



# FARM BUSINESS NEWS

Outagamie County Agriculture – 832-5119

August, 2005 - September, 2005-October, 2005

**Calendar of Events**

**August**

25 12:30p.m. Corn Silage Drydown, Greg Volkman Farm, W5849 Krueger Rd, Black Creek (KJ)

**September**

1 12:30p.m. Corn Silage Drydown, Wayne Noack Farm, N8728 Scott Rd, Black Creek(KJ)

8 12:30p.m. OC Forage Council Fall Field Day & Drydown,  
Bruce & Mark Wichman Farm, W4735 Cty Trk EE, Appleton (KJ)

9 9:30 a.m. Ag Lenders Update, Liberty Hall (ZM & KJ)

12 12:30 p.m. Corn Silage Drydown, Mark Lamers, Fox Ridge Dairy, N1381 Cty GG, Kaukauna (KJ)

21 Calf Care Dairy Workers Training –in Spanish, Shiloh Dairy, Bastian Rd, Brillion (ZM)

**October**

4-8 World Dairy Expo, Alliant Energy Center, Madison

26 1:00 p.m. Conservation Tillage Field Day, Larry & Loren Lemke, W149 Ott Rd, Black Creek (KJ)

27 8:00 p.m. Quality Milk Council Farm Barn Meeting, Derald Ossman Farm, Black Creek (ZM)

**November**

1 8:00 p.m. Quality Milk Council Farm Barn Meeting, Bob,Linda & Dan Fuhrmann, Kaukauna (ZM)

2&3 Dairy Beef Meeting, Rochester Minnesota – call 832-5119 for more information (ZM)

Greetings Producers,

As I write this many parts of the county just received anywhere from ½ to ¾ of an inch of rain. I don't need to tell anyone that this is the first measurable precipitation we have received in several weeks. In fact, without it we are all of the sudden having to consider the prospect of once again using some of our soybeans for forage as pods have not shown any considerable signs of filling at the expected rate during this dry period. In the spring we call it a "Million Dollar Rain" that gets the crops out of the ground and off to a good start. This most recent precipitation event could be quantified as being even more significant as the corn and beans up to this point have been showing very good potential considering the extended drought they have suffered through. Whole plant moisture is the primary consideration for ensiling corn silage and we have four scheduled drydowns planned to assist you as producers with that critical decision. Initial checks in different parts of the county revealed that most corn was in the 70-72% moisture range so I can not urge you strongly enough to monitor those fields as we will likely have crop taken before the end of the month if we do not receive any more significant precipitation. Have a safe and productive harvest.

**KEVIN JAREK**  
Crops/Soils/Horticulture

**ZEN MILLER**  
Dairy/Livestock

**UW-Cooperative Extension Service**  
**Outagamie County**

## **Outagamie County Forage Council Fall Field Day –Thursday, September 8**

The Outagamie County Forage Council Fall Field Day will be held on Thursday September 8<sup>th</sup> at the Bruce and Mark Wichman Farm beginning at 12:30 p.m. Because the Council has done a very good job of organizing field days that showcase the latest in equipment evolution and concepts, we have found that we have caught up with industry and there are no new significant advances in forage harvesting and storage on the immediate horizon. With that said however, producers are always looking at ways to increase efficiency and improve their bottom lines. Round Up Ready (RR) soybeans have dominated the market and plantings in the state, the use of RR corn has increased as well and although it is not the dominant planting yet – the acreage dedicated to its use is on the rise, and lastly as you are probably already aware RR alfalfa made it through the USDA, FDA, and EPA approval processes earlier this summer.

What does this mean? Producers have always liked the simplicity involved with the use of glyphosate products and if follow up treatments are required they are usually not cost prohibitive – right? Kevin will address that question and discuss some of the real costs associated with spray applications based on budgets derived from producers here in the county. Chris Boerboom, UW-Extension Weed Specialist, is quick to point out that there are some potential problems that producers can create on their farms if they are simply selecting and applying herbicides based on cost and ease of use. However, if producers keep a few things in mind as they make pest management decisions there are some very good reasons why they may want to consider purchasing a field sprayer for their operations. Mr. Boerboom will be our featured presenter and discuss the top ten reasons why producers should consider owning their own unit. Even if we receive precipitation by the time you receive this newsletter, it does not change the fact that we harvested significantly less alfalfa tonnage and for the second year producers will need to look at their feed supplies differently. Zen will address what producers should be thinking about as summer concludes and we move through the fall and winter months. Lastly, Service Motor Company, Riesterer & Schell, and Tesh Bros. Equipment have been invited to have sprayer units on hand for producers to view and ask specific questions about their features and operation.

