Agricultural Newsletter

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

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Table of Contents

- Feeding Factors You Can Control to Impact Profitability
- 2 Upcoming Pasture Walks Offer Information for Graziers
- 4 5th Biennial Spooner Dairy Sheep Day
- Don't Ignore Safety & Health in your Goals and Aspirations
- New Trials at the Spooner Ag Research Station
- 5 Drought Stress in Soybeans
- 6 Feeding Dirt Not Good for Cattle
- 7 UW-Extension Non-Discrimination Policy
- **7** This Quarter's Events



Feeding Factors You Can Control To Impact Beef Profitability

Otto Wiegand, adapted from Amy Radunz, UW Extension Beef Cattle Specialist

In any segment of the beef industry, we have limited control over feed and animal prices because commodity prices are often determined by factors beyond our influence. Yes, we can use risk management, marketing, or purchasing strategies to have some control over this part of the enterprise, but there are other *factors you can control to impact profitability*.

Feed costs represent the largest portion of expenses in any beef operation. In order to control feed costs, *you should be in control of feed intake* and not let the animal determine how much they eat. This holds true for both cow/calf and feedlot producers. If cattle are given free access to feed, they will eat to meet their nutrient needs and then eat more. The first step is know the nutrient requirements of your animals, especially energy and protein needs. These will vary with age, stage of production, body weight, and other environmental factors, however intake is closely related to animal body weight. Second, you need to know the nutrient contents of the feed. This sounds simple, but do you know how much your cows weigh? Do you test your forages? When producers more closely match their cow's needs to the feeds available, they have more control over feed costs. Even in pasture management, you can have some control over intake and feed losses through practices such as intensive grazing.

In finishing cattle, the goal is to gain weight. *Maximizing intake by ad-lib feeding does not result in the most efficient use of the feed for growth or maintenance.* Small restrictions in intake or 'slick' bunk management can provide similar growth performance with less feed. This slick strategy can also be used in managing forage intake in cows, for example, when to refill the hay feeder.

Another tool is to calculate the feed losses from the time the feed is harvested or purchased to the time the feed is fed to the animal. Feed losses can vary from 2 to 50%, depending on type of feed storage methods, and feeding delivery. The decisions you make this summer can have a tremendous impact on feed costs and availability next winter.

Two tools you can use to identify areas of improvement in your beef operation are the following self-assessments: (1) Wisconsin Beef Information Center has a **Cost of Gain Assessment** for feedlot enterprises, and (2) Iowa Beef Center has a **Cow Winter Feeding Cost Assessment** for cow/calf enterprises. With the uncertainty of the commodity markets and rising feed and input costs, we should focus our efforts on the things we can control.

Agricultural NEWSLETTER

produced by University of Wisconsin-Extension and UW-Madison College of Ag & Life Sciences

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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.

Upcoming Pasture Walks Offer Information for Graziers

Otto Wiegand Area Agricultural Agent Burnett, Sawyer, & Washburn Counties

Deer Pasture Walk - Coomer / Siren – June 28

Please join the NW Graziers Network for a deer pasture walk on Tuesday, June 28, from 1-3 PM at Clam River Whitetails, 5234 Kent Lake Rd in southern Burnett County (Frederic mailing address). The farm is located just north off of Cty B at Coomer, 7.5 miles east of Siren, or about 20 miles west of Shell Lake. Watch for the signs.

Clam River Whitetails is owned by Jarrod and Kerrie Washburn and managed by Greg Listle. The farm contains 200 deer that are raised and marketed nationwide as top-genetics breeding stock. Some antlers are also sold. There are 14 deer pens on about 15 acres. Deer are fed alfalfa hay, concentrate pellets, and an established grass mix that grows in the pens.

For more information or directions to get to the farm, contact Randy Gilbertson at NW Graziers at 715-520-8778, or Otto Wiegand at UW-Extension in Spooner at 715-635-3506.

Multi-Species Pasture Walk - Ashland, August 13

The Lake Superior Grazing Initiative is hosting a multi-species pasture walk on Saturday, August 13 from 1-3 PM at the Ag & Energy Resource Center (former Ashland Research Station), 67860 State Farm Rd, on the south side of Hwy 2, just few miles west of Ashland.

The event will feature interspecies grazing, the first scenario with poultry & cattle, and the second with cattle & horses. Topics will also include fencing, manure concerns, forage selection, and sustainable practices.

The walk is co-sponsored by NW Graziers, Angel Acres Poultry Farm, and The Equestrian Coop. For more information, contact Dale Peacock 715-965-5698.

