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"King Wheat"

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Today Minnesota has a diversified type of agriculture, but such was not always the case. At one time nearly every farmer in the state concentrated on wheat production. Wheat was the great cash crop. It opened the way to fortune, and so attractive was it to the average farmer that he neglected other phases of farming almost entirely. The story of the rise of this one-crop system of farming in Minnesota and the beginnings of its decline is one of the most interesting as well as one of the most revealing in the state's entire agricultural history.

According to one early commentator, Alexis Bailly of Wabasha, it was in 1820 that the first wheat was raised in Minnesota. It was spring wheat produced on an island at the junction of the Minnesota and Mississippi rivers by Jean Baptiste Faribault, who obtained the seed at Prairie du Chien. In 1831 Joseph R. Brown grew spring wheat on ground now within the limits of Hastings, and in 1835 he raised both spring and winter wheat at Lake Traverse. Generally speaking, however, wheat was not commercially important in the state until 1858. In earlier years, low prices, the panic of 1857, and sparse farming population held back the production of that staple commodity.¹

With the removal of these handicaps, Minnesota wheat production skyrocketed in a manner that would have pleased even that

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¹ Minnesota Farmer and Gardener (St. Paul), 1:17 (November, 1860); Henrietta M. Larson, The Wheat Market and the Farmer in Minnesota, 1858–1900, 17 (New York, 1926).

enthusiastic booster of an earlier period, James M. Goodhue, whose pleas for the growing of wheat filled columns of the Minnesota Pioneer between 1849 and 1852. In much the same manner were the papers of 1850 and 1860 filled with comments about wheat. From the middle of September, 1859, until the beginning of December, 103,000 bushels of the cereal were shipped from Winona, and 5,000 more were awaiting shipment. A visitor to Hastings in 1850 observed that there "was wheat everywhere; wheat on the levee; wagon loads of wheat pouring down to the levee; wheat in the streets; wheat in the side-walks; warehouses of wheat; men talking of wheat; and, verily, wheat was the one idea of Hastings the afternoon we arrived there." In the same year Chicago received its first lot of wheat from St. Paul, a fact which prompted the Chicago Journal to report: "It is a good article of spring wheat, better than the average received here. It sold for 78 cents on track. We welcome this first tribute to our industrious Minnesota grain-raisers, to the great grain market of the Northwest. We hope they will send along much 'more of the same sort.' " At Shakopee, early in April, 1860, there were 25,000 to 30,000 bushels of wheat awaiting the opening of the lake, and later in the same month it was estimated that four Northern Line steamers had taken 120,000 bushels of grain to St. Louis from Minnesota. And as early as 1860 orders for Minnesota spring wheat were received from as great a distance as Lockport, New York. Total state production in 1860 was 2,186,073 bushels. while exports amounted to 1,576,666 bushels. These figures seem truly impressive when placed alongside the figure for Minnesota's 1850 wheat production of 1,401 bushels.2

As in all frontier areas, so in Minnesota did the lack of adequate transportation and marketing facilities prove a handicap to the de-

² Minnesota Pioneer (St. Paul), May 26, 1849; December 11, 1851; Weekly Pioneer and Democrat (St. Paul), September 9, November 18, December 2, 1859; April 6, 20, September 28, 1860; Edward V. Robinson, Early Economic Conditions and the Development of Agriculture in Minnesota, 60, 102 (University of Minnesota, Studies in the Social Sciences, no. 3 — Minneapolis, 1915). The Chicago Journal is quoted in the Weekly Pioneer and Democrat of September 9, 1859. Nine counties — Fillmore, Olmsted, Dakota, Winona, Goodhue, Hennepin, Rice, Wabasha, and Houston — produced over a hundred thousand bushels each in 1860, according to C. W. Thompson, "The Movement of Wheat-Growing: A Study of a Leading State," in Quarterly Journal of Economics, 18: 570 (August, 1904).

velopment of commercialized wheat farming. Even the river towns felt this lack because of congestion on the streams and winter ice. As George B. Merrick, a prominent steamboatman put it: "There was no question about getting it [wheat]. Every boat got all the wheat it could carry, and the shippers begged, almost on bended knees, for a chance to ship five hundred sacks, or a hundred, or fifty—any amount would be considered a great favor. Wheat was shipped at that time in two-bushel sacks." 3

Shipments to St. Louis in 1859 were smaller than they would have been had freight rates been lower, and farmers around Shakopee would have made a greater profit could they have saved the cost of handling and trans-shipment at St. Paul of their St. Louis bound grain. Low water and high freight rates went hand in hand. In April, 1860, the freight charge on a bushel of wheat from St. Paul to St. Louis was about fifteen cents; from St. Paul to Milwaukee it varied between nine and fifteen cents in September of the same year.⁴

As wheat production increased, middlemen appeared to handle the product. They carried on their trade along the navigable rivers and shipped their purchases down the Mississippi to larger markets. Thus the river towns became the first centers of the local wheat trade. Fortunate was the farmer who lived near such a market, but the farmer on the frontier often had to go great distances in order to sell his wheat for cash. In frontier communities the storekeeper was usually the middleman, and he often lacked competition. There was no grading of wheat, and cash payments were rare. Gradually, however, cash wheat markets developed in the interior, the earliest probably being at Chatfield, where a federal land office was located. Milo White, a general merchant, began to buy wheat there for cash in 1859. He stored it in a warehouse, which he himself built, and shipped it later by team to La Crosse. Another type of cash wheat buyer in the interior was the miller, but mills were sometimes slow

³ George B. Merrick, Old Times on the Upper Mississippi, 169 (Cleveland, 1909).

⁴ Weekly Pioneer and Democrat, November 4, 1859; April 27, August 31, September 28, 1860. Rates were very changeable in the years following 1865, according to C. C. Andrews, The Condition and Needs of Spring Wheat Culture in the Northwest, 49 (United States Department of Agriculture, Special Reports, no. 40 — Washington, 1882).

to appear in smaller communities. Even the best interior markets paid comparatively low prices. Not until the coming of the railroads did specialized wheat buyers operate in most of the interior towns.

Many dramatic stories could be told of trips made by farmers with loads of wheat hauled by oxen to distant cash markets. Such hauls often were difficult, as roads were rough and the temperature might be very low. Some farmers were frozen to death; others at times encountered robbers and hostile Indians. Gilbert I. Larsen, in an account of early Lincoln County, said that much of the wheat raised there sold for twenty-eight to forty-five cents a bushel and that it took two or three days to haul it to Marshall, the nearest market. A committee of the state legislature, in 1861, reported that the mean distance to a navigable river for the average farmer was eighty miles. Those who lived within three days of a stream by ox team were considered lucky, despite the fact that a load of wheat seldom consisted of more than thirty bushels.⁶

Naturally, the pioneer farmer was anxious to have in his locality mills where he could sell his wheat or have it ground into flour. In 1850 there was only one mill in the state with an output valued at five hundred dollars a year. Ten years later eighty-one gristmills were reported, one of which, in Rice County, cost over thirty thousand dollars, yet interior towns long after 1860 were inconvenienced by the lack of mills. A resident of Glencoe in 1869 complained that "The demand for a Grist mill in our town, is becoming an actual necessity, owing to the great quantity of wheat that is produced in this vicinity, which, if conveyed fifteen or twenty miles to mill—counting the farmers time and expense at fair wages—will soon pay for a mill."

