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Cooperative Extension
Shawano County

Shawano County Agricultural Newsletter University of Wisconsin-Extension August 2012



Greetings! This has been a challenging summer for farmers around Wisconsin. There were floods in the northwest and a drought affected much of the state. We were lucky to escape the worst of the weather, but some local farmers did have crops damaged by drought and hail. Below are some websites to help answer questions surrounding the current prices and conditions.

The Shawano County Fair is almost here and soon it will be time to begin the fall harvest. If there is anything UW-Extension can assist you with in the upcoming months, just let me know.

—Katie Behnke, 715-526-6136

Drought Resources: If your farm was affected by this year's drought, there are many resources available to help. For information regarding crops, livestock, coping with the stress caused by these challenging times, check out UW-Extensions website at fyi.uwex.edu/drought2012/. The WI Department of Agriculture Trade and Consumer Protection also has a site located at datcp.wi.gov/Farms/Drought_2012/.

Buying or Selling Corn and Forages: If you have extra crops to sell or need to buy feed for your livestock, check out farmertofarmer.uwex.edu. The site is free to use and puts Wisconsin farmers in touch with one another for the purpose of buying and/or selling corn and forage.

Pricing Hay: The drought has left many dairy producers without much forage going in to fall. To stay up-to-date on the latest prices, check out the Weekly Hay Market Demand and Price Report for the Upper Midwest at www.uwex.edu/ces/forage/pubs/hay_market_report.htm.

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Farm Fun Facts

- It takes a combine 9 seconds to harvest enough wheat to make 70 loaves of bread.
- Straight from the cow, the temperature of cow's milk is about 97 degrees Fahrenheit.
- In one day a honey bee can fly 12 miles and pollinate up to 10,000 flowers.

Facts obtained from <http://www.agday.org/>

Start Them Right...Raise Them Right

Calf Management Seminar for Calf Growers and Dairy Producers

Friday, September 14, 2012

Angie's Main Café, Shawano, WI

9:30 a.m. Registration (milk, coffee and rolls available)

10:00 a.m. Calves Need Space and Plenty of Fresh Air

Brian Holmes, Ph.D., UW-Extension Dairy Engineer

10:45 a.m. Economics of Group Housing

Katie Behnke, Agriculture Agent, UW-Extension, Shawano County

**11:15 a.m. Feeding Management Strategies to
Grow Bigger, Stronger and Faster Nursery Calves**

Noah Litherland, Ph.D., University of Minnesota Extension Dairy Nutritionist

12 Noon LUNCH

1:00 p.m. Stress and Sickness — What's Happening with Your Calves?

Amy Stanton, Ph. D. University of Wisconsin Dairy Cattle Well-Being Specialist

2:00 p.m. Tour of Genex Stony Hill Facility

The tour will feature the Genex calf barns built in 2010 and 2011 at the Stony Hill facility, west of Shawano. Each barn is home to approximately 80 calves with 4 group pens and automatic feeders. Due to biosecurity concerns, it is required that you wear clean clothes that have not been exposed to animals. We will be traveling to the facility by bus, no individual vehicles will be allowed.



Start Them Right...Raise Them Right - Registration

September 14, 2012

Name: _____

Phone: _____

Address: _____

E-mail: _____

Registration fee: \$25.00 per person (Includes materials, meal and speaker fees)

Make check payable to: UW-Extension

Registration deadline: September 7, 2012

Mail to: UW-Extension Fond du Lac County

Kathy Schneider

400 University Drive

Fond du Lac, WI 54935

920-929-3171 or kathy.schneider@ces.uwex.edu

Please check one:

☐ Custom calf grower

☐ Dairy producer

☐ Dairy Worker/employee

☐ Agri-business professional

☐ Educator

Corn Silage Dry Down Days

The Shawano County Forage Council will again be hosting Corn Silage Dry-down Days. Farm operators and crop consultants can bring whole corn plant samples to AgVentures, 1212 Baylakes Rd, in Shawano to be analyzed for whole plant moisture content.

