

# Agricultural Newsletter

UW-Madison College of Ag & Life Science  
University of Wisconsin-Extension



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## Participate in Your Local Area Cleansweep

*John Markus*  
*Area Agricultural Agent*  
*Bayfield & Ashland Counties*

There is still time to organize your unwanted Ag and household chemicals and participate in the area's many Cleansweeps this summer.

### ***What is Cleansweep?***

A special scheduled collection of unwanted, unused, damaged, restricted, or banned household and agricultural hazardous wastes. The northwest counties of Wisconsin are making it easy for residents to get rid of household chemicals.

### ***Who can participate in Cleansweep?***

Households in any participating Northwest Cleansweep county may participate. Hazardous wastes from businesses (VSQG) will be accepted on a fee basis. Please call ahead of time to make arrangements, 715/635-2197.

### ***Why should I participate?***

Households are allowed to dispose of up to 70 lbs. of hazardous waste **free of charge**. Agricultural waste disposal of up to 200 lbs. of hazardous waste will be accepted **free of charge**. Participants will not be held liable for the proper disposal of materials collected. Improperly stored or disposed of chemicals can pollute ground and surface waters and cause health risks for you and your family.

### ***Small Business Collection Program***

Materials will be accepted from small businesses for a reasonable fee. Please call 715/635-2197 ahead of time to make arrangements.

### ***Agricultural Program***

Northwest Cleansweep will be able to accept chemicals from farmers, abandoned farms, and agricultural related businesses at any of the household hazardous waste collection event or at the permanent collection site in Spooner. **Pre-Registration is necessary. Call 715/635-2197.**

A detailed chart with times and locations of area cleansweeps can be found on the following page along with additional information on requirements and restrictions.

*Local Cleansweeps, cont.*

| DATE        | COUNTY   | LOCATION   | TIME   | CONTACT                        |
|-------------|----------|--|--|--------------------------------|
| July 20     | Taylor   | Rib Lake - Highway Shop<br>Hannibal - Town Hall                      | 9:30 a.m. - 11:15 a.m.<br>1:30 p.m. - 3:00 p.m.  | Larry Peterson<br>715-748-1485 |
| August 5    | Bayfield | Washburn - County Hwy. Shop<br>Iron River - School                   | 10:00 a.m. - 12:00 p.m.<br>3:00 p.m. - 5:00 p.m. | Jan Victorson<br>715-373-6113  |
| August 10   | Ashland  | Marengo - Ashland County<br>Fairgrounds                              | 10:30 a.m. - 12:30 p.m.                          | Tim Kane<br>715-682-7017       |
| August 12   | Sawyer   | Hayward - County Highway Shop  | 10:00 a.m. - 2:00 p.m.                           | Dave Berard<br>715-634-4839    |
| August 26   | Burnett  | Siren - County Highway Shop  | 10:00 a.m. - 2:00 p.m.                           | Rick Schneider<br>715-635-2197 |
| September 7 | Iron     | Mercer - Recycling Ctr. on Hwy. J<br>Kimball - Town Garage/Town Hall | 9:00 a.m. - 10:30 a.m.<br>1:30 p.m. - 3:30 p.m.  | Gary Gotta<br>715-561-3266     |
| September 9 | Washburn | Spoooner HHW Storage Site  | 10:00 a.m. - 2:00 p.m.                           | Rick Schneider<br>715-635-2197 |

***Unacceptable Items:***

Latex paint, motor oil, explosives, vehicle batteries, Freon 11 & 12, ammunition, recyclables, appliances, alkaline batteries, radioactive materials, compressed gas cylinders, and biological, infectious, or medical waste.

***Fluorescent Bulbs***

These fluorescent bulbs will be accepted at the following prices: 40¢ per circular bulb; 40¢ per 4' tube; and 60¢ per tube over 5'.

***Asbestos***

Asbestos will be accepted on a fee basis. **Pre-registration is necessary.** Call 715/635-2197.