Whether you have your own unit and are looking to trade up or if you have never owned a sprayer before and have a lot of questions, we feel strongly that you will find the answers you seek from the line up of professionals we have assembled. Our goal is to provide you with information you can use over the coming months to make a decision for the 2006 growing season. All producers are invited to enjoy the full lunch (burgers/brats, potato salad, etc...) to be provided by the Council to all of those in attendance. The tentative agenda for the event is as follows.

- 12:30 p.m. Lunch provided by Backyard Bashes –Todd Gorges**
- 12:45 p.m. How much am I really spending on Spraying?**  
Kevin Jarek, UW-Extension Crops, Soils, & Horticulture Agent, Outagamie County
- 1:15 p.m. Top Ten Reasons to own a Field Sprayer**  
Chris Boerboom, UW-Extension Weed Specialist
- 1:55 p.m. Feeding Concerns/Strategies following 2005 Harvest**  
Zen Miller, UW-Extension Dairy & Livestock Agent, Outagamie County
- 2:25 p.m. Selection of Sprayer Units available from Area Dealers**  
Service Motors - Riesterer & Schnell - Tesh Bros. Equipment

# SAFETY FIRST

Silo-filler's disease is the term given to the injury resulting from exposure to silo gas. Inhaling even a small amount can result in serious, permanent or fatal lung injury. The nitrogen dioxide combines with water in your lungs to form highly corrosive nitric acid.

Symptoms of silo-filler's disease include coughing, burning, shortness of breath, chills, fever, headaches, nausea or vomiting. While a person may not immediately experience the symptoms from a mild exposure, in 3-30 hours there is a slow, progressive inflammation of the lungs that results in fluid buildup in the lungs. **This can be fatal.** A unique characteristic of this disease is that there may be a relapse in two to six weeks after the original episode, which may be milder or more severe than the first episode.

## **To prevent Silo-Filler's Disease:**

Stay out of the silo for a least three weeks after filling.

Be alert for bleach-like odors and/or yellowish-brown gases in or near the silo.

If you must enter the silo, e.g., to set up a silo unloader, do so immediately after the last load is in. Do not wait several hours or overnight. Run the blower 15-20 minutes before entering and keep it running while inside. Keep a door open down to the silage surface, and have someone keep in contact with you from the outside.

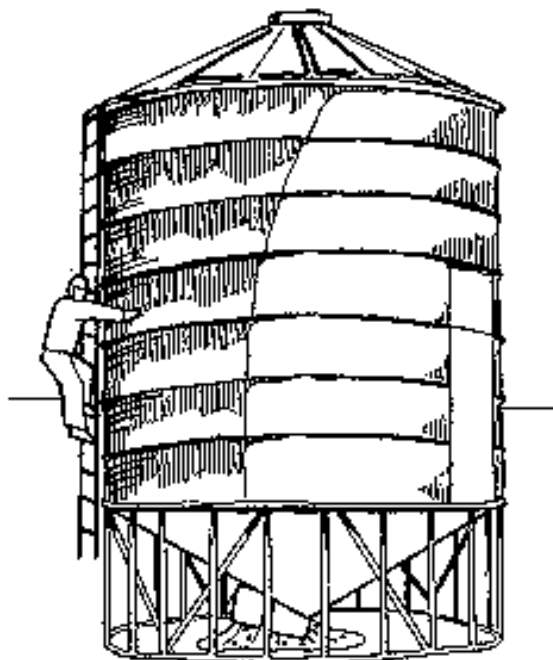
Ventilate the silo room adequately for three weeks after filling, keeping windows and doors open.

Keep the door between the silo room and the barn closed to prevent silo gas from killing livestock.

If you experience throat irritation or coughing in the silo, get fresh air immediately.

