Shawano Ag Newsletter

University of Wisconsin Cooperative Extension

November 2017

Shawano County UWEX
311 North Main Street
Shawano, WI 54166
(715) 526-6136

Website:
http://shawano.uwex.edu

Like us on Facebook at:
uwex.shawano.ag

Hours:
Monday - Friday
8:00 am - 4:30 pm

Ag Agent:
Jamie Patton
jamie.patton@ces.uwex.edu

IN THIS ISSUE:

Greetings!

Harvest season is in full swing! With that, I will keep this short and sweet…I hope your fall is a bountiful and safe one! Thank you for the opportunity to serve you and Shawano County!

~ Jamie

Top 10 farm safety tips

From Farm Stress and Decision Making During Challenging Times by John Shutske, Professor and Extension Ag Safety Health Specialist, UW-Madison

- Buy a rollover protective structure (ROPS) for older tractors. If an approved ROPS is not available, avoid using that tractor or consider trading or selling it through a local dealer.
- Replace all missing power take-off and rotating equipment shields. Shut off power equipment before leaving the operator's station.
- Check that lights, flashers and reflectors on machines work properly. Always use them when traveling on roadways.
- Replace "slow moving vehicle" emblems that aren't clean and bright.
- Inspect and repair farm machinery before the busy season. A well-maintained machine will operate more efficiently and reduce the chance of an injury.
- Use proper equipment and procedures when hitching and unhitching implements.
- Never enter a manure pit, grain bin or silo without following confined space entry procedures. The gases and materials in these structures kill farmers every year.
- Ensure that all workers receive specific instructions on their tasks and the machines they are operating. Be sure they read and understand all operational procedures in the owner's manual.
- Take time to learn basic first aid, CPR and emergency response.
- Do not assign jobs to children unless they are physically, mentally and legally ready to perform the job safely, follow directions and can respond to unexpected situations. This may mean waiting until kids are at least 16 years of age.

Updating the Shawano UW-Extension Ag Newsletter List

Thank you for your responses to this spring's newsletter list survey. We received several postcards with no names indicating the sender did not want to receive the newsletter. The cards were not coded, so without a name, I was unable to remove the sender from the mailing list.

If you wish NOT to receive the UW-Extension Ag Newsletter or if you would prefer an EMAIL rather than paper copy, please call our office at (715) 526-6136

2017 Wisconsin Pest Management Update Meetings

The schedule for the Wisconsin Pest Management Update meeting series is listed below. Presentations will include pest management information for Wisconsin field and forage crops. Speakers will include Mark Renz, weed scientist, Damon Smith, plant pathologist, Dan Heider IPM specialist and Bryan Jensen, entomologist.

The format will be the same as in 2016. Meetings will either be in the morning or afternoon and will run for 3 hours. Morning meetings will begin promptly at 9am and run to 12pm. Afternoon meetings will begin at 1pm and conclude at 4pm.

Three hours of Certified Crop Advisor CEU credits in pest management are requested for each session.

Please make your reservation with the host agent at least one week prior to the scheduled meeting date.

DATE	LOCATION	HOST AGENT
Monday November 6 *1pm – 4pm*	**Marshfield** Marshfield Agricultural Research Station 2611 Yellowstone Drive Marshfield, WI 54449	**Richard Halopka** Clark County Extension Courthouse Room 104 517 Court Street Neillsville, WI 54456 (715) 743-5121
Tuesday November 7 *9am-12pm*	**Chippewa Falls** Lake Hallie Eagles Club 2588 Hallie Road Chippewa Falls, WI 54729	**Jerry Clark** Chippewa County Extension 711 N. Bridge Street Chippewa Falls, WI 54729 (715) 726-7950
Wednesday November 8 *9am-12pm*	**Belmont** Belmont Inn & Suites 103 West Mound View Avenue Belmont, WI 53510	**Kory Stalsberg** Grant County Extension P.O. Box 31 Lancaster, WI 53813 (608) 723-2125
Wednesday November 8 *1pm-4pm*	**Janesville** Holiday Inn Express Janesville 3100 Wellington Place Janesville, Wisconsin 53546 (I-90 and US Highway 14, West on 14)	**Nick Baker** Rock County Extension 51 S. Main Street Janesville, WI 53545 (608)-757-5698
Thursday November 9 *9am-12pm*	**Fond du Lac** University of Wisconsin – Fond du Lac Rm 113 University Center 400 University Drive Fond du Lac, WI 54935	**Loretta Ortiz-Ribbing** Fond du Lac County Extension 227 Admin/Extension Bldg. 400 University Dr. Fond du Lac, WI 54935 (920) 929-3171
Thursday November 9 *1pm-4pm*	**Kimberly** Liberty Hall 800 Eisenhower Drive Kimberly, Wisconsin 54136 (Hwy. 441, College Avenue Exit, East 1 block)	**Kevin Jarek** Outagamie Co. UW Extension 3365 W. Brewster St. Appleton, WI 54914 Phone: 920-832-5128
Friday November 10 *9am-12pm*	**Sparta** Jake's Northwoods 1132 Angelo Road Sparta, WI 54656	**Bill Halfman** Monroe County Extension 14345 County Hwy B Sparta, WI 54656 (608) 269-8722