## Measure haystack temperature with a simple procedure

*John Markus  
Area Agricultural Agent  
Bayfield & Ashland Counties*

A simple probe inserted into the haystack can accurately monitor temperature. You can make a probe from a 10-foot piece of pipe or electrical tubing. Sharpen the pipe or screw a pointed dowel to one end. Then drill several 1/4 inch diameter holes in the tube just above the pointed end. Drive the probe into the haystack and lower a thermometer on a string into the probe. The thermometer should be left for 10 minutes in several areas to ensure an accurate reading. *- From Drivers*

| <b><i>WATCH FOR THESE TEMPERATURES WITHIN YOUR HAYSTACK</i></b> |  |
|---|--|
| 150 degrees   | Point of concern. Check temperature daily.   |
| 160 degrees   | Danger zone. Measure temperature every four hours and inspect the stack.                     |
| 175 degrees   | Very flammable. Call fire department. Wet hay down and dismantle the stack.                  |
| 185 degrees   | Expect hot spots. Flames will likely develop when heating hay comes in contact with the air. |
| 212 degrees   | Temperature rises rapidly. Hay will almost certainly ignite. Fight/contain fire.             |

## Hay fires are a concern to farmers

John Markus  
Area Agricultural Agent  
Bayfield & Ashland Counties

Each year hay fires destroy building and equipment as well as consume valuable feed supplies. Spontaneous combustion causes a lot more fires than you might think.

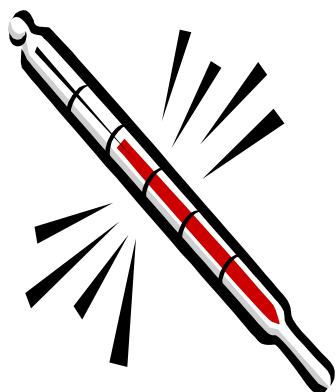
It may seem ironic, but wet hay is more likely to lead to a spontaneous combustion fire than dry hay. If hay is put into a barn or stack when it has more than 22 percent moisture, not only does the hay lose forage quality, but also it has an increased risk of spontaneous combustion. High moisture haystacks can have chemical reactions that build heat. Hay insulates, so the larger the haystacks, the less cooling there is to offset the heat.

When the internal temperature of hay rises above 130 degrees Fahrenheit a chemical reaction produces a flammable gas that can ignite if it gets hot enough.

To avoid hay fires, small rectangular bales should not exceed 18 percent to 22 percent moisture when stacked. Large round or rectangular bales should not exceed 16 to 18 percent moisture for safe storage.

Check your hay regularly. If you detect a slight caramel odor or a distinct musty smell, chances are your hay is heating. At his point, checking moisture is too late, and you'll need to keep monitoring the hay's temperature.

- From Drovers



## Dairy cow management now on CD-Rom

Kevin Schoessow  
Area Ag Development Agent  
Burnett, Sawyer, & Washburn Counties

If you've recently purchased a computer and are looking for ways to take advantage of this new investment, why not use it to help you learn more about feed additives, causes and prevention of DAs, mastitis control, laminitis, or perhaps facility design? All these topics and more are available on a *Transition Dairy Cow Management* data CD developed through the 4-State Dairy Extension effort between Minnesota, Iowa, Illinois, and Wisconsin. It provides up-to-date information on managing transition cows so they can reach their genetic potential milk production. The CD contains 48 modules covering three areas including nutrition, health and facilities for transition dairy cows.

If your computer has a CD-Rom, speakers and Microsoft PowerPoint software, you can listen to University Specialists and see their presentation just as if you were at a dairy management seminar. If you would like to preview the CD a copy is available through the most Extension offices. Otherwise the CD costs \$25 and can be ordered at Dairy Extension 258 ASL, 1207 W Gregory Dr. Urbana, IL 61801 or at [www.s.outrreach.uiuc.edu/cdorder/](http://www.s.outrreach.uiuc.edu/cdorder/).