⁸ Prices at the best interior markets were about seventy-five per cent of those paid at Winona and fifty per cent of Milwaukee prices. See Larson, *The Wheat Market and the Farmer*, 18–22.

^{**}Lake Benton News, August 16, 1935; Larson, The Wheat Market and the Farmer, 23. One observer wrote that when marketing wheat a settler wore a flannel undershirt and drawers, a linsey shirt, a vest, a coat, homemade lined woolen pantaloons, a cap of cloth, muskrat, or coonskin, woolen mittens faced with cloth or deerskin, woolen socks, and cowhide boots. See Franklyn Curtiss-Wedge, comp., History of Fillmore County, 1:113 (Chicago, 1912).

⁷Robinson, Agriculture in Minnesota, 39, 43, 107; Weekly Pioneer and Democrat, April 14, 1859; Glencoe Register, July 29, 1869.

Wheat sold outside of Minnesota during the period of river transportation usually was shipped in the spring, when prices were highest. Unfortunately the average farmer could not hold his wheat until spring in order to take advantage of the better price. He ordinarily sold his grain upon taking it to market in the fall, because he was often in debt, interest rates were high, and he saw no guarantee in warehouse receipts, since warehousemen were not under public supervision. The farmer could not watch prices for the most opportune time to sell, and he could not, in many cases, go to town later to dispose of his grain. Grain storage rates in the middle sixties were about four cents a bushel for six months. Sometimes warehousemen loaned money to grain storers, but the terms apparently were not liberal.8

All in all the raising and marketing of wheat was pretty much of a gamble. The situation in 1866 was well described by an early pastor at Cottage Grove: "People have no money till they sell their wheat, and they cannot draw it off till they finish putting in this springs crop. . . . Wheat is very high now. Nothing interests the people of this community more than the price of wheat. The selling of wheat is the blindest business any one can engage in. No one can tell a fortnight in advance whether wheat will be \$.75 or \$1.50 per bushel. . . . On Monday wheat was \$1.50 per bushel on Wed. it was 1.40. . . . Where a man had a thousand bushels as many of our farmers had and sold it a few months ago for .95 they mo[u]rn over their ill luck that they did not keep it till the present time." 9

When the railroads were built they furnished a new market for the wheat farmer, and railroad grain elevators or warehouses began to dot the landscape. The locations of these elevators were fixed by railroad officials, many of whom, with their friends, made comfortable little fortunes by dealing in town lots. The order in which there arose around the depot and the elevator, the store, the blacksmith shop, the saloon, the school, the church, and the post office

⁸ Larson, The Wheat Market and the Farmer, 28-34. Average wheat prices at Winona varied from sixty cents in the winter of 1859 to \$1.99 in the summer of 1867.

⁹ George Biscoe to his sister Ellen, May 18, 1866, Biscoe Papers, in the possession of the Minnesota Historical Society.

became almost stereotyped. Yet "but for the elevator it would have been impossible to handle the Minnesota wheat crops." 10

The rush of farmers to the elevators usually began in the second half of September and lasted until about the middle of November. The wheat dealers hired buyers who stood on the streets from morning until night bidding for the grain as fast as the wagons came in. Each buyer had tickets on which appeared the date, the current price of wheat, his name, and blank spaces in which to write the farmer's name and the number of bushels of grain he had for sale. The day's business normally began with a price agreement, and the traders adhered to the figure decided upon until competition forced it higher or bad news from the East pushed it lower. The buyer would jump onto a wagon, open a sack, and offer the farmer a price.¹¹

In 1858 the Chicago Board of Trade began grading wheat, and thereafter three grades of wheat based on weight were recognized. A difference in price of about ten cents separated numbers 1 and 2, while the difference between numbers 2 and 3 ranged from ten to twenty cents, Farmers complained bitterly about grading and weighing, but they had little or no choice in the early days. There were no public scales and public inspection of weights and measures was unknown. The earliest attempts to combat dishonesty came from the towns themselves. These attempts were bred by a desire to secure trade by establishing a good reputation. Boards of trade were organized to make rules, and public weighing was tried. In 1862 Winona provided for a public market, where all grain was to be sold, and for the appointment of a public weighmaster, but the plan was in force only a short time. Then in 1867 a bill "to prevent fraud in inspection, weighing and transportation of grain" was introduced into the state legislature, but it came to naught.12

¹⁰ G. W. Schatzel, "Among the Wheat Fields of Minnesota," in *Glencoe Register*, February 13, 1868. This article, which appears in installments from January 23 to February 20, is reprinted from *Harper's Monthly*, 36:190-201 (January, 1868). See also William W. Folwell, *A History of Minnesota*, 3:66 (St. Paul, 1926), and the *Wabasha County Leader*, April 18, 1935.

¹² Glencoe Register, February 13, 20, 1868; C. H. Phinney, "Pioneering Days That Have Passed," in Grant County Herald (Elbow Lake), February 21, 1935.

¹² Glencoe Register, February 20, 1868; Larson, The Wheat Market and the Farmer, 35; Minnesota, House Journal, 1867, p. 118, 180, 210.

St. Louis and Milwaukee were the principal primary wheat markets for Minnesota before the Civil War. After the war, Milwaukee forged ahead of St. Louis because Minnesota trade with the latter city had been cut off for a time during hostilities, and St. Louis never regained its former position. Chicago began to rival Milwaukee in the early 1860's, but Milwaukee prices remained slightly higher than those in Chicago during the whole era of river trade. The rivalry between the two markets was felt somewhat in the Minnesota river towns, which, in spite of telegraphic connections, found it difficult to get reliable data from the primary markets. There was always a disparity between the prices received by Minnesota farmers, even in the river towns, and prices quoted in Milwaukee and Chicago. Freights, handling charges, and manipulation accounted for this difference, which at times was as much as fifty-nine cents at Winona.¹³

Wheat prices were particularly low in Minnesota in 1869 and 1870, and farmers were looking for a scapegoat on which to blame their unhappy plight. One foe appeared to be the railroad. Said Governor Horace Austin in his inaugural address of 1870: "It is alleged that grain and other products are still hauled by teams, right beside the tracks of these roads and in competition with them, to and from markets many miles distant, and that the farmer, through whose land the railway runs, can better afford this than submit to the tariffs exacted for carrying his products. It is also asserted that the freights for some classes of goods upon the railroads, though carried from fifty to eighty miles, is higher than was formerly paid over the wagon roads between the same points when transported by horses." While not entirely justified, the farmers' complaints against the railroads did have some basis in fact. Freight rates did not drop in proportion to the price decline in wheat after the Civil War. In 1868, for example, the rate on wheat from St. Paul to Milwaukee or Chicago was about thirty cents a bushel, and not until

¹⁸ Larson, The Wheat Market and the Farmer, 36-39. The Weekly Pioneer and Democrat of July 27, 1860, quotes the Chicago Times concerning the Minnesota wheat trade.