SPONSORS

UW-Madison
Animal Sciences Department

UW-Platteville
School of Agriculture

UW-River Falls
Animal & Food Science Department

UW-Extension
Swine Team

University of Wisconsin-Extension

WI Pork Association

Pork Checkoff

Outagamie County
Office of UW-Extension
3365 W Brewster Street
Appleton WI 54914

Badger Swine Symposium

Friday
November 10, 2017

UW-River Falls
Agriculture Science Building
AGS 200
611 S. 3rd Street
River Falls, WI 54022

Pre-registration by
November 3, 2017

Badger Swine Symposium

9:45 **Welcome & Introductions**

10:00 **On-Farm PRRS Experiences and Upcoming Regulatory Changes**
Gary Onan, PhD, PAS, Professor & Chair, Animal and Food Science, UW-River Falls
Tammy Vaassen, Executive Vice President, Wisconsin Pork Association
Dr. Darlene Konkle, WI Assistant State Veterinarian

11:30 **Lunch and Niche Pasture Pork Panel**
Producers, Zen Miller, Marigold Farm, Appleton, WI
Clay Juelfs, Skyline Gardens & Ponds Nursery, River Falls
Processor, Jake Sailer, Sailer Food Market, Elmwood, WI
Tim Brueggen, Falls Meat Service, Pigeon Falls, WI

12:30 **Pork Quality in Meat Lab**
Laura Bachmeier, Director of Pork Safety, National Pork Board
Jim Murray, Food Service Marketing Manager, National Pork Board

1:30 **Swine Euthanasia**
Kurt Vogel, PhD, Associate Professor, Animal and Food Science, UW-River Falls

2:15 **Student Research Presentation(s)**
Darby Guse, WPA Mentor Program
Andrew Keller, Student, College of Veterinary Medicine, University of Minnesota
Kaleiah Schiller, Student, University of California-Davis

3:00 **Adjourn**

Parking is available. Park in Pay Lot 1 by North Hall at $0.50/30 minutes or buy a visitor pass ahead for $2 to park in Pay Lot 3 by Ramer Field. Pay kiosks accepts quarters, $1, $5, or Debit/credit cards. A visitor pass can only be purchased online at https://goo.gl/vw9UKN.

For further information, contact the Swine Team:

UW Extension
University of Wisconsin-Extension

Adam Hady *608-647-6148 or adam.hady@ces.uwex.edu*
Zen Miller *920-832-5124 or zen.miller@ces.uwex.edu*
Lyssa Seefeldt *608-297-3141 or lyssa.seefeldt@ces.uwex.edu*

Badger Swine Symposium
Registration Form

Name(s) _____

Business _____

Address _____

City _____

Zip Code _____

Phone Number _____

Email _____

The program is free to attend.
Lunch is included.
(financial support provided by Pork Check-Off funds)

Registration begins at 9:30 a.m.

RSVP by November 3
to the Wisconsin Pork Association at
1-800-822-7675

Or email at: wppa@wppa.org

Or mail to:
Wisconsin Pork Association
PO Box 327
Lancaster WI 53813

Or online at:
http://www.wppa.org/badgerswine/

Farming Forward

PLANNING YOUR FARM'S FUTURE

Thursday, November 30

Doxbee's
N6744 County Road C, Seymour, WI 54165

9:30 am **Registration**

10:00 am **Future in Agriculture**
Paul Dietmann, Senior Lending Officer, Compeer Financial

11:00 am **Producer Panel**
What does it take to move from talk to action in farm succession?
Kurtis Ambrosius, Ambrosius Dairy Farm LLC, Seymour, WI
Jon Hanson, Hanson Farms, Poy Sippi, WI
Lloyd Holterman, Rosy-Lane Holsteins, Watertown, WI
Dave Jauquet, Jauquet's Hillview Dairy LLC, Luxemburg, WI

12:00 pm **Lunch**

12:45 pm **Generational Communication**
What is your roadblock on farm succession and transfer? Through this activity you will be able to relate to other individuals in an informal, non-judgmental setting.
Joy Kirkpatrick, Outreach Specialist, UW Center for Dairy Profitability

2:00 pm **Professional Panel**
Who can you turn to when you need answers to your questions?
Nancy Immel, Accountant, Enrolled Agent, All-Ways Accounting
Brad Guse, Senior Vice President Agribusiness Banking, BMO Harris Bank
Troy Schneider, Attorney, Twohig, Rietbach, Schneider, Halbach SC

Meeting Details:
Registration: 9:30 am
Meeting: 10 am to 3:30 pm

Registration Fee (Includes Meal & Materials):
$40 per Person
Registration Deadline: November 20

Farming Forward Registration

Name(s):_____
Business: _____Telephone: _____
Address: _____ City/State/ZIP: _____
Email address (for a direct mailing in future years): _____
Registration: _____ People x $40 per person (includes meal & materials) = $_____

TOTAL ENCLOSED = $_____

Make check payable to **UW-Extension**
Mail to: UW-Extension, 3365 W Brewster Street, Appleton, WI 54914
Or call: 920.832.5124