Beef Handling Demonstration & Pasture Walk – Turtle Lake, September 10

The NW Graziers Network invites you to a beef-handling demonstration and pasture walk at the Lynn Johnson Farm at Range in Polk County, 577 145th Ave (Turtle Lake address) on Saturday, Sept 10, from 10 AM-Noon. The event will feature Dr. Amy Radunz, UW-Extension Beef Specialist, who will discuss cattle-handling facilities and other current topics of interest to beef producers.

View a practical and low-cost cattle-handling facility for small or large beef herds with an emphasis on one-person handling ease and safety. The demonstration will show how a seasonal maternity pen could be used as the entire cattle-handling facility for small farms. Other features of the facility include a crowding tub, AI chute and head locks that could make an efficient handling example for larger beef operations.

The beef herd features 70 moderate-sized Red Angus and crossbreds raised for the grass-finished market. Johnson purchased a small herd of crossbreds two years ago that includes a half-dozen cows over 15 years of age. One cow has federal ear tags indicating she is 22 years old. Johnson is rebuilding the herd using Red Angus, AI and extreme calving-ease sires on 2-year-old heifers. All of these first-calf heifers (weighting 900 lb. and up) calved unassisted this spring. Calves averaged about 60 lb. at birth.

The farm consists of 205 acres owned and rented with 165 acres of hay fields and rotationally-grazed pastures. The watering system includes 4000 feet of black plastic 3/4" pipe with tanks available for each paddock. Fences are very low-cost, electrified single wire. Johnson is developing silvo-pastures by combing flash-grazing with no-till inter-seeding of legumes and orchard grass into marginally-wooded areas after thinning the trees. He employs outwintering practices by pre-positioning round bales in the fall for winter feeding on sacrifice areas. Johnson, who is a certified grazing planner for NW graziers, also participates in the Conservation Stewardship Program.

The farm is located 7 miles west of Turtle Lake just north of Range on Hwy 8. From Range take County D north 1.5 miles, then go right on 145th. For more information, contact Lynn Johnson at 715-268-8778, or Extension Ag Agent Otto Wiegand at 715-635-3506.

Horse Pasture Walk – Barronett, September 17, 10-Noon

Those interested in rotationally grazing horses and Norwegian Fjords are invited to a horse pasture walk in



Burnett County near Barronett on Saturday, Sept. 17, from 10 AM-Noon. The hosts are Phil Odden and Elsa Bigton who live at 20337 Cty H, 1 mile north of the Burnett-Barron County line.

The family owns 20 pedigreed Norwegian Fjord horses which they rotationally graze on 5-6 paddocks. Horses are raised for breeding, sale, and competitions including combined driving events and pleasure riding. A new riding arena was built in 2008. Phil is active in both national and international Fjord associations. The family also makes and sells various types of woodcarvings based on Norwegian style. Pasture walk topics will include Fjord horse management,

rotational grazing, fencing, waterers, and grass species.

From Cumberland take Hwy 63 north, then turn left on Cty H and proceed west and north about 8 miles. The farm is on the left or west side of the road. From Spooner or Shell Lake, take 63 south to Cty F, turn right and go west to Cty H, then turn left or south and travel about 4 miles. From Barronett take 29 ½ Street west about 4 miles to Cty H, then go north 2 miles. Watch for signs.

For more information, call Randy Gilbertson at NW Graziers, 715-520-2112 or Lynn Johnson 715-268-8778, or Spooner UW Extension, 715-635-3506.

5th Biennial Spooner Dairy Sheep Day

Claire Mikolayunas Extension Small Rumnant Specialist UW-Madison

The 5th Biennial Spooner Dairy Sheep Day (55th meeting of the Spooner Sheep Day) will be held on Saturday, August 20, 2011 at the Headquarters Building, Spooner Agricultural Research Station of the University of Wisconsin-Madison, Spooner, WI. The themes for this year's program are: 1) dairy farm profitability and 2) lamb survival and lamb rearing.

The morning session will include Dr. Larry Tranel from Iowa State Extension, who will present the results of an analysis of profitability of dairy sheep operations. In addition, the Wisconsin Sheep Dairy Cooperative will give an update on current and projected milk markets throughout the region.

Income from lamb sales can represent a significant portion of income on a dairy sheep operation. Shortages of lambs in both the U.S. and internationally have resulted in record lamb prices in 2011. It appears that the shortage of lamb will continue for at least the next few years resulting in a much improved economic situation for domestic lamb producers. The program will address challenges to rearing lambs and lamb marketing. Yves Berger of Spooner Ag Research Station will address lamb survival in dairy sheep operations and Dave Thomas of UW-Madison will address the genetics of lamb survival. Claire

Mikolayunas of UW-Madison Extension will address rearing lambs from weaning to market and an additional speaker will address the current lambs market. Following speaker sessions, the sheep barn and milking facility will be open for a selfguided tour.

