2012 PKIII Train the Trainer

SILAGE FOCUS

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DUPONT PIONEER.

Water VS. No Water

The corn that got water looks pretty good!

Or...Does it? Upon closer look, the dry hot weather has taken its toll.

Folks have some hard decisions to make

To Harvest or NOT to Harvest? ...That is the Question!

- Cost per acre in seed? (plus fertilizer, and field treatments etc.)
- Cost per acre to harvest?
- How much will this yield?
- How should we harvest if we decide to do so?

Hasty decisions are not uncommon!

OUT OF WATER & 2-3' tall

- First I suggested that we chop and ensile, if nothing else but to reduce nitrate risk *Much of the plant material was too dry to chop. It would have blown away..*

- Then I suggested bale as they feed, and give it a chance to dry further *Stalks are still very wet.. Moisture in samples varied from 29% -54%.*

.....results: Nothing caught on fire and fed out ok.

What Guidance Can You Provide?

QUICK MANAGEMENT TIPS:

From Bill Mahanna, PhD., Bill Curran, PhD., Bill Seglar, DVM.
(piece included in materials)

- Harvest at 68-65% moisture. *As it begins to dry the moisture can drop quickly.*
- The principle insect of concern is the **spider mite**.
- **Spider mite activity is greater under hot and dry conditions**. An infestation in these stressed conditions can severely compromise the crop, such that if infestation levels are severe enough, early harvest may be warranted. Pesticides used to treat spider mite infestations have the following harvest intervals:
  - Comite, 30 days after application;
  - Dimethoate, 14 days after application
  - Capture, 30 days after application

What Guidance Can You Provide?

QUICK MANAGEMENT TIPS:

- **Green, barren stalks may contain 75 to 90% moisture.** The tendency is to harvest drought stressed corn too early and ensile too wet. It is important to sample fields and conduct dry matter tests
- If conditions remain hot and dry, silage harvest may occur earlier than normal.
- Harvest assessment will be required on a field-by-field basis. Be prepared to make harvesting adjustments with custom harvesters.
- Cut no shorter than 8 inches off the ground.
- If it happens to rain after a prolonged dry period, wait to cut for 3-5 days.
- Inoculants are very important in drought stressed corn!

What Guidance Can You Provide?

CONCERNS:

Nitrates?

Yes, Nitrates are a big concern but can absolutely managed. The first rule of thumb is to minimize nitrates in every way possible.

- Is it necessary to High Chop? No, not with ensiling. These guys need as much ton and forage as they can get!
- Fermentation (Ensiling) Let silage ferment for no less than 3-4 weeks before feeding. The ensiling process will take care of approximately 50% of the nitrates.
- TEST the feed! Having your feed tested from a reliable lab, and working closely with a nutritionist is recommended.
- Blend with non effected feed to reduce the concentration of nitrates in the ration

What Guidance Can You Provide?

CONCERNS:

Yields?

Yes, yields are a concern. Corn silage yields may be 50 to 90% of normal under drought stressed conditions

- Silk emergence is the most critical time to avoid drought stress while early vegetative is the least critical period
- When irrigation water is limited, refrain from irrigating until the silking to blister stage of development, if possible.
- If little or no grain is present, a general rule is that there will be one ton of 70% yield per foot of plant height.
- Up to 50% yield loss can result from repeated moisture stress during the silk to tassel stage.
- The most important time to irrigate is during the four-week period surrounding silking, approximately July 20.

TABLE 1. INFLUENCE OF MOISTURE STRESS AT VARIOUS GROWTH STAGES ON CORN GRAIN YIELD.

Stage of Development	% Yield Reduction
Early Vegetative	5 - 10%
Tassel Emergence	10 - 25%
Silk / Pollen Shed	40 - 50%
Blister Kernel	30 - 40%
Dough	20 - 30%

What Guidance Can You Provide?

CONCERNS:

Nutrient Value?

Yes, nutrient value is a concern, especially when you need to assign a dollar value to the crop.

- Studies indicate that severely stressed corn, which had essentially no ears and was short, still had a feeding value of approximately 70-85% of normal corn silage

	EE	STARCH	SUGAR	NITRATE-N (ppm)	Cl	pH	T.D.N.
Average	2.62%	8.77%	6.34%	871	0.4%	432.6%	60.0%
SD	1.41%	4.14%	4.17%	715	0.3%	66.3%	7.5%
Normal Min	0.31%	0.10%	0.14%	29	0.1%	317.0%	45.0%
Normal Max	5.43%	14.99%	14.68%	2300	0.9%	565.3%	75.0%
Max	10.84%	14.99%	24.00%	3290	1.47%	812.00%	82.17%
Count	1525	2078	1458	94	85	1998	2064