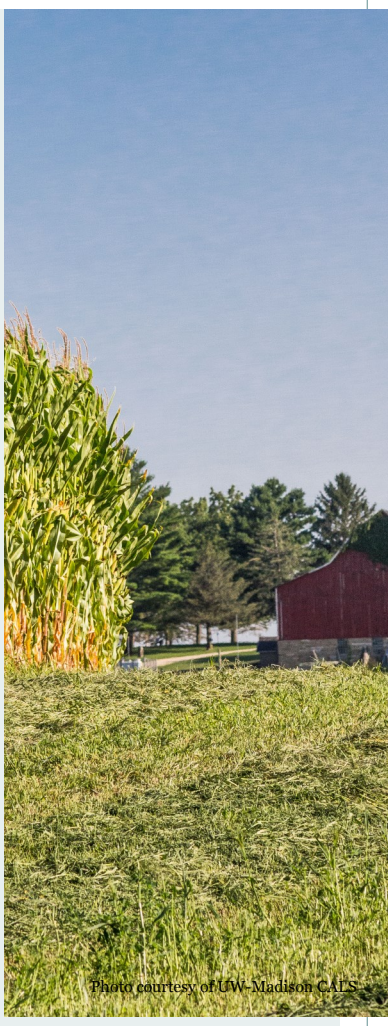
Photo courtesy of UW-Madison CALS

FOR MORE INFORMATION

Zen Miller
Agriculture Agent Outagamie County
zen.miller@uwex.edu
920.832.5124

UW Extension
University of Wisconsin-Extension

GreenStone FARM CREDIT SERVICES

Fox Valley TECHNICAL COLLEGE
Knowledge That Works

CENTER FOR DAIRY PROFITABILITY

COMPEER FINANCIAL

BMO Harris Bank

Save the Dates!

2017 Soil, Water, and Nutrient Management Meeting

December 5, 2017

8:30 to 11:00 am
The Main Event, Cecil
$35 registration fee
Presenters: Francisco Arriaga and Matt Ruark, UW-Extension Soil Science;
Brian Luck, UW-Extension Precision Agriculture; and Sue Porter, DATCP
2.5 CEUs available

Forage Crop Production and Shawano Co Forage Council Annual Meeting

February 15, 2018
10:30 am to 3:00 pm
The Main Event, Cecil

UW Discovery Farms Conference

What next? Going beyond the cropping and conservation basics

December 12, 2017 • 9:00 a.m. to 3:45 p.m.
Glacier Canyon Conference Center, Wisconsin Dells

Pre-registration is required. Registration is $50 and includes materials and noon meal.
For more information visit www.uwdiscoveryfarms.org or call 715.983.5668.

9:00 a.m.	**Registration**
9:30 a.m.	**Navigating nutrients in a world of competing interests** *Dr. Josh McGrath, University of Kentucky*
10:15 a.m.	**Future of farming: From precision to decision** *Dr. Raj Khosla, Colorado State University*
11:00 a.m.	**Break**
11:15 a.m.	**Split application expert panel** *Moderator: Dr. Brian Luck, UW-Madison & UW-Extension*
12:05 p.m.	**Lunch**
1:00 p.m.	**Managing manure for the future** *Amber Radatz, UW Discovery Farms*
1:45 p.m.	**Adapting when weather won't** *Dr. Chris Kucharik, UW-Madison* *Dr. Paul Mitchell, UW-Madison & UW-Extension*
2:45 p.m.	**Break**
3:00 p.m.	**Reality check panel** *Moderator: Dr. Brian Luck, UW-Madison & UW-Extension*
3:45 p.m.	**End of Conference**

CEUs available
(Nutrient Management, Soil & Water Management)

DISCOVERY FARMS
WISCONSIN
University of Wisconsin - Extension

#UWDFConference

2018
Cow College

FVTC Regional Center
Hwy 22/45 Clintonville, Wisconsin

January 9 *(1-3 PM)*

Using Genomic Testing to Improve Your Herd

Dr. Kent Weigel, *Extension Dairy Genetics Specialist, UW-Madison*

Dr. Weigel will discuss what we've learned about genomic testing in just the last few years to help improve dairy herd genetics and management. Is it really worth the effort and the cost?

Premium Beef Programs: An Option for Your Dairy Farm?

Dr. Victor Cabrera, *Extension Dairy Management Specialist, UW-Madison*

Dr. Cabrera will share economic analysis of cross-breeding low potential heifers and low producing dairy cows to beef bulls with superior carcass traits as an option for adding value to your bottom line.

January 16 *(1-3 PM)*

Feeding 2017 Forage & Grain Crops to Dairy Cows

Dr. Randy Shaver, *Extension Dairy Nutrition Specialist, UW-Madison*

Dr. John Goeser, *Rock River Lab Director of Research & Innovation, Watertown WI & Dairy Science Department Adjunct Assistant Professor, UW-Madison*

Dr. Goeser will review forage and grain quality from lab results in 2017, including energy, protein and fiber levels, as well as mycotoxins. Dr. Shaver will then provide an update and outlook on dairy nutrition and feeding strategies for 2018.

January 23 Farm Tour – Shawano County

Tour Locations Forthcoming

Lunch Speaker - Matt Akins, Extension Dairy Specialist - Updated Cost of Raising Dairy Replacements

Register for the sessions you plan to attend: ____ **January 9** ____ **January 16** ____ **January 23 (Farm Tour)**

Name(s) _____ Email_____

Address _____City _____ Zip _____ Phone _____

Cost is $5.00/day or $10.00 total for all three = $ _____ (Call or send check to UW-Extension by Fri. Jan 5)

Waupaca County UWEX
Greg Blonde
Courthouse 811 Harding St
Waupaca WI 54981
715 258-6230

Shawano County UWEX
Jamie Patton
Courthouse, Rm 101
Shawano WI 54166
715 526-6136

Outagamie County UWEX
Zen Miller
3365 W Brewster Street
Appleton WI 54914
920 832-5119

The Dairy Situation and Outlook, October 20, 2017
By Bob Cropp, Professor Emeritus
University of Wisconsin Cooperative Extension
University of Wisconsin-Madison

Higher cheese prices more than offsetting lower dry whey prices will result in an October Class III price near $16.60, up about $0.30 from $16.36 in September. On the CME, 40-pound cheddar blocks averaged $1.63 per pound in September, but improved early October to $1.76 only to decline again. Blocks fell 5 cents on October 20th to $1.67 per pound. Cheddar barrels averaged just $1.5691 per pound in September, but also strengthened early October to $1.74 only to decline again to now $1.64. The price of dry whey has been declining since peaking at $0.50 per pound in May and is now $0.36. This decline has lowered the Class III price almost $0.80.