Another very informative computer CD is the Babcock Institute's Electronic Technical Dairy Guide. This CD provides valuable information on how to feed and care for a dairy herd, how to improve production and reproduction, and how to manage a dairy farm profitably. The CD does an excellent job in presenting the information in simple terms with many illustrations, summaries and "highlight boxes" to help readers understand important concepts and messages more clearly.

This CD is also available for preview at most Extension offices or can be purchased for \$50 from The Babcock Institute for International Dairy Research and Development, 240 Agricultural Hall, 1450 Linden Drive Madison, WI 53706-1562.

## Current issues in Milk Quality

Tom Syverud  
Extension and Outreach Educator  
Ashland, Douglas, & Iron Counties

At a recent UW-Extension meeting, Dr. Pam Ruegg, UW-Madison Department of Dairy Science, discussed several current issues concerning mastitis in Wisconsin. She began by outlining some misconceptions of mastitis prevention and control. 1.) *Environmental mastitis is always acute and clinical.* Actually, many times a cow can be infected at a sub-clinical level and be chronic with an environmental mastitis. An acceptable rate of clinical mastitis is less than 2% a year. 2.) *A low treatment rate means that mastitis is controlled.* This is a misconception because the treatment rate is not always the infection rate. Many sub-clinical cases will go untreated. 3.) *A low somatic cell count (SCC) means mastitis is controlled.* Actually, the SCC doesn't reflect the mastitis rate.

In Wisconsin 20 years ago, the staph and strep Ag organisms represented 75% of the clinical mastitis cases; now it is 35%. Currently environmental mastitis and Mycoplasma mastitis is on the rise. Mycoplasma is classified as a bacteria, but it has no cell walls like typical bacteria. As a result, the standard mastitis treatments that destroy cell wall formation, will not work against mycoplasma. Mycoplasma occurs throughout the world; it is not just a western large herd problem. Of the approximately 20 species, *M. bovis* is the most important.

Mycoplasma is brought into a herd by purchased animals, and then spread at milking or by airborne transmission. The organism lives in the lungs and causes skipping fever and calf pneumonia. Stress and overcrowding will cause outbreaks. At one time, this organism caused clinical signs only; now however, it has evolved and an animal infected with mycoplasma shows many asymptomatic signs. Several of the most positive signs of infection are an animal with drooping ears or a calf with an ear infec-

tion. Monitor the herd with weekly bulk tank cultures if you suspect a problem. The cost is around \$5.00. Since there is no good treatment, culling is the best approach depending upon infection rates. If you have one infected animal, cull it; however, infection rates can reach 40% of a herd making culling as a herd treatment unrealistic. Since only 10% of animals purchased are even tested, and only 6% are isolated before entering the herd, expect the Mycoplasma problem only to get worse in Wisconsin

## Upcoming Ashland Station field days

Mike Mlynarek  
Superintendent  
Ashland Ag Research Station

You're invited to attend upcoming field days at the Ashland Agricultural Research Station.

This year's Crop Production Field Day will be held from 1:00 - 3:00 on Tuesday, July 18. We will again feature canola and kura clover.

Visitors will be updated about ongoing canola research and production projects. Research plots and a 10 acre production field will be viewed. This is the second straight year that the Ashland Station has grown 10 acres of canola. Two other area farmers are growing canola for the first time. Their experience with the oilseed crop will be discussed.

Kura clover is a very long-lived clover from Russia, which spreads by rhizomes or underground stems. Although slow to establish, kura clover will ultimately spread one to two feet per year, often choking out weeds like dandelions and quackgrass. It can be used for pasture and in hay and silage systems. Recent work with kura clover has produced much more vigorous seedlings and better young stands. Previously, inoculation may have been inadequate for good seedling growth. A farmer's experience with plantings in 1999 and 2000 will be discussed.

