trusted. Even with replication, the best you can hope for is results that do not differ one from the other by three to five percent.

Kroger (introduced by the Department) further explains the difficulty of calibration to Kjeldahl:

> The Kjeldahl method, also, is an estimate, since it measures protein only indirectly. In fact milk protein content by the Kjeldahl method is defined at 6.38 times the amount of the element nitrogen in the milk sample. This conversion factor varies with the composition of the milk (6.37-6.40). The factor of 6.38 corresponds to an average of 15.65% nitrogen in milk protein. Furthermore, nitrogen containing substances in the milk (about 5% of total N), . . . are all included in the Kjeldahl analysis for nitrogen, although they are not considered proteinaceous at all.

Professor Packard finally stresses that the equipment was calibrated to a single level of protein, 3.2% and that calibrating over a wider range would reduce differences. At the level calibrated, the difference was only .05% which is 80 times more accurate than the California allowed tolerances. Packard cites another study on differences in fat testing of .091% (nearly double the .05 reported for protein at the level where the machines were calibrated which he calls "negligible". Sherbon (introduced by the Department) stresses that:

> Any calibration of the dye-binding test is applicable only to the type of samples and procedures used for calibration and only with a specified range of protein contents. Without attention to such details, it is difficult to achieve good interlaboratory comparisons. . . .As long as we use any form of the Kjeldahl test as the primary reference procedure, the need for calibration and explanations of deviations will continue. I have heard some say that dye binding eventually will become the primary reference for the Kjeldahl and other procedures.

The evidence is unequivocal that the dye binding and infrared methods proposed herein are sufficiently accurate for their intended purposes. Professor Packard indicates that the infrared method is utilized in California to test 60 to 70% of all Grade A milk. Gruebele (introduced by Land

O'Lakes, p. 12) indicates that California uses other tests (not included in the proposed rule) to test protein in addition to the infrared method. "Some of the producer leaders feel that the tolerances for solid not fat tests should be tightened. It would be easy to do were all the milk tested with the IRMA" (infrared method), but some firms use less accurate tests. Professor Packard further cites a Penn State study as indicating that, "Netherlands have used dye binding since 1958." Sherbon (introduced by the Department) indicates specifically that the dye binding method measures "with a much better precision agreement, with one percent for repeated tests". Some hearing participants pressed for further research on the accuracy of these methods. As the paper by Kroger notes--further research will undoubtedly generate the need for additional research, "There is no end to research. As you experiment and study, new questions and problems are constantly encountered."

33. That the frequency of testing in the proposed rules is more than adequate to assure the accuracy for purposes of pricing. The Statement of Need for the rules cites a Ginn and Packard 1969 Study showing that four random samples for butterfat were comparable to testing every sample. This was uncontradicted, but it is important to note that this evidence only establishes that a maximum of four samples is needed and reasonable with regard to butterfat testing. As indicated earlier in this Report, the butterfat test tends to be less accurate than the protein test, and consequently, fewer maximum samplings might be a sufficient frequency with regard to the protein test. It is important, as the Statement of Need indicates, to minimize "time-consuming and costly" testing. A more recent study by Gaunt (introduced by the Department) of 4,077 bulk samples in 38 herds showed that testing for protein every two weeks (twice a month) is sufficient to keep the standard of error within plus or minus 0.1%. The New England Nutritional Milk Pricing Committee Report (Ex. 2, p. 21) reviewed this study and other more recent data in concluding:

> Work at the Universities of Massachusetts, Delaware and Idaho indicate that the correlation between monthly and bimonthly testing for protein and solids not fat lactation records was very high (around .96). This strongly suggests that bimonthly testing for protein and solids not fat is of sufficient accuracy for routine testing of cows for lactations.

It is important that the Department review this evidence and consider revising the proposed frequency to require only two tests per month, either in final adoption of this rule or in a future amendment. Such a revision would cut the costs of testing in half. Those costs were a major concern of producers and purchasers alike.

34. That protein testing is an adequate and proper measure of the solids not fat content of milk and that the rules should not be changed to measure total solids not fat as opposed to protein. Land O'Lakes and others urged stongly that the rules be revised to measure solids not fat instead of protein. The uncontradicted evidence in the record is that roughly 95% of the solids not fat content is the protein and that it is

the only component subject to significant variation. In other words, the distinction between protein and total nonfat solids is a distinction without a difference. As Zurborg points out:

> The basic components in milk are fat, protein, lactose, and minerals. The fat and protein are variables with fat ranging from 2.8% to 5.5% and protein in the area of 2.5% to 4.5%. Lactose and minerals are generally constant at 5% and .7%.

This is confirmed by Gaunt (introduced by the Department) who indicates that "lactose and mineral levels are fairly constant" and that protein percentages are consequently "quite indicative of the solids not fat (SNF) percentage in milk". The University of Wisconsin Bulletin (Ex. 3, introduced by Kraft) also confirms that:

> Protein and fat are the most important variable components of milk. The other two basic components are lactose, which remains relatively constant at about 5% and the minerals at 0.7%.

The only place where solids not fat measurement is utilized instead of protein is California. Maes (introduced by Land O'Lakes) explains that total solids not fat measurement was adopted in 1962, because, "The most available and acceptable procedure was the lactometric method for measuring total solids not fat (for this reason protein payment was not considered)." (P. 9) He goes on to indicate that the tolerances necessitated by testing for total solids not fat are the only matter of major controvery remaining in California because the lactometer only measures with plus or minus .2%. The New England Nutritional Milk Pricing Committee summarizes the reasons for rejecting testing of total nonfat solids:

> At present, reliable tests for total nonfat solids are very expensive. Inexpensive tests are generally unreliable in field type situations.
>
> Nonfat solids levels are not as good as indicator of cheese yields as protein levels. Furthermore, protein tests are less expensive and automated testing procedures have proven reliable. More and more milk is going into cheese--including the New England markets. It would seem unwise to link up with a test procedure that has inherent weaknesses from the outset. . . .
>
> A fourth potential problem with this measure is that inexpensive milk solids (whey) can be purchased and added to milk and sold as the higher valued nonfat solids. Relatively large amounts of whey solids can be added without detection with standard measures of total solids.

Smith and Snyder (Ex. 2, p. 30-19) confirmed that, "Laboratory tests for protein are both more accurate and less expensive than those for solids not fat." It is difficult to comprehend why producers who are so concerned about the costs and accuracy of testing are in favor of a solids not fat testing plan which would be more expensive and less accurate. The problem of "cheating" under a total SNF testing program appears to be real. The representative from Kraft testified, "According to a survey of the Whey Products Institute, dry whey used by dairies equals about 60% of their use

of nonfat dry milk." Dr. R. C. Laben (cited earlier) agrees with the New England Committee and the evidence generally in this record in concluding, "Payment and breeding for solids not fat could lead to future inequities akin to some of the present ones. . . .It seems more advisable to plan to test and select directly for the solids not fat component of the highest economic and nutritional value."

35. That neither the Department nor any of the hearing participants have introduced documentation showing the need for, reasonableness of or statutory authority for any of the alternative provisions for regulating methods of protein pricing at this time. The only statutory authority cited for adoption of the rules is Minn. Stat. Sec. 32.25. That statute only provides for "rules and regulations for the testing of nonfat solids." (Emphasis added) The next sentence of the statute provides that the "uniform adjustment in the declared purchase price shall be made for each one-tenth of one percent of milk fat above or below 3.5%." There is no similar requirement for uniform adjustments or other regulation of protein pricing. If the Legislature wanted to regulate protein pricing, it could have and can still. If some problem occurs or if experience shows that strict rules would enhance protein production, the Legislature can do so in the future or can delegate the authority to the Commissioner. No state has evidently yet chosen to regulate protein pricing methods other than California and no abuses or problems have been experienced with allowing purchasers to experiment and adjust their protein pricing to the realities of the marketplace. The only other attempt at government dictation of protein pricing measures cited in the record is the Wisconsin "guidelines" requiring graduated uniform "point" premiums and deducts above and below a level of 3.2% protein. Wisconsin officials have not attempted to give these "guidelines" the force and effect of law by promulgating them as rules and they have consequently been uniformly ignored with the full knowledge of Wisconsin officials. MVPA, which purchases milk in Wisconsin, has experimented with and modified over the years its methods as described in a previous Finding. It has chosen to move in the direction of a "pure" protein pricing mechanism with a "floor" of 2.9% protein, so that milk of a lower percentage would actually receive less money than they would otherwise receive under prevailing market pricing systems. AMPI, in Blair, Wisconsin, pays farmers a premium only for higher protein content without any deductions for low protein content. Golden Guernsey in Wisconsin has chosen to recognize the declining value of butterfat in relation to protein in the marketplace by shifting some of the money that would ordinarily be paid for a high butterfat differential to a premium for higher protein content without any protein deductions. There is no evidence that this experimentation by these three purchasers has caused any problem whatsoever in the State of Wisconsin.

At least one Minnesota producer appears to be selling Guernsey milk via TriState Guernsey Producers Co-op to A & E Dairy in Des Moines, Iowa.

This dairy pays a flat 41¢ per hundred weight premium for Guernsey milk because of its higher average protein content. A TriState newsletter explains that they have rejected the more equitable point-by-point differential because, "Where a flat hundred weight premium has been established, it could cause dissension. Starting from scratch it could be satisfactory." There is no evidence that anyone is harmed or that any other problems are caused by this variation of protein payment method. Any of the three alternatives in the proposed rule would include point-by-point differentials and would consequently apparently harm or at least inconvenience this producer and purchaser. No facts have been introduced tending to document the need for or reasonableness of doing so. A letter from the Executive Assistant of National All-Jersey, Inc. urges, "That this regulation would not attempt to set levels at which protein add-on or deductions would start nor would it set a price differential. Let this be a matter of free enterprise and competition among buyers."

Regulation of pricing methods would require a rules promulgation process for any revision of that method. Therefore, adoption of the alternative most favorable to MVPA (that is, a broad base of 2.9 to 3.2% protein) would require a rules change every time this producer wanted to improve its system in light of its announced intention to gradually reduce the base by raising the floor for deductions to 3.2% by 1982.

The only testimony tending to suggest the need for or reasonableness of some form of legal regulation of protein pricing methods was introduced by the representative of Kraft, who indicated he wanted rules "to eliminate the possibility of making it a procurement tool". The price paid by purchasers to producers is by definition a procurement tool. It has no other function. Testing rules will ensure that the prices are fair, nondiscriminatory and honest.

The only place where protein prices are regulated directly by the government is California. Maes, a California processor, (p. 12) is extremely critical of this government interference:

> Pricing of components in a market where the state has fixed Class 1 prices to producers by hearing has from time to time resulted in unusual and troublesome misalignment of butterfat values. For example, the price of Class 1 butterfat in current state orders is 35½¢ per pound lower than for Class 2 butterfat.

Similarly, this exhaustive record is fundamentally, from beginning to end, an indictment of additional government regulation of pricing. Government regulation universally, even in California, encourages yield or watering of milk, despite mounting government surpluses, wasted energy and an adverse long-term impact on consumer consumption. Government regulation also continues to encourage production of butterfat with a differential, despite the decline in value of that component in the milk. The federal regulatory system has not initiated any differential or other encouragement of protein production, despite a universally recognized shift in the value of that component of milk and there is no evidence that it is likely to move much

faster in the future. Finally, government price regulation leads to the possibility of conflict of regulations as is alleged by Kraft and is further discussed in the remainder of this Finding.

Kraft was in the inconsistent position, in this hearing, of urging the most severe deduct alternative (I) which would force the most severe deductions in price by purchasers for any level of protein below the statewide average of 3.2%, and then contending that such pricing would discriminate against them because they could not use it because it might force them to pay below the federal order prices. This is a dubious objection based solely on "mights, mays and coulds" which is specifically discounted herein because they are able to live with a protein payment method which includes deducts in Utah and because they admitted that their Grade A premium payments would avoid the problem. The testimony, nonetheless, clearly supports the need for less government regulation of pricing, particularly relating to protein. The federal milk order administrator promised to look into the matter and it is hard to believe that the federal government could not find a way of allowing more equitable milk pricing in Minnesota. In any case, any possibility of conflict can and should be avoided by not regulating protein pricing.

More careful analysis of the "discriminatory" impact alleged here is instructive. The concern of Kraft is that they would have to pay the going uniform protein premium paid by other purchasers and that therefore, the deduct for low protein producers would bring their prices below the federal order price. They indicate that cooperatives are exempt and would not be faced with the same problem so that a rule requiring deducts would mean they could not exercise the option of protein payments. Presumably, they would have to pay the higher federal minimum order price than the co-ops who could use the deduct to pay less for lower quality or lower protein milk. Consequently, Kraft would inherit all of the low protein test milk because they would be paying the higher federal price. The concern by Kraft is thus a tacit recognition that they are seeking high protein milk and seeking to avoid low protein milk without explictly paying on that basis.

36. That if a pricing method is to be adopted, alternative I of straight premium and deduct above and below 3.2% protein is the least desirable. It was unanimously favored by all purchasers of milk other than MVPA as the most "equitable" program. The general position of these purchasers was to avoid equity if possible by not adopting any rules at this time. It is specifically found that adoption of this alternative would promote the latter aim of these purchasers, that is, discourage further adoption of protein pricing by other purchasers in Minnesota. It is thus not more equitable. This is pointed out succinctly in a letter from Clarence Hefty, Director of the North Central Region of AMPI, who asked the manager of the Blair, Wisconsin plant if he would institute a deduct system:

> He answered, "My *#% no, the competition would kill me (by taking away low test members) if I did!" This simply states to me that no organization would institute voluntarily a strict premium-deduct program. . . .In case you should decide on alternative I with the strict premium-deduct--you might as well tell organizations they can't pay for protein, because they won't! (Emphasis original)

The proposal would also create inconvenience for MVPA who would be paying its members in other states on the basis of its more equitable broader base between deducts and premiums of 2.9 to 3.2%. It might also be the source of difficulties or bad feelings within the co-op because of the varying payments.

Other than the inconsistent appeals to equity, the only reason advanced for alternative I was that we have always had a similar strict premium-deduct for butterfat. As indicated in a previous Finding, that is not completely true as some purchasers apply the butterfat differential on a premium basis only. Previous price regulation of butterfat in a similar fashion is not a showing of need and reasonableness in this case because the Minnesota butterfat premium-deduct regulation is a mandatory one applying to all purchasers. The key difference here is that protein pricing under the proposed rules will be optional. The result of forcing a deduct in the optional pricing program which will adversely affect a significant number of producers would be to promulgate a "testing" rule which completely destroys the authorizing statute legalizing protein pricing.

There is also an apparent potential with alternative I of creating legal difficulties. The problem is suggested by the final comments of Kraft which indicate that the proposed MVPA broad base of 2.9 to 3.2% protein would cause Wisconsin producers of milk with less than 3.2% to sell to Minnesota because the Wisconsin "guidelines" require a strict premium-deduct above and below 3.2%. Kraft fears that this would cause low quality milk to get a better price here. Actually, because the Wisconsin "guidelines" are not enforced, the reverse would be true under alternative I because Iowa and Wisconsin MVPA plants (and other outstate purchasers who are not purchasing on a protein basis) would be paying a higher price for lower quality Minnesota milk. The situation might give rise to legal niceties such as arranging receipt of product and delivery of payments in Iowa and Wisconsin so that the "purchase" takes place (unregulated ?) there at the higher price. Perhaps the MVPA Hokah, Minnesota plant will then have to purchase MVPA milk from Iowa and Wisconsin.

The crucial point from the perspective of the Administrative Procedure Act is that the record is totally devoid of facts tending to document the need for or reasonableness of this proposed alternative rule. Apparently, a strict premium-deduct system pegged at herd protein average has never been tried by any purchaser of milk using a protein payment system. Even the butterfat differential premium-deduct is pegged at a level considerably lower than average herd butterfat (and when it was established it was even lower than the average) and that program is mandatory for all purchasers. There is apparently not a single purchaser anywhere in the country with

a strict premium-deduct system pegged at a figure considerably lower than the 3.2% average. Even Kraft which strongly recommended alternative I, does not use that alternative in Idaho where it pays for milk on the basis of its protein content.

37. That if a rule of protein pricing is to be adopted, alternative II is superior to alternative I, but less desirable than alternative III. This alternative, which would allow premiums above 3.2% without deducts, received practically no support from either producers or purchasers either at the hearings or in written comments. It would not severely penalize purchasers for going to protein pricing and is not contrary to the intent of the authorizing legislation, as with alternative I. It has clearly been tried by many purchasers and many are still utilizing it. Every purchaser who has gone to a partial protein payment system examined in this record has started with a straight premium over a base without deducts, including MVPA and Kraft. The latter purchasers have then graduated to a more "pure" pricing method with a deduction below a floor.

38. That if the rules are to regulate pricing, alternative III modified as proposed by MVPA, is vastly superior to the other proposed alternatives. Its supporters have provided extensive documentation of the need for and the reasonableness of its adoption if a pricing rule of some kind must be adopted. This alternative was overwhelmingly favored in both written comments and in overall testimony from individual producers at the hearings. Even in the opposite end of the state from MVPA at the hearing in Sauk Centre, a vote of producers who favored protein pricing showed that 42 preferred alternative III while only nine favored alternative I and no one favored alternative II. Kraft argues, in final written comments, that this poll "should not be used to reach any decision" because the "hearing examiner requested a vote" before Kraft's testimony. In fact, the record shows that the vote was requested by a producer objecting to an hour or more of monopolizing of the hearing by Kraft cross-examining a proponent. The vote for alternative III is particularly impressive because the producer requesting the poll was the chairman of the local Farmers Union chapter who expressed his preference for alternative I. Kraft could have requested a revote after further testimony and did not. Judging from the demeanor of the witnesses and the audience, it is clear that alternative I would have received a lesser preference if a later revote had been requested, especially after the testimony of Land O'Lakes.

This alternative which would involve a point-by-point deduction below 2.9% and a point-by-point premium above 3.2% would reward the overwhelming majority of producers equitably based on their protein content. It would temporarily give some protection to a very small minority of producers to give them time to improve their protein testing through breeding and feeding. It would preserve the principle of overall equity by providing some deducts for a few producers whose protein percentage fell considerably below average. The AMPI plant at Blair reports that as of December, only 2% of their producers were testing below 2.9 and that 12% were testing between 2.9 and

3.2, with the remainder testing above 3.2. MVPA introduced very similar figures for a "recent month" (winter) with no producers below 2.9, 13% between 2.9 and 3.2 and 87% above 3.2. It should be kept in mind that these are both winter month readings when protein percentage is at its seasonal peak and MVPA indicated that it had some deducts (or people below 2.9) in June, July and August. Despite its avowed preference for alternative I, Kraft admitted that when it went to protein pricing in Idaho, after starting with a premium at 3.3% on May 1, they went on October 1 to a deduct below 2.8 and announced an intent to raise the deduct to 2.95. Thus, they prefer to operate with a much broader base then is proposed in alternative III, even after 2½ years under the program. In addition, they testified that the overall protein average in Idaho is higher than that in Minnesota. As affirmative facts demonstrating need and reasonableness, Kraft's actions speak louder than their words. Maes (introduced by Land O'Lakes) reports that California also has some leeway even after 15 years of tightening standards. They use minimum standards instead of deducts to eliminate problems or inequities by saying that total solids must be 12.2% but both butterfat and solids not fat have a "window" or "buffer zone" respectively of 3.4 to 3.6% and 8.6 to 8.8%. (P. 6) He stresses that, "The California component pricing program developed gradually over a 15 year period. This long transitional period has been a major factor in terms of broad industry acceptance."