Declining nonfat dry milk prices will lower the Class IV price. Class IV was $16.61 in August, $15.86 in September and will be near $14.90 in October. Butter started the month at $2.295 per pound and strengthened to $2.40, but has fallen back to $2.35. The price of nonfat dry milk has dropped below $0.80 per pound to $0.74, the lowest price since April 2016, more than offsetting the higher butter price.

Unless cheese prices rally more like prices did last year the Class III price for November and December will stay in the $16's and average about $16.25 for the year compared to $14.87 last year. Looking into 2018 Class III prices could stay in the high $15's for the first half of the year and reaching the $16's during the second half. The Class IV price will stay in the higher $14's November and December, averaging about $15.40 for the year compared to $13.77 last year. The Class IV price for 2018 may stay in the $14's for most of the year. But, milk prices can change a lot from rather small changes in milk production, domestic sales or dairy exports. So final 2018 milk prices could end up quite different.

Relatively high stocks of cheese has dampened the increase in prices this fall. August 31st stocks of American cheese was 7.8% higher than a year ago with total cheese stocks 7.4% higher. But, cheese stocks did decline some from the July 31st level. Dry whey prices have fallen from heavy stocks with August 31st stocks 68.6% higher than a year ago. Likewise nonfat dry milk prices have fallen with August 31s stocks 31% higher than a year ago. But, it is surprising that butter prices have not increased more with August 31st stocks declining from July to 12.1% lower than a year ago.

Dairy exports have supported cheese and butter prices. Cheese exports for August were 35% higher than a year ago and up 24% year-to-date. August butterfat exports were 177% higher than a year ago and 12% higher year-to-date. But, August nonfat dry milk/skim milk powder exports were 9% lower than a year ago, the second straight month of decline. August Dry whey exports were also lower than a year with a decline of 10%. Both nonfat dry milk/skim milk powder and dry whey are experiencing strong market competition for exports from the EU. Competition for markets will remain strong in 2018 as milk production is expected to increase in the two largest exporters, EU and New Zealand with also some milk production recovery in Argentina and Australia. Any major changes in trade agreements, in particular NAFTA could also impact exports. But, world demand is expected to increase as China and other major importers expand their imports of dairy products. This will help to absorb some of the increase in world milk production.

Milk prices for the remainder of this year and into 2018 will depend upon the level of milk production. USDA's report for September milk production showed the increase in milk slowed to 1.1% compared to

increases of 2% for the previous two months. Milk cow numbers decline 4,000 head from August but were still 69,000 head or 0.7% higher than a year ago. The slowdown in milk production was due to milk per cow which was up just 0.3% from a year ago.

September milk production in the West compared to a year ago was down 3.4% in California, up just 0.2% in Idaho, and up 3.1% in Arizona, 4% in New Mexico and 10% in Texas. In the Northeast New York's production was down 0.4%, but up 1.7% in Pennsylvania and 3.2% in Michigan. In the Midwest production was up 4.5% in Iowa, 3.2% in Minnesota, 3.4% in South Dakota, but just 0.8% in Wisconsin. In the Southeast Florida's production was down 1.1%.

USDA is forecasting 2018 milk production to increase 1.9% from this year, the result of 0.5% more cows and 1.4% more milk per cow. This is a lot of milk that will put downward pressure on milk prices. It would take higher than expected domestic sales of milk and dairy products or higher dairy exports to push 2018 milk prices higher than what is now forecasted.

Robert Cropp
racropp@wisc.edu
University of Wisconsin-Madison.

University of Wisconsin-Extension

Hay Market Demand and Price Report for the Upper Midwest
For October 23, 2017

Data Compiled by Richard Halopka UW-Extension Clark County Crops & Soils Agent

All hay prices quoted are dollars per ton FOB point of origin for alfalfa hay unless otherwise noted.

The information presented in this report is compiled from public and private sales and reports in the Midwest.

The past several months of hay reports are archived. To view previous hay reports, go to http://fyi.uwex.edu/forage/ on the Team Forage web site and click on the past hay reports section.

Hay auction data is collected on the first and third week of the month and posted the following Monday when possible. Prices quoted in this report are for "as fed" alfalfa hay.

Demand and Sales Comments

Hay prices continue a trend of wide price ranges. Overall the hay market is steady to stronger again this week. Harvest season, while delayed has been very active this past week, which has surprised some hay market watchers, as prices are strong even with field work.