The first Corn Silage Dry-down day will take place on **Wednesday, August 29** and continuing every Wednesday thereafter as long as necessary. Samples will be chopped between 2:30 and 3:00, but they can be dropped off at the office anytime before that.

To take samples, identify two to four sampling locations in a field. Cut a total of four to five plants at a 6-inch height from these locations. Stay away from headlands, roads, fence lines, and field edges. Put the whole plants in a plastic bag to minimize moisture loss. Keep plants cool (shaded) if possible. Bring them immediately to AgVentures for chopping.

AgVentures staff will chop your plants in the Forage Council's brush chopper and package them for delivery

to Dairyland Laboratories in De Pere.

Each sample tested costs \$10, but Forage Council members receive two free samples.

Results will be available Friday

morning at the Shawano County UW-Extension Office at (715) 526-6136. To track moisture levels around the state go to:

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



Late Summer Cutting Management of Alfalfa

Excerpt from publication by Dan Undersander and Bill Bland

Alfalfa must either be cut early enough in the fall to regrow and replenish root carbohydrates and proteins or so late that the alfalfa does not regrow or use any root carbohydrates, if we want good winter survival. This has resulted in the recommendation of a 'no-cut' window from Sept 1 to killing frost for Wisconsin.

However research has helped define this window by indicating that alfalfa needs 500 growing degree days (GDD, base 41°F accumulated until a killing frost of 25°F) after the last cutting to regrow sufficiently for good winter survival and yield the next year. This means we can cut in the fall as late as 500 GDD will still accumulate without hurting the winter survival. Calculating the 200 or less GDD level indicates when insufficient regrowth occurred to use up root carbohydrates. These plants would also have good winter survival.

At Eau Claire, Hancock and Marshfield, 94, 94 and 91 percent of the time 500 GDD was accumulated after Sept 1, respectively. Probability of 500 GDD accumulation fell to about 70% one week later. Thus, not harvesting after Sept 1 is the safe alternative but oftentimes being a week late was not detrimental. We also see that harvesting at the end of Sept, 6 to 16% of the time we had less than 200 GDD accumulation. Waiting till mid Oct will often be safe whether or not a frost has occurred.

We should remember that forage quality of alfalfa changes little during September, so harvesting vs delaying should be based on likelihood of winter injury or survival if the stand is to be kept. Optimum soil test levels of potassium can also enhance winter survival.

Share the Bounty—Donate your extra garden produce!

SHARING THE BOUNTY! That's what area gardeners are able to do through a UW-Extension sponsored program that allows them to donate extra homegrown fruits and vegetables to those in need.

The concept is simple. Gardeners bring their produce to drop off sites where it is distributed to those in need. Recipients get healthy food and gardeners know their fruits and vegetables will not go to waste. All varieties of produce are accepted and containers are provided at the site. Items should be reasonably clean and of good quality.

The program runs from July through October.



People of all ages appreciate the fresh produce, especially senior citizens, many of whom are no longer able to garden. They are able to take just a small amount of produce at a time for their own immediate needs. Recipes and information on nutrition and storage are also provided by UW-Extension.

Drop off sites for Share the Bounty include:

Shawano:

SAFARC – 218 E. Richmond St. 9-11:30am Monday – Friday.

Lutheran Counseling & Family Services Gift shop – 2324 E. Richmond St. 9:30 am to 5 pm Monday – Thursday, 9:30 am to 6 pm Friday and 9:30 am to 3 pm Saturday.

Goodwill – 300 Lakeland Rd. 9 am to 9 pm Monday – Saturday and 10 am to 6 pm Sunday

Wittenberg: Wittenberg Food Pantry (note that it has relocated to 607 S. Webb Street) Drop off and pick up will be EVERY Tuesday from 8 am to 7 pm located in the back of the building.

Cecil: St. Martin's Catholic Church, 407 S. Warrington Ave., pick-up is the 4th Tuesday of each month from 1 to 4 pm and drop off is the Monday prior to pick-up from 9 am to 5 pm or the same day Tuesday prior to pick-up from 9 am to 1 pm.