**See your doctor immediately after exposure to silo gas.**

*Submitted by: Cheryl Skjolaas, UW-Extension Outreach Safety Specialist*



## **Outagamie Forage Council Corn Silage Drydowns**

The Outagamie County Forage Council will once again be partnering with Fox Valley Technical College to sponsor three corn silage drydown events. Producers are encouraged to bring 4-6 representative stalks (not taken from the headlands and cut at the height you intend to chop) from each field they wish to have tested. Each drydown will begin at 12:30 p.m. and conclude around 3:00 p.m. or when samples are finished. As I write this we are having samples from around the county collected and tested for nitrates and that information will be available in the next Forage Council Newsletter and at each of these events. Koster testers will be used to determine moistures and usually take about 15 minutes or so for each sample. Because of our persistent droughty conditions we strongly suggest that producers monitor whole plant moistures, as this will prove to be the best indicator as to when harvest should begin. Producers hosting drydowns this year include:

**Thursday August 25<sup>th</sup>  
Greg Volkman Farm  
W5849 Krueger Road, Black Creek**

**Thursday September 1<sup>st</sup>  
Wayne Noack Farm  
N8728 Scott Road, Black Creek**

**Thursday September 8<sup>th</sup>  
Bruce & Mark Wichman Farm  
W4735 County Trunk EE, Appleton**

**Monday, September 12  
Mark Lamers-Fox Ridge Dairy  
N1381 Cty Trunk GG, Kaukauna**

Results from each of these drydowns will be shared with Mike Austin, WTAQ/WFRV and posted on the County Corn Silage Drydown website no later than 1 day preceding the event. Producers can access the silage drydown website at:

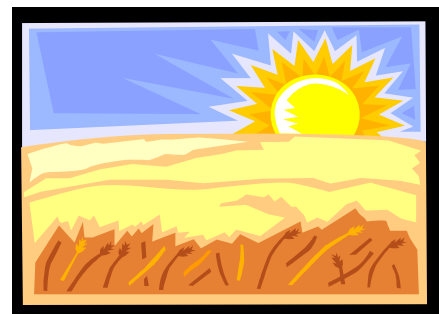
<http://www.cft.uwex.edu/ces/ag/silagedrydown>

## **Conservation Tillage Field Day Wednesday, October 26, 2005 – 1-3 p.m. Loren & Larry Lemke Farm W149 Ott Road, Black Creek**

At the Conservation Tillage Field Day October 20, 2004 at the Larry and Loren Lemke Farm several of the tillage tools on hand were used to set up some trials to see what influence, if any, these different pieces of equipment had on final crop yields the following year. We have all heard the expression “What a difference a year makes”, well we actually want to show you just that! On May 5th plots were planted with corn for grain as well as soybeans. Dan Knutzen provided Kaltenberg seed for these test plots. \*3919 RR Bt corn (92 day RM) and \*172 RR soybeans (1.7’s) were utilized for our experiment. The tillage treatments applied to these sites included an Unverfurth Zone Builder, a Krause Subsoiler, a Wil Rich Subsoiler, a Case IH Ecolo-Tiger, a John Deere 2100 Zone Builder, a John Deere 2700 Subsoiler, and a John Deere 714 Coulter Chisel. Whether you own one of these units or will be in the market soon for tillage equipment, you will want to stop by to see how each of these unit’s plots performed over the past growing season.

Dick Wolkowski, UW Soil Scientist, will be our featured speaker on **October 26** and will discuss his observations and give insights/opinions about the information that was collected as a result of these trials. Mark your calendars now for the October 26, 2005 Conservation Field Day at the Loren & Larry Lemke Farm in Black Creek.

*T*hanks to Dan Knutzen for donating the Kaltenberg Seed used for these demonstrations.



**Pre-Harvest Intervals (PHI) for Corn Silage**  
**Chris Boerboom, Extension Weed Scientist**

Because drought conditions have persisted on the east side of the state, some corn fields might be harvested for silage which were originally intended for grain. The pre-harvest interval (PHI) between herbicide application and harvest should be checked. With nearly all herbicides, there should not be a problem meeting the required PHI. For example, I considered a situation where soil-applied herbicides were applied on May 15 and corn was harvested on August 1. In this case, 76 days would elapse between application and harvest. With a 76 day interval, only Python (85 days) would have a PHI that would prevent harvest. Corn silage could be harvested with all other soil-applied herbicides. If Python was applied 10 days earlier, corn could also be harvested for silage by August 1. For postemergence herbicides, I considered an example where applications were made on June 15. In this case, 46 days would elapse from application until harvest on August 1. For the postemergence herbicides, applications of Accent Gold, atrazine, glyphosate, Liberty, Liberty ATZ, and Sencor would prohibit silage harvest.