Upper Midwest Hay Price Summary by Quality Grade

Hay Grade	*Bale type*	*--------- Price ($/ton) ---------*		
		Average	Minimum	Maximum
Prime (> 151 RFV/RFQ)	Small Square	$215.00	$190.00	$240.00
	Large Square	$182.00	$120.00	$240.00
	Large Round	$121.00	$110.00	$140.00
Grade 1 (125 to 150 RFV/RFQ)	Small Square	$205.00	$180.00	$230.00
	Large Square	$143.00	$105.00	$175.00
	Large Round	$88.00	$50.00	$150.00
Grade 2 (103 to 124 RFV/RFQ)	Small Square		No Reported Sales	
	Large Square	$129.00	$100.00	$150.00
	Large Round	$93.00	$70.00	$125.00
Grade 3 (87 to 102 RFV/RFQ)	Small Square		No Reported Sales	
	Large Square		No Reported Sales	
	Large Round	$85.00	$60.00	$100.00

University of Wisconsin-Extension

For Nebraska, prices are unevenly steady with light demand. The greatest demand is for top quality grass hay for weaning calves. *For Iowa,* prices were slightly higher. There is a very good demand for bedding material this week at the auction.

In South Dakota, hay sold steady with moderate demand. Interest in hay has picked up this past week, but buyers are very selective in the quality they are willing to purchase. The level of interest is a little surprising as many are in the field harvesting soybeans and corn.

For Missouri, hay supplies are moderate, demand is light and prices are steady. Some areas of the state are still short of water and have lower quality plus less supply of hay.

In Southwest Minnesota, not much change at this market with adequate supply of mixed hay, price trend is steady with limited quality hay available.

In Wisconsin, a great deal of action this week in the field. Multiple harvest operations are occurring at once as weather this year caused delays in planting and delayed maturity. Hay supplies are contributing to a depressed price currently at the market, plus lack of a need to buy hay. There is a demand for quality hay that is not available at the market.

Hay export report for October 20, 2017, 3,850 tons of alfalfa hay was exported. Top quality hay ranged from $165.00 to $170.00 (1,500 ton exported) per ton. Lower quality alfalfa sold for $120.00-$125.00 per ton (2,000 ton and 350 ton rain damaged hay exported) per USDA reports.

Straw prices were steady this week. Small square bale straw price was steady and averaged $3.00 a bale (range of $1.50 to $5.00). Large square bale straw $43.00 per bale (range of $35.00 to $61.00). Large round bale straw averaged of $43.00 a bale (range of $30.00-$51.00). Some auctions mentioned a good demand for straw this past week.

The next Hay Market Demand and Price Report for the Upper Midwest will be posted by Monday, November 13, 2017.

Due to the lack of quality-tested hay auctions in Wisconsin, the following links are included in this report allowing producers to obtain some state and nearby state prices (these may or may not be quality tested auctions). The Equity Cooperative market report is at http://livestock.equitycoop.com/market_reports/. Go to the Lomira, Reedsville, and Stratford locations for their reports on untested hay and straw prices.
The Fennimore Livestock Exchange is at http://www.fennimorelivestock.com/index.php?site=home.
The Reynolds Feed & Supply, LLC of Dodgeville is at http://www.reynoldslivestock.com/what1snew/.
The Tim Slack Auction and Realty, LLC of Fennimore is at http://www.timslackauctionrealty.com/market%20report.html.
The Zumbrota Hay & Bedding Auction of Zumbrota, MN is at (market runs September – May) http://cla.crinet.com/page5295/ZumbrotaHayAndBeddingAuction.
The Dyersville Sales Company of Dyersville, Iowa is at http://dyersvillesales.com/hay-auction/hay-auction-results/. Fort Atkinson auction is at http://www.fortatkinsonhay.com/

The Farmer to Farmer website is an electronic neighborhood bulletin board that allows local farmers to get in touch with one another to facilitate the marketing of feed commodities. It has recently been expanded to connect those with productive pastures to those producers who are in need of pastures. It can be found at http://farmertofarmer.uwex.edu/. If you would like assistance posting to this web site, contact your county's UW-Extension agriculture agent.

Grain Harvesting

Joe Lauer, UW-Extension Corn Specialist

Corn Grain Drydown

By early to mid October, dry-down rates will usually drop to 1/2-3/4% per day (from rates of up to 1% per day in September when drying conditions are usually more favorable). By late October to early November, field dry down rates will usually drop to 1/4-1/2% per day and by mid November, probably 0-1/4% per day. By late November, drying rates will be negligible.ber, probably 0-1/4% per day. By late November, drying rates will be negligible.

Estimating dry down rates can also be considered in terms of Growing Degree units (GDUs). Generally, it takes 30 GDU to lower grain moisture each point from 30% down to 25%. Drying from 25-20% requires about 45 GDUs per point of moisture. In October, we accumulate about 5-10 GDUs per day. However, note that the above estimates are based on generalizations, and it is likely that some hybrids vary from this pattern of drydown.

During a warm, dry fall, grain moisture loss per day ranged from 0.76-0.92%. During a cool, wet fall, grain moisture loss per day ranged from 0.32-0.35%. Grain moisture losses based on GDUs ranged from 24-29 GDUs per percentage point of moisture (i.e., a loss of one percentage point of grain moisture per 24-29 GDUs) under warm dry fall conditions, whereas under cool wet fall conditions, moisture loss ranged from 20-22 GDUs. The number of GUDs associated with grain moisture loss was lower under cool, wet conditions than under warm, dry conditions.

Agronomists generally recommend that harvesting corn for dry grain storage should begin at about 24-25% grain moisture. Allowing corn to field dry below 20% risks yield losses from stalk lodging, ear rots, insect feeding damage and wildlife damage. Be prepared for localized root lodging and stalk lodging that may slow harvest and contribute to yield losses.