February, 1870, did the St. Paul and Milwaukee Railroad reduce the rate to Milwaukee to twenty-one cents a bushel.¹⁴

Another thing that irritated the wheat farmer was the manner in which wheat was graded. At times the farmer was at fault, since he was careless about cleaning the grain, but frequently incompetency or dishonesty on the part of inspectors resulted in number 1 wheat being graded as number 2. And wheat invariably seemed to have more screenings and light-weight or discolored kernels at the local elevator than at the terminal market. Finally, in addition to high freight rates, false grading, and dockage, the farmer at times had to contend with wheat buyers' pools.¹⁵

An act of the Minnesota legislature of 1871 stating that railroads were invested with a public interest prescribed maximum freight and passenger charges. Freight rates were to vary according to distance and classification, and the roads were to accept and expedite shipments in the order received. A punitive clause was included, and the office of railroad commissioner was set up, though the commissioner was without adequate power. Governor Austin, in his message of 1873, said that the railroads defied the law, and it was not long before its constitutionality was tested in the courts. John P. Blake and Company of Rochester sued the Winona and St. Peter Railroad Company to replevin goods. The Blake company offered to pay fifty-seven cents for freight and the railroad demanded a

¹⁵ St. Paul Weekly Pioneer, October 5, 1866; Christianson, Minnesota, 2:15; John D. Hicks, "The Origin and Early History of the Farmers' Alliance in Minnesota," in Mississippi Valley Historical Review, 9:209–215 (December, 1922). The Wabasha County Leader of November 25, 1927, mentions a buyers' pool in Lake City in 1871.

¹⁴ Minnesota Executive Documents, 1870, p. 7; Theodore Christianson, Minnesota, The Land of Sky-Tinted Waters, 2:18 (Chicago, 1935); Robinson, Agriculture in Minnesota, 61; Mankato Record, January 15, February 12, 1870; Rochester Post, January 29, April 2, December 3, 1870; Rasmus S. Saby, "Railroad Legislation in Minnesota, 1849–1875," in Minnesota Historical Collections, 15:86. Edward Harkness recorded in his diary on May 10, 1870, that wheat was selling for fifty-five cents at Houston. In a diary entry of August 15, 1870, John R. Cummins notes that he took wheat to Shakopee, but could not sell it for what it was worth, so he took it home. Both diaries are owned by the Minnesota Historical Society. See also John Edgar to Cyrus McCormick, November 17, 1870, for a remark from Rochester that many farmers were going down hopelessly. The original letter is in the papers of the McCormick Harvesting Company, in the possession of the McCormick Historical Association of Chicago; filmslide copies of all letters from the collection used in the preparation of this article are owned by the Minnesota Historical Society. Farmers' anti-railroad meetings were common. The demands of one in Rochester are listed in the Post of December 3, 1870.

dollar. In the district court, the railroad was upheld; but the state's highest court, which was supported by the United States Supreme Court in 1876, reversed the decision of the district court. All in all, the farmers' protest against high freight rates, expressed mainly through the Granger movement, did have some effect in reducing the charges. In the 1870's, both in the state and nationally, there was much talk of a revival of water trade, and towboats pulling long strings of light draft barges began to appear on the rivers in increasing numbers. But the river revival was only temporary, and the railroads remained the dominant commercial carriers of the North and West.¹⁶

"Indications were consequently not lacking," writes one authority, "early in the seventies, that the craze for wheat had almost run its course, and that conditions were ripe for a return to mixed farming." Various factors prevented the change at that time, among which may be noted lack of capital by many farmers, the opening of new lands by the railroads, and the introduction of new milling methods. The influence of the millers in obtaining further regulation of the marketing of Minnesota wheat has been investigated by Charles B. Kuhlmann, who made an extensive study of the marketing of wheat. "The immediate effect of their [the millers'] activities was to create a cash market for wheat and so to encourage one-crop farming," he writes. "And yet the early millers generally stood for progressive farming. Before 1880 they were alarmed at the declining yields and quality of Minnesota wheat crops. They advised the bringing in of selected Red Fife wheat from Canada for seed and opposed the introduction of the softer varieties. In the next decade they attempted to increase the sale of mill feeds by advocating live stock growing. . . . Available evidence seems to show that, on the whole, they have stood for a progressive type of agriculture." On the other hand farmers did not by any means always

¹⁸ Minnesota, General Laws, 1871, 56-59, 61-66; Christianson, Minnesota, 2:18-21, 23-25; Saby, in Minnesota Historical Collections, 15:95-111; Stillwater Messenger, May 1, 1874; Farmers' Union (Minneapolis), May 30, 1874; Solon J. Buck, The Granger Movement, 161, 164, 165, 211 (Cambridge, 1913). Thirty thousand bushels of wheat were sent from St. Paul to Glasgow by water in 1882 at a cost of twentynine cents a bushel, according to Andrews, Spring Wheat Culture, 55.

feel that the millers gave them a square deal. For example, John R. Cummins wrote in his diary in 1874: "Went to town with a load of wheat. I have some reason to think the millers in town do not give fair weight." 17

In 1878 the St. Paul Chamber of Commerce charged that the Minneapolis Millers' Association was an oppressive monopoly, but the Minnesota Farmer branded the charges as ridiculous. A few months later, however, the editor of another farm journal stated that he had examined a wheat tester known as the "brass kettle," which had been adopted and used by the millers. The editor found that it had been used to defraud farmers, with the result that there was feeling against it over the state. On January 8, 1879, Representative Edward Larssen, a farmer of Swift County, gave notice in the Minnesota house of representatives of a bill to regulate the grading and inspection of wheat in the state, and other representatives gave notices of bills to regulate weights and measures and to make the half bushel the only unit for grading wheat. The fight on the "swindling brass kettle" had begun.18

Anti-brass-kettle meetings were held by farmers in various parts of the state. At one in Litchfield on February 4, 1879, a farmer whose sentiments were probably characteristic of his group said of the "'wheat ring' that 'the devil would kick them out of the nethermost recesses of hell on the ground of total depravity." Finally, in the spring of 1879 the governor signed a bill which allowed the Farmers' Board of Trade to select the measure to be used for wheat grading. The half bushel was to be the legal standard, although a two-quart tester could be used if both parties agreed. The board chose the Stacey filler — a small tin vessel, shaped somewhat like an hourglass, into which wheat was poured. Below it

¹⁷ Robinson, Agriculture in Minnesota, 76; Charles B. Kuhlmann, "The Influence of the Minneapolis Flour Mills upon the Economic Development of Minnesota and the

the Minneapolis Flour Mills upon the Economic Development of Minnesota and the Northwest," ante, 6:153; Cummins Diary, June 18, 1874.