Master Gardener Training Offered This Fall

Shawano County University of Wisconsin Extension will be offering Master Gardener General Training this fall. The Master Gardener program is a volunteer program designed for gardeners with some basic knowledge of how plants grow and contribute to our environment. This program offers training on a variety of horticulture topics including botany, soils, pest management, entomology, plant pathology, weeds, and much more.

After the training course Master Gardener Volunteers are required to provide 24 hours of

volunteer community service each year. This could include diagnosing plant problems, volunteering at the county fair, providing gardening tips at the farmers' market, working in community gardens, and much more.

The Master Gardener training will consist of 36 plus hours of training. All sessions are offered on Tuesdays from September 4 – November 27 from 6:00 – 9:00 pm. The cost of the program is \$125 per participant. If you have questions or would like to enroll in the program please call the Extension Office at (715) 526-6136.

Farm Management Update for Ag Professionals

Liberty Hall, Kimberly
Friday, September 7, 2012

- 9:15 am Registration – milk, coffee, rolls, and fruit
- 9:45 am **2012 Farm Bill – What will the changes mean for Wisconsin agriculture? What are the “unintended” consequences?**
- Paul Mitchell, Crop Insurance Specialist, UW-Madison
 - Mark Stephenson, Milk Marketing Policy Specialist, UW-Madison
- 11:15 am **Update on Current Issues and Regulations Facing Large Dairies – OSHA Inspections, EPA Regulations, Roadway Weight Limits, etc.**
- Cheryl Skjolaas, UWEX Ag Safety Specialist
 - Nick Schneider, Winnebago County UWEX Agriculture Agent
- 12:00 noon Lunch
- 12:55 pm **New UWEX Programs for Ag Producers**
- **Management Assessment Center**
 - **Dairy 30/20**
 - **Repro Money**
 - **Shifting Gears for Your Later Farming Years**
 - Nick Schneider, Winnebago County UWEX Agriculture Agent
 - Aerica Bjurstrom, Kewaunee County UWEX Agriculture Agent
- 1:15 pm **Climate and Water Availability - How is Wisconsin Agriculture Being Affected by Climate Shifts**
- Bill Bland, Climatologist, UW-Madison Soil Science Department
- 2:00 pm **Extension’s “Top Ten” Resources**
- Each participant will receive a zip drive containing UW-Extension tools and spreadsheets that can be used to help customers calculate prices, estimate inventories, and create budgets..
- Katie Behnke, Shawano County UWEX Agriculture Agent
 - Mark Hagedorn, Brown County UWEX Agriculture Agent
- 2:30 pm Adjourn



Farm Management Update for Ag Professionals
Registration Form

Name(s): _____

Business _____

Address: _____

City: _____

Zip Code: _____

Phone Number: _____

Registration Fee: \$30 per person

Make check payable to: **UW-Extension**

Mail this registration form and check to:

UW-Extension

Attention: Connie

206 Court Street

Chilton, WI 53014-1127

Dairy Farm Safety Short Course



Center for Dairy Farm Safety



Discover **best practice** protocols in dairy farming. Create a safe and productive working environment and an effective safety and health program.

Your participation is encouraged if you:

- Need to establish a Safety and Health Program that meets OSHA Standards
- Are a dairy farm manager or producer
- Are interested in providing a safer working environment
- Want to learn about safety training for your employees

- ⇒ **All materials have been approved by OSHA**
- ⇒ Total of 10 hours of very comprehensive information, taught as 2 classes
- ⇒ You will receive a student workbook with tools to assist you in setting up a Safety and Health Program CD with forms and other resources that you can apply to your farm
- ⇒ Access to personal support for questions or concerns

To Register:

www.uwrf.edu/CenterForDairyFarmSafety/
or call 715-425-3240

**September 6th & 13th from
10:00-4:00 each day
Shawano County Courthouse**

**Registration Fee:
\$15.00 per participant
(lunch will be provided)**



Silo Gas and Silo-Filler's Disease

From the UW Center for Agricultural Safety and Health

Increased nitrates as a result of the dry growing season are not only a concern for livestock but for humans as well. Weeds and corn are naturally high in nitrates. Nitrate levels in corn are extremely high after a rain following a dry period. High levels of nitrates increase the potential for silo gas and silo-filler's disease. A first step for reducing the nitrate level in forages for silage is to cut the plant higher than normal.

