

March 2018



# From Field to Barn

## UW-Extension Fond du Lac County

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**Ann Kaiser**         **Kelly Lamb**

Requests for reasonable accommodations for disabilities or limitations should be made prior to the date of the program or activity for which it is needed. Please do so as early as possible prior to the program or activity so that proper arrangements can be made.

Lower milk prices may cause stress, both financially and emotionally. Farmers are resilient individuals. Remember **“tough times don’t last: tough people do”**. Working harder will not improve the milk price, only working smarter. Don’t let the stressors stockpile, plan ahead! Review your best management practices with your team of consultants to review where the expenses can be reduced without compromising milk production or crop yield. When it comes to production, make sure the investment counts when it comes to improving yield or minimizing diseases. UW-Extension can help facilitate team meetings to ensure use of time and function. Give us a call to assist you in team meetings. 🐮

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## It’s That Time of Year!

### Check Wisconsin’s Online Runoff Risk Advisory Forecast

[www.manureadvisorysystem.wi.gov](http://www.manureadvisorysystem.wi.gov)



**If it's RED  
Don't SPREAD**

Working together to keep manure out of lakes and streams



Don’t forget to check! It’s that time of year! February 1-March 31 is the high run-off season. It is very important to review your Nutrient Management Plan, restriction maps for managing applications, know where all setbacks are, and determine where you can safely haul manure if you have to during the next few months. Please take time to be safe and smart when applying manure!

If you have any questions, please contact Fond du Lac County Land & Water Conservation Department at 920.923.3033. 🐮

**Wisconsin’s Runoff Risk Advisory Forecast**

[www.manureadvisorysystem.wi.gov](http://www.manureadvisorysystem.wi.gov)

# Farm Succession: Gradual Transfer of Management to the Next Generation



As one farming generation slows down for retirement, the next generation is gearing up to take over the day-to-day operations of the farm business. However to get there, there will be a period of time, or transition, when both generations work together for the good of the farm business.

Many times when we consider farm succession, we focus on the transfer of labor and assets. The next generation often brings labor to the ongoing business, performing the daily tasks on the operation. We focus on utilizing business entities to transfer assets from the exiting generation to the next generation, but have you looked at the transfer of management?

Labor is often the easiest for one generation to transfer to the next generation. As the entering generation returns to the farm, they take on many of the day-to-day tasks on the operation including caring for the herd, milking, feeding, and running equipment. Over time they develop the knowledge and become more skilled in those tasks. However, for them to truly stay in the farm business, they will want, and need, a more active role in making day-to-day decisions.

Retiring farmers have invested the better part of their lives developing a successful farm business. Because of this, it may be more difficult to let go of many of the farm management decisions.

Issues of who controls management can be a barrier in a farm succession plan. The transfer of management can

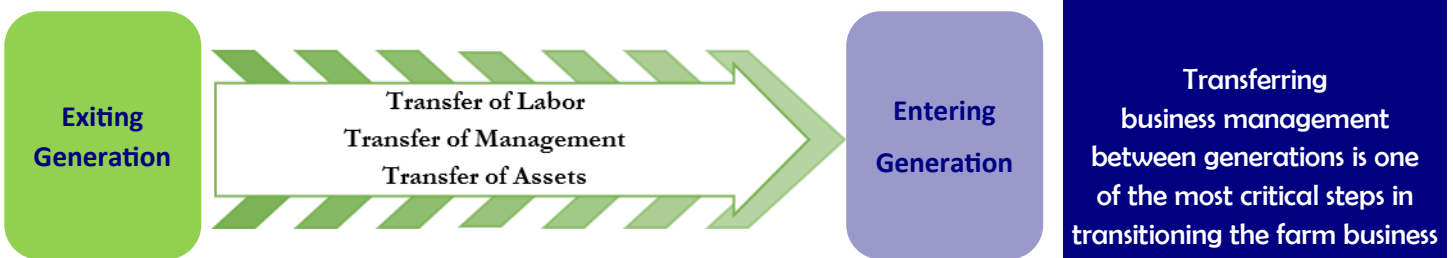
not occur if the exiting generation is constantly in charge, planning or making decisions for the farm business.

Transferring management of the farm business is a difficult decision as it means the exiting generation is letting go of control of the farm business. Many factors impact the success of transferring management to the next generation. One main factor is letting go, is the exiting generation ready? Is the entering generation ready to take on the responsibility?

Developing future managers is an investment in the farm business and takes time. In general the dad, or older generation, has made all the decisions regarding day to day management and financial decisions regarding the operation. As the next, or younger generation comes on to the farm, transfer of labor occurs. This transfer of labor allows the individual to gain skills and knowledge regarding the everyday tasks and management of the operation. As the next generation enters the farm business, the exiting generation must recognize their role in the development of the future manager. The business relationship can not be viewed as a parent-child or employer-employee relationship, but as a partnership. During the time of transition, use the opportunity to share knowledge and gain skills in decision making. Just as the previous generation did, the entering generation must be able to make mistakes and learn from them, with the guidance of the exiting generation.

What role do you plan to have during the transition period of farm succession from one generation to the next? 🐮

Source: Tina Kohlman, Dairy & Livestock Agent



Source: Adapted from D. Hofstrand. *The Farm Business Transfer Process*

# Mastitis Influences More Than Milk Quality

Reproduction and mastitis rank as some of the top issues dairy producers face when striving to foster animal health and manage profitable and sustainable dairy operations.