18 Minnesota Farmer (Minneapolis and St. Paul), 2:41 (October, 1878); Independent Farmer and Fireside Companion (St. Paul), vol. 1, no. 1, p. 4, 11, no. 2, p. 6, 13, no. 3, p. 51 (January, February, March, 1879). The Minneapolis Millers' Association was organized perhaps as early as 1865, writes Charles B. Kuhlmann in The Development of the Flour-Milling Industry in the United States, 260 (New York, 1929). A law of 1869 was intended to help farmers in matters of weights and measures, but it was repealed. See Rochester Post, April 3, 1869.

was a tin kettle. The advantage of the measure was that the running of the wheat from the hourglass vessel seemed to give the grain a "uniform packing." ¹⁹

But the farmers' battle against the wheat alliance, the railroads, the elevators, and the millers was not yet won. Farmers wanted the right to load on cars and ship direct to a terminal market without having to pass their wheat through elevators, which graded it and charged for handling it. This rural agitation led to the organization of the Farmers' Alliance, and it bore fruit in the Minnesota legislative session of 1885. An act approved on March 5, 1885, regulated railroad companies and provided for the Board of Railroad and Warehouse Commissioners. Under the law, railroad companies were required to make annual reports to the commissioners showing the amount of stock subscribed, their assets and liabilities, the amount of their debts, the estimated value of their roadbed, rolling stock, stations, and buildings, the mileage of tracks and branches, the number of tons of through and local freight hauled, the monthly earnings for carrying freight and passengers, expenses incurred, the rates charged for fares, the tariff of freights, and various other figures. The commissioners were empowered to examine the books of railroads, make investigations, and require new information in the annual reports. Every railroad company was forced to permit any person or company to build and operate elevators at any of its way stations, and to furnish cars on application for transporting grain stored in any and all elevators or warehouses without discrimination. Rates were not to be extortionate and penalties were provided for violations of the law.20

At the same session of the legislature an act was passed to regulate elevators and warehouses and to provide for the inspection and weighing of grain. It declared public all elevators and warehouses at Duluth, Minneapolis, and St. Paul, and required the proprietors to take out licenses. Elevators and warehouses were to receive grain for storage without discrimination, to give receipts therefor, and to

¹⁹ Independent Farmer and Fireside Companion, 1:47, 51, 110 (March, May, 1879).
²⁰ George N. Lamphere, "History of Wheat Raising in the Red River Valley," in Minnesota Historical Collections, 10:26; Hicks, in Mississippi Valley Historical Review, 9:216; General Laws, 1885, p. 243–253.

deliver grain or return the receipt. The owner or lessee was required to make and post weekly in a conspicuous place a statement of the kind and grade of grain received, to send a daily report to the state registrar, and to publish rates for storage. Mixing grain of different grades was prohibited. A state weighmaster and assistants were to be appointed to weigh grain at points where it was inspected. A chief inspector and deputies likewise were to be appointed to inspect and grade grain as prescribed by the commissioners. For inspection a fee was to be charged to cover the cost of service. Finally, the commissioners were to establish and publish Minnesota wheat grades. Thus by 1885 the Minnesota wheat farmer was fairly well protected against the transportation companies, the elevators, and the millers. A comparison of freight rates on wheat from selected points in Minnesota to Duluth or Minneapolis will show that the 1873 rates were nearly double those of 1891.21

During all the period in which the farmer was struggling against recurrent low prices and wheat rings, total wheat production was increasing, areas of production were shifting, and methods of production were changing. During the Civil War and until 1867 high prices were the order of the day, a condition which naturally stimulated wheat production. By 1868, sixty-two per cent of the cultivated land in Minnesota was devoted to wheat, as compared with fiftythree per cent in 1860, and wheat was a matter of paramount concern to almost everybody. The Reverend George Biscoe caught the spirit of the times when he wrote: "Minnesota or that part of it known as Cottage Grove has gone to wheat. Men work in wheat all day when it does not rain, lounge round talking about wheat when it is wet, Dream about wheat at night, and I fear go to meeting Sabbath Day to think about wheat." 22

For a few years after 1868 the tendency toward exclusive wheat growing was somewhat checked. Lower prices, lower yields per acre, and marketing difficulties caused many farmers to diversify

²¹ Lamphere, in Minnesota Historical Collections, 10:27, 28; Folwell, Minnesota,

Lamphere, in Minnesota Historical Concentions, 10:27, 20; Folwell, Minnesota, 3:68; General Laws, 1885, 136-148.

Biscoe to his sister, August 21, 1862; September 18, 1865, Biscoe Papers; Robinson, Agriculture in Minnesota, 60; Wabasha County Leader, November 11, 18, 1927; Winona Republican Herald, November 20, 1930; Minnesota Monthly (St. Paul), 1:326 (September, 1869); Weekly Pioneer and Democrat, January 25, 1866.

their agriculture to a certain extent. Governor Austin even "proposed perhaps for the first time in an official state paper" a more diversified agriculture, and the newspapers admonished farmers to shift to other crops. Said one paper: "To live . . . we must change our system of farming; there is no article of farm produce in this State but commands a better price to-day than wheat; yet, there is nothing that will impoverish our land and ruin the farmer so quick as wheat. After one or two crops it is very difficult to raise No. 1 wheat." 28

But the decline in wheat farming did not last long after 1870. The total state production was then 18,866,073 bushels, and Minnesota ranked twelfth among the wheat-producing states. It has been noted that production in 1860 amounted to only 2,186,973 bushels. The leading wheat counties in 1870 were about the same as in 1860. and six of them - Olmsted, Goodhue, Fillmore, Wabasha, Dakota, Winona — were producing over a million bushels each.24

During the decade of the 1870's many factors influenced the development of wheat production - among them the railroads, which brought new lands within reach of markets and connected Minnesota more effectively with the East. It was in September, 1870, that "St. Paul secured railroad connection with Duluth, thus opening the Lake Superior route to the East," and in October of the next year "the St. Paul and Pacific reached Breckenridge, in the upper Red River Valley; while the Northern Pacific the same year connected Moorhead at the usual head of navigation on the Red River with Duluth." 25 With the building of the railroad the great wheat growing area of the Red River Valley began to pour its grain into the markets of the world. Early settlers in that region, however, lacked faith in the ability of the valley to produce a crop. After the Sioux Outbreak of 1862, Henry H. Sibley expressed his belief that

²³ Christianson, Minnesota, 2:14; St. Paul Weekly Pioneer, November 27, 1868. The 1868 season was too hot, that of 1869 too cold and wet, and that of 1870 too dry and hot, according to Robinson, Agriculture in Minnesota, 75.

A Folwell, Minnesota, 3:60; Thompson, in Journal of Economics, 18:570; Robinson,

Agriculture in Minnesota, 102.

25 Robinson, Agriculture in Minnesota, 76; Harold F. Peterson, "Railroads and the Settlement of Minnesota, 1862–1880," 14–17. The latter is an unpublished master's thesis; the Minnesota Historical Society has a copy.

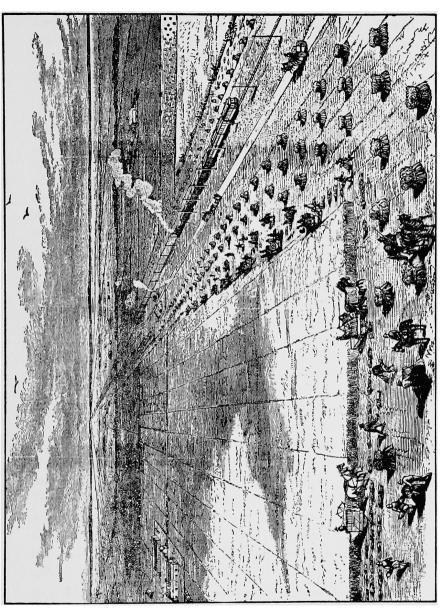
the area was "fit only for the Indians and the devil." His error became more and more obvious as settlers began to appreciate the region and to stream into it after 1870. Vere Ether of Neche, Nels Larson of Moorhead, and three farmers who lived south of Moorhead — Ole Thompson, Hogan Anderson, and Jens Anderson — were among residents of the valley who raised wheat in the first half of the 1870's. But perhaps the most important was Henry A. Bruns of Moorhead. In the winter of 1871–72, he bought five hundred bushels of seed wheat in central and southern Minnesota, transported it to the valley on sleds, and distributed it to farmers in Clay and Norman counties. Although grasshoppers were destructive in 1872, an important start was made, and in 1873 Bruns shipped the first carload of wheat from the Red River to Duluth. Later he was instrumental in erecting the first flour mill in Moorhead and the first steam elevator in the valley.²⁶