Silo Gas – What is it?

- Shortly after green plant material is ensiled, oxygen gets used up by the crop and bacteria, and the crop begins to ferment. Some bacteria, that normally use oxygen, will use nitrates in the crop instead producing nitric oxide, a non-lethal gas. As nitric oxide leaves the silage, it combines with oxygen from the air producing nitrogen dioxide.
- Nitrogen dioxide is heavier-than-air, and toxic to humans and animals. Nitrogen dioxide has a yellowish-reddish brown color with an acrid, bleach-like color. However, with all the other things around a silo, smell is not a reliable indicator.
- Carbon dioxide is also formed in this process but often not to lethal levels. Carbon dioxide is of greater concern in controlled atmosphere (sealed silos).
- Silo gas (combination of nitrogen dioxide and carbon dioxide) forms within a few hours up to three weeks after fresh plant material is added to the silo. It is a problem in conventional, non-airtight silos. However, it is produced in horizontal silos and silage bags as well.



Silo-Filler's Disease

- Silo-filler's disease is the term given 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. High concentrations of nitrogen dioxide may make a person helpless in 2-3 minutes.
- 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 week after the original episode, which may be milder or more severe than the first episode.

To Prevent Silo- Filler's Disease:

For Upright Silos:

- Stay out of an upright silo for at least three weeks after filling.
- Be alert for bleach-like odors and/or yellowish-reddish brown gases in or near silos.
- 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. If you need to wait until the next day, save the last load to add before entering. Ventilate by running a forage blower at least 15-20 minutes before entering and keep it running while inside.
- A multi-gas monitor can be used to check for oxygen deficiency and would to be set up with a sensor for nitrogen dioxide.
- Use of a self-contained breathing apparatus is recommended for entering a toxic and oxygen deficient atmosphere.
- When opening a chute door for the first time after filling, if possible, go a door above the silage level. Have someone keep in contact with you

Silo Gas, continued.

- from outside the silo chute.
- 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.

For horizontal silos (bunkers and piles) and silage bags:

- Consider where nitrogen dioxide gas may drift from horizontal silos and silage bags as this gas is heavier than air and may collect in other buildings or low areas.
- Cover immediately when done harvesting.
- Observe for any signs of gas when repairing plastic or working around the area.
- Do not puncture bubbles in plastic that may release the gas directly into a worker's face.

- Use caution when opening the plastic during the first three weeks after covering or sealing a horizontal silo or silage bag.

If Exposed to Silo Gas:

- If you experience throat irritation or coughing in the silo, get to fresh air immediately.
- **See your doctor immediately after exposure to silo gas. Remember, this can be fatal!**



Image: A vent can be used with silage bags to release silo gas.

Pricing Drought Stressed Corn Silage

By Joe Lauer, Randy Shaver, Dan Undersander, Kevin Schoessow, and Greg Blonde

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 of forage, grain drying costs, fertility and organic matter 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. **Before any decision, consult an insurance agent for additional impact on indemnity payments for sale of silage versus grain.**

Let's begin by assuming the value of good corn silage

is \$40-50/ton stored in the bunker silo in good years. Poor silage for dairy herds with milk production of 80 pounds per day or less is about 80-85% of the value of good corn silage putting it in the range of \$32-\$43/ton stored in the bunker silo. For dairy herds producing over 80 pounds of milk per day, drought stressed silage is probably worth 70% of the value of good silage putting drought stressed silage in the range of \$28 to \$35/ton stored in the bunker silo.

Custom choppers normally charge about \$3 to \$5/ton of silage packed into the bunker. Poor silage may take 1.5 to 1.75 times longer to harvest per ton due to poor yield and increased travel to harvest a ton. This would add \$1.50 to \$2.50 in harvest costs putting the silage price in the range of \$25 to \$37/ton.

To help calculate the price of your corn silage, check out the corn silage pricing worksheet of the next page.