A hybrid Poplar Field Day will be held from 1:00 - 3:00 on Tuesday, August 29. New hybrid poplars are resistant to diseases which were a problem on many of the trees previously planted in our region. Current experience in Wisconsin indicates that hybrid poplars can produce good yields of commercial pulpwood and small saw timber in 12 to 15 years. A 1999 five acre planting will be viewed, research and production projects will be discussed.

Finally, we will host a northern Corn Production Field Day from 1p.m. - 3 p.m. on Wednesday, September 20. Visitors will hear about and discuss the importance of hybrid selection, planting date, plant populations, and other management considerations.

All events will be held outdoors, weather permitting. The Ashland Research Station is located on Highway 2, four miles west of Ashland and can be reached at 715/682-7268.



## Notes From Dairy-L

Tom Syverud  
Extension and Outreach Educator  
Ashland, Douglas, & Iron Counties

### Dry cow therapy

A dairy farmer asked Dairy L: Would he be better off using selective dry cow therapy, treating only the higher SCC cows? A summary of research results found that it is still best to use dry cow treatment on all cows because DCT not only cures existing infections but also prevents new infections at a time when the cow is very susceptible. A dairy manager can invest the time and money saved will be lost in the extra time expended in keeping track of the records. If selective treatment is tried, the herd should be free of Strep. agalactiae and very low in Staph. aureus, the infections mastitis organisms.

### Rearing calves on sand

A calf-raiser asked Dairy L: Why does sand bedding seem to hold more moisture and stay wet, after being used for a while? The local vet believes that sand holds on to bacteria that cause calf health problems. The key question is what is under the sand bedding. If there is rock or gravel, the liquid can have a hard time draining from the "finer" texture material above to the coarser material below. In this case you need to maintain a deep layer of uniform sand bedding material to have no drainage problems. After the calf is moved, remove any time spoiled layers, rake, and dry out the sand bedding in the sun and add lime. An extended period of time between use will also help reduce calf health problems.

### We're on the Web!



You may find this newsletter, our gardener's newsletter, and additional information on our upcoming events by visiting the websites of the **Spooner Agricultural Research Station** (newly redesigned and updated!):

<http://www.uwex.edu/ces/sars/index.htm>

and the **Ashland Agricultural Research Station**:

<http://www.uwex.edu/ces/aars/>

## Fuel saving ideas for farmers

*Kevin Schoessow  
Area Ag Development Agent  
Burnett, Sawyer, & Washburn Counties*

Recent, dramatic increased in prices for gasoline and diesel fuel make it worth considering possible ways to reduce farm fuel use. Unfortunately, like so many other input costs there seems little farmers can do to reduce those cost other than pay the higher price or figure out ways to spend less. Here are some fuel saving reminders:

Tillage uses more fuel per acre than almost any other field operation. Carefully evaluate your tillage plans and reduce tillage or the intensity of tillage wherever you can.

Avoid compacting soil by staying out of wet fields and by reducing passes with heavy equipment. Extra tillage and extra power (and thus more fuel) are needed to break up compacted soil.

Reduce the number of trips across the field by combining operations where possible

Match the tractor to the load. Avoid using heavy, high horsepower tractors for operations that don't require much power.

If you use a high-horsepower tractor to pull a light load, gear up and throttle down. You can usually save quite a bit of fuel by running an under-loaded tractor in a higher gear but at lower engine speeds.

Inflate tires to appropriate pressure. Inflation pressure is an important variable for traction efficiency, tire life, and ride comfort.

Add the appropriate amount of weight for the load. Tractor weight, or ballast, helps control the amount of drive wheel slippage. Drive tires should slip about 15% when the tractor is pulling a load in the field.

Try to minimize the amount of time spent driving tractors and other field equipment on the road. Try to keep tractor and other equipment in the field and use faster, more fuel-efficient vehicles to service vehicles in the field and to haul harvested crops to storage.