Closely related to the railroad in promoting settlement in the Red River Valley was the bonanza farm, which demonstrated on a large scale the practicability of producing wheat in the region at a profit. Among the earliest farms of the type was that of Oliver Dalrymple, who had had earlier experience in large-scale agriculture in eastern Minnesota. In 1875 he broke 1,280 acres of Red River Valley land, and in 1876 he harvested 32,000 bushels of excellent wheat, averaging a little over twenty-three bushels to the acre. The fame of the valley was established. The land had been purchased at from forty to sixty cents an acre, but, according to Dalrymple himself, speaking about 1909, it "immediately took on a value of \$5.00 per acre in 1875—and has increased a dollar per acre per annum since, and has a present value of from \$30.00 to \$40.00 per acre." ²⁷

Much of the activity in the valley occurred so shortly before 1880

²⁷ History of the Red River Valley, 1:201; United States Census, 1880, Statistics of Agriculture, 454.

History of the Red River Valley, 1:199 (Chicago, 1909); Lamphere, in Minnesota Historical Collections, 10:4, 12-19. The early settlers had to learn how to farm in the Red River region through bitter experiences, writes William A. Marin, in "Sod Houses and Prairie Schooners," ante, 12:147. The Weekly Pioneer and Democrat of December 9, 1858, and the Farmer and Gardener, 1:164 (June, 1861), recognized the potential productivity of the Red River Valley.



A Bonanza Farm

[From the Independent Farmer and Fireside Companion, 1:174 (November 1, 1879).]

that the census returns of that year did not reflect to any great degree the development of the region. Practically the same counties led in wheat production in 1880 as in 1870. While still leading, however, few of those counties increased their total production during the decade, and Olmsted and Winona actually registered decreases. Total state production nearly doubled between 1870 and 1880, reaching a figure of 34,601,030 bushels, which placed Minnesota fifth among the wheat-producing states, following Illinois, Indiana, Ohio, and Michigan. In 1874 wheat occupied 66.3 per cent of all tilled land, but thereafter a reaction set in for a few years. It was caused by the panic of 1873, the almost complete cessation of railroad building. lower prices, lower yields, grasshoppers, and agrarian discontent. The year 1877 marked the low point of this decline, but even then a larger percentage of land was in wheat than in 1867, the high point of the preceding decade. Wheat prices were high in 1877, largely as a result of the crop failure of 1876, and farmers consequently rushed into wheat production in the spring of 1878, devoting 68.98 per cent of all tilled land to the crop, a record equalled in no other year. Most of the increase in production of the 1870's, as has been implied, was due to the opening up of new fields along the Minnesota River and in the central and northwestern parts of the state.28

Developments of great significance to the farmer, as well as to the state as a whole, occurred in the field of flour milling during the 1870's. Mere mention of them here will be sufficient, in order to show their effect on Minnesota wheat farming. One was the introduction of the middlings purifier, which by 1876 was in general use. That invention revolutionized spring-wheat milling. As a result spring wheat became "king" in the Northwest, and Minnesota flours commanded the highest prices in Eastern and, eventually, in foreign markets. There was an advance of from one to three dollars a barrel in the selling price of spring-wheat flour, and a premium of a dollar

²⁸ Robinson, Agriculture in Minnesota, 78, 260; United States Census, 1880, Statistics of Agriculture, 177; Louis B. Schmidt and Earle D. Ross, eds., Readings in the Economic History of American Agriculture, 370–389 (New York, 1925). Minnesota's wheat production is given as 31,886,520 bushels in United States Commissioner of Agriculture, Reports, 1879, p. 135.

a barrel over winter-wheat flour. One writer declares that "Minnesota farmers now had a market for a grain suited to the climate and soil of the state, which, but for this revolution in milling, if produced at all, must have been marketed at inferior prices." 29

Another improvement in general use by 1880 was the metallic roller process of milling; like the middlings purifier it caused a rise in spring-wheat prices. Since the process was perfected in Minneapolis, the wheat trade of the Northwest tended more and more to be directed toward that city, where the local Millers' Association controlled mills, elevators, and warehouses. The millers' monopoly resulted in certain abuses and much criticism. Hence, in 1881 the Minneapolis Chamber of Commerce was formed to remedy evils in the wheat market. It helped matters somewhat, but practices still persisted which necessitated the legislative acts of 1885. The grain trade grew, however, and by 1885 Minneapolis had elevators with a total capacity of 9,515,000 bushels. One of them, the Great Northern, built in 1879 with a capacity of 780,000 bushels, was the largest elevator west of Chicago. In 1876 Minneapolis wheat receipts passed 5,000,000 bushels; in 1880 they reached 10,000,000 bushels; and by 1898 the figure was 77,159,980 bushels. In 1881 Minneapolis ranked third among the primary wheat markets; by 1885 the city was first.30

Duluth also was a good wheat market by the late 1870's, favored as it was by its position on the Northern Pacific Railroad and on the Great Lakes. There were fewer complaints about grading at Duluth than at Minneapolis, and prices tended to be higher at the former place. Furthermore, freight rates on the Northern Pacific seem to have been lower than on some other roads. 31 In Europe, Liverpool was the big market, and to that place Minnesota wheat in large quantities began to find its way, especially after 1873, much

²⁰ Robinson, Agriculture in Minnesota, 77; Folwell, Minnesota, 3:68; Christianson, Minnesota, 1:461; Minneapolis Journal, November 11, 1928; United States Census,

Minnesota, 1:401; Minneapolis fournal, November 11, 1928; Onlied States Census, 1880, Statistics of Agriculture, 561-579.

80 Robinson, Agriculture in Minnesota, 77; Folwell, Minnesota, 3:70; Kuhlmann, Flour-Milling Industry, 113-125; Minneapolis Journal, November 11, 1928; Horace B. Hudson, A Half Century of Minnesota, 59 (Minneapolis, 1900). "Hard spring wheat commands in the market six cents more per bushel than any other sort," wrote Andrews in 1882. See his Spring Wheat Culture, 3.

³¹ Independent Farmer and Fireside Companion, 1:7 (January, 1879).

to the dismay of the English farmer. Some of the wheat went by way of St. Louis and New Orleans, while some was shipped to Liverpool via New York. Notices about Minnesota wheat destined for Europe often appeared in the press. A report of 1879, for instance, records that 72,000 bushels were received in Barcelona - the "first cargo of wheat that was ever imported to that place from America." The bill for freight amounted to eighteen thousand dollars.³²

Struggling as he was to improve his lot, it was natural for the pioneer farmer to experiment with various types of wheat in order to find those best suited to Minnesota. Right from the beginning both winter and spring wheats were tried, though many doubted the success of growing winter wheat so far north. Booster newspapers tried to prove the doubters wrong by frequent accounts of successful winter-wheat production. "Those who think winter wheat cannot be produced in this Territory, are invited to call at our office, and examine for themselves," reported one St. Paul paper of 1856, asserting that "In several of the Territorial papers received during the past week, we have glowing accounts of the great success that has attended the efforts of our farmers to produce winter wheat." Yet in 1850 the same paper had to admit that the amount of winter wheat grown was "foolishly small," and about the same time almost two-thirds of the wheat marketed at Chicago was of the spring variety.33

Winter wheat yields were heavier than those of spring wheat if the crop was a success, often running to forty bushels or more per acre, but the uncertainty of the crop caused farmers to neglect it. Just how much winter wheat was grown in the early period is impossible to determine, since the census did not enumerate the two types separately by bushels until 1870.34 Many varieties of wheat appeared in the state before the middle eighties. During the late

³² Farmers' Union, July, 1869; May 30, 1874; St. Paul Pioneer, May 21, 1874; Minnesota Farmer, 2:151 (February, 1879).

nesota Farmer, 2:151 (February, 1879).