Kraft suggested in final written comments that changing the floor of the base in alternative III in the proposed rules from 3.0 to 2.9 might be a substantial change. They were specifically asked at the hearing as to whether they could cite any adverse impact of such a change on anyone, and could not. Everyone attending all three hearings was asked the same question and no one could. Kraft still does not cite any potential harm of this change in its final written comments either. Nothing else in the record suggests that this minor revision of a tenth of a percent should be considered a substantial change. It would accommodate and avoid an inconvenience to the only purchaser in Minnesota that has announced its intention to utilize the rules. It is not necessary or reasonable for the state to cause that purchaser and the producers it serves further inconvenience at the behest of competitors.

39. That it is finally specifically noted for the benefit of the Commissioner and others who did not attend the hearings that this proceeding does not involve competition between breeds of cows. While there is some minor difference between general overall averages of protein content between breeds, with Holstein cattle being the lowest, tremendous variations between individual cows and herds is the rule. Ninety percent of the MVPA producers and board members are Holstein producers. A representative of AMPI also testified that a majority of the producers served by their plant at Blair, Wisconsin are Holstein producers, including some of the highest protein testing herds.

CONCLUSIONS

1. That any of the foregoing Findings that are more properly denominated Conclusions are hereby adopted as such.

2. That the Department of Agriculture duly acquired and now has jurisdiction over the within proceeding.

3. That all relevant legal and procedural requirements of statute and rule have been complied with.

4. That except for proposed rule 3 MCAR 1.1332 (and the consequent necessity to delete the last seven words of proposed rule 3 MCAR 1.1331 A.), the Department has documented its statutory authority to adopt the proposed rules.

5. That except as otherwise noted in the foregoing Findings, the Department has documented the need for and reasonableness of its proposed rules as hereinafter recommended for adoption with an affirmative presentation of facts.

RECOMMENDATION

It is hereby recommended that the proposed rules of the Department of Agriculture be promulgated, approved and adopted after attention to the modifications suggested by the Findings.

Dated: April 27, 1979.

HOWARD L. KAIBEL, JR.
Hearing Examiner

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	LOL	Butterfat Differential	MVMPA	Butterfat Differential
1978				
January	9.38	11.6	9.45	11.6
February	9.44	11.6	9.50	11.6
March	9.47	11.6	9.55	11.6
April	9.63	12.1	9.80	12.1
May	9.72	12.3	9.85	12.3
June	9.72	12.3	9.85	12.3
July	9.83	12.4	9.93	12.4
August	10.09	13.4	10.20	13.4
September	10.33	13.3	10.50	13.4
October	10.64	13.3	10.75	13.3
November	10.92	13.9	11.05	13.9
December	11.12	13.7	11.23	13.7
Average for year	10.02.4	12.6	10.13.8	12.6
Patrons allocations	21.6¢		29.27¢	
30% cash payment	.0648¢		.0878¢	
1979				
January	11.12	13.0	11.28	12.8
February	11.15	13.0	11.26	12.8
March	11.25	13.0	11.26	13.1
April	11.20	13.5	11.35	13.9
May	11.23	14.0	11.25	14.0
Average for 5 Mo.	11.19	13.3	11.28	13.3

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STATE OF MINNESOTA
DEPARTMENT OF AGRICULTURE

In the Matter of the Proposed Adoption) of Rules of the Department of Agricul-) ture Governing the Purchase of Milk on) the Basis of Protein)	FINDINGS OF FACT, CONCLUSIONS, AND ORDER ADOPTING RULES

The above-entitled matter came duly on for hearing before Hearing Examiner Howard L. Kaibel, Jr., on March 6, 1979, at 7:30 p.m. in the Sauk Centre, Minnesota, City Hall. Additional hearings were conducted in Shakopee, Minnesota, at the Scott County Courthouse at 7:30 p.m. on March 6, 1979, and at the Houston County Courthouse in Caledonia, Minnesota, on March 8, 1979, commencing at 7:30 p.m.

Members of the Department of Agriculture (hereinafter "Department") panel included: Orlowe Osten, Director of the Dairy Industries Division; Randall D. Young, Director of the Planning Division; and Peder Hong, Special Assistant Attorney General. The hearings continued until all persons or representatives of interested persons or organizations desiring to be heard were heard. No transcript of the proceedings has been ordered or prepared, and this report is, consequently, based on the notes of the Hearing Examiner.

Pursuant to Minn. Stat. Sec. 15.0412, subd. 4, this report shall be available for review to all affected individuals upon request for at least five (5) days.

Thereafter, the Department shall, if it proposes to adopt the rule as originally proposed or amended, submit a copy of the Order Adopting Rules, a copy of any additional agency findings, a copy of the rules as originally proposed, and a copy of the rules as adopted to the Chief Hearing Examiner for review pursuant to Minn. Stat. Sec. 15.052, subd. 4. The submission to the Chief Hearing Examiner shall precede review by the Attorney General. The Chief Hearing Examiner shall complete his review and submit his report to the Department on the issues of substantial changes in the rule and compliance with Minn. Stat. Sec. 15.0412 within ten (10) calendar days. The Department will be responsible for filing the rules with the Attorney General and for notifying persons who have indicated that they wish to be notified of such filing.

Based upon all the records and proceedings herein, the Minnesota Department of Agriculture makes the following:

FINDINGS OF FACT

1. That on November 22, 1978, the Department filed the following documents with the Chief Hearing Examiner:

(a) A copy of the proposed rules.
(b) The Order for Hearing proposed to be issued.
(c) The Notice of Hearing proposed to be issued.
(d) A Statement of the number of persons expected to attend the hearing and estimated length of the Department's presentation.

2. That on December 11, 1978, a Notice of Hearing and a copy of the proposed rules were published at 3 State Register 1217.

3. That on January 31, 1979, the Department mailed the Notice of Hearing to all persons and associations who had registered their names with the Secretary of State for the purpose of receiving such notice.

4. That on February 1, 1979, the Department filed the following documents:

(a) The Order for Hearing and authorizing resolution.
(b) The Notice of Hearing as mailed.
(c) The Affidavit of Receipt of the Secretary of State's list.
(d) The Affidavit of Mailing the Notice to all persons on the Secretary of State's list.
(e) The Secretary of State's Certificate and list.
(f) The Statement of Need and Reasonableness.
(g) All materials received following a Notice of Intent to Solicit Outside Opinion published at 2 State Register 1908 (April 17, 1978).
(h) The names of Department personnel who will represent the Department at the hearing, together with the names of any other witnesses solicited by the Department to appear on its behalf.

The documents were available for inspection at the Office of Hearing Examiners from the date of filing to the date of the hearing.

5. The record remained open through March 28, 1979, for the receipt of written comments and statements, the period having been extended by order of the Hearing Examiner to twenty (20) calendar days following the hearing.

6. That this proceeding arises because of a need to implement an amendment to the milk pricing statute (Minn. Stat. Sec. 32.25) in 1965, which authorized basing payment to farmers on the nonfat solid or protein content of the milk. The amendment specifically required that the Department adopt rules before such payments would be allowed. No action was taken by the Department to adopt rules for thirteen (13) years. In the fall of 1977, the Mississippi Valley Milk Producers Association (hereinafter "MVPA") began paying approximately 100 of its member-dairy-farmers in Minnesota a graduated premium for their milk based on its protein content. The Department sought and obtained a court injunction stopping these payments from a judge on July 6, 1978, because of complaints from Land O'Lakes, Inc., and other competitors which the judge described as "large and politically powerful purchasers of milk from farmer/producers in Minnesota." The injunction and the delay necessitated in this rules proceeding has and will cost these Minnesota

farmers significant amounts of money. The taxpayers of the state are also generally indirectly losing because of the lost taxes on this unrealized income. Leo Stoltz, with a herd of only 32 cows, calculated an annual loss in protein premiums of $914.97. Vernon Roble, with a herd of 34 to 37 cows, calculated a nine month loss of $881.41. Kenneth Tschumper, with 24 cows, indicates that his premium in March at the time of the hearings would have been $102.42. Other farmers produced similar consistent loss reports. Projected conservatively, over the time necessary to finally adopt these rules (and license testers) of August, 1979, and extending it to the 100 member producers, the total loss will be fairly estimated at $90,000 to $100,000. However, other sources stated that the total value of milk will not increase or decrease because of the pricing mechanism being used. Instead, the income may be divided differently among producers, with some receiving more for their milk and others receiving less.

7. That the proposed rules which are the subject of this proceeding do not involve pricing of milk purely or even primarily on the basis of its protein content. The proceeding might more properly have been labeled "multiple component" pricing because the emphasis in the current pricing mechanism on returns for volume and butterfat content would be retailed (as hereinafter further explained in a subsequent Finding). The proposed rule is, at best, a tiny step in the direction of more equitable pricing. It would leave such pricing optional with the purchasers of milk. All such purchasers expressed opposition to such pricing as proposed "at this time" except MVPA. Its 100 producer members appear to be the only farmers at this time who will be able to gain any advantage from these proposed rules.

8. It seems clear that the issue of whether protein pricing should be allowed on an optional basis was decided 14 years ago by the Legislature, at which time the Legislature also stated, "By alternative tests which not only determine the percentage of milk fat but also determines the amount of nonfat solids, when the Commissioner is satisfied that these alternative tests are consistently as accurate as the Babcock Test in determining the percentage of milk fat." It would be contrary to that legislative intent to defer adoption of rules altogether in an effort to stop such pricing, as was urged by purchaser/competitors of MVPA. Land O'Lakes raised many arguments against protein pricing in general in this effort to circumvent the statute. Most of these arguments should really be directed to the Legislature in an effort to repeal the statute, rather than at implementing rules. Nonetheless, in the interests of a complete record, this report will discuss most of the significant arguments raised.

9. That from the 1880's until the early 1940's, farmers were paid for their milk on a straight butterfat basis. (University of Wisconsin Extension Bulletin ZA 7760814, Professors of Agricultural Economics R. Cropp and H. Cook and Professor of Dairy Science A. Bring, Exhibit 3, introduced by Kraft) This was during the period that butterfat was thought to be the sole valuable

component of milk, a time when one farmer testified that skim milk was fed to the hogs and a person would be looked down on for drinking it.

10. That since the early 1940's, most purchasers have switched to paying for milk on the basis of a base price for volume with a differential for variation in butterfat content. It is important to note that "not all pricing schemes subtract the differential from the base price when the test is below the base level". (University of Wisconsin Bulletin, cited above, emphasis original) Operation of this pricing mechanism is described generally by Robert E. Jacobsen, Professor of Agricultural Economics at Ohio State University (hereinafter: "Jacobsen"):

> Consider this blend price example. A typical blend price this winter is about $11 per hundred weight and the fat differential is about 13.4¢. Given those two factors, the following facts become automatic:
>
> 1. Out of the $11 blend price, your 6.7 pounds of fat (average fat test) is worth $4.91 or $1.40 per pound.
>
> 2. The 96.5 pounds of skim is worth $6.09 or 6.31¢ per pound.
>
> 3. The fat is measured precisely and accounts for 44% of the milk's value. The 96.5 pounds of skim milk is also measured precisely and accounts for 56% of the milk's value.
>
> But consider that 96.5 pounds of skim. Its price ($6.09 or 6.3¢ per pound) is not affected by whether it carries 8 pounds or 9 pounds of SNF (nonfat solids); its price is not affected by whether it carries 3 or 4 pounds of protein.

The operation of this pricing mechanism from the perspective of the producer/farmer is summarized in an editorial in Hoards Dairyman (May 25, 1977) entitled, "High Price for Water". It provides the following chart of what income each cow would gross producing an equal amount of butterfat (600 pounds) at different percentages and total yields at an assumed price of $10 per hundred weight and 10¢ per point of butterfat differential:

Percent Fat	Pounds Milk	Price Per Cwt.	Gross Income
6.0	10,000	$12.50	$1,250
5.5	10,909	12.00	1,309
5.0	12,000	11.50	1,380
4.5	13,333	11.00	1,467

Percent Fat	Pounds Milk	Price Per Cwt.	Gross Income
4.0	15,000	$10.50	$1,575
3.5	17,143	10.00	1,714
3.0	20,000	9.50	1,900
2.5	24,000	9.00	2,160
2.0	30,000	8.50	2,550

The system obviously provides significant financial incentive to produce milk for its "volume" or water content regardless of its butterfat or protein content.

11. That since the early 1940's, there has also been an extensive and increasing recognition on the part of many purchasers of the importance of paying for milk partly on the basis of its nonfat solids content including protein. Although no overall study on the extent and nature of protein pricing was presented, materials in the record indicate that there are a pervasive variety of protein pricing programs being using by purchasers. It is used in France, Canada, and the Netherlands, and in the United States, in New York, California, Wisconsin, Iowa, Illinois, Missouri, Idaho, Vermont, and South Dakota. The uncontradicted testimony is that such emphasis on protein is likely to continue and intensify:

> Already there are countries which specify protein levels when importing semen and some which attempt to specify protein levels when importing cattle. With the world interest in protein content of foods, it seems likely that protein assessment of milk will continue to be emphasized. (Exhibit 3, introduced by Kraft).

The MVPA representative testified that Minnesota is the only state where protein content has not been authorized as a basis for pricing.

An Iowa State University Coop. Extension Publication (DYS-1526) describes the Netherlands' situation:

> In the Netherlands, protein testing began in the early 1960's and has increased over a time. By 1968, over 50% of the milk was paid for according to fat and protein contents, and a slight increase in the protein percentage was experienced. If more emphasis had been placed on protein premiums, greater progress could no doubt have been made.

The Cuba Cheese Company in New York pays on the basis of volume and protein with the normal butterfat differential. The protein differential is based in part upon the weekly wholesale price of cheddar cheese on the Green Bay Exchange. One New York producer reports that, "For March, 1978, we received nearly $1,200 for our protein differential. That's a gross payment of nearly 75¢ a hundred." (Exhibit 2, p. 10)

MVPA testified that they began paying on the basis of protein in 1973. They started at that time with a premium of 3¢ per "point" (one-tenth of one percent) over 3.3% protein in Grade A milk and 6¢ per point in manufactured milk. The system as initially established had no deductions in price paid for any levels of protein below 3.3%. In October of 1977, they increased the premium to 4¢ per point over a lower base of 3.2% protein for Grade A milk and 9¢ per point for manufactured milk. In October of 1978, they increased the Grade A payment to 5¢ per point and manufactured milk payment to 10¢ per point. They also established at that time a deduction in price for milk below 2.9% protein. They estimate protein payments in 1978 of $400,000.

AMPI has a plant in Blair, Wisconsin, which started experimenting with protein payments to 40 producers. The experience was successful, and they brought on the other 700 producers. They immediately acquired 70 or 75 new producers. They pay on the basis of point increases over 3.2% protein and have no deductions for milk which comes in below 3.2%.

By last report, the Golden Guernsey Dairy Coop. of Wisconsin (Ex. 3) pays a differential for each point over 3.2%, and the money comes from a "protein fund" made up of a given amount subtracted from the base price of all milk regardless of butterfat and protein test and an additional amount of butterfat differential withheld whenever a butterfat test exceeded a specified percentage, depending on the breed makeup of the herd.

A paper submitted by Land O'Lakes, "The California Experience in Component Pricing", (hereinafter "Gruebele") summarizes their experience:

> Because of the dramatic increase in milk production, California has become an important source of manufactured dairy products. The percent of total U.S. butter manufactured in California increased from 2.4% in 1960 to 15% in 1976. The percent of total U.S. nonfat dry milk powder milk production increased form 4% in 1960 to 17% in 1976, and the percent of total U.S. cheese manufactured in California increased from 1.2% in 1960 to 3.4% in 1976. California now has the second highest milk production in the country and dairy represents the state's most important agricultural product. . . .
>
> The component pricing system has been successful in California. Producers, processors, and the Department of Food and Agriculture appear to be happy with component pricing. . . .For California, the component pricing program has met all of the critical conditions necessary for a successful policy. That is, it is a program that is economically sound, administratively feasible, and socially acceptable.

The California protein payment system is the most comprehensive. It is mandatory for all producers (instead of optional as in the herein proposed rules).

All of these "protein" pricing programs (like the one in these proposed rules) involve merely partial recognition of the value of protein as a component, instead of basing the payment solely on percentage of protein or even butterfat and protein. Even the California system for Class 1 (fluid products) assigns a value to the "fluid carrier, or water" (Gruebele says it is to discourage "the use of imported Grade A powder in place of natural solids" where there is a large differential between the Class 1 SNF price and the Grade A powder price. Another paper introduced by Land O'Lakes ("Processor Views on the California Experience with Component Pricing for Fluid Milk", Larry Maes, Executive Director, Dairy Institute of California; hereinafter "Maes") says that it is "confusing at first glance" but the purpose is "to reflect two factors which are inherent in all Class 1 prices." These are: (1) premium for Class 1 usage as compared to lower usages; and (2) transportation differentials." Whatever the reason, paying for water or "fluid carrier" encourages feeding and breeding for volume. Gruebele indicates:

> Records at dairyman's cooperative creamery show that feeding and breeding for higher milk production under California's pricing system is more profitable than feeding and breeding for higher butterfat and solids-no-fat production per 100 pounds of milk. (P. 15)

While reference is made to the California pricing system, it should be clarified that the California pricing system is a component pricing system and not merely a protein pricing system.

12. That the protein content of milk is very important to the American consumer. The Wisconsin Extension Publication introduced by Kraft (Ex. 3) indicates that:

> At present, milk contributes about 22% of the protein requirement in the average American's diet. Consumers are also buying more cheese, ice milks, low fat milks, and yogurts than they did ten years ago. It makes sense to price milk to the dairymen in a way that recognizes this interest in the solids-not-fat or protein components of milk.

A study introduced by the Department (Dr. Stanley N. Gaunt, Professor of Animal Science, University of Massachusetts; (hereinafter "Gaunt") cites figures indicating that as of September, 1975, the amount of protein per dollar spent for milk was exceeded only by turkey and it was nearly three times the amount per dollar for pork and beef.

13. That consumers appear to have a very low level of knowledge of the relatively low fat content of milk. Jacobsen cites a study by the United States Department of Agriculture in 1970, which showed that:

1. Only 8% of the homemakers could tell you how much fat there was in whole milk;

2. Sixty-seven percent of the homemakers estimated that whole milk tested higher than 20% in milk fat.

3. As for low fat milk, 35% of the homemakers estimated that it was higher than 6% in milk fat.

Clearly, consumers are not generally aware that even whole milk is over 96% fat-free. Undoubtedly, this is part of the reason for the decline in per capita consumption of whole milk from the time of that study to now, from 214 pounds to 167 pounds.