Kernel Moisture Ranges (%)

1. 33-35% Plant moisture = Silage harvest
2. 29-32% Kernel moisture = High Moisture Corn (High Moisture Ear Corn and High Moisture Shelled Corn) - ensiled
3. 25-26% Kernel moisture = Ideal for combining
4. 20-23% Kernel moisture = Ideal for picking
5. Below 20% kernel moisture = field losses increase, but cost of drying shell corn is reduced

Use your time in combine seat to scout fields

Harvest provides an opportunity to scout your fields. As you travel through the field, you can observe various types of problems that may have occurred during the growing season. Weeds that were not controlled would be one of the most obvious problems that will show up. With the increase in weeds that are resistant to various herbicide classes, it is important to identify these problems as early as possible in order to control them as early as possible to control increases in populations and movement of the weed. This may also provide some opportunity to begin managing the problem this fall.

Insect and disease problems can also be detected in the fall. Note if particular varieties seem more susceptible to an insect or disease. If one variety or hybrid seems to be more susceptible to disease pressure or insect pressure, then this information could be used in variety or hybrid selection for next year. If all hybrids or varieties are affected similarly, then the cause of the problem needs to be identified to aid in selecting management options for next years crop.

To assessing lodging potential use either the pinch test or the push test to check for stalk integrity. Conduct the pinch test by squeezing the second or third internode above the ground. If it collapses, stalk quality is compromised. The push test is performed by pushing a corn stalk to approximately 45 degree angle. If it breaks, stalk quality has been reduced. If 10 percent of the stalks tested show poor stalk quality or lodge at the root, then these fields should be harvested earlier.

Combine settings

Read you operators manual thoroughly for detailed settings for you specific combine model. Attend combine clinics to learn fine-tuning methods from other combine operators. With proper adjustment, a quality crop can be harvested.

Corn Harvesting Losses

Pre-harvest Losses

- Hybrid
    - Ear droppage: One ear (3/4 pound each) in each 1/100 of an acre is equivalent to one bushel per acre. To determine 1/100 of an acre, take the normal 1/1,000 acre distance times ten. For example, in 30" rows, 1/1000 of an acre is 17' 5"; 1/100 acre would be that distance across ten rows. For each ear in that area, there is one bushel per acre loss.
    - Maturity
- Weather
- Timeliness

Gathering Losses: grain that does not get into combine

- Shatter losses caused by the header: count the number of ears and kernels under the header. Two kernels per square foot are equal to one bushel per acre of loss. More than a half bushel per acre (or one kernel per square foot average) indicates adjustments would be appropriate.
- stubble losses
- stalk losses
- lodged plants

Machine Losses

- Improper adjustment of threshing, separating and cleaning sections
- Threshing loss is indicated by kernels attached to pieces of cob behind the combine. These were not shelled by the rotor or cylinder.
- Separating losses are additional loose kernels on the ground behind the combine. These were not shaken out of the cobs and husks and were lost over the back of the separator.

How to Measure Losses

1. Determine average loose kernel loss and cylinder/rotor loss
    - **every 2 kernels per square foot = 1 bushel per acre**
    - Kernel still attached to cob = cylinder/rotor loss
    - Acceptable level = 1.2 to 3 kernels per square foot
2. Determine machine ear loss
    - Behind combine, gather all ears on 1/100 acre
    - In front of combine, determine pre-harvest ear loss in standing corn on 1/100 acre
    - Subtract pre-harvest ear loss from ear loss at the rear of machine
    - **each 3/4 pound ear = 1 bushel per acre**
    - **each 1/2 pound ear = 2/3 bushel per acre**
    - Acceptable level = 0 to 1.0 bushels per acre
3. Typical level = 0.6 to 2.5 bushels per acre: **Can you limit your total field loss to less than a half bushel per acre?** That would place you and your combine in the top ten percent.

http://corn.agronomy.wisc.edu/Management/L032.aspx

Body Condition Scoring of Beef Cattle

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Body condition scoring (BCS) is the numerical (1-9) scoring system that visually evaluates the amount of condition (subcutaneous fat) an animal is carrying. It is an evaluation of the nutritional status of an animal. Body condition scoring allows you to coordinate feed resources with animals that need supplemental feed or restrict intake in those animals that need less feed. Most Midwest cattle herds maintain BCS ranging between 4-7. Most producers use a modified system that categorizes animals as thin, moderate, or heavy.

Why should I monitor body condition?

Body condition scoring is an easy process that anyone can learn to do. Monitoring BCS can help you ensure that each animal is getting adequate nutrition. Body condition is an indicator of the nutritional status of each animal. Low BCS in cows leads to longer calving intervals, which in turn leads to decreased income per cow.

Body Condition in Cows Affects

- Calving interval (longer post-partum interval)
- Lactation performance
- Pregnancy rate
- Health/vigor of calf
- Supplemental feed costs
- Dystocia in heifers

Strategic times to body condition score

60 days prior to weaning: make early weaning decisions if cows are thin

Weaning: heifers & older cows may have trouble gaining, keep watch to ensure there is condition gain

100 days prior to calving: last chance to gain condition in a reasonable manner

Calving: thin cows need to gain, but gain will be expensive at this point since nutrient demand is the highest at this stage of production

Breeding: thin cows need to gain, but gain will still be expensive; you will lengthen the breeding season by having to gain at this stage

Strategic locations to evaluate body condition

When determining body condition, there are several areas to evaluate including the brisket, ribs, backbone, flank, hips, and tail head. As cattle lay down fat, they tend to follow a certain order. First fat is laid on the back and loin area (1), followed by the ribs (2). Next to fill in will be the tail head area (3) followed by the brisket area (4) getting filled in with fat. After the brisket, the flank (5) will fill in, then the vulva/rectal region will flesh out. Once all of these areas have filled in, fat will accumulate in the udder and mammary region. To help you distinguish differences between scores, refer to the chart at the right for what you should be seeing in various parts of the animal when checking for condition.