**Resekly Pioneer and Democrat, July 24, 1856; May 12, 1859; Kuhlmann, Flour-Milling Industry, 77; Statistics of Minnesota, 1869, p. 94 (Assistant Secretary of State, First Annual Report — St. Paul, 1870); Farmer and Gardener, 1:8 (November, 1860).

**Farmers' Union, September, 1868; Kuhlmann, Flour-Milling Industry, 77. In 1869 Minnesota produced 18,789,188 bushels of spring wheat and 76,885 bushels of winter wheat. Winona, Houston, and Wabasha counties produced most of the latter. See United States Census, 1870, Wealth and Industry, 1811, Andrew Peterson. latter. See United States Census, 1870, Wealth and Industry, 181; Andrew Peterson

1850's and early 1860's Scotch Fife, Canada Club, and Rio Grande were the most common, especially Canada Club, despite its susceptibility to rust. Red River wheat from Pembina did well in Stearns County, and it was used for the first crop of spring wheat in Benton County. White China was mentioned early near Winona, and Black Sea and Tea wheats had their followers in the 1850's.35

By 1867 decreasing wheat yields were to a large extent blamed on the seed in use. Undoubtedly many farmers were not careful enough in selecting their seed; they did not clean it sufficiently and did not buy new wheat often enough. Some farmers, however, did band together in many parts of the state to send to Canada for the native pure Canadian Club. "This movement on the part of the farmers," commented one journal, "is the best news we have received for a long time." In Faribault County, when Fife wheat "ran out," farmers turned to a new Russian wheat, Red Osaka, which saved the local crop from failure in 1872. But Red Osaka in turn did not last long, as it proved especially subject to rust. Some large fields of it in the southern part of the state were not even cut in 1874, so destructive was the rust. According to one writer, the best varieties in that year were Halstead, White Michigan, Rio Grande, White Hamburg or Amber, China Tea, Fife, and Golden Drop. Two other varieties that received much attention were Hiller or White Fife and Blandin Fife. The latter barely missed the first premium at the State Fair of 1878 in a field of twenty-six varieties. It was accidentally discovered by an old farmer who noticed two ripe heads in a field where other berries were only about half grown. He saved the heads and cultivated the variety for six years before another farmer secured the wheat from him for exhibit at the fair.³⁶ From

Diary, September 8, 1873; September 7, 1874. The original diary in Swedish and an English translation by Emma M. Ahlquist are owned by the Minnesota Historical

sota Monthly, 1:128 (April, 1869); Jacob A. Kiester, History of Faribault County,

³⁵ Statistics of Minnesota, 1869, p. 4; Minnesota Pioneer, December 11, 1851; **Statistics of Minnesota, 1869, p. 4; Minnesota Pioneer, December 11, 1851; Weekly Pioneer and Democrat, November 18, 1859; August 31, 1860; Farmer and Gardener, 1:263 (September, 1861). For discussions of Fife, Black Sea, and Tea or Java wheat, see J. Allen Clark and B. B. Bayles, Classification of Wheat Varieties Grown in the United States, 58, 71, 100 (United States Department of Agriculture, Technical Bulletins, no. 459 — Washington, 1935).

***Farmer and Gardener, 1:209, 239, 269, 293, 329 (July, August, September, October, November, 1861); Farmers' Union, November, 1867; January, 1868; Minnester Meably, 2018, 1869; 1869.

time to time, farmers and newspapers became excited about this or that variety of wheat for which someone made fantastic claims, but the crazes did not last long.

No matter what variety of wheat was grown, however, it would "run out," rust, or get smutty if conditions were not favorable. Hence, farmers were continually seeking new methods for making their seed sturdier and more resistant to disease. A characteristic recipe was given by one Charles Ford in 1861. To prevent "the worm" (what he meant is not apparent), he advised combining six bushels of seed grain with three pounds of a creamy mixture of sugar and chimney soot, and allowing it to stand for twenty to forty hours. To prevent smut, it was suggested that farmers add one ounce of blue vitriol dissolved in one pint of water to each bushel of seed. Indeed modern researches have established the fact that blue vitriol or copper sulphate will effectively control covered smut of wheat.⁸⁷

Another foe of the early Minnesota wheat crops was the Rocky Mountain locust, or grasshopper, which invaded the Red River settlements as early as 1818 and 1819. From 1820 to 1855 there were no unusual invasions of the pest in the state, though slight inroads may have occurred. The years 1856, 1857, 1864, and 1865 saw extensive destruction, but the worst damage was done in the period from 1873 to 1877. The story of the plague of the 1870's is too well known to need retelling here. About forty counties felt the hopper visitation in 1876, some five hundred thousand acres of crops were damaged, and the average yield of wheat through the state was under ten bushels to the acre. Fortunately, weather conditions in 1877, as well as parasites, were unfavorable to the locusts, and by the middle of August, Minnesota was virtually free of the hoppers.³⁸

^{352, 367, 386 (}Minneapolis, 1896). Among other varieties introduced and tried by Minnesota farmers were Arnautka, Lost Nation, Defiance, and Champlain. See Rochester Post, December 4, 1869; Minnesota Farmer, 1:5, 2:154 (February, 1878; February, 1879); Andrews, Spring Wheat Culture, 7; Clark and Bayles, Wheat Varieties, 140.

ties, 140.

Transfer and Gardener, 1:134 (May, 1861); Weekly Pioneer and Democrat, August 10, 1860; Frederick D. Heald, Manual of Plant Diseases, 718 (New York, 1933).

⁸⁸ Frank R. Holmes, Minnesota in Three Centuries, 4:107-114 (New York, 1908); "Beta," in Massachusetts Ploughman (Boston), September 12, 1857; January 9, 1858; Weekly Pioneer and Democrat, July 15, 1858; June 23, July 14, 1865; Folwell, Minnesota, 3:93-111; John Edgar to McCormick, June 10, 1873; June 5, 1874, McCormick

Insect pests, unfavorable weather, low prices, transportation difficulties, and the like were not the only problems of the wheat farmer. Often he was confronted by a labor shortage, accompanied by high wages. Even with the coming of self-binders and improved threshers in the 1870's the labor problem was not altogether solved, since there was a limit to what one man or one family alone could do. Although farmers relied much on the help of neighbors at rush seasons, they still had to depend to some extent upon hired laborers, especially at harvest time.