14. That there has been a definite shift in consumer demand for milk products away from those with high butterfat content and toward those with higher relative protein content. This has caused a shift in the relative value of the components of milk from butterfat to protein. Maes (introduced by Land O'Lakes) indicates that as early as 1960, "There was a clear and well-publicized shift nationally in consumer interest toward lower fat dairy products." Gruebele (also introduced by Land O'Lakes, p. 11) indicates that consequently, "The market value of solids-not-fat has increased dramatically relative to fat." Gaunt (introduced by the Department) indicates that per capita milk consumption from 1942 to 1974 dropped from 736 pounds to 543 pounds (minus 28%), butter from 15.8 pounds to 4.3 (minus 73%), while cheese increased 6.4 to 18.8 pounds (plus 293%). Zurborg indicates that the commodity value of nonfat dry milk increased from 1950 at $.1225 to 1975 at $.62, a 508% increase. During the same period, butter commodity value increased only from .6169 to .8619, an increase of only 14%. He reports that skim milk fluid values on the Chicago market in June increased from $1.13 in 1964 to $6.53 in 1976, an increase of 577%; while fat during the same period increased only 4%. Gaunt confirms these MVPA figures indicating, "Ten years ago, fat accounted for two-thirds of the value of milk; today fat accounts for less than one-third of the value." Exhibit 3 (introduced by Kraft) confirms the shift in value from fat components to protein components, adding that, "Since the 1970 Agricultural Act, the dairy price support program no longer requires that butterfat be supported at between 75% and 90% of parity." The AMPI report on protein prices (June 15, 1978) sets forth a table showing the value shift over the last 30 years concluding, "The consumer demands less fat and more solids-not-fat, but the producer pay basis has not responded." (Emphasis original)

15. That consumers prefer the taste of high solids milk and dislike the "watery" taste of lower solids milk. James E. Devero, Research Associated for the United Dairy Industry Association, presented a paper to the American Dairy Science Association Annual Meeting, July 28, 1972, reviewing 12 extensive studies on this subject. He concludes:

> Perhaps the most singular commonality coursing through the complete research is that additions of solids-not-fat improve the flavor and acceptability of beverage milks. As a corollary, additions of solids-not-fat are more easily detected than fat additions and solids-not-fat additions will have a greater influence on consumer acceptance than fat additions.

Reiteration of these unanimous studies in this report is omitted in the interest of brevity, but the fact has been unequivocally established. (See further, Ex. 2, pp. 6-7 and 30-19.) Gaunt (introduced by the Department) indicates that, "Beverage milk seems to be most palatable at about 9.5% solids-not-fat."

16. That basing pricing partly on protein content will bring about long range improvement in the quality of dairy products, the income of dairy farmers, and the profits of handlers of fluid products as well as manufactured products. An MVPA spokesman testified that there has been some increase in average protein levels in their herds in just five years of protein pricing. Kraft indicated that Idaho and Wisconsin have higher average protein content milk, two states where protein pricing is more widespread. Jacobsen indicates that per capita consumption of low fat/skim products in California was 45.3 quarts, 4.2 more than the U.S. average and per capita consumption of whole milk was 83 quarts, 5.2 quarts more than the U.S. average. Zurborg similarly indicates increased sales have been part of the MVPA experience in a paper to the American Dairy Science Association, presented at Michigan State University, East Lansing, July 10, 1978 (Ex. 2):

> We don't segregate our member milk for manufacturing so the increased solids has helped to improve the flavor of our bottled products, particularly the skimmed items. During the past few years, we have had sizable increases in our internally generated milk sales and we give credit to a better bottle of milk as being a part of this success. We all eat and drink foods because we like them. The soft drink people have proved this.

Undoubtedly, advertising of a higher quality product plays a major role in increased fluid sales, when you have a higher quality product to advertise. This combination is a major part of the California sales experience. It is also true on a smaller scale as Rodger Beck, the Director of Member Information for New York DHI reports (Ex. 2, p. 9). In 1976, three Wyoming County, New York dairymen pooled their milk in a single sale to Annis Dairy in Avon, New York, receiving the usual blend price and butterfat differential plus a premium of 6¢ for each one-tenth percent protein over 3.3%. They agreed to set aside their protein payments advertised in eight area pennysavers and on local radio. The result was a resounding success. Sales from May to October of 1976 increased 114%." As indicated earlier, MVPA pays a lesser protein differential for Grade A bottled milk, recognizing that the protein value there is less than in manufactured products. They testified, however, that on the average only 70% of Grade A milk is bottled

and that, therefore, some recovery is possible on the remainder. They also testified, without contradiction, that overall incomes of dairy farmers will be improved in the long run by protein pricing because of the resulting improvement in the basic Minnesota/Wisconsin price.

17. That higher levels of protein in producer milk brings about higher yields of manufactured products. This is the increased return to processors which is not being equitably returned to the producers of high protein milk. Zurborg provides the best summary of the evidence:

> On hard cheeses, we feel that there is an average yield increase of 2 to 2 1/2 pounds of finished product for each pound of protein in raw milk. With cheese averaging 90¢ a pound, this would be 18¢ for each point (.1%). On nonfat dry milk, the yield increases about a pound for each pound of product in the raw milk. Since nonfat dry milk currently is supported at 62¢ a pound, this figures out at about 6.2¢ per point. On cottage cheese manufacturing, an extra pound of protein yields about 6 extra pounds of cottage cheese, and if we conservatively price it at 40¢ a pound, this equals 24¢ a point. Ice cream is about like nonfat dry milk, since its main source of protein is generally milk solids. . .Much Grade A milk is diverted to cottage cheese manufacture, ice cream mix, and other manufactured products. There is no reason that these products cannot carry a premium for Grade A producers.

Rodger Beck, Director of Member Information for New York DHI, provides the following table of increased yields and returns with regard to cheese (Ex. 2, p. 10) indicating that, "An increase of .6% in protein test results in $1.84 in value of a product".

Protein	Lb. Cheese/ 100 lbs. Milk	Value Cheese At $1.00/lb.	Diff. Per .1%
3.0	9.18	$ 9.18	$ ---
3.1	9.49	9.49	.31
3.2	9.79	9.79	.30
3.3	10.10	10.10	.31
3.4	10.40	10.40	.30
3.5	10.71	10.71	.31
3.6	11.02	11.02	.31
.6			$1.84

Similarly, information introduced by farmer/producer Weller (Ex. 2, p. 7) indicates:

> An additional pound of nonfat solids in a hundred weight of producer milk was worth from 7 to 24¢ to plant operators in additional yields of nonfat dry milk (7¢), American cheese, (22¢), or cottage cheese (24¢) at mid-1977 prices.

Although Land O'Lakes expressed considerable doubt as to the verocity of these increased yields and cross-examined MVPA witnesses vigorously, all of the evidence clearly establishes these increased yields, including that introduced by Land O'Lakes itself. Gruebele, for example, (introduced by Land O'Lakes) indicates that, "Cheddar cheese yields go up about .14 pounds for each .1% increase in protein in milk", and "for each .1% increase in solids-not-fat, powdered milk yields go up .1 pounds. This extra yield is worth 7¢." (P. 10) The National Milk Producers Federation Report (also introduced by Land O'Lakes) concedes a "positive relationship between protein and cheese yields". The Wisconsin Bulletin (Ex. 3, introduced by Kraft) confirms increases of "2 to 2 1/2 pounds" of cheese for every pound of protein in a hundred weight of raw milk and an extra pound of protein yields an extra pound of nonfat dry milk or ice cream or six pounds of cottage cheese. Gaunt (introduced by the Department) confirms the increased yields, particularly of cottage and cheddar cheese.

The following sources also confirm Zurborg's testimony, without quoting them extensively, in the interests of brevity: AMPI Report, June 15, 1978; Article by Professor V. H. Nielson, Head of Department of Food Technology, Iowa State University, Ames (submitted by Department; hereinafter: "Nielson"); September, 1977, Guernsey Breeders Journal, pp. 486-487 (each pound of protein yields approximately three pounds of cheddar cheese at 38% moisture content); G. H. Schmidt, Dairy Science Department, Ohio State University (Ex. 2, p. 17); Dr. Ross Mickelson, Kansas State University and Federal Milk Market Administrators Service Unit No. 1, September, 1974, Contribution 903, Kansas Agricultural Experiment Station (Ex. 2, p. 30-12); Blair J. Smith, Associate Professor of Agricultural Economics, and Stephen Snyder, formerly Graduate Assistant in Agricultural Economics, Pennsylvania State University, September, 1978, article (Ex. 2, p. 30-19); (Ex. 2, p. 5).

18. That there is not a close enough correlation between average increases in butterfat percentages and average increases in protein percentages to permit proper or fair compensation for high protein milk producers. Land O'Lakes advances a contrary assertion in its final written comments without submitting any specific evidence:

> Contrary to the testimony of some opponents, there is a close correlation between butterfat and solids-not-fat or protein. This correlation is reported by Dr. Packard and many other researchers. Manufacturers can use this relationship to determine proper butterfat differentials of milk used to produce butter and nonfat dry milk solids.

They indicated that they feel their prices paid farmers are consequently equitable because they pay a higher butterfat differential. (Farmer/producers immediately corrected this statement, indicating without contradiction that Kraft pays a higher butterfat differential and that the differential is minimal compared to the increased value of higher protein milk.)

Land O'Lakes' assertion is directly contradicted by its own alleged source. Dr. Packard indicates in Extension Bulletin No. 73, January 1, 1979, that, "The relationship is not precise enough to serve as a pricing mechanism per se." University of Wisconsin experts agree with Dr. Packard (Ex. 3, introduced by Kraft):

> Since the relationship of fat to protein varies from cow to cow and from herd to herd, the nutritional and true market value of milk may vary from one producer to another. Without component pricing, such differences are not properly reflected in individual milk checks.

Gruebele (introduced by Land O'Lakes, p. 15) cites a 1976-78 study of 56 herds, indicating, "One problem that has been identified in California is that the higher producing herds are able to maintain relatively high butterfat tests but quite low solid-not-fat percentages." Nielson is severely critical of this method of compensating for protein content, "The weakness of this scheme is that it ignores the sometimes significant deviations from the average value of the most variable nonfat component of milk, namely protein." These variations are confirmed by Zurborg:

> We have found a tremendous difference between the protein test and fat to protein ratio in various herds within our membership. As individual cows go, some can have twice the fat to protein ratio and some can even have higher protein tests than fat tests.

This testimony is corroborated by specific data supplied by the New England Committee on Nutritional Pricing of Milk (Report of Subcommittee on Factors Affecting Milk Composition, Ex. 2, p. 16) which provides the following Holstein sire summary analysis, showing results that are opposite of what would be expected under the Land O'Lakes hypothesis:

Sire	No. of Days	Milk	Fat	Protein
A	30	19,542	3.67	3.25
B	25	16,975	3.82	3.15
C	11	16,106	3.83	3.06
D	10	16,738	4.04	3.08

The AMPI pricing report (and other data in the record) confirms this extreme variability, concluding, "Therefore, any basis of payment should consider the solid components of milk as the separate variables which they are."

19. That protein is not overvalued as a component of milk as was alleged by Land O'Lakes. They first cited a surplus of nonfat dry milk as an indication that protein must be overpriced. Utilization of nonfat dry milk as a primary part of the government support price system merely facilitates

storage and subsidized shipments. (There is also an increasing surplus of water in milk which is not stored because the taxpayers pay to have it evaporated. As indicated in previous Findings, the current pricing system encourages the further overproduction of this component in milk.) The value assigned other solids-not-fat and water in the base price because only butterfat is recognized as varying and is assigned a price differential. The rules would recognize that protein is the only other valuable major varying component and allow the purchaser the option of assigning it what he feels is a fair differential price.

In their final written comments submitted on the day the record closed, Land O'Lakes advanced another argument for their contention using the Van Slyke cheese formula and average butterfat and casien content which has been considered and rejected. The Van Slyke formula (broken down at length by testimony of Mr. Bratland) merely shows that increased protein yields increase casien which yields increased pounds of cheese. It is clear that protein is not overpiced as a component and, in fact, is not priced at all. This rules proceeding arises because purchasers are not generally attempting to pay fair value for high protein milk. The willingness of some purchasers to pay a premium irrefutably establishes that fact to the tune of $400,000 in one year in the case of MVPA.

20. That no facts were introduced to show that variations in total protein content due to Mastitis should prevent protein pricing. Land O'Lakes and others suggested that this was a problem without providing quantifying data or analysis. Dr. Packard at the University of Minnesota (Extension Bulletion No. 73) cites a Penn State study showing that casien level, "Remained fairly constant, but whey protein, thus total protein, increased significantly" in Mastitic milk. He describes whey proteins as having, "A higher (more nutritious) biological value than casien." The increased whey protein would, of course, reduce cheese yields and that problem is taken care of by the optional quality control provision inserted in the proposed rules by the Department to protect cheese manufacturing buyers. The evidence suggests that regardless of protein pricing, Mastitis will be curbed by dairy farmers due to decreased yields. The New York Dairy Improvement Council indicates (Ex. 2, p. 11) that:

> Research has shown that losses in milk production during a 305 day lactation due to infection of one quarter vary from 1,267 to 1,983 pounds of milk. For example, a 1,783 pound loss of $10 per hundred weight milk equals $173.30 per lactation lost income. (Emphasis original)

21. That protein content of milk can be enhanced through feeding and breeding witout any decrease in long term yields. Land O'Lakes cited an unpublished study by one of its employees, Paul Christ, as indicating that, "Attempts to increase the protein percentage in milk results in a loss in milk yield and a lower yield in total protein than if breeding selection had been

made for total milk yield. . .Total revenue from milk sales would actually be reduced even with a protein differential." Gruebele (introduced by Land O'Lakes) specifically cites Mr. Christ's unpublished paper and refutes the alleged long range adverse impact on the dairy industry, citing California as an example. Their volume increase per cow continues to outstrip the national increase. From 1965 to 1977, the California increase was 3,632 pounds per cow from 10,830 to 14,462, as opposed to the national increase of only 2,925 per cow from 8,305 to 11,230. Total milk production increased 40% versus a .73% decrease nationally. (All of these lower national averages include the California increases in their computation and, consequently, the disparity is actually more dramatic.) As indicated earlier in this report, the California rules (and the rules herein proposed for Minnesota) merely recognize a partial payment on the basis of protein and still make it profitable to breed for volume. That continues to be true in California and will continue to be true in Minnesota under these rules, only less so. MVPA testimony corroborated this refutation of the Land O'Lakes allegation, indicating that their production per cow has increased almost as fast as the rest of the country.

The best, most detailed data available on the subject of breeding is the Iowa State University Co-op Extension Publication DYS-1526, "The Dairy Cow as Protein Producer" (November, 1973, submitted by MVPA and cited with approval in Exhibit 3 introduced by Kraft.) It summarizes an interregional study of data from 22 states including 23,382 records on cows sired by 2,522 sires in 298 herds. Table 7 shows that selecting for total solid yield maximization would produce significant increases in pounds and percentages of fat and protein and significant yield increases only 12% below those obtained by selecting on the basis of total yield maximization. The study concludes that:

> It seems important that the quality of milk offered consumers be improved, or at least not decline. Thus, it may be necessary to sacrifice some increase in yield to maintain or improve quality.

Similarly, the nutritional milk pricing committee report cites a six year study at the University of Massachusetts as showing that:

> Changes in protein content of milk could be made if we started testing and farmers received a payment incentive to make the effort profitable. . . Consequently, with the large number of sires to choose from in the various artificial breeding studs, it should be possible to increase both milk yield and protein or solids-not-fat percentage.

No specific study to the contrary has been pointed to by Land O'Lakes or others to support the allegation that dairy farmers will be harmed in the long run by protein pricing. As the Iowa State Publication concludes:

> If payment for milk includes protein percentages in the price formula, similar selection for protein yield could result in both increasing milk yield and protein percentage on a basis that would be economically beneficial to dairymen.

The testimony was unanimous that balanced feeding will increase protein content. Gruebele (introduced by Land O'Lakes) found that in California, "With proper feeding rations it has been possible for many dairymen to increase the solids-not-fat tests and butterfat tests up to the inherent ability of the animal." (P. 11) Maes (also introduced by Land O'Lakes) corroborates this evidence that feeding affects the quantity of solids-not-fat.

22. That no facts have been introduced to suggest that the purchasers of milk would tend to segregate high and low protein content milk under the proposed rules any more than they do under the present pricing scheme. Land O'Lakes asserted, without any substantiation based on past experience, that, "High testing milk would move to manufacturing facilities, and low testing milk would move to the fluid market." Milk pruchasers are already accomplishing this kind of segregation where transportation costs are not prohibitive. The New England Price Committee Report (Ex. 2, p. 26) confirms that this is taking place:

> The present system of pricing also encourages country plants to find high-solids milk and manufacture it into powder or cheese and ship the low solids milk to the city for fluid. Dairy product manufacturers, to the extent they are successful in finding high-solids milk, get a yield bonus without having to pay for it. Fluid milk consumers are paying the same price for less and less milk solids and more water.

Maes (introduced by Land O'Lakes, p. 11) indicates that the experience in California does not support the prediction of increases segregation. He confirms that higher protein herds there, as in Minnesota and elsewhere, generally sell to cheese plants, but:

> The component characteristics of fluid milk produced in California do not appear to have been notably changed by component pricing.

As indicated earlier in this report, MVPA experience with protein pricing has also not led them to segregate high and low solids.

The tendency of purchasers to segregate milk could be minimized under a more equitable pricing system which eliminates the bonus for doing so. The best way of ensuring that the natural profit making motives of purchasers do not harm consumers, however, lies not in these rules but in increasing minimum standards. The National Milk Producers Federation Report (intorduced by Land O'Lakes) indicates:

> The present fluid milk standards of the Food and Drug Administration are quite low. . .An increase in the minimum standards would overcome the incentive to obtain milk with a low solids content as a means of reducing raw product costs, at least in part. The higher standards would increase the market for milk solids, improve the palatability of fluid milk products, and may lead to higher milk consumption.

Standards for solids-not-fat in California have been gradually increased over the years to 8.15 in 1961, 8.35 in 1963, 8.5 in 1965, and 8.6-8.8 in 1977. Gruebele reports that:

> The dairy industry leaders believe that the higher standards in fluid products under component pricing contributed to the increased per capita Class I sales (fluid products) in California since 1971.

He indicates that California began in 1960, with a per capita consumption 10 quarts lower than the national average (140 versus 150) and ended 20 quarts higher (113 versus 133) in 1977, for a total decline of only 5% versus a national decline of 24%.

23. While no comments were made at the Hearings suggesting that there would be any advantage in waiting for a Federal Protein Pricing program, or that the effect to achieve a national recognition of protein pricing has been hurt in any way by the various protein pricings programs going on currently in the country, there was written statements provided suggesting that some uniformity between states would be desirable and that some guidance from the Federal level would be helpful.

24. That there will be an energy savings involved in the long term increase in protein content encouraged by recognition of protein in pricing. A study prepared for the Dairy Industry Conference at Iowa State University, submitted March 21, 1978, by J. K. Hillers, V. H. Nielson, A. E. Freeman, and J. Dommerholt submitted by Gerald Bratland, breaks down four processing cost categories: transportation of milk, separation, energy, and labor. It demonstrates that any increase in protein composition of .3% without any change in the fat test would save $1,500 per one million pounds of cheese, in addition to the increased yield. This report is being written at a time when energy conservation is being increasingly recognized as more than a matter of cost savings. This is highlighted in the comments of Dr. R. C. Laben at an Iowa Symposium on protein and breeding (Ex. 2, p. 30-17):

> Rising energy costs provide the most important reason for holding or increasing milk solids concentration by the means we have presently available. Energy costs at every step in dairying from milking, farm cooling, all phases of milk transportation, processing, and marketing will continue to increase. While this cost has been a minor consideration in the U.S., currently it is a real one and the future trend is definite.