These examples highlight a few of the herbicides that have some of the longer PHIs and may become an issue with silage harvest of drought damaged corn. You need to check the specific application date and the herbicide's PHI to determine when a field can be chopped for silage. The PHI for many of the common corn herbicides are listed below.

**Pre-harvest intervals for corn silage**

<b>HERBICIDE</b>	<b>DAYS</b>	<b>HERBICIDE</b>	<b>DAYS</b>
Accent	30	Lightning	45
Accent Gold WDG	85	Lumax	45
Acetochlor (Harness, etc.)	no restriction	Marksman	delay until milk stage
Acetochlor+atrazine	no restriction	Micro-Tech	no restriction
Aim	no restriction	S-metolachor (Dual II	
Atrazine	60	Magnum, etc.)	30
Basagran	12	NorthStar	45
Basis	30	Option	45
Beacon	45	Outlook	40
Cinch ATZ/Bicep Lite II Mag.	30	Pendimethalin (Prowl, etc.)	no restriction
Buctril	30	Permit	30
Buctril+atrazine	45	Princep	no restriction (Do Not Graze)
Callisto	45	Priority	30
Camix	45	Python	85
Celebrity Plus	32	Ready Master ATZ	50
Define	75	Resource	28
Dicamba (Clarity, etc.)	delay until milk stage	Sencor	60
Distinct	32	Shotgun	21
Glyphosate (Roundup, etc.)	50	Steadfast	30
G-Max Lite	40	Steadfast ATZ	30
Hornet WDG	45	Stinger	40
Liberty	60	Yukon	30
Liberty ATZ	60	2,4-D	7

## PRICING CORN SILAGE FOR SALE

Joe Lauer and Dan Undersander  
University of Wisconsin-Extension

Arriving at a fair and equitable price for corn silage is difficult due to the number of factors involved that are dynamic and biologically variable. Some factors include production costs, grain price, harvesting costs, costs of handling, hauling and storage, grain drying costs, fertility value of stover, and forage quality (especially starch content and neutral detergent fiber digestibility-NDFD). The amount of moisture has a major influence on its feed value and needs to be considered to accurately determine fair silage prices. Some growers will want to calculate the price based on corn grain yield (as the alternative harvestable crop) and some dairymen will want to calculate the price based on alternative forages (primarily alfalfa as the alternative forage source). In either case the final price is affected by supply and demand within a region.

In one old, quick, common method corn price is used to establish the per ton price of corn silage. Depending upon the percent dry matter and the amount of harvesting (standing versus ensiled) conversion factors ranging from 6 to 10 are multiplied by the current corn price to establish a silage price. For example, assume the corn price is \$2.00 per bushel and corn is standing in the field at 40% dry matter, then the silage could be negotiated to be worth 8 times the price of Number 2 shelled corn ( $\$2.00 \text{ per bushel} \times 8 = \$16.00 \text{ per wet ton}$ ), while the same corn if harvested and ensiled might be worth \$20.00 per wet ton ( $\$2.00 \times 10$ ). Another field may be at 30% dry matter standing in the field and its price might be negotiated at \$12.00 per wet ton ( $\$2.00 \times 6$ ). In all of these examples little attention is paid to the relationship between grain yield and forage yield under differing production levels.

Recently there have been attempts to account for not only changes in yield, but also changes in forage quality when calculating corn silage price. In most dairy rations, corn silage is considered a forage containing grain and thus, the two most important nutrient components associated with feeding are starch content and NDFD.

It is often difficult to obtain data for both corn grain and forage yield. Usually one or the other is harvested in a field or plot research situation. In this research, paired plots were used where corn was harvested for forage and left in the field for later grain harvest.