Wheat began to ripen in early and mid-August -- a signal for the whole countryside to spring to life. Incoming trains at St. Charles, Winona, and other stations brought with them sets of rough-looking fellows, each carrying a bundle or valise. These men, looking like a detachment of Goths, were harvest hands, who began the season in the vicinity of St. Louis and worked northward through Iowa as the grain ripened. After leaving the train, they went to a local hostelry, where they plied the landlord with questions regarding labor conditions and wages in the vicinity. Farmers drove in to town and argued with the workers over wages, sometimes for several days, while the wheat was getting riper and riper. On some occasions the first comers would grow impatient and take a train to another town -Rochester, Kasson, or Owatonna - there to try their luck. Always there were fresh arrivals, however, from the East and South. At last the farmers would grow anxious, promise three dollars a day in wages, and drive off to their fields with a gang of laborers. They generally were good workers, but they demanded meals fit for a "New York alderman." The preparation of such meals was a real task for the farm women, as often a dozen men had to be fed three times a day for as many weeks. Harvest hands, however, were not so particular about sleeping quarters, nor was their piety always

Harvesting Company Papers; Stillwater Messenger, January 9, 1874; June 18, 1875; Hallie M. Gould, Old Clitherall's Story Book, 15 (Battle Lake, 1919). The Minnesota Historical Society has typewritten transcripts of the items cited from the Massachusetts Ploughman. A Minnesota farmer recorded in his diary that the air was so full of grasshoppers "that when you looked at the sun it looked as if it was snowing." See Peterson Diary, August 26, 1876; April 26, June 6, 1877. The crop failure of 1876 was caused not only by grasshoppers, but by hot weather, drought, and the chinch bug, a new foe, according to Statistics of Minnesota, 1877, p. 10, 17 (Commissioner of Statistics, Ninth Annual Report — St. Paul, 1878).

strong, their swearing often drowning out the grace at mealtime. "The habit of swearing is very common in the Northwest," wrote one observer, "an oath at every ten words is perhaps a fair average. We omit them in our report." In 1867, even when all help was absorbed at three dollars a day, "hundreds of farms all over the State, still lay untouched by the scythe," and hands at Eyota and Rochester were paid as much as four and a half dollars a day. People became alarmed, and everyone who was physically fit felt an almost patriotic call to enter the fields.³⁹

Just what profits the average Minnesota wheat farmer made between the 1850's and the 1880's it is impossible to say with accuracy. There were exceptional periods, such as those marked by the panics of 1857 and 1873, and the hard times of the late 1860's, during which both rural and urban populations felt the effects of economic depression. Hence, such years cannot be cited in a study of what might be called normal wheat profits. In order to calculate such profits it is necessary to know the cost of raising wheat, the total acreage devoted to the crop, and the prices received. Obviously such data cannot be secured or given for every farmer, but a few examples may throw light on the question.

A writer of 1882 gives the following detailed list of equipment needed in operating a hundred-and-sixty-acre wheat farm, with a hundred acres under cultivation:

Three horses, at \$150 each \$	450
One pair of oxen	100
One sulky three-horse plow	50
Attachment to same for breaking	15
Two-horse cultivator	30
Three-horse reaper (self binder)	275
Two-horse harrow	15
Fanning mill with cockle attachment	20
One wagon	75
One sled	35

³⁰ Glencoe Register, January 30, February 6, 1868; Winthrop News, July 31, 1930; Farmers' Union, August, 1868. A hired man who worked the year round usually received fifteen dollars a month in addition to board, room, and washing, according to Andrews, Spring Wheat Culture, 42. The Chicago Advance of September 5, 1878, noted that four hundred harvest hands went to Winona from Davenport by steamer.

One drill	
Three sets of harness	1-
Spades, shovels, hoes, forks, hayrack, &c.	60
Total \$	1,255

Of course every farmer did not have such extensive equipment, but all had to have a certain amount of capital before they could begin to grow wheat. Added to this expense was that of raising the crop. Various estimates are to be found of the latter cost, generally ranging from ten to fifteen dollars per acre. A typical estimate follows:

Plowing, per acre \$	2.00
Seed (1½ bushels per acre)	1.50
Seeding and dragging, per acre	1.00
Cutting with reaper, per acre	1.00
Binding, per acre	1.20
Shocking, per acre	.35
Threshing eighteen bushels, at fifteen cents	
per bushel	2.70
Teaming eight miles to market	1.44
Interest on land at \$10 per acre at ten per cent	1.00
Total \$:	12.19

In this instance the cost per bushel was sixty-seven and two-thirds cents. Other estimates might include greater costs for marketing, higher land valuations, taxes and insurance, depreciation, and other factors which would increase the cost of raising wheat. On large farms the cost per acre might be smaller, while on small farms using cradles the opposite would be true.⁴⁰

Undoubtedly many men made money in wheat farming, and they made it in a short time. Robert Hews of Wasioja, for instance, in 1866 purchased forty-eight acres of broken but unfenced land for \$1,183.00. He sowed 36 acres of wheat in the spring of that year, and secured over 19 bushels per acre at harvest, or 739½ bushels in

⁴⁰ Andrews, Spring Wheat Culture, 32-35; Rochester Post, November 20, 1869; Farmer and Gardener, 2:100 (April, 1862). With wheat at a dollar a bushel, a farmer made a profit of a hundred and seventy-five dollars on forty acres, according to the Minnesota Monthly, 1:75 (March, 1869). "The farmer would make three dollars per acre," wrote Biscoe to his sister on July 3, 1862, "but he does not make that if the labor of carrying it to market is counted anything." Biscoe Papers.

all. He sold 95 bushels in the fall at \$1.25 a bushel, and in the spring he sold the rest for seed at \$2.00 to \$2.25 per bushel. His total wheat sales brought in \$1,524.30, plus \$93.50 for the straw. Since his expenses amounted to about \$200.00, he cleared about \$234.80 on his first year's operations.⁴¹

For every Robert Hews, however, there were many farmers struggling along, year after year, raising wheat and still remaining in debt. When wheat brought a dollar or better per bushel, raising it was not an unhappy business, but when the price was down to forty-five or fifty cents a bushel, matters were different. Leonard B. Hodges in a letter of December 14, 1878, told of a friend who invested all he had in growing wheat in Olmsted County until 1872, and who left that place "worse than nothing." All his earnings went to pay store and machine bills. "Paying 'after harvest,'" warned Hodges, "has ruined a good many men. It may you." Particularly during the late 1860's was there ample evidence of the lack of profit in specialized wheat farming. John R. Cummins, a typical or aboveaverage farmer who concentrated on wheat, wrote in 1880: "Moved from the old log, into the new house, where we had lived since 1857, excepting 2 years." Had he grown rich by raising wheat he probably would not have lived in his old log cabin all those years. One writer has said that in the first few years after the cessation of spring-wheat raising there came a transition period which gradually opened up more prosperous conditions than the older times ever produced.42

Considering the gamble involved in wheat raising, it is difficult to understand why the pioneer farmer placed so much stress on that branch of agriculture. J. R. Drake in 1868 undertook to explain the problem. He claimed that most farmers were poor and that wheat was the only crop which would ensure a return, the only one

⁶¹ St. Paul Weekly Pioneer, July 14, 1867. Somewhat similar cases are described in the Weekly Pioneer and Democrat, September 22, 1865, and the Minnesota Monthly, 1:90, 118, 119 (March, April, 1860).

^{1:90, 118, 119 (}March, April, 1869).