Presently rising energy costs support an argument for immediate attention to the concentration of milk solids in dairy breeding. European dairy breeders already face a situation where some direct selection to raise solids concentration at the expense of total yield is being practiced.

25. That the present pricing system is inequitable and that partial payment on the basis of protein content would be more equitable. The testimony of Land O'Lakes avoids this issue, but an article they introduced (Maes, p. 14) indicates that, "Component pricing does have merits in terms of improved equity between buyers and development of more uniformly consistent composition of fluid milk products". A Land O'Lakes advertisement for milk replacers submitted by Gerald Bratland asks the question, "Want the protein and quality you pay for?" The producers testifying in these hearings overwhelmingly replied with the paraphrase, "They want to be paid for the protein and quality they provide to Land O'Lakes and must pay for in the products they buy from Land O'Lakes." Kraft specifically agreed that the present pricing system is inequitable in response to producers' questioning. Both Land O'Lakes and Kraft, however, argued strongly for "equity" in objecting to the pricing alternative favored by MVPA and most producers, which would allow roughly 15% of producers some time to improve the protein content of their herds. Land O'Lakes argued, "Producers of average testing milk will be subsidizing producers of low testing milk. There is no equity in such a plan." Kraft argued in final comments, "Kraft also objects to this proposal because it is not equitable to all producers."

26. That the costs of testing will be minor and not prohibitive. Land O'Lakes merely raised the question of whether costs might harm or discriminate against some purchasers, without providing data. They indicated only, "We do not have reliable cost estimates at this time. We do know that the costs for testing milk for protein content is much greater than for testing butterfat." The testimony is contradicated by an earlier article by Paul Christ in the company newsletter, the "Land O'Lakes Mirror" of April, 1978: "Machines are available that will measure the protein content of milk quickly and at low cost." Mr. Christ's contradictory analysis is corroborated by J. W. Sherbon of the Department of Food Science at Cornell University. ("Recent Developments in Determining Protein Content of Dairy Products by Dye Binding", 1978 Journal of Dairy Science 61: 1274, introduced by the Department) "The procedure is fast, precise, and costs no more than the Babcock Test." (The Babcock Test is the standard test for butterfat which Land O'Lakes testified with certainty was considerably less than the cost of protein testing.)

Kroger (introduced by the Department) indicates that the Association of Cooperative Dairies in Zutphen, Holland, has been protein testing more than 20 years, both for milk pricing and as a guide for breeding. In 1966, they processed three million producers' samples at an all-inclusive cost per test of about 3.5¢. The lab was staffed by one supervisor, two technicians, and 12 girls who worked 235 days during the year." Maes indicated that California tests for fat and solids-not-fat on a

daily basis, and another source indicates that the "costs of testing for both nonfat solids and butterfat in California are only about 14% higher than for butterfat testing alone." (Ex. 2, p. 7) A New York DHIC protein testing program was initiated in 1977; 12.7% of the members have enrolled at 3¢ a cow per month. (Ex. 2, p. 8) An Ohio Ag-Services Newsletter was introduced announcing purchase of a Milko Scan testing machine with optional testing at 4¢ per cow. The following detailed cost breakdown of various alternatives was presented in the Report of the New England Nutritional Milk Pricing Committee (Ex. 2, p. 25). The figures have not been contradicted nor questioned:

TESTS FOR MILK PROTEIN

	MK-II[a] Pro-Milk	UDY	PMA[a]	IRMA[b]	ULTRASON[c]
Purchase Price	$2,925	$800	$31,500	$50,000	$10,000
Tests/Hour	50	20	160	150	20
Sample Size	2cc	2cc	2cc	15cc	30cc
Annual Repair & Maintenance	$58.50	$ 16	$630	$ 2,500	$ 200
Per Sample					
Capitalization (5 years)	.006	.004	.019	.032	.048
Labor @ $2.50/hr.	.050	.125	.016	.017	.125
Supervision $3,600/yr. 30% of $12,000	.035	.087	.011	.051[d]	.087
Maintenance & Repair	.001	--	.002	.008	.005
	.092	.216	.048	.108	.265

a) - Fully approved tests.
b) - Infrared Milk Analyzer--measures fat, protein.
c) - Utilizes sound transmission to analyze solutions.
d) - Full-time supervision at $16,000/yr.

27. That the methods for protein testing contained in the proposed rule are sufficiently accurate to allow fair, nondiscriminatory payment to producers. Several persons questioned the accuracy of the testing procedures and devices, but no one had any evidence or expert opinion critical of the determination of the official Association of Analytical Chemists that the proposed methods were accurate. Land O'Lakes conceded that, "The repeatability of the individual testing methods is quite respectable." But the "information we have seen" regarding the comparison of the different methods "leaves much to be desired". They attempted to contrast these proposed tests with the Babcock Test for butterfat, "The Babcock Test is a widely used inexpensive test that is ably conducted by many individuals and

organizations." All of the evidence herein suggests that the same statement can be made about the proposed protein tests. The only information on this record of differences in a comparison of the different methods is the study compiled by Professor Packard of the University of Minnesota. This indicates that the differences in measurements between protein equipment tests was .024 to .033, considerably less than the differences in fat tests of .05. Kroger reports that the Scottish Milk Marketing Board Central Testing Laboratory has a Pro-Milk Automatic system coupled with an IBM computer system measuring 1,000 samples per eight-hour day for both protein and fat. "Results indicate good accuracy for the unit with a standard deviation of plus or minus 0.06% for fat and plus or minus 0.04% for protein. This and other uncontradicated evidence in the record establishes that the proposed protein tests are at least as accurate and generally more accurate than the Babcock butterfat test. Some persons at the hearing misquoted Professor Packard, suggesting that he doubted the accuracy of the proposed methods. He states explicitly in "Methods for Determining Protein Content in Milk", an unpublished outline prepared for these hearings and submitted by the Department, that "dye binding and infrared methods are accurate enough". The only other proposed method is the Kjeldahl which is the "reference standard" or calibration method for the methods which he feels are accurate enough. It should also be noted that those are the only methods which will be used as a practical matter for testing for payment, because the Kjeldahl test is too expensive and time-consuming. The Gaunt study (introduced by the Department) corroborates Professor Packard's conclusion, "The protein percentages in milk can be determined quite accurately by approved methods." Maes (introduced by Land O'Lakes) indicates:

> Since the California program is now in its seventeenth year, I think it reasonable to assume that the technical feasibility of component pricing is demonstrated. (P. 1)

He further indicates that since 1962, California has had "acceptable" testing procedures for measuring solids-not-fat including the less accurate lactometric method (not included in these proposed rules). The "allowed tolerances for lactometer testing are plus or minus 2%". The Packard study found maximum differences (where the equipment was only calibrated at a single protein level) of .18%, which is less than one-half the allowed tolerances in California. The Packard study points out that:

> Laboratory differences in the data we collected were not so much descriptive of the precision of the Pro-Milk unit as the difference in calibration of the unit in each of the laboratories involved.

The collaborative study in the Journal of the AOAC proposed for incorporation by reference in the rule stresses the importance of this laboratory calibration factor:

> Several of the laboratories had recently completed a recalibration of their instruments and had exchanged samples in the process. When the milk data from just these laboratories were considered, the effect of laboratory lost its significance, leaving only the sample and interaction affects significant at the 0.005 level.

The study further concludes that the Pro-Milk system, "Is capable of very high precision".

Professor Packard further indicates that, "An important cause of lack of agreement between the laboratories may lie in the imprecision of the reference test--the Kjeldahl method." This imprecision is stressed by the other experts in the field whose testimony suggests that this could be the entire explanation for the differences noted between methods. John W. Sherbon, Associate Professor of Food Science at Cornell University, in an article entitled, "Does Protein Testing Give Accurate Results?", submitted by the Department, corroborates Professor Packard:

> A major reason the Kjeldahl test is so expensive is that it is not very precise, so it must be repeated two or three times on every sample in order to have a result that can be trusted. Even with replication, the best you can hope for is results that do not differ one from the other by three to five percent.

Kroger (introduced by the Department) further explains the difficulty of calibration to Kjeldahl:

> The Kjeldahl method also is an estimate, since it measures protein only indirectly. In fact milk protein content by the Kjeldahl method is defined at 6.38 times the amount of the element nitrogen in the milk sample. This conversion factor varies with the composition of the milk (6.37-6.40). The factor of 6.38 corresponds to an average of 15.65% nitrogen in milk protein. Furthermore, nitrogen containing substances in the milk (about 5% of total N). . .Are all included in the Kjeldahl analysis for nitrogen, although they are not considered proteinaceous at all.

Professor Packard finally stresses that the equipment was calibrated to a single level of protein, 3.2% and that calibrating over a wider range would reduce differences. At the level calibrated, the difference was only .05% which is 80 times more accurate than the California allowed tolerances. Packard cites another study on differences in fat testing of .091% (nearly double the .05 reported for protein at the level where the machines were calibrated which he calls "negligible". Sherbon (introduced by the Department) stresses that:

> Any calibration of the dye binding test is applicable only to the type of samples and procedures used for calibration and only with a specified range of protein contents. Without attention to such details, it is difficult to achieve good interlaboratory comparisons. . .As long as we use any form of the Kjeldahl test as the primary reference procedure, the need for calibration and explanations of deviations will continue. I have heard some say that dye binding eventually will become the primary reference for the Kjeldahl and other procedures.

The evidence is unequivocal that the dye binding and infrared methods proposed herein are sufficiently accurate for their intended purposes. Professor Packard indicates that the infrared method is utilized in California to test 60% to 70% of all Grade A milk. Gruebele (introduced by Land O'Lakes, p. 12) indicates that California uses other tests (not included in the proposed rule) to test protein in addition to the infrared method. "Some of the producer leaders feel that the tolerances for solid-not-fat tests should be tightened. It would be easy to do were all the milk tested with the IRMA" (infrared method), but some firms use less accurate tests. Professor Packard further cites a Penn State study as indicating that, "Netherlands have used dye binding since 1958." Sherbon (introduced by the Department) indicates specifically that the dye binding method measures, "With a much better precision agreement, with one percent for repeated tests". Some hearing participants pressed for further research on the accuracy of these methods. As the paper by Kroger notes, further research will undoubtedly generate the need for additional research, "There is no end to research. As you experiment and study, new questions and problems are constantly encountered."

28. That the frequency of testing in the proposed rules is more than adequate to assure the accuracy for purposes of pricing. The Statement of Need for the rules cites a Ginn and Packard 1969 Study showing that four random samples for butterfat were comparable to testing every sample. This was uncontradicted, but it is important to note that this evidence only establishes that a minimum of four samples is needed and reasonable with regard to butterfat testing. As indicated earlier in this report, the butterfat test tends to be less accurate than the protein test and, consequently, fewer minimum samplings might be a sufficient frequency with regard to the protein test. It is important, as the Statement of Need indicates, to minimize "time-consuming and costly" testing. A more recent study by Gaunt (introduced by the Department) of 4,077 bulk samples in 38 herds showed that testing for protein every two weeks (twice a month) is sufficient to keep the standard of error within plus or minus 0.1%. The New England Nutritional Milk Pricing Committee Report (Ex. 2. p. 21) reviewed this study and other more recent data in concluding:

> Work at the Universities of Massachusetts, Delaware, and Idaho indicate that the correlation between monthly and bi-monthly testing for protein and solids-not-fat lactation records was very high (around .96). This strongly suggests that bi-monthly testing for protein and solids-not-fat is of sufficient accuracy for routine testing of cows for lactations.

It is important that the Department maintain the same minimum testing procedures for protein as are presently used for butterfat. It is recognized that costs are a concern of producers and purchasers alike, however, accuracy of testing is also a concern of the producers and, therefore, uniform programs must be used.

29. That protein testing is an adequate and proper measure of the solids-not-fat content of milk and that the rules should not be changed to measure total solids-not-fat as opposed to protein. Land O'Lakes and others urged stongly that the rules be revised to measure solids-not-fat instead of protein. As Zurborg points out:

> The average solids-not-fat percentage of normal milk is about 8.5%, while the average protein percentage is about 3.2. From this, it can be seen that the protein component constitutes less than one-half of the solids-not-fat content of normal milk.
>
> The basic components in milk are fat, protein, lactose, and minerals. The fat and protein are variables with fat ranging from 2.8% to 5.5% and protein in the area of 2.5% to 4.5%. Lactose and minerals are generally constant at 5% and .7%.

This is confirmed by Gaunt (introduced by the Department) who indicates that, "Lactose and mineral levels are fairly constant" and that protein percentages are consequently "quite indicative of the solids-not-fat (SNF) percentage in milk". The University of Wisconsin Bulletin (Ex. 3, introduced by Kraft) also confirms that:

> Protein and fat are the most important variable components of milk. The other two basic components are lactose, which remains relatively constant at about 5% and the minerals at 0.7%.

The only place where solids-not-fat measurement is utilized instead of protein is California. Maes (introduced by Land O'Lakes) explains that total solids-not-fat measurement was adopted in 1962, because, "The most available and acceptable procedure was the lactometric method for measuring total solids-not-fat (for this reason, protein payment was not considered)." (P. 9) He goes on to indicate that the tolerances necessitated by testing for total solids-not-fat are the only matter of major controversy remaining in California because the lactometer only measures with plus or minus .2% The New England Nutritional Milk Pricing Committee summarizes the reasons for rejecting testing of total nonfat solids:

> At present, reliable tests for total nonfat solids are very expensive. Inexpensive tests are generally unreliable in field type situations.
>
> Nonfat solid levels are not as good an indicator of cheese yields as protein levels. Furthermore, protein tests are less expensive and automated testing procedures have proven reliable. More and more milk is going into cheese--including the New England markets. It would seem unwise to link up with a test procedure that has inherent weaknesses from the outset. . .
>
> A fourth potential problem with this measure is that inexpensive milk solids (whey) can be purchased and added to milk and sold as the higher valued nonfat solids. Relatively large amounts of whey solids can be added without detection with standard measures of total solids.

Smith and Snyder (Ex. 2, p. 30-19) confirmed that, "Laboratory tests for protein are both more accurate and less expensive than those for solids-not-fat." It is difficult to comprehend why producers who are so concerned about the costs and accuracy of testing are in favor of a solids-not-fat testing plan which would be more expensive and less accurate. The problem of "cheating" under a total SNF testing program appears to be real. The representative from Kraft testified, "According to a survey of the Whey Products Institute, dry whey used by dairies equals about 60% of their use of nonfat dry milk." Dr. R. C. Laben (cited earlier) agrees with the New England Committee and the evidence generally in this record in concluding, "Payment and breeding for solids-not-fat could lead to future inequities akin to some of the present ones. . .It seems more advisable to plan to test and select directly for the solids-not-fat component of the highest economic and nutritional value."

30. That it is noted that this proceeding does not involve competition between breeds of cows. While there is some minor difference between general overall averages of protein content between breeds, with Holstein cattle being the lowest, tremendous variations between individual cows and herds is the rule. Ninety percent of the MVPA producers and board members are Holstein producers. A representative of AMPI also testified that a majority of the producers served by their plant at Blair, Wisconsin, are Holstein producers, including some of the highest protein testing herds.

31. That there was substantial testimony on the record indicating that the best pricing mechanism would be one which allows the greatest degree of flexibility. MVPA testified, for example, that it has experimented with and modified over the years its methods as described in a previous Finding. It has chosen to move in the direction of a "pure" protein pricing mechanism with a "floor" of 2.9% protein, so that milk of a lower percentage would actually receive less money than they would otherwise receive under prevailing market pricing systems. AMPI in Blair, Wisconsin, pays farmers a premium only for higher protein content without any deductions for low protein content.

Golden Guernsey in Wisconsin has chosen to recognize the declining value of butterfat in relation to protein in the marketplace by shifting some of the money that would ordinarily be paid for a high butterfat differential to a premium for higher protein content without any protein deductions. There is no evidence that this experimentation by these three purchasers has caused any problem whatsoever in the State of Wisconsin.

At least one Minnesota producer appears to be selling Guernsey milk via TriState Guernsey Producers Co-op to A & E Dairy in Des Moines, Iowa. This dairy pays a flat 41¢ per hundred weight premium for Guernsey milk because of its higher average protein content. A TriState newsletter explains that they have rejected the more equitable point-by-point differential because, "Where a flat hundred weight premium has been established, it could cause dissension. Starting from scratch, it could be satisfactory." There is no evidence that anyone is harmed or that any other problems are caused by this variation of protein payment methods. Any of the three alternatives in the proposed rule would include point-by-point differentials and would, consequently, apparently harm or at least inconvenience this producer and purchaser. A letter from the Executive Assistant of National All-Jersey, Inc., urges, "That this regulation would not attempt to set levels at which protein add-on or deductions would start nor would it set a price differential. Let this be a matter of free enterprise and competition among buyers."

Regulation of pricing methods would require a rules promulgation process for any revision of that method. Therefore, adoption of the alternative most favorable to MVPA (that is, a broad base of 2.9% to 3.2% protein) would require a rules change every time this purchaser wanted to improve its system in light of its announced intention to gradually reduce the base by raising the floor for deductions to 3.2% by 1982. Any of the alternatives would restrict other purchasers such as AMPI or Kraft from instituting a pricing mechanism compatible with one used by them in another state. Any of the other alternatives would also necessitate amending these rules if and when the USDA takes action on protein pricing.

No state has evidently yet chosen to regulate protein pricing methods other than California, and no abuses or problems have been experienced with allowing purchasers to experiment and adjust their protein pricing to the realities of the marketplace. The only other attempt at government dictation of protein pricing measures cited in the record is the Wisconsin "guidelines" requiring graduated uniform "point" premiums and deducts above and below a level of 3.2% protein. Wisconsin officials have not attempted to give these "guidelines" the force and effect of law by promulgating them as rules, and they have, consequently, been uniformly ignored with the full knowledge of Wisconsin officials.

The adoption of any of the three alternative pricing methods would restrict the flexibility necessary for gradual herd improvement as anticipated

by MVPA or allow other purchasers to institute methods compatible with their programs in other states.

CONCLUSIONS

1. That any of the foregoing Findings that are more properly denominated Conclusions are hereby adopted as such.

2. That the Department of Agriculture duly acquired and now has jurisdiction over the within proceeding.

3. That all relevant legal and procedural requirements of statute and rule have been complied with.

4. That the Department has documented its statutory authority to adopt these rules as hereinafter proposed for adoption in this Order.

5. That the Department has documented the need for and reasonableness of its proposed rules as hereinafter proposed for adoption in this Order with an affirmative presentation of facts.

ORDER ADOPTING RULES

After having heard all of the testimony, having considered all of the evidence adduced and upon the records, files, and proceedings herein, and applicable statutory standards or criteria, and having confirmed the need for the above-captioned rules and the reasonableness thereof,

NOW, THEREFORE, IT IS ORDERED that these rules identified as Purchase of Milk on the Basis of Protein, except for proposed rule 3MCAR 1.1332 and the seven last words of 3MCAR 1.1331A, are adopted this 24th day of May, 1979, pursuant to authority vested in me by Minn. Stat. Sec. 15.0412 and Minn. Stat. Sec. 32.25.