81-84% of normal TDN samples

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TDN 1x - MLK06 NonProc   %        73.20%
Adjusted Crude Protein   %         7.15%
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TDN 1x - MLK06 NonProc   %        72.94%
Adjusted Crude Protein   %         7.36%
NEC                      %        48.02%
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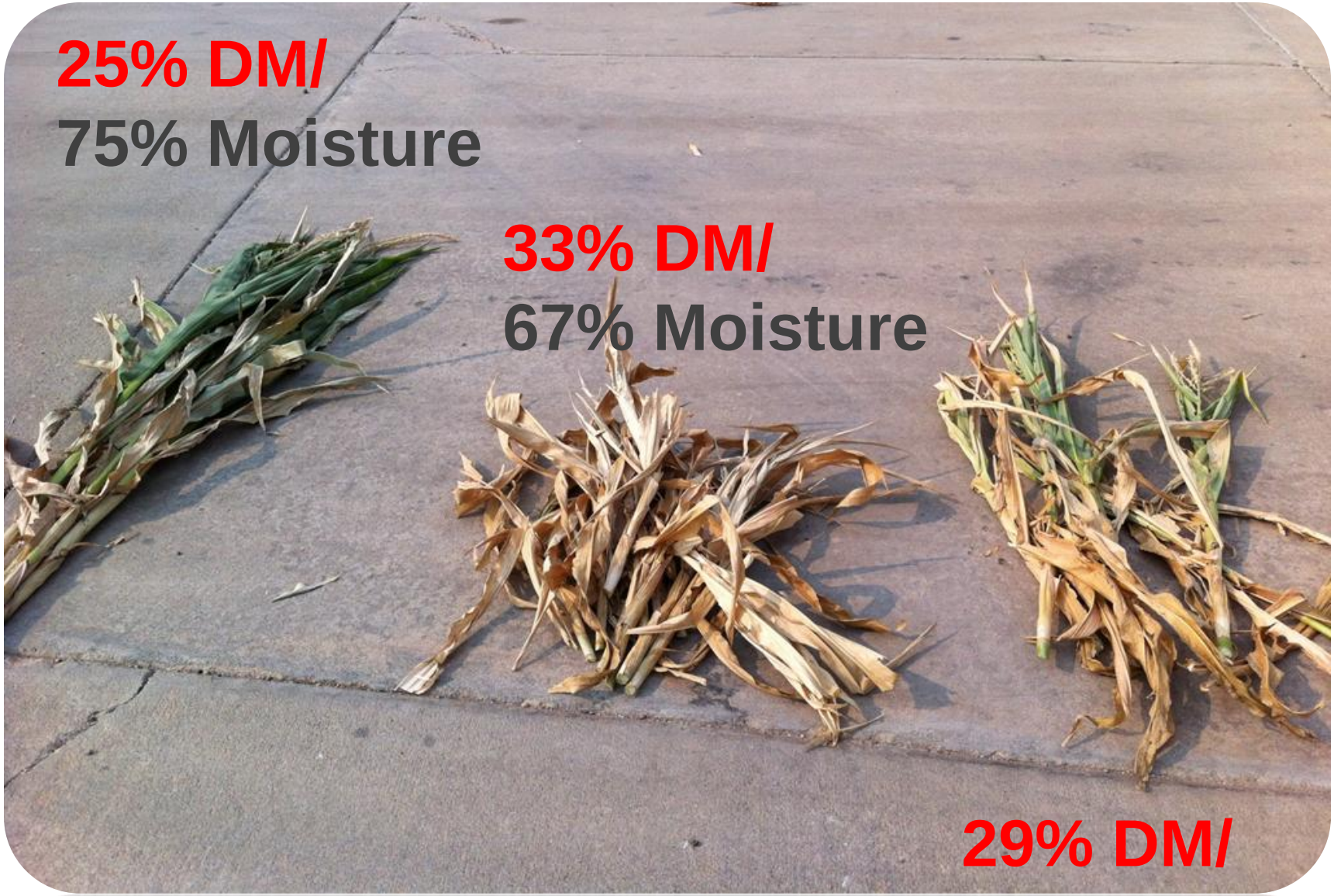
DUPONT PIONEER.

Still has
67% Moisture


25% DM/
75% Moisture
33% DM/
67% Moisture
29% DM/
71% Moisture

28% DM/
72% moisture

What about Alfalfa?

Lack of water leads to short plant height although alfalfa will continue to flower 'on-schedule'. Assuming alfalfa is flowering, the rule of thumb for alfalfa and for grass is to go ahead and harvest if over ten inches tall and potential tonnage can justify the harvest.

Recommendations:

1. If stand is over 10 inches tall and flowering, harvest if economic to do so. Moisture stressed alfalfa should be mowed at the normal cutting height.
   ~ Since quality is not declining as rapidly with advancing maturity as under normal growing conditions, let the plants approach 100% bloom before harvest to allow the plant to build nonstructural carbohydrate reserves.
2. If stand is 10 inches or less tall and flowering, do not cut. Let regrowth come through existing growth. Mowing will not increase regrowth.
3. Make sure that soil fertility is at optimum levels.
4. Scout and control potato leaf hopper, army worm and other insects.
5. New seedings should not be harvested during the season but may be harvested in late August if adequate growth is present to harvest. A late fall cutting may also be taken. The key is to time harvests so that alfalfa either has no regrowth or more than 8 inches of regrowth at frost.

Discussion & Questions

Thank You!