Before making any major changes look at your whole cropping system and evaluate whether reducing tillage will create the need for other, more expensive operations. For example, a substantial management change that cuts fuel cost by \$5 acre, but cuts yield by 5 bu per acre, would probably not be cost effective.

## Wisconsin's NW Heritage Passage seeks producers

*Kevin Schoessow  
Area Ag Development Agent  
Burnett, Sawyer, & Washburn Counties*

*Celebrating our heritage and showcasing regional products that are handmade and homegrown.* That is the motto behind Wisconsin's Northwest Heritage Passage. In an effort to showcase regional handmade and homegrown products, a group of promoters are in the process of developing a brochure/map and book promoting the past and present culture of the region. It will guide travelers along the Highway 63 corridor and into the countryside, through small towns and down scenic byways to historic points of interest--artisans' studios, craft shops, galleries, **farmers' markets and farmsteads offering direct sale of produce and other goods.**

The intent is to generate year-round environment-friendly tourism and local awareness to promote economic development and to revitalize rural northwestern Wisconsin. The Inventory Work Group of Northwest Heritage Passage is currently looking for producers who offer direct sale of farm products, such as meats, vegetables, homemade jams and jellies, dried flowers, herbs, etc., or farmstead bed and breakfasts or farms that provide sleigh rides or farm tours.

If you offer direct sale of produce or other handmade or homegrown goods and services and would like to be part of Wisconsin's Northwest Heritage Passage or simply would like more information about this sustainable development initiative, please contact Kevin Schoessow at 635-3506 or 1-800-528-1914.

## This Quarter's Events

**July 18, 2000**, Crops field day, Ashland Ag Research Station.

**July 24, 2000**, Bayfield County Extension Office Open House, 11 a.m. - 2 p.m.

**July 25-30, 2000**, Head of the Lakes Fair, Superior.

**July 27-30, 2000**, Washburn County Junior Fair, Spooner.

**July 29, 2000** Private Woodland Owners Workshop, Ashland. For more information, contact Mike Kroenke at 715-685-2674.

**August 3-6, 2000**, Sawyer County Fair, Hayward.

**August 4-6, 2000**, Iron County Fair, Saxon.

**August 10-13, 2000**, Bayfield County Fair, Iron River.

**August 16, 2000**, Potato Tour, 10 a.m. Spooner Ag Research Station.

**August 24, 2000**, Twilight Garden Tour, Spooner Ag Research Station, 5:30 p.m. - dusk.

**August 24-27, 2000**, Burnett County Fair, Grantsburg.

**August 26, 2000**, 48th Annual Spooner Sheep Day, Spooner Ag Research Station

**August 29, 2000**, Hybrid Poplar Field Day, 1 p.m., Ashland Ag Research Station.

**August 30, 2000**, Hybrid Poplar Field Day, 1 p.m., Spooner Ag Research Station.

**September 20, 2000**, Northern Corn Production Field Day, Ashland Ag Research Station.



# Spooner Ag Research Station Update

Mike Bertram  
Asst. Superintendent  
Spooner Ag Research Station



I would like to introduce myself and talk about the field projects underway this year at the Spooner research station. I became the Assistant Superintendent here in March, assuming the crop and soils research duties of Robert Rand, who retired in January. I am originally from Johnsburg, WI, which is near Fond du Lac on the eastern side of the state. I attended UW-Madison and earned a Bachelor's degree in Agronomy and Soil Science and a Master's degree in Agronomy. My thesis project involved varying row spacing and seeding rates in Roundup Ready soybeans compared to conventional soybeans. I conducted the research at six locations around Wisconsin, with the closest to the Northwest being at Chippewa Falls. Before working for the soybean program, I scouted crops for a coop near Fond du Lac and worked for an apple orchard. I am also a CCA (Certified Crop Adviser) in Wisconsin.