STATE OF MINNESOTA

Mark W. Seetin

Mark. W. Seetin
Commissioner of Agriculture

AFFIDAVIT

STATE OF MINNESOTA)
) SS.
COUNTY OF RAMSEY)

Paul G. Christ, upon first being duly sworn, deposes and says as follows:

1. I am Vice President, Primary Dairy Processing and Procurement for Land O'Lakes, Inc. I have been employed by Land O'Lakes for the last five years. From 1961 to 1974, I was employed in the Dairy Division of the U.S. Department of Agriculture.

2. On March 8, 1979, I attended the hearing of the Minnesota Department of Agriculture held at Shakopee, Minnesota to consider the proposed adoption of rules of the Department of Agriculture governing the purchase of milk on the basis of protein. At this hearing I asked the hearing examiner if consideration of solids-not-fat testing and pricing was within the scope of the hearing. His reply was that solids-not-fat testing and pricing was not within the scope of the hearing.

3. This statement of the inquiry and answer is based on my best recollection, since a verbatim transcript of the hearing does not exist.

Further affiant saith not.

Paul G. Christ

Paul G. Christ

Subscribed and sworn to
before me this 28 day
of June, 1979.

Alan Silver

ALAN I. SILVER
NOTARY PUBLIC - MINNESOTA
HENNEPIN COUNTY
My Comm. Expires Oct. 30, 1982

Ex. 1

Pursuant to the provisions of Minn. Stat. § 15.0412, subd. 6, when, in preparing to propose rules, an agency seeks to obtain information or opinion from sources outside of the agency, a notice of intent to solicit such information or opinion is published in the *State Register* and interested persons are afforded an opportunity to submit data and views on the subject.

The *State Register* also contains any other official notice requested to be published by an agency, pursuant to Laws of 1977, ch. 305 § 3.

Department of Agriculture

Notice of Intent to Solicit Outside Opinion on the Purchase of Milk on the Basis of Protein and Other Non-Fat Solids

Notice is hereby given, pursuant to the provisions of Minn. Stat. § 15.0412, subd. 6 (Supp. 1977) that the Minnesota Department of Agriculture is considering the adoption of rules which would allow the purchasing of whole milk on the basis of non-fat solids contained therein in addition to milk fat per hundredweight. Said rules would, among other things, relate to the testing of protein and other non-fat solids in whole milk as set forth at Minn. Stat. § 32.25 (1976).

All interested parties desiring to submit data or views relating to said proposed rules should address their comments to the Minnesota Department of Agriculture, 430 State Office Building, St. Paul, Minnesota, 55155, by writing or calling the person designated. Evidence submitted for consideration should be pertinent to the matter at hand. Any materials received by the Department will become part of the hearing record.

All interested parties may submit their comments to:

Orlowe Osten, Director
Dairy Industries Division
430 State Office Building
St. Paul, Minnesota 55155
Telephone (612) 296-3647.

Any materials submitted shall be reviewed and considered by the Department of Agriculture during the preparation of proposed rules. Notice of the public hearing on the proposed rules will be published in the *State Register* and, in addition, given to all interested parties who have registered with the Secretary of State's office in accordance with the provisions of the Administrative Procedure Act.

Under the provisions of Minn. Stat. § 15.0412, subd. 6 (Supp. 1977) any individual representing persons or associations attempting to influence administrative action, such as the adoption of proposed rules, must register with the State Ethics Commission as a lobbyist within five days of the commencement of such activity. The State Ethics Commission is located at Room 401 State Office Building, St. Paul, Minnesota 55155.

All comments and materials must be received by 4:30 p.m. April 28, 1978.

Bill Walker
Commissioner

Swiss Valley FARMS

July 5, 1979

Mr. Lee Sheehy
Office of the Attorney General
G 25 Administration Building
St. Paul, MN 55155

Dear Mr. Sheehy:

We would like to go on record supporting the adoption of Rules for Protein Pricing of Milk in the State of Minnesota.

As you know, our members have been unable to receive the protein premiums due them since an injunction was issued against us nearly a year ago. They are very anxious that they can continue to receive the payments the same as other members in our cooperative in the other states where we operate.

We respectfully request that rules be adopted which allow us to pay our members in Minnesota on the basis of the amount of protein in their milk with a neutral zone of 2.9% to 3.2% protein. We believe that this is the most equitable way to pay at this stage of component pricing. Our comments in that regard are based on our five and one half years of experience in paying our members for the protein in their milk.

If you should have any questions in regard to our position, please feel welcome to contact us.

Very truly yours,

MISSISSIPPI VALLEY MILK PRODUCERS
ASSOCIATION, INC.

Carl E. Zurborg

Carl E. Zurborg
Chief Executive

CEZ:md

cc: Gerald Bratland
Elmer F. Paper

RECEIVED
JUN 7 19
ATTORNEY GENERAL
ADMINISTRATIVE AGENCIES

STATE OF MINNESOTA
DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED)
RULES OF THE DEPARTMENT OF)
AGRICULTURE GOVERNING THE)
PURCHASE OF MILK ON THE BASIS)
OF PROTEIN)

STATEMENT OF NEED
AND REASONABLENESS

The above captioned rules are not amendments to existing rules of the Department of Agriculture.

The authority to adopt these rules arises from Minn. Stat. § 32.25 relating to milk, cream, skim milk, and buttermilk bought by weight. The law provides that the Commissioner of Agriculture, by promulgation of rules and regulations, may allow the purchasing of whole milk, "... the purchase price of such milk shall be based upon the declared purchase price of 100 pounds of whole milk ... calculated at three and one-half pounds of milk fat per hundred weight and the nonfat solids contained therein."

The Department will be represented by the following staff: Mark Seetin, Commissioner; Orlowe Osten, Director of Dairy Industries; Harold Johnson, Supervisor North Region; Leonard Waldock, Regional Supervisor; and Randall Young, Director of Planning. Legal Counsel will be provided by Peder Hong, Special Attorney General.

The Department will call no outside witnesses to testify.

The Department will introduce the following documents into evidence:

1. State of Minnesota by Bill Walker, its Commissioner vs. Mississippi Valley Milk Producers Association, Inc., Minnesota Third District Court, File No. 12146 (July 3, 1978).

2. Nielsen, V. H., "Should Protein be Used to Determine Price?" American Dairy Review (February, 1974).

3. Ginn, Roy E. and Packard, Vernal S., Jr. "Comparisons of Milkfat Tests on Commercial Milk Samples Determined by the Milko-Tester and Babcock Methods". Journal of Milk and Food Technology, Vol. 32, No. 6 (June, 1969).

4. Sherbon, John W., "Does Protein Testing Give Accurate Results?" Dairy and Ice Cream Field, Vol. 160 (1977).

5. Kroger, Manfred, "Milk Protein Determinations". American Dairy Review. (September, 1973).

6. Sherbon, J. W., "Our Industry Today: Recent Developments in Determining Protein Content of Dairy Products by Dye Binding". Journal of Dairy Science. Vol. 61, No. 9 (1978).

7. Packard, Vernal S., Jr. "Methods for Determining Protein in Milk". (unpublished outline prepared for these hearings).

8. Packard, Vernal S., Jr. "Some Considerations in Component Pricing". (unpublished outline prepared for these hearings).

9. Wisconsin Department of Agriculture, Trade and Consumer Protection. Guidelines: Milk Components.

10. Gaunt, Stanley N., Consider Nutritional Pricing of Milk. (University of Massachusetts).

RULES JUSTIFICATION

The section by section for these rules will be made by first stating the section and then presenting the explanation of the intent, need for and reasonableness of each section.

Presently, Minnesota is the only State in which the pricing of milk on the basis of protein is not permitted. This is due to a lack of promulgated rules regarding the issue. Pursuant to Minn. Stat. § 32.25, "The latter basis [calculation of price on milk fat and nonfat solids contained therein] shall be used only after the Commissioner has promulgated ... rules and regulations for the testing of nonfat solids." As a result, on June 14, 1978 the Third District Court issued a temporary injunction enjoining and restraining a cooperative from purchasing milk in Minnesota except according to the formula for milk fat set forth in Minn. Stat. § 32.25. In its memorandum, the court stated that "The Court's personal opinion is that the program [of paying for milk on the basis of protein as well as milk fat] makes sense and results in higher payments to efficient producers of high protein milk ..." The Department agrees with this opinion and believes that these rules are necessary to make Minnesota's marketing system comparable and compatible with other States. These rules are reasonable in that they do not force any purchaser or producer to participate in such a pricing mechanism but rather allows this mechanism to be instituted. In addition to this justification, the Department is adopting the ten referenced documents cited above as additional justification for the need for and reasonableness of these proposed rules.

3 MCAR 1.1331 General

A. Purpose and Authority. The rules contained herein are prescribed pursuant to Minn. Stat. § 32.25 by the commissioner to provide an optional method for the purchasing of whole milk, the purchase price of which shall be calculated upon the basis of 100 pounds of whole milk at 3.5 pounds of milk fat and 3.2 pounds of protein per hundredweight.

...This section of 3 MCAR 1.1331 sets forth the authority by which the Commissioner may promulgate these rules and a brief description of the interest of the proposed rules. This provision is needed and reasonable for establishing proper statutory authority and providing for easy reference for each authority to readers of the rules.

B. Definitions. For purposes of these rules the following definitions and those in Minn. Stat. § 32.01, shall apply:

1. "Producer" means any person who operates a dairy herd or herds producing milk commercially and whose milk is sold to, or received or handled by, a purchaser as defined in this rule.

2. "Purchaser" means any person purchasing whole milk from a producer and defined as a dairy plant in Minn. Stat. § 32.01, subd. 6.

...This provision sets forth the definitions of commonly used terms in the rules. The term "producer" is defined so as to include all persons intended to fall within the scope of these rules.

The section also defines "purchaser" in such a manner so as to set forth the relationship between producer and purchaser necessary for jurisdictional delineation for the applicability of these proposed rules.

These definitions, along with the reference to the applicability of all definitions set forth in the Act itself, are necessary and reasonable for brevity and clarity of the operational portion of the rules.

3 MCAR 1.1332 Criteria for Purchasing Milk on the Basis of Protein.

...The Department is offering three alternative methods for determining the purchase price of whole milk based on protein content pursuant to these rules. The Department believes that all three methods have merit and wishes to develop a record of public comment on each alternative before adopting one of the methods. By using this technique in proposing the rule, the Department believes that it will be allowing for the greatest degree of public input and will not be putting advocates or opponents of any alternative method at an advantage or disadvantage.

ALTERNATIVE "1" FOR 3 MCAR 1.1332A: *

A. Any purchaser may base the price paid for such milk on both the milk fat and protein content of such milk, provided:

1. The purchase price is determined by the declared purchase price of 100 pounds of whole milk calculated at 3.5 pounds of milk fat and 3.2 pounds of protein content per hundredweight;

2. That when the milk fat test or the protein test of such whole milk varies from the aforementioned weights per hundredweight, a uniform adjustment in the declared purchase price shall to made for each one-tenth of one percent of milk fat or protein above or below the aforementioned weights;

...This alternative method establishes a parallel system to that set forth in Minn. Stat. § 32.25 for payment based upon milk fat content. It provides for equity among producers in that the distribution of payments for production is based upon two primary components of milk - milk fat and protein. Machines are available today that will test and measure the level of protein and milk fat content quickly and at low cost. With these tests, a producer can be paid for the exact amount of protein in his/her milk. By paying for the protein level the price more accurately reflects on the commercial value of the milk. This alternative would establish a bench mark of 3.2 percent protein in milk. This bench mark as used in all three alternatives has become the nationally accepted orm for protein content. Athough individual studies have shown averages both above and below 3.2 percent, is believed to be a good average for all breeds of cows in Minnesota producing all grades of milk. This is substantiated by the University of Minnesota's study which showed a computed average of approximately 3.2 percent protein content.

Also, because the Minnesota dairy industry does not exist in a vacuum, one must take into consideration the experiences and practices of neighboring States. It should be noted that Wisconsin has also adopted a 3.2 percent protein standard in their program. The Department believes that for Minnesota to adopt a different standard would only further complicate this situation and would put either Minnesota producers or purchasers at a competitive disadvantage, depending on whether the Minnesota bench mark was above or below 3.2 percent.

Alternative "1" would probably produce the strongest incentive for producers to increase the protein quality of their milk. It would also be the least disruptive to the "average" producers because bonuses for milk over 3.2 percent could be paid for from funds not paid out for milk under 3.2 percent. This approach could lead to a situation where low producers would leave purchasers paying on a protein basis and sell to non participating purchasers.

ALTERNATIVE "2" FOR 3 MCAR 1.1332A: *

A. Any purchaser may base the price paid for such milk on both the milk fat and protein content of such milk, provided:

1. The purchase price is determined by the declared purchase price for 100 pounds of whole milk calculated at 3.5 pounds of milk fat and 3.2 pounds of protein content per hundredweight;

2. That price adjustments for milk fat shall be set pursuant to Minn. Stat. § 32.25, subd. 1;

3. That when the protein test of such whole milk varies from the 3.2 pounds per hundredweight, a uniform adjustment in the declared purchase price shall be made for each one-tenth of one percent of protein above 3.2 pounds per hundredweight;

...This alternative, which also uses 3.2% as the benchmark, would pay a bonus for milk containing protein over that level but would not deduct for milk under 3.2%. This approach would not penalize these breeds which are normally low protein producers. The bonuses paid to high producers would most likely come from all other producers in the form of overall lower prices paid for the milk. This method would encourage improved milk, but probably not as effectively as Alternative "1". It would not be as likely that low protein producers would "jump" to non-participating purchasers.

ALTERNATIVE "3" FOR 3 MCAR 1.1332 A: *

A. Any purchaser may base the price paid for such milk on both the milk fat and protein content of such milk, provided:

1. The purchase price is determined by the declared purchase price of 100 pounds of whole milk calculated at 3.5 pounds of milk fat and 3.0 to 3.2 pounds of protein content per hundredweight;

2. That when the milk fat test or the protein test of such whole milk varies from the aforementioned weights per hundredweight, a uniform adjustment in the declared purchase price shall be made for each one-tenth of one percent of milk fat or protein above or below the aforementioned weights;

NOTE: 3 MCAR 1.1331 A. would read:

"... 3.5 pounds of milk fat and 3.0 to 3.2 pounds of protein per hundredweight."

...This approach would provide a "buffer zone" of 0.3%. It would probably impact fewer producers negatively in that few would fall within the "deduct" category, and yet at least a portion of the bonus payment could be paid for from funds deducted from low producers. This approach would not have as great an incentive to improve milk as would Alternative "1" and could lead to some "jumping" of low protein producers to non-participating purchasers.

B. The purchaser shall not discriminate in the buying of such milk pursuant to Minn. Stat. § 32.11 and all producers selling to such a purchaser shall be subject to the provisions of this rule.

...Section "B" of 3 MCAR 1.1332 contains two elements. First, it references Minn. Stat. § 32.11 which deals with prohibition against discrimination in the buying of milk "between persons in the same section, locality, community or city of this state, by purchasing such commodity at a higher price or rate from one person or in one locality than is paid for the same commodity by such person... in the same locality or in another locality, after making due [statutorally authorized] allowance for the difference..." This reference is a necessary and reasonable provision to inform the public that this law applies to these rules and to eliminate any unnecessary litigation of the matter. The second element in this section further indicates that when a purchaser elects to buy on a protein basis, no producers may be excluded, nor may the producer choose to be excluded from this method or purchase. This provision is necessary and reasonable to prohibit discrimination between producers and assure that all patrons of a purchaser are afforded the provisions of these rules, if the purchaser opts for purchasing on a protein content basis. Without this provision producers of high protein content milk might be excluded from bonus payment, or producers of low protein content milk might exclude themselves for the program. Without full participation, this system of pricing cannot function properly.

3 MCAR 1.1333 Testing Procedures.

A. Samples collection and handling. Samples to be used for the testing of protein content shall be collected and handled in the same manner as samples used for bacterial tests as prescribed in "Standard Methods for the Examination of Dairy Products", Thirteenth Edition, published by the American Public Health Association. The minimum size for a fresh milk sample shall be two ounces (0.0592 liter).

...In order to obtain accurate protein content test results, the whole milk samples must be properly handled. This provision of 3 MCAR 1.1333 establishes such proper handling standards. Methods for samples used for bacterial test are reasonable and necessary in that the bacterial and chemical composition

of the sample can be maintained with the same handling techniques. These methods include adequate agitation, dry and clean sampling instruments and sample containers, refrigeration to arrest bacterial growth and maintain chemical composition, and avoiding unnecessary churning and whipping of the samples.

Also, a minimum sample size of 2 ounces is necessary and reasonable because it is large enough to allow for the rechecking of a sample by means of any of the authorized methods. It is also a size small enough to minimize the amount of refrigerated storage space needed by the purchaser.

B. Sample testing.

1. Only the following methods, as prescribed by the Official Association of Analytical Chemists, shall be used in the testing of whole milk for protein content pursuant to these rules:

a. Kjeldahl, Methods No. 1.049 and 16.036, total nitrogen;

b. Dye binding, Method No. 16.037, acid orange 12;

c. Pro-milk method for determination of protein in milk, amido block 10B, Journal of the Official Methods of Analysis of the Association of Analytical Chemists(Vol. 58, No. 4), 1975;

d. Infra-red. Milk Analysis, Method No. 16.097 and 16.080, part 2 protein; or

e. Any other method of equal or greater accuracy approved by the Official Association of Analytical Chemists and approved by the commissioner.

...In order to assure accurate test results in determining protein content standards are necessary and reasonable. This section sets forth the methods of analysis which have been determined by the Official Association of Analytical Chemists (O.A.A.C) to be suitable for protein testing. By reference this section also sets forth the actual procedures to be used in these tests to assure accuracy.

In addition to the four tests presently prescribed by the OAAC, this section provides for the use of future tests determined by the OAAC to be acceptable. Such a provision is necessary and reasonable to give the commissioner the flexibility to remain current with the state of the act. The necessity of hearings for such a minor administrative change would be an unreasonable time delay in implementation of new techniques and would probably result in rules which were outdated.

Criteria and standards have been incorporated into this provision of the rule to meet the delegation of powers test. Through this rule the Commissioner does not delegate this rule-making authority to the OAAC because the Commissioner must still approve such new tests. The approval of the OAAC does not automatically authorize the use of new tests. This also satisfies the prohibition of "pre-adoption" of rules.

Secondly, standards put forth in the rule limit and channel the Commissioner's power to approve new tests. With these controls, and the need for rapid response to new technology in the field, this provision is necessary and reasonable for an orderly administration of the program and the law.

2. Only testing equipment accurately calibrated as prescribed by the methods for calibration set forth in the above cited methods shall be used on conducting sample testing for protein content pursuant to these rules.

3. The commissioner may inspect and test any testing equipment with standardized solutions to determine their accuracy.

...Obviously, the best scientific tests are no more accurate than the equipment used. These two provisions of 3 MCAR 1.1333 specifically require that testing equipment be accurately calibrated and that the Commissioner may check to assure such testing equipment accuracy. These provisions are necessary and reasonable to assure accurate and fair testing for protein content.

4. Frequency of sampling and testing.

a. When the calculation of protein content for payment for whole milk purchased pursuant to these rules is based on a one (1) month period of production, four (4) or more test results on random samples taken from different deliveries shall be used to compute the arithmetic average of those test samples.