Registration begins at 8:30 a.m., and the formal program is scheduled to end at 3:00 p.m. Attendance at the educational sessions of the Spooner Sheep Day is free, but there is a charge for the lamb barbecue lunch served at noon (\$8.00 for adults and \$5.00 for children under 12).

The Spooner Agricultural Research Station is located in northwestern Wisconsin on Highway 70 just west of Highway 53 and just east of the town of Spooner. For more information, contact Lorraine Toman (715-635-3735, lltoman@wisc.edu). The complete program can be viewed at [http://www.uwex.edu/ces/animalscience/sheep/index.cfm].

Don't Ignore Safety & Health in Your Goals & Aspirations

Haying season has arrived.
Planting is done, or nearly so. You are so busy and rushed that you tell yourself you will put that equipment shield on later, or will carry somebody on the tractor fender just this one time. Although the reality of farm life is often being rushed, tired and stressed, those seemingly small unsafe things can lead to tragic consequences and ruin long-term goals.

Farm operators need to remind themselves and others on the farm that

busy times are when serious injuries are most likely to occur. This is not the time to skip proper safety procedures. This is the time to take the most precautions, to be the most careful, precisely because of the increased risk.

Everybody gets in a hurry, gets distracted or preoccupied, gets tired or makes mistakes. That is why we need to make sure our farm is a safe working environment.

Proper precautions include:

- Make sure machines are well maintained and adjusted to minimize field breakdowns or plugging that require operators to work on machines in the field.
- -- Make sure all guards and shields are in place, and repaired or replaced if broken.
- -- Use tractors with ROPS (Roll Over Protective Structures).
- -- Have safe wiring in the barn.
- Keep young children out of work areas such as the barnyard when wagons are being brought in or out.
- -- Make sure people are trained and capable of doing the job assigned to them.

Do not overlook the safety and health of your loved ones in the rush of the season. And remember your employees are somebody's loved ones, too.

Life is precious, and also short. Think about doing hobbies like needlework, dancing, or playing a musical instrument with a hand or foot missing. Think about Christmas with one of your family members missing. Don't let a farm injury rob you of your goals and dreams.

For more information about farm safety and health, visit the web site of the UW Center for Agricultural Safety and Health at http://fyi.uwex.edu/agsafety/.

New Trials at the Spooner Ag Research Station

Phil Holman Superintendent Spooner Ag Research Station

In addition to the regular variety trials of corn, soybeans, alfalfa, oats, & barley, there are several new trials at the Spooner Ag Research Station.

- Alfalfa seed coating trial evaluates five fungicide and micronutrient combinations to improve alfalfa stand development
- Corn response with or without sulfur on the soil pH's ranging from 4.7 to 6.7
- Hazelnut production trial
- ♦ High Tunnel season extension of fall raspberry production

Previous recent trials continuing another year of data collection are:

- Soybean seeding rate trial with rates ranging from 60,000 to 240,000 seeds per acre
- Italian Ryegrass (annual) variety trial for forage production
- Perennial Ryegrass variety trial for grazing yields
- ♦ Switchgrass production
- Wine grape variety trial to determine which varieties survive the northern climate and how much grapes can be produced

Trail results will be available this fall or early winter.

Drought Stress in Soybeans

Kevin Schoessow Adapted from Shawn Conley UW-Extension Soybean Specialist

Will drought be an issue in soybeans this year? Let's hope not. The moderate to severe drought that afflicted much of NW Wisconsin in 2005-09 and its effect on soybean growth and yield is still etched in farmers' memories. While we can't change the weather, there are some management options soybean growers can do to lessen potential impacts of drought.

In soybeans, there are two growth periods for which soil moisture is critical for optimum growth and development: at planting, and during the reproductive stages from bloom through pod fill. The main reproductive growth in soybeans occurs from early July to mid-September when soybeans need about 1/4 to 1/3 inch of water per day. Lack of moisture can cause flowers and young pods to abort, reducing the number of seeds per plant. Also, soybean plants reduce the size of their leaf pore openings to reduce the loss of water vapor. This reduces the intake of carbon dioxide and manufacture of photosynthates that slows plant growth. When normal soil moisture returns, normal growth is resumed. The ability to reduce metabolic activity allows plants to tolerate some dry periods without dying or losing ability to resume growth.

In most years, water is not a major factor limiting the yield of soybean on medium and fine textured soils in Wisconsin. Research conducted between 1996 and 2000

at Arlington shows no yield difference between irrigated and non-irrigated soybeans. However, there was significantly more biomass per acre in stem and leaf portion of soybeans that received regular irrigation.