Worksheet for Buying and Selling Corn Silage

- 1.) Base price at 65% moisture\$_____ / ton
 ... 7 to 9 times the price of shelled corn...\$6.00 x 8 = \$48 / ton
 ... cost + return...\$550 ÷ 15 ton/a + 10% = \$40 / ton
 ... 1/4 to 1/3 price of baled hay...\$200 x 0.25 = \$50 / ton

- 2.) Adjusted price for moisture (see table below)\$_____ / ton

	Base Price (\$/ton as fed) at 65% moisture									
Percent Moisture	\$20	\$25	\$30	\$35	\$40	\$45	\$50	\$55	\$60	\$65
72%	\$16.00	\$20.00	\$24.00	\$28.00	\$32.00	\$36.00	\$40.00	\$44.00	\$48.00	\$52.00
70%	\$17.14	\$21.43	\$25.71	\$30.00	\$34.29	\$38.57	\$42.86	\$47.14	\$51.43	\$55.71
68%	\$18.29	\$22.86	\$27.43	\$32.00	\$36.57	\$41.14	\$45.71	\$50.29	\$54.86	\$59.43
66%	\$19.43	\$24.29	\$29.14	\$34.00	\$38.86	\$43.71	\$48.57	\$53.43	\$58.29	\$63.14
65%	\$20.00	\$25.00	\$30.00	\$35.00	\$40.00	\$45.00	\$50.00	\$55.00	\$60.00	\$65.00
64%	\$20.57	\$25.71	\$30.86	\$36.00	\$41.14	\$46.29	\$51.43	\$56.57	\$61.71	\$66.86
62%	\$21.71	\$27.14	\$32.57	\$38.00	\$43.43	\$48.86	\$54.29	\$59.71	\$65.14	\$70.57
60%	\$22.86	\$28.57	\$34.29	\$40.00	\$45.71	\$51.43	\$57.14	\$62.86	\$68.57	\$74.29
58%	\$24.00	\$30.00	\$36.00	\$42.00	\$48.00	\$54.00	\$60.00	\$66.00	\$72.00	\$78.00

- 3.) Quality adjustment factor for maturity x _____ %

Corn Growth Stage	Dairy herd below 80 pound average	Dairy herd above 80 pound average
Pre-tassel	90%	80%
Silk	80%	70%
Soft Dough	85%	80%
Early Dent	90%	87%
1/2 Kernel Milk Line	100%	100%
Black Layer	90%	90%

- 4.) Final price adjusted for moisture and quality = \$_____ / ton

If the buyer is responsible for harvesting, then use the following **2010 Wisconsin Custom Rate** statewide averages as a guide to establish credit toward the final payment.

	With Kernel Processor		Without Kernel Processor	
Pull-Type	\$ / Acre	\$ / Hour	\$ / Acre	\$ / Hour
Chop	\$40	\$130	\$45	\$110
Chop & Haul	NA	\$10-\$275	NA	\$100-\$275
Self-Propelled	\$ / Acre	\$ / Hour	\$ / Acre	\$ / Hour
Chop	\$56	\$300	NA	NA
Chop, Haul & Pack Bunker	\$115	\$620	NA	\$600

UW-Extension
311 N Main Street #101
Shawano, WI 54166

Phone: 715-526-6136
Fax: 715-526-4875

<http://shawano.uwex.edu>

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**UW
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Calendar of Events

Aug 29 - Sep 3

Shawano County Fair

Sep 6,13

Dairy Farm Safety Short Course,
Courthouse, Shawano

Sep 7

Ag Lender Farm Management Update
Liberty Hall, Kimberly

Sep 14

Calf Management Seminar
Angie's Main Café, Shawano

Oct 2-6

World Dairy Expo, Madison

Corn Silage Dry-down at Ag Ventures
Beginning Wednesday August 29
and continuing each Wednesday in September.
Drop off your sample at Ag Ventures any time before 3:00.

"University of Wisconsin-Extension U.S. Department of Agriculture and Wisconsin counties cooperating.
UW-Extension provides equal opportunities in employment and programming, including Title IX and ADA".

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Shawano County UW-Extension
Courthouse—Room 101
311 N Main Street
Shawano, WI 54166

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