...For consistency amount purchasers using this program and as a protection to the producers it is necessary that this section establish a uniform system for testing and upon which to base payment for milk. This system calls for a random sampling and averaging technique rather than requiring that every delivery be sampled and tested. The later technique would be too time consuming and costly for the purchaser to be considered a reasonable method. A 1969 study conducted by Ginn and Packard found that sampling four randomly selected samples per month was comparable in accuracy to testing every sample (See "Comparisons of Milk fat Tests on Commercial Milk Samples Determined by the Milko-Tester and

Babcock Methods"). Thus, this method of sampling is reasonable for both the purchaser and the producer.

5. Sample retention and handling. All samples collected and used for protein testing pursuant to these rules shall be held at temperatures of 32° to 40°F until tested and shall be returned to that temperature within two (2) hours of the last test made on the sample. All samples shall be retained at the place of testing until 3:00 p.m. of the day following the last testing date of the sample.

...This section mandates that samples must be held at temperatures which will maintain their chemical composition and give accurate protein levels. Returning samples to these temperatures after the initial test will provide for accurate retesting, if that should be necessary. The two hour requirement for returning samples to these temperatures is necessary to assure proper handling to maintain the samples chemical composition and is reasonable because this is adequate time for a sample to return to the required temperatures without special handling during that period.

This section also requires the retention of samples. This is necessary so that retesting of samples may take place when required. Requiring that samples be kept until 3:00 p.m. the next day is reasonable in that it allows the purchaser to retest as well as the department to randomly inspect and audit samples when necessary. Retention for longer periods would be unreasonable because of the large amount of additional refrigerated storage space that would be needed to keep the samples.

C. Test records.

1. Purchasers shall provide producers with a statement of the protein content of the milk with or in each settlement statement.

...This provision is necessary so that the purchasers have a means of verifying payments made by the purchaser as well as to use the protein levels provided in the statements as a guide for improvement. This is a reasonable accounting requirement to impose upon the purchasers as it requires the calculation of no additional data.

2. When whole milk is found to be abnormal pursuant to 3 MCAR 1.1188, the purchaser's records shall indicate the results of the confirmatory tests. Only confirmatory tests approved pursuant to 3 MCAR 1.1188 shall be used in determining the ineligibility of whole milk purchased on a protein basis.

...This provision allows but does not require a purchaser to restrict producers whose milk is abnormal from the purchaser's protein pricing program. This is reasonable because abnormalities in milk can effect the amount of protein in milk relative of other components. It also converts present protein content to whey protein, which is lost in the whey rather than becoming a part of the cheese. (See American Dairy Review, February, 1974). This would have an impact on the price paid for the milk because the amount of protein in the milk would test higher than it actually was. This provision is necessary so that purchasers who rely on high protein milk for their manufactured dairy products can be assured that they are receiving the protein content they are paying for. It is also an incentive for producers to rapidly correct abnormality problems in their milk.

3. All test records and results for protein content pursuant to these rules and the computation of payments to producers selling whole milk on a protein basis shall be retained by the purchaser for a period of not less than one (1) year. All records relative to such tests and payments shall be available for inspection during normal working or other reasonable hours by persons authorized by the commissioner.

...This provision for records retention is necessary so that the department may conduct audits of purchasers. This one year retention is reasonable in that it does not impose a hardship on the purchasers who must already keep records for this period for accounting purposes. It is also consistent with other record keeping requirements on the dairy industry [See Agr 1194(c)]. The provision allowing access to plant records by the department is necessary to assure compliance with the provisions of this act. It is also consistent with Minn. Stat. § 32.20.

3 MCAR 1.1334 Licensed testers.

A. All persons engaged in the sampling and/or testing of whole milk to determine its value for payment to producers shall be licensed by the commissioner.

B. Any person desiring to secure such a license shall make application on forms provided by the commissioner. Before a license is issued, the commissioner shall determine that the applicant is competent and qualified to use such testing apparatus for determining protein content of whole milk and to make accurate tests with them.

C. Every license issued by the commissioner shall be for a period ending on the December 31 following issuance and shall not be transferrable.

...Although it is not specially authorized in Minn. Stat. § 32.25, it is necessary that testers engaged in protein sampling and testing be licensed pursuant to these rules. Without licensing provisions there would be no means of

assuring that testers were qualified to perform the work they were doing. If testers were not licensed the provisions in these rules approving methods and requiring properly calibrated equipment would be meaningless. The licensing provisions are reasonable in that they are substantially identical to the licensing provision required under Minn. Stat. § 32.075 for persons doing other testing and grading of milk pursuant to Minn. Stat. § 32.073 and 32.074.

D. The fee for each initial license shall be $15 and each renewal thereof shall be $6 and shall be paid to the commissioner before any license or renewal thereof is issued.

E. The commissioner shall suspend or cancel any license issued pursuant to these rules, after notice and hearing, found to be in violation of Minn. Stat. sec. 32.25 or these rules.

...The corellary in administrative law to the doctrine licensure is the imposition of fees associated with such licensure. This fee provision is necessary in order to fund the licensing process. The fee provision is reasonable in that the fees are not excessive and parallel the fees charged pursuant to Minn. Stat. § 32.075 to dairy plants.

This suspension and cancellation section is a necessary and reasonable enforcement tool. It is needed so that persons found in violation of the law can be dealt with in an administratively predictable and reasonable manner.

Submitted by the
Minnesota Department of Agriculture.

Bill Walker
Commissioner

Dated: December 19, 1978

STATE OF MINNESOTA
DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED)
RULES OF THE DEPARTMENT OF)
AGRICULTURE GOVERNING THE)
PURCHASE OF MILK ON THE BASIS)
OF PROTEIN)

AMENDED
STATEMENT OF NEED
AND REASONABLENESS

In addition to the staff members representing the Department of Agriculture indicated in the original Statement of Need and Reasonableness, the Department will also be represented by Mark Seetin, Commissioner and Harold Johnson, North Region Supervisor.

Submitted by the
Minnesota Department of Agriculture

Mark W. Seetin
Commissioner

Dated: February 8, 1979

OFFICIAL NOTICES

Pursuant to the provisions of Minn. Stat. § 15.0412, subd. 6, an agency, in preparing proposed rules, may seek information or opinion from sources outside the agency. Notices of intent to solicit outside opinion must be published in the *State Register* and all interested persons afforded the opportunity to submit data or views on the subject, either orally or in writing.

The *State Register* also publishes other official notices of state agencies, notices of meetings, and matters of public interest.



Giacomo C. Beltrami was an Italian lawyer who traveled with the government expedition led by Stephen Long in 1823. Leaving the Long group at Pembina, North Dakota, he wandered eastward to a lake in what is now Beltrami County which he named Lake Julia. He incorrectly believed the lake to be the source of both the Mississippi and Red rivers. Giacomo's book, A Pilgrimage in Europe and America, was published in the same year. (Oil painting by G. A. Micheli, courtesy of Minnesota Historical Society)

Department of Agriculture

Notice of Postponed Hearing on Proposed Rules Governing the Purchase of Milk on the Basis of Protein

Notice is hereby given that the public hearings in the above-entitled matter published in the *State Register* December 11, 1978, and originally scheduled to be held in the Administration Building, Room 116A, 50 Sherburne Avenue, Saint Paul, Minnesota on January 15, 1979, commencing at 10:00 a.m., and also at the Houston County Courthouse, 304 South Marshall Street, Caledonia, Minnesota on January 16, 1979, commencing at 7:00 p.m., have been rescheduled. Hearings will now be held in the Veterans Service Building, Room D, 20 West 12th Street and Columbus Avenue, Saint Paul, Minnesota on July 16, 1979, commencing at 10:00 a.m., or as soon thereafter as possible; and at the Houston County Courthouse, 304 South Marshall Street, Caledonia, Minnesota on July 17, 1979, commencing at 7:00 p.m., or as soon thereafter as possible. Additionally, a hearing will be held in the Sauk Center City Hall, Meeting Hall, 405 Sinclair Lewis Avenue, Sauk Center, Minnesota on July 19, 1979, at 7:00 p.m., or as soon thereafter as possible, and continuing until all persons have had an opportunity to be heard.

January 2, 1979

Mark Seetin
Commissioner of Agriculture

Ethical Practices Board

Notice of Meeting

Preliminary Agenda

Wednesday, January 17, 1979, Room 42, State Office Building

1. MINUTES (November 28, 1978)
2. CHAIRMAN'S REPORT
3. LEGAL COUNSEL REPORT
4. 1979 CAMPAIGN FINANCE LIMITS
5. RESEARCH PROPOSAL

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED ADOPTION OF RULES OF THE DEPARTMENT OF AGRICULTURE GOVERNING THE PURCHASE OF MILK ON THE BASIS OF PROTEIN	NOTICE OF POSTPONED HEARING

NOTICE IS HEREBY GIVEN that the public hearings in the above-entitled matter published in the State Register December 11, 1978, and originally scheduled to be held in the Administration Building, Room 116A, 50 Sherburne Avenue, Saint Paul, Minnesota on January 15, 1979, commencing at 10:00 a.m., and also at the Houston County Courthouse, 304 South Marshall Street, Caledonia, Minnesota on January 16, 1979, commencing at 7:00 p.m., have been rescheduled. Hearings will now be held in the Veterans Service Building, Room D, 20 West 12th Street and Columbus Avenue, Saint Paul, Minnesota on July 16, 1979, commencing at 10:00 a.m., or as soon thereafter as possible; and at the Houston County Courthouse, 304 South Marshall Street, Caledonia, Minnesota on July 17, 1979, commencing at 7:00 p.m., or as soon thereafter as possible. Additionally, a hearing will be held in the Sauk Center City Hall, Meeting Hall, 405 Sinclair Lewis Avenue, Sauk Center, Minnesota on July 19, 1979, at 7:00 p.m., or as soon thereafter as possible, and continuing until all persons have had an opportunity to be heard.

STATE OF MINNESOTA

Mark Seetin
Commissioner of Agriculture

Date: January 2, 1979

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED ADOPTION OF RULES OF THE DEPARTMENT OF AGRICULTURE) GOVERNING THE PURCHASE OF MILK ON THE BASIS OF PROTEIN	CERTIFICATE OF DELIVERY OF SECRETARY OF STATE LIST

I hereby certify that the attached 587 labels & 5 sheets constitute the complete list of persons, associations, and other interested groups who as of 10:00 o'clock a.m., this 4th day of January, 1979, have requested pursuant to Minn. Stat. 15.0412 (1977 Supp.), that their names be placed on file with the Secretary of State for the purpose of receiving notice of public hearing on proposed rules on the subject captioned above.

SECRETARY OF STATE

Joan Anderson Growe

BY: Peggy Denlock

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED ADOPTION OF RULES OF THE DEPARTMENT OF AGRICULTURE GOVERNING THE PURCHASE OF MILK ON THE BASIS OF PROTEIN	AFFIDAVIT OF RECEIPT OF THE SECRETARY OF STATE'S LIST

Victoria A. Fowler being duly sworn on oath deposes and says:

1) That she is an employee of the Department of Agriculture of the State of Minnesota.

2) That on the 4th day of January, 1979, she went to the Secretary of State's Office for the State of Minnesota and requested a current list of all representatives of associations or other interested groups or persons who had registered their names with the Secretary of State for the purpose of obtaining notices of public hearings relating to the promulgation of rules pursuant to Minn. Stat. 15.0412 (1977 Supp.).

3) That on the 4th day of January, 1979, in response to the above request, the Secretary of State provided her with such a list, a copy of which is attached hereto and incorporated by reference.

Further affiant sayeth not. Victoria A. Fowler

Subscribed and sworn to before me this

5th day of January, 1979.

Notary Public Joan Fridley

Ramsey County, Minnesota

My commission expires: August 14, 1981.

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED ADOPTION)
OF RULES OF THE DEPARTMENT OF AGRICULTURE)
GOVERNING THE PURCHASE OF MILK ON THE) AFFIDAVIT OF MAILING
BASIS OF PROTEIN)

Sandy Fenton being first duly sworn, deposes and says:

That on the 5 day of January, 1979, in the City of St. Paul, County of Ramsey, State of Minnesota, she served the attached Notice of Postponed Hearing by depositing in the United States Mail at said City of St. Paul, a true and correct copy thereof, properly enveloped, with postage prepaid, to all persons and associations at the addresses listed on the attached Certificate of the Secretary of State.

Further affiant sayeth not: Sandy Fenton

Subscribed and sworn to before me this
5th day of January, 1979.

Notary Public, Joan LaFleur
Ramsey County, Minnesota

My commission expires: _____

OFFICIAL NOTICES

Pursuant to the provisions of Minn. Stat. § 15.0412, subd. 6, an agency, in preparing proposed rules, may seek information or opinion from sources outside the agency. Notices of intent to solicit outside opinion must be published in the *State Register* and all interested persons afforded the opportunity to submit data or views on the subject, either orally or in writing.

The *State Register* also publishes other official notices of state agencies, notices of meetings, and matters of public interest.

Department of Agriculture

Notice of Rescheduled Hearing on Proposed Rules Governing the Purchase of Milk on the Basis of Protein

Notice is hereby given that the public hearings in the above-entitled matter published in the *State Register* December 11, 1978, and postponed in the *State Register* January 8, 1979, until July 16, 1979 at 10:00 a.m. in the Veterans Service Building, Room D, 20 West 12th Street and Columbus Avenue, Saint Paul, Minnesota; at the Houston County Courthouse, 304 South Marshall Street, Caledonia, Minnesota on July 17, 1979 at 7:00 p.m.; and in the Sauk Center City Hall, Meeting Hall, 405 Sinclair Lewis Avenue, Sauk Center, Minnesota on July 19, 1979, at 7:00 p.m., have been rescheduled.

Notice is hereby given that the public hearing will now be held in the Sauk Center City Hall, East Meeting Hall, 405 Sinclair Lewis Avenue, Sauk Center, Minnesota on March 6, 1979, at 7:30 p.m., or as soon thereafter as possible; at the Scott County Courthouse, 428 South Holmes, Shakopee, Minnesota on March 7, 1979, at 7:30 p.m., or as soon thereafter as possible; and at the Houston County Courthouse, 304 South Marshall Street, Caledonia, Minnesota on March 8, 1979, commencing at 7:30 p.m., or as soon thereafter as possible, and continuing until all persons have had an opportunity to be heard.

January 29, 1979

Mark W. Seetin
Commissioner of Agriculture

Board of Cosmetology

Notice of Application for a Certificate of Approval of Brooks Beauty School

Please take notice that an application for a certificate of approval for a hairdressing and beauty culture school, to be known as "Brooks Beauty School," 481 Rice Street, St. Paul, Minnesota 55103, has been filed with the Minnesota State Board of Cosmetology by Mr. Arthur Brooks, 1882 Colvin Avenue, St. Paul, Minnesota 55116.

Any party wishing to object to this application may do so by writing to the Minnesota State Board of Cosmetology, 500 Metro Square Building, St. Paul, Minnesota 55101. The objection must be received within twenty (20) days after this notice has been fully published. If any objections are received within that time period, the Board will hold a contested case hearing in this matter.

Ethical Practices Board

Advisory Opinion #57 Re: Campaign Finance — Effective Dates of Tax Credit Agreement

Approved by the Ethical Practices Board on January 19, 1979

Issued to:

Senator Robert O. Ashbach
State Office Building
St. Paul, Minnesota 55155

Summary

57. A signature by a candidate or an officeholder on a tax subsidy agreement in 1978 requires the signatory to adhere to campaign expenditure limits through the opening of filing for office in 1980 or the dissolution of the candidate or officeholder's principal campaign committee, whichever occurs first.

The full text of the opinion is available upon request from the office of the State Ethical Practices Board, 41 State Office Building, St. Paul, Minnesota 55155, (612) 296-5148.

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED ADOPTION)
OF RULES OF THE DEPARTMENT OF AGRICULTURE) NOTICE OF RESCHEDULED
GOVERNING THE PURCHASE OF MILK ON THE) HEARING
BASIS OF PROTEIN)

NOTICE IS HEREBY GIVEN that the public hearings in the above-entitled matter published in the State Register December 11, 1978, and postponed in the State Register January 8, 1979, until July 16, 1979 at 10:00 a.m. in the Veterans Service Building, Room D, 20 West 12th Street and Columbus Avenue, Saint Paul, Minnesota; at the Houston County Courthouse, 304 South Marshall Street, Caledonia, Minnesota on July 17, 1979 at 7:00 p.m.; and in the Sauk Center City Hall, Meeting Hall, 405 Sinclair Lewis Avenue, Sauk Center, Minnesota on July 19, 1979, at 7:00 p.m., have been rescheduled.

NOTICE IS HEREBY GIVEN that the public hearing will now be held in the Sauk Center City Hall, East Meeting Hall, 405 Sinclair Lewis Avenue, Sauk Center, Minnesota on March 6, 1979, at 7:30 p.m., or as soon thereafter as possible; at the Scott County Courthouse, 428 South Holmes, Shakopee, Minnesota on March 7, 1979, at 7:30 p.m., or as soon thereafter as possible; and at the Houston County Courthouse, 304 South Marshall Street, Caledonia, Minnesota on March 8, 1979, commencing at 7:30 p.m., or as soon thereafter as possible, and continuing until all persons have had an opportunity to be heard.

STATE OF MINNESOTA

Mark W. Seetin
Commissioner of Agriculture

Date: January 29, 1979

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED ADOPTION OF RULES OF THE DEPARTMENT OF AGRICULTURE GOVERNING THE PURCHASE OF MILK ON THE BASIS OF PROTEIN	CERTIFICATE OF DELIVERY OF SECRETARY OF STATE LIST

I hereby certify that the attached 585 labels 5 sheets constitute the complete list of persons, associations, and other interested groups who as of 2:00 o'clock PM, this 31st day of Jan, 1979, have requested pursuant to Minn. Stat. 15.0412 (1977 Supp.), that their names be placed on file with the Secretary of State for the purpose of receiving notice of public hearing on proposed rules on the subject captioned above.

Joan Anderson Growe

BY: Donna Scott

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED ADOPTION OF RULES OF THE DEPARTMENT OF AGRICULTURE GOVERNING THE PURCHASE OF MILK OF THE BASIS OF PROTEIN	AFFIDAVIT OF RECEIPT OF THE SECRETARY OF STATE'S LIST

Sandra L. Fenton being duly sworn on oath deposes and says:

1) That she is an employee of the Department of Agriculture of the State of Minnesota.

2) That on the 31st day of January, 1979, she went to the Secretary of State's Office for the State of Minnesota and requested a current list of all representatives of associations or other interested groups or persons who had registered their names with the Secretary of State for the purpose of obtaining notices of public hearings relating to the promulgation of rules pursuant to Minn. Stat. 15.0512 (1977 Supp.).

3) That on the 31st day of January, 1979, in response to the above request, the Secretary of State provided her with such a list, a copy of which is attached hereto and incorporated by reference.

Further affiant sayeth not. Sandra Fenton

Subscribed and sworn to before me this

31st day of January- 1979

Notary Public- MINNESOTA

RAMSEY County, Minnesota

My Commission expires: FEB. 16 1984.

JEROME J. JAROSH
NOTARY PUBLIC-MINNESOTA
RAMSEY COUNTY
My Comm. Expires Feb. 16, 1984

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED ADOPTION)
OF RULES OF THE DEPARTMENT OF AGRICULTURE)
GOVERNING THE PURCHASE OF MILK ON THE)
BASIS OF PROTEIN)

AFFIDAVIT OF MAILING

Sandy Fenton being first duly sworn, deposes and says:

That on the 31st day of January, 1979, in the City of St. Paul, County of Ramsey, State of Minnesota, she served the attached Notice of Postponed Hearing by depositing in the United States Mail at said City of St. Paul, a true and correct copy thereof, properly enveloped, with postage prepaid, to all persons and associations at the address listed on the attached Certificate of the Secretary of State.