Managing soybeans for drought tolerance involves use of the same sound growing practices that would normally be used for high yields. Soil fertility, especially pH, is important for good root growth and nodulation. Low soil pH inhibits nodulation and uptake of essential micronutrients which make soybeans more susceptible to drought injury. Healthy soybean plants have deep root growth which enables them to take up deeper moisture supplies. Where hardpans or compacted zones are a problem, deep tillage should be used to facilitate root growth into subsoil moisture. Conservation tillage can help to reduce effects of drought by providing residue to reduce soil moisture evaporation. Long term conservation tillage improves soil tilth which helps rainfall infiltration and water movement. Finally, narrow row spacings should be used since the canopy formed by the plants increases competition with weeds and acts as a barrier to evaporative soil moisture losses.

If drought has severely affected pod set and seed fill, and if livestock feed is needed, soybeans can be harvested as silage. Highest protein and yields are obtained from soybean harvested at the R6 to R7 growth stage. Harvesting soybeans for forage between the R1 and R5 stage will yield very high quality silage, but dry matter will be reduced. Forage quality will be reduced from R5 soybeans forward if a conditioning process is used which will cause significant seed shattering.

Feeding Dirt Not Good for Cattle

Otto Wiegand Adapted from Dan Undersander UW-Extension Forage Specialist

As the old saying goes "eating a little dirt is good for you". This may be true to a point, but we all know dirt is not a recommended staple for human nutrition or cattle for that matter. However recent research is finding that more and more dirt or "ash" is finding its way into cattle rations. Until recently, not much attention has been paid to ash when calculating forage TDN or energy. While some minerals are necessary for forage growth and may be beneficial to animals, ash content is best kept to a minimum because it provides no calories and, in fact, replaces nutrients.

Ash in forage comes from two sources: internal, such as calcium. magnesium, potassium, phosphorus and external, such as dirt, bedding, sand. The average internal ash content of alfalfa is ~8%, in grasses it is ~6%. Additional ash in a hay or silage sample is from external contamination. Samples from the UW Soil and Forage Analysis Laboratory indicate that the average ash content of haylage is 12.3% and of hay is 10.3%. This means that about 4% of ash contamination is from external sources. Some samples have been as high as 18% indicating that some farmers have fed almost 1 lb of dirt for each 5 lbs of their forage.

Growers can do several things at each step of harvesting, storage and feedout to minimize ash:

- (1) **Avoid harvesting lodged forage** as dirt often sticks to downed forage when the soil is wet. This
 - forage when the soil is wet. This can be reduced by planting varieties that stand better and by harvesting early in spring to reduce potential for a wind storm knocking the alfalfa or grass down.
- (2) Use flat knives to pick up the least ash. A flat knife will pick up the least ash while a knife at a 14° angle will create some suction to pick up more downed hay and ash particularly when the soil is dry.
- (3) Raise the cutter bar to lower ash and raise forage quality. While lowering the cutter bar results in greater yield, forage cut low with a disc mower will have higher ash content when the soil surface is dry. Generally a cutting height of 2.5-3.0 in. seems best in most cases. If the mixture includes bromegrass, orchardgrass, or timothy, cutting height should be 3-4 in. to avoid shortened stand life.
- (4) **Keep windrow off the ground**-by starting with a wide swath and placing cut forage on dense stubble to eliminate harvesting a layer of soil on the windrows. A wide swath also increases drying rate. Windrows should be high enough to be raked or merged without the tines touching the ground.
- (5) **Minimize moving windrows horizontally -** to reduce external ash contamination. It is better to move two swathes on top of 3rd swath in the middle rather than to rake all to one side.
- (6) Use a windrow merger rather than raking. This will result in hay or silage with less ash content since the windrow is picked up

- and moved horizontally by a conveyer rather than being rolled across the ground. Merging can result in 1-2% less ash in the hay or silage. Wheel rakes tend to incorporate more ash because they are ground driven. If a cloud of dust is raised while raking, 1-2% of ash is being added to the hay.
- (7) Custom harvesters may be an option to consider if merged hay with lower ash content is desired since mergers are expensive and may not be economical for many farms.
- (8) Store bales off the ground to minimize ash contamination during storage. Bales that are set on the ground pick up water from the soil which can lead to molding. This molding process causes loss of TDN and increases the ash concentration. Wetter hay will pick up a layer of ash on the bottom if bales are sitting on the ground.
- (9) Store silage piles/tubes on concrete or asphalt to minimize ash contamination during storage. The most common source of added ash in silage is from piles or tubes on dirt. Silage can be removed with minimal dirt contamination if conditions are dry, however, dirt may be picked up with the silage when conditions are wet and muddy.