### **Pricing corn silage based on grain value**

Grain yields ranged from 8 to 246 bushels per acre while dry matter forage yields ranged from 3.0 to 12.3 tons dry matter per acre. Little grain yield was measured when forage yields were below 2 to 3 tons dry matter per acre. The relationship between grain yield and forage yield was mostly linear through forage yields of 8 tons dry matter per acre. Grain yield per ton of silage for two moisture levels is shown in Table 2. Depending upon grain yield level, grain yield equivalents per ton of corn silage ranged from 3.4 to 7.4 bushels per ton of silage..

To calculate a corn silage price, grain yield must be estimated and a corn price is multiplied for the grain yield equivalent for the yield level. For example, if corn is priced at \$2.00 per bushel and grain yields were determined to be 150 bushels per acre then corn silage at 65% moisture would contain 7.4 bushels of grain per ton of corn silage. The corn silage price would be \$14.80 per wet ton ( $\$2.00 \times 7.4$ ) or \$42.40 per dry ton ( $\$2.00 \times 21.2$ ). Using an average yield of 20.2 tons dry matter per acre (derived from Figure 1), corn silage price per acre would be \$299, which would need to cover all production costs. Further negotiation would need to be conducted over harvest, ensiling and storage costs.

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*(continued on next page)*

## Pricing Corn Silage - continued

**Table 2. Bushels of grain contained in a ton of corn silage. Values are based upon data collected from experiments conducted in Wisconsin between 1997 and 2002 (N = 426).**

<u>Silage at 0% moisture</u>			<u>Silage at 65% moisture</u>		
<u>Grain yield</u> <u>Yield</u>	<u>Silage</u> <u>Yield</u>	<u>Grain Equivalent</u> <u>per ton of silage</u>	<u>Silage</u> <u>Yield</u>	<u>Grain Equivalent</u> <u>per ton of silage</u>	
<b>Bu/A</b>	<b>T/A</b>	<b>Bu/T</b>	<b>T/A</b>	<b>Bu/T</b>	
25	2.5	9.8	7.3	3.4	
50	3.3	15.2	9.4	5.3	
75	4.1	18.3	11.7	6.4	
100	5.0	20.1	14.2	7.0	
125	6.0	21.0	17.0	7.3	

## Corn silage as forage

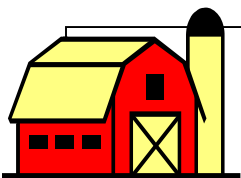
The simplest and crudest estimate is to consider that a ton of corn silage has about the same forage quality as 130 to 150 RFV (or RFQ) on a dry matter basis. Therefore corn silage on an as is basis (assuming 33% dry matter) is worth about ? the value of dairy quality hay. So if dairy quality alfalfa is \$120 per ton then corn silage is worth about \$40 per ton silage. Note that this assumes no value to the higher protein of alfalfa.

The \$40 per ton figure is starting point to figure price. If the buyer harvests the corn silage, the price could be reduced by the harvest cost just as it would if the buyer bales the hay that is purchased. Further, there should be some allowance for storage loss of silage. The loss of hay will be less than 2% if stored under a roof. Corn silage losses with good management generally run 10 to 15%.

One significant refinement to the above calculation is to measure forage quality of the corn silage because it is so variable. We recommend in all cases, when buying corn silage based on forage quality, that the purchaser should have the chopped corn tested as it is harvested to determine forage quality.

The response of forage quality to yield is curvilinear reaching a maximum at about 10 tons dry matter per acre. However the response is mainly linear up to about 8 tons silage dry matter per acre. Therefore if one chooses not to measure forage quality one can estimate the average forage quality from the yield by the following equation: RFQ = 11 times yield plus 97.

For example, if corn silage dry matter yield is 6 tons per acre, then the predicted quality would be: RFQ = (11 \* 6) + 97 = 163. The value of the corn silage would be considered to be slightly better than standard dairy quality hay (RFQ or RFV 150).



### 2005 Quality Milk Council Barn Meetings

All meetings start at 8:30 p.m.

**Thursday, October 27**

Derald Ossman  
W3028 Ctu Rd G, Black Creek

**Tuesday, November 1**

Bob, Linda & Dan Fuhrmann  
W790 CTH Z, Kaukauna

Topics will include: On-Farm Culturing & Crossbreeding