The amount and range of experiments here is similar to 1999. A new project we

started this year is a hardy shrub rose evaluation. Twenty rose varieties were planted in a replicated trial in the beginning of June and will be evaluated for the next several years. They will be rated for hardiness, pest resistance, and ornamental value. The results should show the best shrub rose varieties to plant in northwestern Wisconsin. Variety/hybrid trials are again being conducted with corn, alfalfa, soybean, oats, and barley. Alfalfa studies to evaluate lime and sulfur fertilizers are continuing and a new study to evaluate phosphorus and sulfur fertilizers has begun. Potato experiments this year involve seedpiece fungicide treatments, varieties, and weed control. Other studies evaluate annual ryegrass seeding rates, switchgrass adaptation, and hybrid poplar production.

It has been a busy time as I become acquainted with the area. I will share the results of some of these studies in future newsletters. If you have any suggestions on future research that will benefit crop production in northwestern Wisconsin, give me a call. I welcome your input. I can be reached at (715) 635-3735.

## Spooner Sheep Day

Yves Berger  
Superintendent  
Spooner Ag Research Station

On Saturday, August 26, 2000, the Spooner Ag Research Station will host the 48th Annual Spooner Sheep Day.

The morning session starts at 8:30 a.m. in the Station auditorium. Different speakers will present the results of new research in the sheep industry and topics relevant to the everyday operation of a sheep farm. Whole lamb on the spit is offered as the main course for lunch.

Afternoon seminars held at the sheep barn are more hands-on related. Advanced sheep farmers and beginners always get a lot of good information to bring back home.

The public is welcome to attend. If you are not in the sheep business, please feel free to come and learn about the raising of sheep. Registration is free; however, a fee of \$5.00 is charged for lunch.

## How much does rainfall reduce hay yields?

Kevin Schoessow  
Area Ag Development Agent  
Burnett, Sawyer, & Washburn Counties

Putting up hay has been a real challenge so far this season. It's one of those facts of life when farming. Cut your hay and it rains--don't cut your hay and it stays dry. With the frequency of rain this summer, there has been a lot of rained on hay. But just how much does rainfall reduce yield?

Several research studies have addressed the effects of rainfall on cut alfalfa. A Wisconsin study measured dry matter losses of 22% when alfalfa was exposed to 1 inch of rain after one day of curing. Similar hay cured without rain damage lost only 6.3% of the initial potential yield. Losses appear to be greatest after partial drying of the forage has occurred. In this same study, alfalfa exposed to 1.6 inches of rain over several days suffered a 44% loss of dry matter.

In Michigan several different studies were conducted to examine the effects of rainfall on field cured alfalfa. The first study reported maximum DM losses of 34%. In a second study, rainfall intensity was kept constant at 0.7-in but spread over periods of 1 to 7 hours. Dry matter losses ranged from 4 to 13 percent with the highest losses occurring when the rain was spread over a longer duration.

How does rainfall reduce yields? Three primary factors are involved: leaching, respiration and leaf loss. Components of the plant that are very water-soluble are leached out of the forage and lost during a rain event. Unfortunately, most of these components are those highly digested by the animal. They include such things as readily available carbohydrates, and soluble nitrogen, minerals, and lipids. Excessive leaching of soluble carbohydrates also can reduce fermentation activity of bacteria.

Respiration, the breakdown of soluble carbohydrates by plant enzymes, will cause dry

matter losses regardless of whether wilted forage is subjected to rain or not. Respiration losses occur while crop moisture levels are above 30 percent. As long as forage remains above 30% moisture dry matter losses from respiration will occur.

Leaf loss can range anywhere from 8 to 20 percent of the initial forage dry matter. Experience and common sense tells us that rain damaged alfalfa is more susceptible to shatter after it dries. Rainfall often means additional raking or tedding to speed up drying hence, more lost leaves.