There will always be some soil contamination of grass and legume hay or silage. However, appropriate harvesting and storage management can reduce the ash content of the hay or silage. Producers who achieve <10% ash content have done a good job and have increased the hay or silage quality.

UW-Extension Non-Discrimination Policy

Kevin Schoessow & Otto Wiegand Ag Agents for Burnett, Sawyer & Washburn Counties

Periodically, UW-Extension takes steps to assure that our partners know and understand our policy of nondiscrimination. This letter is to remind or notify you that the University of Wisconsin-Extension does not discriminate in the treatment of individuals, in the admission or access to its programs and activities, in the provision of services, or in employment.

Further, UW-Extension will not participate with organizations or in activities which discriminate on the basis of any of the legally prohibited categories of discrimination. Categories of prohibited discrimination include race, color, gender/sex, creed, disability, religion, national origin, ancestry, age, sexual orientation, pregnancy, marital or parental status, arrest or conviction record, or membership in the national guard, state defense force or any other reserve component of the military service.

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Individuals who need TTY access may contact your local County Extension Office or the Spooner Area UW-Extension Office by calling the Wisconsin Telecommunications Relay System, 1-800-947-3529 or 711.

On behalf of your local County Extension, the Spooner Area UW-Extension Office and the University of Wisconsin-Extension, we want to thank you for collaborating with us in our many educational endeavors. We appreciate your support and working relationships as we provide educational programs designed to empower the diverse citizens of Burnett, Washburn and Sawyer Counties and all counties in NW Wisconsin.

This Quarter's Events

Contacts: UW-Extension Ag Agents Otto Wiegand or Kevin Schoessow, Spooner Station, 715-635-3506, Jane Anklam, Douglas Co, 715-395-1363, or Jason Fischbach, Ashland & Bayfield Counties, 715-682-8393 for more information, brochures or how to register.

June 28, Tues, 1-3 PM, Burnett Co – Deer Pasture Walk, Clam River Whitetails – 5234 Kent Lake Rd, Coomer / Frederic, NW Graziers (see article)

June 30, Thurs, - Crop Care Clinics. 9:30 AM-Noon at Smith Farms near Augusta and 1:30 PM-4 PM at Paul Harrison Farm north of Menomonie. For more information, call Eau Claire County UWEX at 715-839-4712 or Dunn County UWEX at 715-232-1636

July 7-9, Weds-Sat – Central Burnett County Fair – Webster

July 12-14, Tues-Thurs – Farm Technology Days – Seehafer Acres, M234 State Hwy 97, Marshfield, Marathon Co.

July 28-31, Thurs-Sun – Washburn County Fair – Spooner

Aug 13, Sat, 1-3 PM – Multi-Species Pasture Walk, Ag & Energy Resource Center (former Ashland Res. Station), Ashland, NW & Lake Superior Graziers (see article)

Aug 18, Thurs, 1-3 PM – Dairy Pasture Walk, Summer & Travis Vehrenkamp, Ladysmith, Rusk Cosuccessful grazing of 15-cow dairy herd, NW & NC Graziers. Contact Rich Toebe 715-532-2153, or Bob Brandt 715-748-2008.

Aug 18-21, Thurs-Sun – Sawyer County Fair – Hayward

Aug 18-21, Thurs-Sun – Burnett Agricultural Society Fair – Grantsburg

Aug 20, Sat, 9-3 – Spooner Sheep Dairy Day – Spooner Ag Research Station (see article)

Aug 23, Tues, 5-8 PM – Twilight Garden Tour -Spooner Ag Research Station

Sept 10, Sat, 10-Noon – Cattle-Handing and Beef Pasture Walk – Lynn Johnson, Range / Turtle Lake, Polk Co, NW Graziers (see article)

Sept 17, Sat 10-Noon – Horse Pasture Walk – Phil Odden & Elsa Bigton, Barronett, Burnett Co (see article)

Oct 4-8, Tues-Sat – World Dairy Expo – Madison

Nov 2011 – Mar 2012 – Beginning Farmer Course – Burnett Co. area



UWEX Area Agricultural Agents Burnett, Sawyer, & Washburn Counties Spooner Agricultural Research Station W6646 Highway 70 Spooner, WI 54801

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Attend on of the many upcoming pasture walks

Don't miss Farm Technology Days in Marathon County this year

Learn what new trials are being studied at the Spooner Ag Research Station

Kevin Schoessow

UWEX Area Agricultural Agent