Further affiant sayeth not: Sandy Fenton

Subscribed and sworn to before me this
31st day of JANUARY, 1979.

Notary Public, MINNESOTA

RAMSEY County, Minnesota

My commission expires: FEB. 16, 1984

Jerome J. Frosch

JEROME J. FROSCH
NOTARY PUBLIC-MINNESOTA
RAMSEY COUNTY
My Comm. Expires Feb. 16, 1984

RULES AS PROPOSED

PURCHASE OF MILK ON THE BASIS OF PROTEIN

CHAPTER 58

3 MCAR 1.1331 General.

A. Purpose and Authority. The rules contained herein are prescribed pursuant to Minn. Stat. § 32.25 by the commissioner to provide an optional method for the purchasing of whole milk, the purchase price of which shall be calculated upon the basis of 100 pounds of whole milk at 3.5 pounds of milk fat and 3.2 pounds of protein per hundredweight.

B. Definitions. For purposes of these rules the following definitions and those in Minn. Stat. § 32.01 shall apply:

1. "Producer" means any person who operates a dairy herd or herds producing milk commercially and whose milk is sold to, or received or handled by, a purchaser as defined in this rule.

2. "Purchaser" means any person purchasing whole milk from a producer and defined as a dairy plant in Minn. Stat. § 32.01, subd. 6.

3 MCAR 1.1332 Criteria for Purchasing Milk on the Basis of Protein.

ALTERNATIVE "1" FOR 3 MCAR 1.1332 A: *

A. Any purchaser may base the price paid for such milk on both the milk fat and protein content of such milk, provided:

1. The purchase price is determined by the declared purchase price of 100 pounds of whole milk calculated at 3.5 pounds of milk fat and 3.2 pounds of protein content per hundredweight;

2. That when the milk fat test or the protein test of such whole milk varies from the aforementioned weights per hundredweight, a uniform adjustment in the declared purchase price shall be made for each one-tenth of one percent of milk fat or protein above or below the aforementioned weights;

ALTERNATIVE "2" FOR 3 MCAR 1.1332 A: *

A. Any purchaser may base the price paid for such milk on both the milk fat and protein content of such milk, provided:

1. The purchase price is determined by the declared purchase price for 100 pounds of whole milk calculated at 3.5 pounds of milk fat and 3.2 pounds of protein content per hundredweight;

2. That price adjustments for milk fat shall be set pursuant to Minn. Stat. § 32.25, subd. 1;

3. That when the protein test of such whole milk varies from the 3.2 pounds per hundredweight, a uniform adjustment in the declared purchase price shall be made for each one-tenth of one percent of protein above 3.2 pounds per hundredweight;

ALTERNATIVE "3" FOR 3 MCAR 1.1332 A: *

A. Any purchaser may base the price paid for such milk on both the milk fat and protein content of such milk, provided:

1. The purchase price is determined by the declared purchase price of 100 pounds of whole milk calculated at 3.5 pounds of milk fat and 3.0 to 3.2 pounds of protein content per hundredweight;

2. That when the milk fat test or the protein test of such whole milk varies from the aforementioned weights per hundredweight, a uniform adjustment in the declared purchase price shall be made for each one-tenth of one percent of milk fat or protein above or below the aforementioned weights;

NOTE: 3 MCAR 1.1331 A. would read:

"... 3.5 pounds of milk fat and 3.0 to 3.2 pounds of protein per hundredweight."

* Testimony will be received on all three alternatives. Based upon the testimony at the hearings, one alternative will be promulgated by the Commissioner.

B. The purchaser shall not discriminate in the buying of such milk pursuant to Minn. Stat. § 32.11 and all producers selling to such a purchaser shall be subject to the provisions of this rule.

3 MCAR 1.1333 Testing Procedures.

A. Samples collection and handling. Samples to be used for the testing of protein content shall be collected and handled in the same manner as samples used for bacterial tests as prescribed in "Standard Methods for the Examination of Dairy Products", Thirteenth Edition, published by the American Public Health Association. The minimum size for a fresh milk sample shall be two ounces (0.0592 liter).

B. Sample testing.

1. Only the following methods, as prescribed by the Official Association of Analytical Chemists, shall be used in the testing of whole milk for protein content pursuant to these rules:

a. Kjeldahl, Method No. 1.049 and 16.036, total nitrogen;

b. Dye binding, Method No. 16.037, acid orange 12;

c. Pro-milk method for determination of protein in milk, amido block 10B, Journal of the Official Methods of Analysis of the Association of Analytical Chemists (Vol. 58, No. 4), 1975;

d. Infra-red. Milk Analysis, Method No. 16.097 and 16.080, part 2 protein; or

e. Any other method of equal or greater accuracy approved by the Official Association of Analytical Chemists and approved by the commissioner.

2. Only testing equipment accurately calibrated as prescribed by the methods for calibration set forth in the above cited methods shall be used on conducting sample testing for protein content pursuant to these rules.

3. The commissioner may inspect and test any testing equipment with standardized solutions to determine their accuracy.

4. Frequency of sampling and testing.

a. When the calculation of protein content for payment for whole milk purchased pursuant to these rules is based on a one (1) month period of production, four (4) or more test results on random samples taken from different deliveries shall be used to compute the arithmetic average of those test samples.

5. Sample retention and handling. All samples collected and used for protein testing pursuant to these rules shall be held at temperatures of 32°F to 40°F until tested and shall be returned to that temperature within two (2) hours of the last test made on the sample. All samples shall be retained at the place of testing until 3:00 p.m. of the day following the last testing date of the sample.

C. Test records.

1. Purchasers shall provide producers with a statement of the protein content of the milk with or in each settlement statement.

2. When whole milk is found to be abnormal pursuant to 3 MCAR 1.1188, the purchaser's records shall indicate the results of the confirmatory tests. Only confirmatory tests approved pursuant to 3 MCAR 1.1188 shall be used in determining the ineligibility of whole milk purchased on a protein basis.

3. All test records and results for protein content pursuant to these rules and the computation of payments to producers selling whole milk on a protein basis shall be retained by the purchaser for a period of not less than one (1) year. All records relative to such tests and payments shall be available for inspection during normal working or other reasonable hours by persons authorized by the commissioner.

3 MCAR 1.1334 Licensed testers.

A. All persons engaged in the sampling and/or testing of whole milk to determine its value for payment to producers shall be licensed by the commissioner.

B. Any person desiring to secure such a license shall make application on forms provided by the commissioner. Before a license is issued, the commissioner shall determine that the applicant is competent and qualified to use such testing apparatus for determining protein content of whole milk and to make accurate tests with them.

C. Every license issued by the commissioner shall be for a period ending on the December 31 following issuance and shall not be transferrable.

D. The fee for each initial license shall be $15 and each renewal thereof shall be $6 and shall be paid to the commissioner before any license or renewal thereof is issued.

E. The commissioner shall suspend or cancel any license issued pursuant to these rules, after notice and hearing, found to be in violation of Minn. Stat. sec. 32.25 or these rules.

PROPOSED RULES

Pursuant to Minn. Stat. § 15.0412, subd. 4, agencies must hold public hearings on proposed new rules and/or proposed amendment of existing rules. Notice of intent to hold a hearing must be published in the *State Register* at least 30 days prior to the date set for the hearing, along with the full text of the proposed new or amended rule. The agency shall make at least one free copy of a proposed rule available to any person requesting it.

Pursuant to Minn. Stat. § 15.0412, subd. 5, when a statute, federal law or court order to adopt, suspend or repeal a rule does not allow time for the usual rulemaking process, temporary rules may be proposed. Proposed temporary rules are published in the *State Register*, and for at least 20 days thereafter, interested persons may submit data and views in writing to the proposing agency.

Department of Agriculture

Proposed Rules Governing the Purchase of Milk on the Basis of Protein

Notice of Hearing

Notice is hereby given that a public hearing in the above-entitled matter will be held in the Administration Building, Room 116A, 50 Sherburne Avenue, Saint Paul, Minnesota on January 15, 1979, commencing at 10:00 a.m., or as soon thereafter as possible; and also at the Houston County Courthouse, 304 South Marshall Street, Caledonia, Minnesota on January 16, 1979, commencing at 7:00 p.m., or as soon thereafter as possible and continuing until all persons have had an opportunity to be heard.

All interested or affected persons will have an opportunity to participate. Statements may be made orally and written materials may be submitted at the hearing. In addition, written materials may be submitted by mail to Howard L. Kaibel, Jr., Office of Hearing Examiners, 1745 University Avenue, Room 300, Saint Paul, Minnesota 55104, phone (612) 296-6910 either before the hearing or after the hearing until the record is closed. The record will remain open for five working days after the public hearings end or for a longer period not to exceed 20 days if ordered by the Hearing Examiner.

The proposed rules, if adopted, would establish rules which would allow the purchasing of whole milk on the basis of protein contained therein in addition to milk fat per hundredweight. Said rules would, among other things, relate to the testing for protein, the licensing of testers, and the basis for payment. Copies of the proposed rules are now available and one free copy may be obtained by writing to the Minnesota Department of Agriculture, 420 State Office Building, Saint Paul, Minnesota 55155. Additional copies will be available at the door on the date of the hearing. The department's authority to promulgate the proposed rules is contained in Minn. Stat. § 32.25 (1976).

Notice: Any person may request notification of the date on which the Hearing Examiner's Report will be available, after which date the agency may not take any final action on



Theodore Christianson (1883-1948) was a lawyer, editor and historian as well as 3-term governor of Minnesota. Born in Lac qui Parle, he graduated from the University of Minnesota in 1906 and established a law practice in Dawson in 1909, where he edited the *Dawson Sentinel* until 1925. His two-volume work, *A History of the State and Its People*, was published that year, coinciding with his election as governor. During his first term, Christianson established the Commission of Administration and Finance.

KEY: RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language. PROPOSED RULES SECTION — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material."

the rules for a period of five working days. Any person may request notification of the date on which the hearing record has been submitted (or resubmitted) to the Attorney General by the agency. If you desire to be so notified, you may so indicate at the hearing. After the hearing, you may request notification by sending a written request to the Hearing Examiner (in the case of the Hearing Examiner's Report), or to the agency (in the case of the agency's submission or resubmission to the Attorney General).

Notice is hereby given that 25 days prior to the hearing, a Statement of Need and Reasonableness will be available for review at the agency and at the Office of Hearing Examiners. This Statement of Need and Reasonableness will include a summary of all of the evidence which will be presented by the agency at the hearing justifying both the need for and the reasonableness of the proposed rule/rules. Copies of the Statement of Need and Reasonableness may be obtained from the Office of Hearing Examiners at a minimal charge.

Please be advised that Minn. Stat. ch. 10A requires each lobbyist to register with the Ethical Practices Board within five days after lobbying commences. Lobbying includes attempting to influence rule making by communicating or urging others to communicate with public officials. A lobbyist is generally any individual who spends more than $250.00 per year for lobbying or any individual who is engaged for pay or authorized to spend money by another individual or association and who spends more than $250.00 per year or five hours per month at lobbying. The statute provides certain exceptions. Questions should be directed to the Ethical Practices Board, 41 State Office Building, St. Paul, Minnesota 55155, phone (612) 296-5616.

November 17, 1978

Bill Walker
Commissioner of Agriculture

Rules as Proposed (All New Material)

CHAPTER 58 Purchase of Milk on the Basis of Protein

3 MCAR § 1.1331 General.

A. Purpose and authority. The rules contained herein are prescribed pursuant to Minn. Stat. § 32.25 by the commissioner to provide an optional method for the purchasing of whole milk, the purchase price of which shall be calculated upon the basis of 100 pounds of whole milk at 3.5 pounds of milk fat and 3.2 pounds of protein per hundredweight.

B. Definitions. For purposes of these rules the following definitions and those in Minn. Stat. § 32.01 shall apply:

1. "Producer" means any person who operates a dairy herd or herds producing milk commercially and whose milk is sold to, or received or handled by, a purchaser as defined in this rule.

2. "Purchaser" means any person purchasing whole milk from a producer and defined as a dairy plant in Minn. Stat. § 32.01, subd. 6.

3 MCAR § 1.1332 Criteria for purchasing milk on the basis of protein.

*ALTERNATIVE "1" FOR 3 MCAR § 1.1332A.:

A. Any purchaser may base the price paid for such milk on both the milk fat and protein content of such milk, provided:

1. The purchase price is determined by the declared purchase price of 100 pounds of whole milk calculated at 3.5 pounds of milk fat and 3.2 pounds of protein content per hundredweight;

2. That when the milk fat test or the protein test of such whole milk varies from the aforementioned weights per hundredweight, a uniform adjustment in the declared purchase price shall be made for each one-tenth of one percent of milk fat or protein above or below the aforementioned weights;

*ALTERNATIVE "2" FOR 3 MCAR § 1.1332 A.:

A. Any purchaser may base the price paid for such milk on both the milk fat and protein content of such milk, provided:

1. The purchase price is determined by the declared purchase price for 100 pounds of whole milk calculated at 3.5 pounds of milk fat and 3.2 pounds of protein content per hundredweight;

2. That price adjustments for milk fat shall be set pursuant to Minn. Stat. § 32.25, subd. 1;

3. That when the protein test of such whole milk varies from the 3.2 pounds per hundredweight, a uniform adjustment in the declared purchase price shall be made for each one-tenth of one percent of protein above 3.2 pounds per hundredweight;

*ALTERNATIVE "3" FOR 3 MCAR § 1.1332 A.:

A. Any purchaser may base the price paid for such milk on both the milk fat and protein content of such milk, provided:

1. The purchase price is determined by the de-

clared purchase price of 100 pounds of whole milk calculated at 3.5 pounds of milk fat and 3.0 to 3.2 pounds of protein content per hundredweight;

2. That when the milk fat test or the protein test of such whole milk varies from the aforementioned weights per hundredweight, a uniform adjustment in the declared purchase price shall be made for each one-tenth of one percent of milk fat or protein above or below the aforementioned weights;

NOTE: 3 MCAR 1.1331 A. would read:

". . . 3.5 pounds of milk fat and 3.0 to 3.2 pounds of protein per hundredweight."

B. The purchaser shall not discriminate in the buying of such milk pursuant to Minn. Stat. § 32.11 and all producers selling to such a purchaser shall be subject to the provisions of this rule.

3 MCAR § 1.1333 Testing procedures.

A. Samples collection and handling. Samples to be used for the testing of protein content shall be collected and handled in the same manner as samples used for bacterial tests as prescribed in "Standard Methods for the Examination of Dairy Products", Thirteenth Edition, published by the American Public Health Association. The minimum size for a fresh milk sample shall be two ounces (0.0592 liter).

B. Sample testing.

1. Only the following methods, as prescribed by the Official Association of Analytical Chemists, shall be used in the testing of whole milk for protein content pursuant to these rules:

a. Kjeldahl, Method No. 1.049 and 16.036, total nitrogen;

b. Dye binding, Method No. 16.037, acid orange 12;

c. Pro-milk method for determination of protein in milk, amido block 10B, Journal of the Official Methods of Analysis of the Association of Analytical Chemists (Vol. 58, No. 4), 1975;

d. Infra-red. Milk Analysis, Method No. 16.097 and 16.080, part 2 protein; or

e. Any other method of equal or greater accuracy approved by the Official Association of Analytical Chemists and approved by the commissioner.

2. Only testing equipment accurately calibrated as prescribed by the methods for calibration set forth in the above cited methods shall be used on conducting sample testing for protein content pursuant to these rules.

3. The commissioner may inspect and test any testing equipment with standardized solutions to determine their accuracy.

4. Frequency of sampling and testing.

a. When the calculation of protein content for payment for whole milk purchased pursuant to these rules is based on a one (1) month period of production, four (4) or more tests results on random samples taken from different deliveries shall be used to compute the arithmetic average of those test samples.

5. Sample retention and handling. All samples collected and used for protein testing pursuant to these rules shall be held at temperatures of 32°F to 40°F until tested and shall be returned to that temperature within two (2) hours of the last test made on the sample. All samples shall be retained at the place of testing until 3:00 p.m. of the day following the last testing date of the sample.

C. Test records.

1. Purchasers shall provide producers with a statement of the protein content of the milk with or in each settlement statement.

2. When whole milk is found to be abnormal pursuant to 3 MCAR § 1.1188, the purchaser's records shall indicate the results of the confirmatory tests. Only confirmatory tests approved pursuant to 3 MCAR § 1.1188 shall be used in determining the ineligibility of whole milk purchased on a protein basis.

3. All test records and results for protein content pursuant to these rules and the computation of payments to producers selling whole milk on a protein basis shall be retained by the purchaser for a period of not less than one (1) year. All records relative to such tests and payments shall be available for inspection during normal working or other reasonable hours by persons authorized by the commissioner.

3 MCAR § 1.1334 Licensed testers.

KEY: RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language. PROPOSED RULES SECTION — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material."

A. All persons engaged in the sampling and/or testing of whole milk to determine its value for payment to producers shall be licensed by the commissioner.

B. Any person desiring to secure such a license shall make application on forms provided by the commissioner. Before a license is issued, the commissioner shall determine that the applicant is competent and qualified to use such testing apparatus for determing protein content of whole milk and to make accurate tests with them.

C. Every license issued by the commissioner shall be for a period ending on the December 31 following issuance and shall not be transferrable.

D. The fee for each initial license shall be $15 and each renewal thereof shall be $6 and shall be paid to the commissioner before any license or renewal thereof is issued.

E. The commissioner shall suspend or cancel any license issued pursuant to these rules, after notice and hearing, found to be in violation of Minn. Stat. § 32.25 or these rules.

*Testimony will be received on all three alternatives. Based upon the testimony at the hearings, one alternative will be promulgated by the commissioner.

Board of Architecture, Engineering, Land Surveying and Landscape Architecture

Proposed Rule Relating to Classes of Buildings with Respect to Which Persons Performing Architectural and Professional Engineering Services May Be Exempt from Licensure Requirements and Proposed Amendments to Rule Relating to Licensure Requirements for Professional Engineers

Amended Notice of Hearing

Notice is hereby given that a public hearing in the above-entitled matter, originally scheduled to be held on December 6, 1978, has been rescheduled and will be held in the Department of Commerce Hearing Room at 500 Metro Square Building, Seventh and Robert Streets, Saint Paul, Minnesota on January 24, 1979 at 9:30 AM and continuing until all representatives of associations or interested groups or persons have had an opportunity to be heard concerning the adoption of the proposed rules captioned above by submitting either oral or written data, statements or arguments. Statements may be made orally and written materials may be submitted at the hearing. In addition, written materials may be submitted by mail to George A. Beck, Office of Hearing Examiners, 1745 University Avenue, Room 300, St. Paul, Minnesota 55104, (612) 296-8114, the Hearing Examiner appointed to hear this matter, either before the hearing or within five (5) working days after the close of the hearing. The Hearing Examiner may extend the time for receipt of written comments for a period not to exceed twenty (20) calendar days from the date of the hearing.