***Do I cut my hay or not?***

The impact of rainfall on lost of forage yield and quality varies with timing, amount, and duration, there is no easy answer. However based on previous research studies and applied management practices, we can categorize factors that increase risk of cutting hay when the weather forecast is somewhat less than perfect. These are presented in the table below.

Finally, computer technology and the Internet now make it feasible for producers to have home access to up-to-date weather

radar images. Several good weather data sites are:

Intellicast Weather:  
**www.intellicast.com**

The Weather Underground:  
**www.wunderground.com**

The Weather Channel:  
**www.weather.com**

Yahoo Weather:  
**www.weather.yahoo.com**

| Relative Risk   |   | Explanation  |
|---|---|--|
| Lower   | Higher  |  |
| Forage can or will be ensiled.  | Forage will be baled.   | Fewer days needed for curing and swath is often narrower when forage is ensiled.   |
| Small acreage of forage to harvest.   | Large acreage of forage to harvest.                                     | With many acres to harvest, delaying harvest puts more acres at risk of not being cut in a timely manner.  |
| Rain is forecasted for early in the drying period.                                | Rain is forecasted forecasted for late in the drying period.            | Quality losses are less if forage is rained-on while still relatively high in moisture. NOTE: weather forecasts are less reliable beyond two days.                                 |
| Forecasted rain is short duration and is scattered.                               | Forecasted rain is "frontal" and/or long duration in nature.            | Less leaching of cell solubles occurs with short duration, high intensity rainfall than long duration, low intensity rainfall.   |
| Forage is pure grass or grass-legume mixture.                                     | Forage is pure legume.  | Losses associated with leaf shattering are less of a concern with grass species.   |
| Standing forage is beyond optimum maturity stage.                                 | Standing forage is still relatively high in quality.                    | With advancing maturity, a smaller percentage of the plant is comprised of cell compounds that are most susceptible to leaching by rainfall.                                       |
| A chemical drying agent and/or preservative is used.                              | No chemical drying agent and/or preservative is used.                   | Effective use of chemical hay drying agents and/or preservatives can speed drying time or allow for harvest at a slightly higher moisture level.                                   |
| A market or feeding opportunity exists for lower quality forage.                  | A market or feeding opportunity doesn't exist for lower quality forage. | In many situations, there may actually be a need for a limited amount of lower quality forage.   |
| Lower quality forage can be stored (ensiled) separately from high quality forage. | All forage must be stored (ensiled) in same structure.                  | The ability to inventory forage by quality allows for more flexibility in ration formulation and doesn't force the use of low quality forage for animals with high nutrient needs. |

# AGRICULTURAL NEWSLETTER

PRODUCED BY  
THE UNIVERSITY OF WISCONSIN EXTENSION  
AND  
UW-MADISON COLLEGE OF AG AND LIFE SCIENCES

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## BURNETT • SAWYER • WASHBURN COUNTIES

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MIKE BERTRAM, SPOONER AG RESEARCH STATION ASST. SUPERINTENDENT 635-3735

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PHONE: 1-800-528-1914, 715-635-3506, or 715-635-3735

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## ASHLAND • BAYFIELD • DOUGLAS • IRON COUNTIES

JOHN MARKUS, AREA AGRICULTURAL AGENT 373-6104  
MIKE MLYNAREK, ASHLAND AG RESEARCH STATION SUPERINTENDENT 682-7268  
TOM SYVERUD, EXTENSION AND OUTREACH EDUCATOR 682-7268

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PHONE: 715-682-7268, or 715-373-6104

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*University of Wisconsin, United States Department of Agriculture and Wisconsin Counties Cooperating.  
UW-Extension provides equal opportunity in employment and programming. Including Title IX and ADA requirements.*

*If you have any special needs or require special accommodations, please write to UWEX Area Agricultural Agent, Spooner Ag Research Station, W6646 Highway 70, Spooner, WI 54801 or UWEX Area Agricultural Agent, Ashland Ag Research Station, 68760 State Farm Road, Ashland, WI 54806.*



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