"Independent Farmer and Fireside Companion, 1:8 (January, 1879); Farmers'
Union, July 25, 1874; Glencoe Register, October 14, 21, 28, December 16, 1869; Cummins Diary, November 27, 1880; Henry V. Arnold, Old Times on Portland Prairie,
100 (Larimore, North Dakota, 1911). "I know several men who in their ambition to have large farms bought more than they could pay for and after struggling along several years lost the whole," wrote Biscoe to his sister on July 3, 1862.

for which there was always a market. There was much truth in his opinion, but it did not tell the whole story. Poor farmers could not afford to buy stock, erect buildings, and experiment with little-known crops and methods. Lack of skill, knowledge, and experience was another factor. Wheat farming also was comparatively easy compared with mixed husbandry, and there was always the hope that wheat yields and prices would be high in another year. Thus many farmers raised wheat every year, often on the same land, although they knew better.⁴³

Finally, however, natural forces, economic conditions, better understanding of farming methods, and general agricultural trends caused many a Minnesota wheat farmer to change his course of production. Diversification did not come all at once, nor did it affect all parts of the state equally. Some farmers carried on mixed agriculture in the midst of specialized wheat areas, and some clung to wheat almost solely in areas of diversification. General trends, nevertheless, show that as wheat farming moved north and west, the older southern and eastern sections of the state turned more to other types of agriculture, especially from 1878 onward. As early as 1873 evidence of the trend could be found in the older parts of Minnesota. Statistics collected by the state Grange in 1873 showed that the percentage of land in wheat and grain crops was lowest in the counties that had been settled the longest. Crops such as flax, cultivated hay, sorghum, hops, tobacco, peas, and beans were receiving increasing attention at the expense of wheat.44

Then in 1878 occurred a catastrophe that hastened the demise of wheat growing in southern and southeastern Minnesota—the poor crop of that year. Indications in June forecast a banner crop, but weather conditions in July, characterized by excessive rainfall and

"156 (Mankato, 1884).

"Robinson, Agriculture in Minnesota, 79; Christianson, Minnesota, 1:458. According to the latter writer, there was a slow but steady decline in wheat prices from 1872 to 1875.

⁴³ Farmers' Union, March, 1868; Minnesota Monthly, 1:216 (July, 1869). The farmer was constantly being urged to diversify his crops. See Farmer and Gardener, 2:13 (January, 1862); St. Paul Weekly Pioneer, May 10, 17, December 27, 1867; February 14, 1868; Farmers' Union, January, 1869; Glencoe Register, February 24, 1870; Mankato Record, April 30, 1870; Statistics of Minnesota, 1870, p. 41 (Commissioner of Statistics, Second Annual Report — St. Paul, 1871); History of Mower County, 151, 156 (Mankato, 1884).

heat, blasted early hopes. Stem rust was the villain of the piece, and the poorest yields occurred in the two southernmost tiers of counties, Mower County having a low of six and seven-tenths bushels per acre. The only number 1 wheat produced in Minnesota in that year came from the western or northwestern sections of the state.⁴⁵

A picture of how great a change in the location of wheat areas occurred in Minnesota after 1870 can be secured by comparing county production statistics for that year with those for 1890. It is almost startling. Leading wheat counties of 1870 showed in all cases small production in 1890, while newer counties exhibited gigantic totals in the latter year. Olmsted and Dakota counties, for example, produced 2,117,074 and 1,435,847 bushels respectively in 1870; in 1800 their figures were 198,992 and 64,806 bushels. On the other hand, Polk County, which was not even listed in 1870, and Otter Tail County, which produced 8,406 bushels in 1870, produced 3,013,361 and 2,623,538 bushels respectively in 1890. In exhibiting this shift in wheat areas, Minnesota was not unique; rather the state's history typified the course of wheat production in the United States. Until recent times wheat has always been attracted rapidly to new lands. It has been a frontier crop, and its center of production has moved swiftly across the continent.46

In contemplating this movement, one naturally wonders why the shift in wheat farming took place. Why did farmers abandon wheat raising and take up diversified agriculture? Some attributed the change to declining soil fertility and reduced yields, but that explanation does not suffice. True, wheat yields did decrease on particular pieces of ground where the grain was grown year after year, but it

⁴⁵ Laura M. Hamilton, "Stem Rust in the Spring Wheat Area in 1878," ante, 20:156–164 (June, 1939); Robinson, Agriculture in Minnesota, 79; Joseph A. Leonard, History of Olmsted County, 107 (Chicago, 1910); Winona Republican, November 20, 1920.

Thompson, in Journal of Economics, 18:572; Robinson, Agriculture in Minnesota, 260; Fred A. Shannon, America's Economic Growth, 379 (New York, 1940); Statistics of Minnesota, 1883, p. 9 (Commissioner of Statistics, Fifteenth Annual Report—St. Paul, 1884). The Report shows that wheat occupied 68.98 per cent of the total cultivated area of Minnesota in 1878, and 53.35 per cent in 1882.

seems untrue that soil in Olmsted County in 1890, for example, was any less fertile generally than it was in 1866. The contour of the land in much of southern Minnesota, also, was as well suited to wheat as that of Stearns or Renville counties; while the cost of machinery, the price of wheat, the cost of farm labor, and the rate of interest charged on farm loans were such as to give a relative advantage to the southeastern over the northwestern counties. Wherein, then, lies the explanation? It has been noted that wheat production was considered best adapted to the conditions of frontier agriculture. Rising land values in southeastern Minnesota forced the farmers there to shift from wheat farming to dairying. Where a man farmed land that was free, his aim was to extend the use of a given amount of labor and capital over as large an area as possible, no additional expense thereby being added as rent. As soon, however, as the land acquired a value, thus involving a definite expense per acre, the farmer found it necessary to direct his farming so as to get a larger return per acre. Hence, in the long run, the wheat farmer had to leave southeastern Minnesota when land values increased, or shift to another type of farming. If he did neither of these things, he probably found himself getting more and more into debt, since the return per acre was generally greater in dairying than it was in wheat farming. Stem rust, chinch bugs, and hot, wet weather undoubtedly seemed like the addition of insult to injury to the wheat farmer of southeastern Minnesota in 1878, but in reality he benefited from them if they forced him to diversify his agriculture to meet changing conditions. The rise in land values in that section, of course, was not only a cause of more intensive farming, but was partly a result as well. The most important factor, however, in increasing land values was the growth of population and settlement, with attendant social and other advantages. 47

⁴⁷ Thompson, in Journal of Economics, 18:573-584; Statistics of Minnesota, 1883, p. 9. C. W. Lyman of Northfield tells of going through the transition from wheat production to stock raising and dairying in C. C. Andrews, Some Minnesota Farmers Who Are Making Money, 9 (St. Paul, 1893). In the Spring Valley Tribune of August 23, 1924, J. C. Mills tells of farmers in Fillmore County who lost their farms about 1880 and removed to Dakota.

The shift in wheat production in Minnesota did not mean that the state's importance as a wheat grower suffered any setback after 1880. On the contrary Minnesota ranked first among the states of the Union in 1889 and again in 1899, and total state production in the latter year was nearly three times what it had been in 1879. It did mean, however, that the state was passing out of the frontier stage and that never again would the single-crop craze take hold of so great a portion of the farm area as it did in the 1860's and 1870's. 48

⁴⁶ Schmidt and Ross, eds., American Agriculture, 379.



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