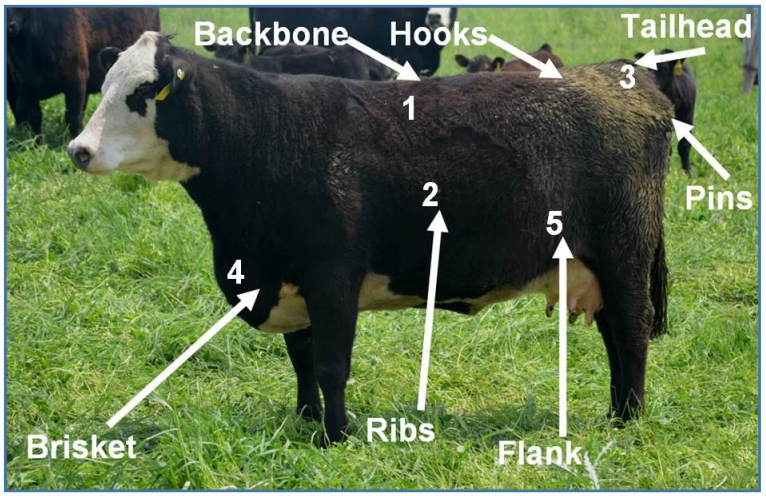

Photo ©Lyssa Seefeldt

	Body Condition Score					
	3	4	5	6	7	8
Fat in brisket and flank	No	No	No	Some	Full	Full
Outline of ribs visible	All	3 to 5	1 to 2	0	0	0
Outline of spine visible	Yes	Slight	No	No	No	No
Outline of hip visible	Yes	Yes	Yes	Yes	Slight	No
Fat udder and tailhead	No	No	No	No	No	Slight

Reference points for body condition scoring cattle.
Adapted from Momont, P.A. and R.J. Pruitt, 1998. Condition scoring of beef cattle. Cow-Calf Management Guide and Cattle Producer's Library. CL-720.

Body Condition Scoring of Beef Cattle

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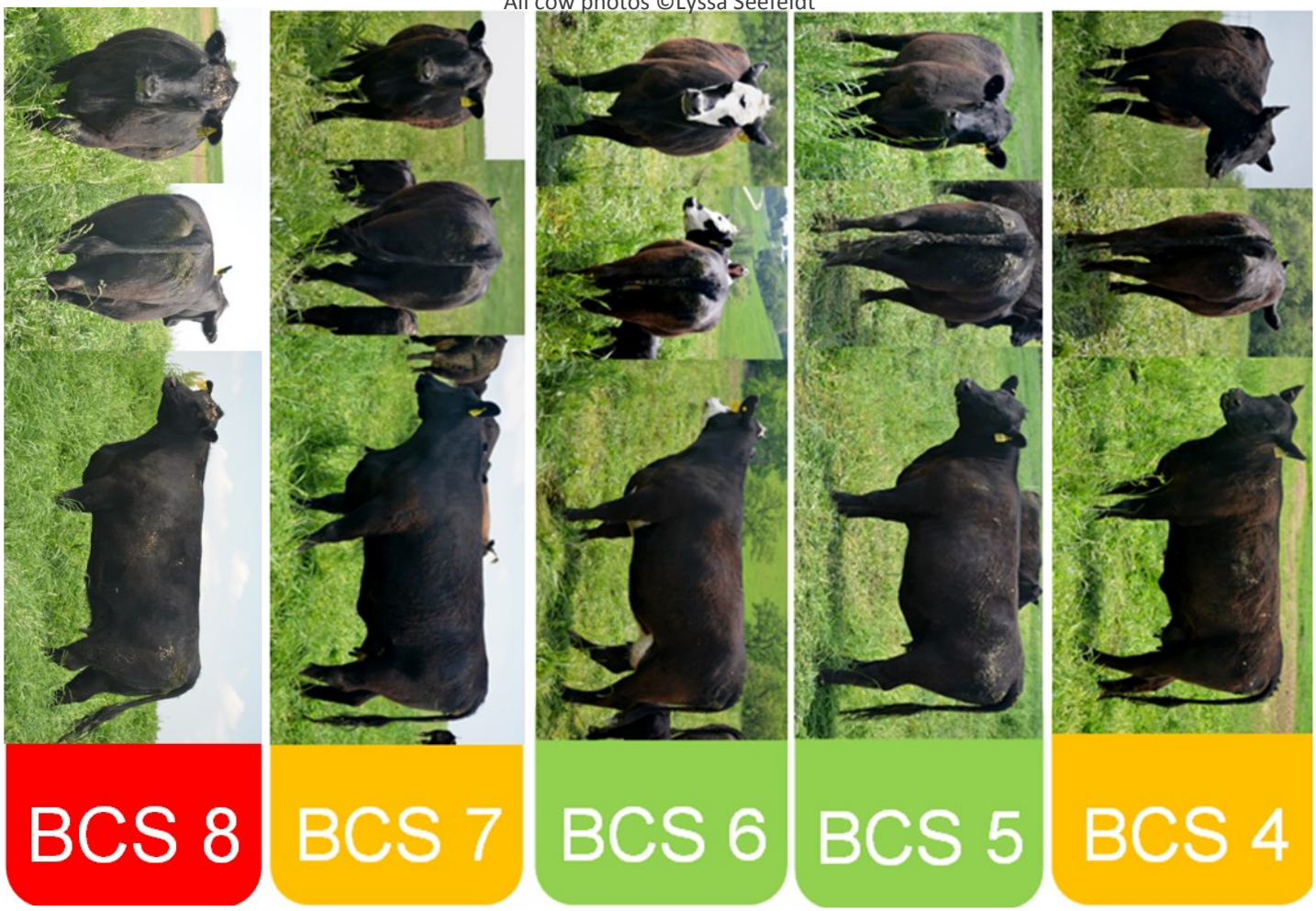
All cow photos ©Lyssa Seefeldt