The new rule proposed for adoption, if adopted, would establish classes of buildings with respect to which persons performing architectural and professional engineering services may be exempt from licensure requirements. The proposed amendments to the rule relating to the licensure requirements for professional engineering, if adopted, will provide for the admission of candidates to the professional practice examination with two years of qualifying experience before graduation in those cases where the higher education of the candidate was interrupted. Subject matter included in examinations is removed because such information is frequently changed and is provided to each candidate upon application for admission to a particular examination. The proposed rule and amendments were published in the *State Register* at 3 S.R. 1008. One free copy of the proposed rules in their entirety may be obtained by writing to Lowell E. Torseth, Executive Secretary, Board of Architecture, Engineering, Land Surveying and Landscape Architecture, 500 Metro Square Building, St. Paul, Minnesota 55101. Additional copies of the rules will be available at the door on the day of the hearing.

The rule and amendments are proposed pursuant to the authority vested in the Board of Architecture, Engineering, Land Surveying and Landscape Architecture by the provisions of Minn. Stat. 326.06, as amended by Minn. Laws 1978, ch. 577, Section 3.

It is not anticipated that adoption of the proposed rule and amendments will result in the expenditure of public moneys by local public bodies.

Any person may request notification of the date on which the Hearing Examiner's report will be available, after which date the Board may not take any final action on the rules for a period of five (5) working days. Any person may request notification of the date on which the hearing record has been submitted (or resubmitted) to the Attorney General by the

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED ADOPTION)
OF RULES OF THE DEPARTMENT OF AGRICULTURE)
GOVERNING THE PURCHASE OF MILK ON THE) ORDER FOR HEARING
BASIS OF PROTEIN)

IT IS HEREBY ORDERED that a public hearing on the above-captioned rules be held in the Administration Building, Room 116A, 50 Sherburne Avenue, Saint Paul, Minnesota on January 15, 1979, commencing at 10:00 a.m., or as soon thereafter as possible; and also at the Houston County Courthouse, 304 South Marshall Street, Caledonia, Minnesota on January 16, 1979, commencing at 7:00 p.m., or as soon thereafter as possible and continuing until all persons have had an opportunity to be heard.

IT IS FURTHER ORDERED that a Notice of Hearing be mailed to all persons, representatives of associations, and other interested groups who have registered their names with the Secretary of State for that purpose.

IT IS FURTHER ORDERED that the Notice of Hearing be published in the State Register.

STATE OF MINNESOTA

Bill Walker
Commissioner of Agriculture

Date: November 17, 1978

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED ADOPTION)
OF RULES OF THE DEPARTMENT OF AGRICULTURE)
GOVERNING THE PURCHASE OF MILK ON THE) NOTICE OF HEARING
BASIS OF PROTEIN)

NOTICE IS HEREBY GIVEN that a public hearing in the above-entitled matter will be held in the Administration Building, Room 116A, 50 Sherburne Avenue, Saint Paul, Minnesota on January 15, 1979, commencing at 10:00 a.m., or as soon thereafter as possible; and also at the Houston County Courthouse, 304 South Marshall Street, Caledonia, Minnesota on January 16, 1979, commencing at 7:00 p.m., or as soon thereafter as possible and continuing until all persons have had an opportunity to be heard.

All interested or affected persons will have an opportunity to participate. Statements may be made orally and written materials may be submitted at the hearing. In addition, written materials may be submitted by mail to Howard L. Kaibel, Jr., Office of Hearing Examiners, 1745 University Avenue, Room 300, St. Paul, Minnesota 55104, phone (612) 296-6910 either before the hearing or after the hearing until the record is closed. The record will remain open for five working days after the public hearings end or for a longer period not to exceed 20 days if ordered by the Hearing Examiner.

The proposed rules, if adopted, would establish rules which would allow the purchasing of whole milk on the basis of protein contained therein in addition to milk fat per hundredweight. Said rules would, among other things, relate to the testing for protein, the licensing of testers, and the basis for payment. Copies of the proposed rules are now available and one free copy may be obtained by writing to the Minnesota Department of Agriculture, 420 State Office Building, St. Paul, Minnesota 55155. Additional copies will be available at the door on the date of the hearing. The department's authority to promulgate the proposed rules is contained in Minn. Stat. § 32.25 (1976).

Notice: Any person may request notification of the date on which the Hearing Examiner's Report will be available, after which date the agency may not take any final action on the rules for a period of five working days. Any person may request notification of the date on which the hearing record has been submitted (or resubmitted) to the Attorney General by the agency. If you desire to be so notified, you may so indicate at the hearing. After the hearing, you may request notification by sending a written request to the Hearing Examiner (in the case of the Hearing Examiner's Report), or to the agency (in the case of the agency's submission or resubmission to the Attorney General).

Notice is hereby given that 25 days prior to the hearing, a Statement of Need and Reasonableness will be available for review at the agency and at the Office of Hearing Examiners. This Statement of Need and Reasonableness will include a summary of all of the evidence which will be presented by the agency at the hearing justifying both the need for and the reasonableness of the proposed rule/rules. Copies of the Statement of Need and Reasonableness may be obtained from the Office of Hearing Examiners at a minimal charge.

Please be advised that Minn. Stat. Ch. 10A requires each lobbyist to register with the Ethical Practices Board within five days after lobbying commences. Lobbying includes attempting to influence rule making by communicating or urging others to communicate with public officials. A lobbyist is generally any individual who spends more than $250.00 per year for lobbying or any individual who is engaged for pay or authorized to spend money by another individual or association and who spends more than $250.00 per year or five hours per month at lobbying. The statute provides certain exceptions. Questions should be directed to the Ethical Practices Board, 41 State Office Building, St. Paul, Minnesota 55155, phone (612) 295-5616.

STATE OF MINNESOTA

Bill Walker
Commissioner of Agriculture

Date: November 17, 1978

ATTORNEY GENERAL

PEDER HONG
Special Assistant
Attorney General

June 14, 1979

LEE E. SHEEHY
Special Assistant
Attorney General

296-1288

In the Matter of the Proposed Adoption of Rules of the Department of Agriculture Governing the Purchase of Milk on the Basis of Protein.

As you are aware, the above-captioned rules are presently pending before this office for review pursuant to Minn. Stat. § 15.0412 Subd. 4. I am in receipt of a letter dated June 11, 1979, submitted on behalf of Land O Lakes, Inc., and Mid America Dairymen by their counsel, Messrs. Ralph K. Morris and Allen I. Silver of the law firm of Doherty, Rumble & Butler, a copy of which was sent to you. I am asking the Department to respond to the many issues raised in that letter.

In addition, I am asking the Department to comment on an additional matter. Minn. Stat. § 32.25 appears, at first glance, to specify the instances in which pricing is based on milk fat and/or on nonfat solids. The statutory scheme seems as follows: milk and cream shall be priced based on milk fat; skim milk and buttermilk priced based on nonfat solid; whole milk pricing may be "(1) calculated at three and one-half pounds of milk fat per hundredweight; or (2) calculated at three and one-half pounds of milk fat per hundredweight and the nonfat solids contained therein." (Emphasis added.) If my initial impression of the statutory scheme is correct, nonfat solids may be used in pricing in two instances only, namely, (1) the pricing of skim milk and buttermilk and (2) in conjunction with milk fat in the pricing of whole milk. The Department's comments on this tentative observation would be greatly appreciated.

Under the provisions of Minn. Stat. § 15.0412 Subd. 4, this office should complete its review by Monday, June 18, 1979. As such, I am formally returning the rules to the agency for consideration and briefing of the matters raised herein.

I am asking the Department to respond by Monday, June 25, 1979, with a copy of its response to be sent simultaneously to Messrs. Morris and Silver. If you have any questions, do not hesitate to contact me.

LES/bw
cc: Duane Harves
Marshall Whitlock
Melvin B. Goldberg

June 14, 1979

Ralph K. Morris Esq.,
Allen I. Silver, Esq.
Doherty, Rumble & Butler
1500 First National Bank Building
Saint Paul, Minnesota 55101

Re: In the Matter of the Proposed Adoption of Rules of the Department of Agriculture Governing the Purchase of Milk on the Basis of Protein.

Dear Messrs. Morris and Silver:

I am in receipt of your letter of June 11, 1979. In light of the issues raised therein, I have returned the above-captioned rules to the agency for further comment and briefing of the matters raised in your letter. I have also instructed the agency to forward a copy of its comments to you upon submittal to this office.

If you have any questions, do not hesitate to contact me.

Very truly yours,

LEE E. SHEEHY
Special Assistant
Attorney General

G-25 State Administration Building
50 Sherburne Avenue
Saint Paul, Minnesota 55155
(612) 296-1288

LES/bw

bcc - Duane Harves
Marshall Whitlock
Melvin B. Goldberg

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED ADOPTION)
OF RULES OF THE DEPARTMENT OF AGRICULTURE)
GOVERNING THE PURCHASE OF MILK ON THE)
BASIS OF PROTEIN)

AFFIDAVIT OF RECEIPT OF
THE SECRETARY
OF STATE'S LIST

Victoria A. Fowler, being duly sworn on oath deposes and says:

1) That she is an employee of the Department of Agriculture of the State of Minnesota.

2) That on the 7th day of December, 1978, she went to the Secretary of State's Office for the State of Minnesota and requested a current list of all representatives of associations or other interested groups or persons who had registered their names with the Secretary of State for the purpose of obtaining notices of public hearing relating to the promulgation of rules pursuant to Minn. Stat. 15.0412 (1977 Supp.)

3) That on the 7th day of December, 1978, in response to the above request, the Secretary of State provided her with such a list, a copy of which is attached hereto and incorporated by reference.

Further affiant sayeth not. Victoria A. Fowler

Subscribed and sworn to before me this
7th day of December, 1978.

Notary Public, Joan LeDuc
Ramsey County, Minnesota

JOAN LeDUC
Notary Public, Ramsey Co., Mn.
MY COMMISSION EXPIRES
August 14, 1981

My commission expires:

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED ADOPTION)
OF RULES OF THE DEPARTMENT OF AGRICULTURE)
GOVERNING THE PURCHASE OF MILK ON THE) AFFIDAVIT OF MAILING
BASIS OF PROTEIN)

Victoria A. Fowler being first duly sworn, deposes and says:

That on the 8th day of December, 1978 in the City of St. Paul, County of Ramsey, State of Minnesota, she served the attached Notice of Hearing by depositing in the United States mail at said City of St. Paul, a true and correct copy thereof, properly enveloped, with postage prepaid, to all persons and associations at the addresses listed on the attached Certificate of the Secretary of State.

Victoria A. Fowler

Subscribed and sworn to before me this
8th day of December, 1978.

Notary Public Joan LeDuc
Ramsey County, Minnesota
My commission expires:

JOAN LeDUC
Notary Public, Ramsey Co., Mn.
August 14, 1981

AGR-79-002-HK

STATE OF MINNESOTA
OFFICE OF HEARING EXAMINERS

FOR THE MINNESOTA DEPARTMENT OF AGRICULTURE

RECEIVED
NOV 28 1978
OFFICE OF HEARING EXAMINERS

IN THE MATTER OF THE PROPOSED ADOPTION OF RULES OF THE DEPARTMENT OF AGRICULTURE GOVERNING THE PURCHASE OF MILK ON THE BASIS OF PROTEIN

ORDER OF THE CHIEF HEARING EXAMINER

WHEREAS, on November 21, 1978, the Minnesota Department of Agriculture (hereinafter "Department") by its Planning Director, Randall Young, submitted a request to the Chief Hearing Examiner for approval of the incorporation by reference of certain standards and materials in their rules to be proposed; and

WHEREAS, pursuant to Minnesota Statutes (1977 Supp.) Section 15.0412, subdivision 4, agencies may incorporate by reference provisions of federal law or rule or other materials from sources which the Chief Hearing Examiner determines are conveniently available for viewing, copying and acquisition by interested persons; and

WHEREAS, the Chief Hearing Examiner has reviewed the following materials requested to be incorporated by reference:

1. Official Methods of Analysis of the Association of Official Analytical Chemists. Twelfth Edition, 1975. Pages 15-16, 256-257, 262-263. Association of Analytical Chemists, P. O. Box 540, Benjamin Franklin Station, Washington, D.C. 20044.

2. Standard Methods for the Examination of Dairy Products. Thirteenth Edition. Pages 28-33. American Public Health Association, 1015 Eighteenth Street, NW, Washington, D.C.

3. Collaborative Study of the Pro-Milk Method for the Determination of Protein in Milk. Journal of the AOAC (Vol. 58, No. 4, 1975). Pages 770-772.

WHEREAS, the Chief Hearing Examiner has found that the three items, taken in total, exceed 3,000 words and would exceed five printed pages in the State Register and, further, has determined that the materials are readily available for review, copying and acquisition by interested persons in that they are available further at the Department of Agriculture by interested persons; and

WHEREAS, the aforequoted statute does not appear to indicate that each specific item requested to be incorporated by reference must exceed the word and printed page limitations but, rather, uses the plural "materials" and that given such ambiguity, the Chief Hearing Examiner has determined to look to legislative intent in reading these particular provisions; and

WHEREAS, the Chief Hearing Examiner, having been present at all legislative hearings and conference committees where the above-quoted language was inserted into the statute, believes that it is the intent of the legislature, by passing such language, to reduce the cost to state agencies and to reduce the number of pages in the state MCAR system by allowing such incorporation by reference; thus the Chief Hearing Examiner interprets the statute to mean that materials requested to be incorporated by reference need not individually exceed the limitations but must exceed the limitations when taken in total.

NOW, THEREFORE, IT IS ORDERED, that the Department shall have the approval of the Chief Hearing Examiner to incorporate by reference in their proposed rules the above-referenced materials.

Dated this 28th day
of November, 1978.

Duane R. Harves

DUANE R. HARVES
Chief Hearing Examiner

CCC PURCHASE PRICES FOR DAIRY PRODUCTS, 1949-78

Effective date	Butter Grade A or higher		Cheddar cheese		Nontat dry milk extra grade spray
	Chicago	New York	Grade A or higher	Barrels extra grade	
	(Cents per lb.)				
2/ 8/49	59.00	59.00	—		—
4/14/49	59.00	59.00	—		12.25
7/27/49	62.00	62.00	31.75		12.25
9/ 1/49	62.00	62.00	31.75		12.75
1/ 1/50	60.00	60.00	31.00		12.50
4/ 1/51	66.00	66.00	36.00		15.00
4/ 1/52	67.75	67.75	38.25		17.00
4/ 1/53	65.75	66.50	37.00		16.00
4/ 1/54	57.50	58.25	32.25		15.00
7/12/54	57.50	58.25	33.25		16.00
4/ 1/56	57.50	58.25	34.00		16.00
4/18/56	59.50	60.25	35.00		16.00
4/ 1/57	59.50	60.50	35.00		16.00
4/ 1/58	57.75	58.75	32.75		14.25
4/ 1/59	57.854	58.75	32.75		14.25
5/20/59	57.974	58.75	32.75		14.25
4/ 1/60	57.974	58.75	32.75		13.40
9/17/60	60.474[1]	61.25	34.25		13.90
4/ 1/61	60.466	61.25	36.10		15.90
7/18/61	60.466	61.25	36.50		16.40
4/ 1/62	57.966	58.75	34.60		14.40
4/ 1/63	57.966	58.75	35.60		14.40
4/ 1/65	58.966	59.75	36.10		14.60
4/ 1/66	60.966	61.75	39.30		16.60
6/30/66	66.466[2]	67.25	43.75		19.60
4/ 1/68	66.442	67.25	47.00		23.35
6/24/68	66.418	67.25	47.00		23.35
11/28/68	66.394	67.25	47.00		23.35
4/ 1/69	67.644	68.50	48.00		23.35
11/19/69	67.596	68.50	48.00		23.35
4/ 1/70	69.846[3]	70.75	52.00		27.2
4/ 1/71	67.784	68.75	54.75		31.7
4/ 1/72	67.708	68.75	54.75		31.7
4/ 1/73	60.9	62.00	62.00		37.5
8/10/73	60.9	62.00	65.00		41.4
4/ 1/74	60.57	62.00	70.75		56.6
1/ 4/75	68.07	69.50	77.25		60.6
4/ 1/75	69.19[4]	70.75	79.25		60.6
10/ 2/75	79.693[4]	81.25	85.00		62.4
4/ 1/76	85.817	87.75	90.50		62.4
10/ 1/76	90.817	92.75	92.50		62.4
4/ 1/77	100.71	102.75	98.00	95.00	68.0

[1] Price for October 24, 1960—March 31, 1961 was 60.466.
[2] Price for August 19, 1967—March 31, 1968 was 66.442.
[3] Price changed to 69.798 on June 9, 1970, to 66.71 on November 20, 1970 and to 69.784 on January 10, 1971.
[4] Not a specified announced price—price determined by freight rate calculated from N.Y.

STATE OF MINNESOTA

DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED ADOPTION)
OF RULES OF THE DEPARTMENT OF AGRICULTURE)
GOVERNING THE PURCHASE OF MILK ON THE)
BASIS OF PROTEIN)

CERTIFICATE OF DELIVERY
OF SECRETARY
OF STATE LIST

I hereby certify that the attached 585 labels 5 sheets constitute the complete list of persons, associations, and other interested groups who as of 1:50 o'clock PM, this 7th day of December, 1978, have requested pursuant to Minn. Stat. 15.0412 (1977 Supp.), that their names be placed on file with the Secretary of State for the purpose of receiving notice of public hearing on proposed rules on the subject captioned above.

SECRETARY OF STATE

Joan Anderson Growe

BY: Donna Scott

STATE OF MINNESOTA
OFFICE OF HEARING EXAMINERS

FOR THE DEPARTMENT OF AGRICULTURE

IN THE MATTER OF THE PROPOSED)
ADOPTION OF RULES OF THE)
DEPARTMENT OF AGRICULTURE) REPORT OF THE
GOVERNING THE PURCHASE OF MILK) CHIEF HEARING EXAMINER
ON THE BASIS OF PROTEIN.)

WHEREAS, hearings were held on March 6, 7 and 8, 1979, before Howard L. Kaibel, a Hearing Examiner of the State Office of Hearing Examiner, on the above-entitled matter in compliance with Minn. Stat. § 15.0412, Subd. 4; and

WHEREAS, the Report of Hearing Examiner made pursuant to Minn. Stat. § 15.052, Subd. 3, was issued to the Department of Agriculture on April 27, 1979; and

WHEREAS, the Department of Agriculture has now determined to adopt rules pursuant to Minn. Stat. § 15.0412, Subd. 4; and

WHEREAS, the Department of Agriculture has submitted said rules to the Chief Hearing Examiner for review pursuant to Minn. Stat. § 15.052, Subd. 4, and 9 MCAR § 2.110; and

WHEREAS, the Chief Hearing Examiner finds that the final proposed rules are not substantially different from those proposed at the public hearings and that the Department of Agriculture has met all requirements of Minn. Stat. § 15.0412, Subd. 4.

NOW, THEREFORE, upon receipt of this Report, the Department of Agriculture has the responsibility of submitting the complete hearing record and the rules as adopted by the Department to the Attorney General, notifying all persons who requested to be informed that the hearing record has been submitted to the Attorney General, and publishing in the State Register, all pursuant to Minn. Stat. § 15.0412, Subd. 4.

Dated this 29th day
of May, 1979.

Duane R. Harves

DUANE R. HARVES
Chief Hearing Examiner