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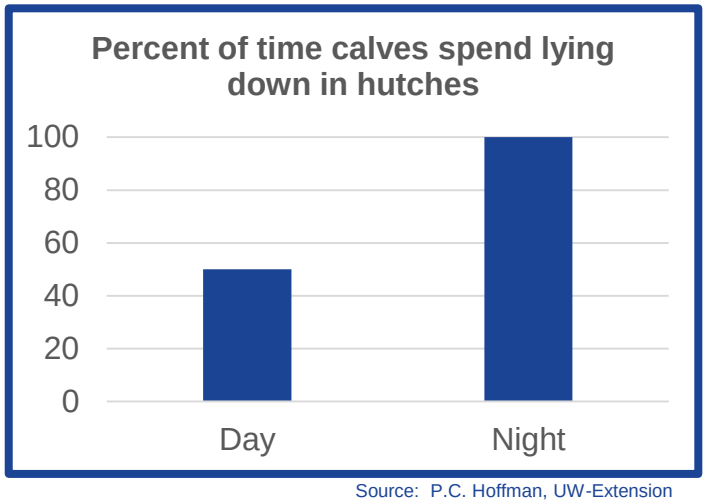
Bedding Comfort

Providing an excellent environment is a key component in successfully raising calves. For calf housing, the environment includes the calf's resting space, feeding and walking surface.

Research shows young calves spend most of their time lying down, making the quality of the resting surface critical. A clean, dry resting surface ensures a hair coat that helps insulates the calf against the cold ground, low air temperatures, and sudden changes in temperature.



Source: P.C. Hoffman, UW-Extension

Knee Test for Comfort & Cleanliness

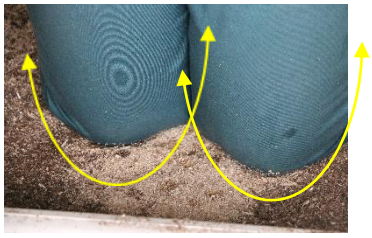


Photo courtesy of J. Patton

Test 1: Kneel on bedded surface, rocking back and forth to see if pressure is comfortable to knee. Does it feel comfortable?

- ✓ If yes, proceed to Test 2
- ✓ If no, add additional bedding. Repeat Test 1.

Photo courtesy of J. Patton

Test 2: From a standing position, bend your knees and drop quickly to the bedded surface. Does the impact feel comfortable?

- ✓ If yes, proceed to Test 3.
- ✓ If no, add additional bedding. Repeat Test 2.

Photo courtesy of J. Patton

Test 3: Check you knees. Are they dry or are they wet?

- ✓ If dry, the test is complete. Calf bedding acceptable.
- ✓ If wet, clean pen and/or provide additional dry bedding. Repeat Test 3.

Originally developed by UW-Extension Oconto County Agriculture Agent Sarah Mills-Lloyd & Fond du Lac County Dairy & Livestock Agent Tina Kohlman for the Nestlé Dairy Farming Institute Curriculum, and adapted for UW-Extension Dairy Team Heifer Blueprints. Photo credits: Shawano County Agriculture Agent Jamie Patton.

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Bedding Comfort

"A calf can stand a good deal of cold weather if it is dry and protected from drafts."

-Agricultural Experiment Station Circular, July 1931

Photo courtesy of T. Kohlman

Cold Weather Comfort

- A dry place to lie
- Plenty of clean, dry bedding
- Plenty of fresh air
- No cold air drafts
- Minimum frost or condensation during very cold weather

Ideal Bedding

- Provide a good base to:
  - Soak up liquid
  - Provide insulation
  - Allow nesting
- 20-25 pounds of bedding per calf
- 2-3 pounds additional bedding per day

Nesting Scores for Cold Weather

Photo courtesy of S. Mills-Lloyd

Nesting Score 1
Legs are <u>entirely visible</u> when lying down.

Photo courtesy of S. Mills-Lloyd

Nesting Score 2
Legs are <u>partially visible</u> when lying down.

Photo courtesy of A. Bjurstrom

Nesting Score 3
Legs are <u>not visible</u> when laying down.

Originally developed by UW-Extension Oconto County Agriculture Agent Sarah Mills-Lloyd & Fond du Lac County Dairy & Livestock Agent Tina Kohlman for the Nestlé Dairy Farming Institute Curriculum, and adapted for UW-Extension Dairy Team Heifer Blueprints.