Former UW-Extension Milk Quality Specialist Pamela Ruegg shared four key reproduction-mastitis tenets:

- Intramammary infections (IMI) caused by different types of bacteria (Gram-positive and Gram-negative) stimulate the cow's immune system and these immune responses can result in reduced reproductive performance.
- The interval beginning immediately before breeding and continuing until confirmation of pregnancy is a critical period. Mastitis occurring during this time can result in significantly reduced breeding performance.
- Preventing mastitis is based on understanding the etiology and sources of IMI. Dairy producers should culture cases of mastitis and identify sources of initial exposures.
- Minimizing mastitis is an important step in improving fertility. Producers should apply best management practices to ensure hygienic milking, cow comfort and management of high-risk (mastitis) cows during transition and early lactation.

Reduced exposure to mastitis pathogens combined with management strategies that result in optimal immune function to cure IMI are critical for ensuring successful breeding programs.

-Pam Ruegg

Managing mastitis requires using accurate detection and recording systems – for both subclinical and clinical cases. Monthly somatic cell count (SCC) testing is the most common method for detecting subclinical mastitis. Thus, removing foremilk prior to attaching the milking unit is a key step to identify cows with clinical mastitis.

## Culture milk to find pathogen

On most modern dairy farms, subclinical mastitis is primarily caused by Gram-positive organisms (such as environmental Streptococci or Coagulase-negative staphylococci [CNS]), whereas the greatest proportion of milk samples from clinical cases are culture-negative or Gram-negative.

Increased use of milk culturing to direct mastitis control programs is recommended. When results of milk cultures are closely linked to treatment decisions, the value of culturing milk from cows with clinical mastitis is evident. This strategy supports effective and judicious use of antimicrobials.

Knowledge of etiology clarifies the potential impact of

mastitis on reproductive performance. Why? Stimulation of inflammation varies among pathogens. It is believed inflammatory responses to both Gram-positive and Gram-negative bacteria can be associated with embryonic losses through inflammatory products and fever.

## Mastitis reduces repro performance

Numerous studies associate mastitis with reduced reproductive performance, including reductions in frequency of natural estrus, reduced conception rates and increased pregnancy loss. The period when mastitis occurs is important relative to fertility. The most critical period is immediately before and after breeding. Both subclinical and clinical mastitis have been associated with reduced reproductive performance.


Schrick et al. (2001) found cows experiencing either subclinical or clinical mastitis before breeding had increased days to first service, days open and services per conception, compared with healthy cows. The mastitis severity level correlated with reproduction success. As mastitis symptoms progressed from subclinical to clinical,

during the interval between first insemination and pregnancy examination, fertility diminished.

Similarly, increased SCC before or after artificial insemination (AI), strongly correlates with decreased reproductive performance. The effect increases as SCC rises. Furthermore, they found a single SCC >1,000,000 cells/mL event during the 10-day period before AI resulted in significantly decreased probability of conception.

## SCC level correlates with pregnancy rate

For cows affected by subclinical mastitis, the probability of AI leading to pregnancy decreased 18 percent for cows with SCC between 200,000 and 399,000 cells/mL (from 1 to 30 days post AI), whereas the probability decreased almost 26 percent when SCC exceeded 399,000 cells/mL.

A study looked at the combined effect of severity and pathogen type, and looked at associations between occurrence and severity of clinical and subclinical mastitis during a defined breeding risk period (BRP, 3 days before to 32 days after AI) on pregnancies per AI at first service (P/AI). Pregnancy outcomes were highly associated with occurrence of mastitis. Compared with healthy cows, the odds of pregnancy were reduced by 40 percent, 30 percent, and 20 percent for cows with chronic clinical mastitis, clinical mastitis or subclinical mastitis during BRP, respectively. 

*Adapted from Dairy Cattle Reproduction Council February 2018 Newsletter*



# Keep Stored Grain Cool During Spring & Summer

Keeping stored grain cool is important as outdoor temperatures fluctuate and eventually start to warm this spring, a North Dakota State University Extension Service grain storage expert advises.

“Not only will daytime temperatures be increasing, but the bin works as a solar collector,” Extension agricultural engineer Ken Hellevang says.

More heating occurs on the south wall of a grain bin on March 1 than during the middle of the summer.

“This heats the grain next to the bin wall to temperatures exceeding average outside temperatures,” Hellevang says. “This is of more concern if the grain exceeds recommended storage moisture contents.”

He recommends producers run the aeration fans periodically during the spring to keep the grain temperature cool, preferably near 30 degrees F in the northern part of the country during March and April, and below 40 degrees F in southern regions. Nighttime temperatures typically are near or below 30 degrees F in March and below 40 degrees F in April across the north-central region of the U.S.

“Temperature sensors are an excellent tool, but remember that they only measure the temperature of the grain next to the sensor,” Hellevang says. “Because grain is an excellent insulator, the grain temperature may be much different just a few feet from the sensor and not affect the measured temperature.”

Hellevang encourages placing a temperature cable a few feet from the south wall of a bin.

Aeration fans or ducts should be covered when not operating. The wind and a natural chimney effect will push warm, moist, spring air through the grain. If the wind blows primarily during the daytime, the grain will be warmed to the daily maximum temperature. Typical maximum temperatures, even in northern states in late March, are in the mid-40s and increase in late April to around 60 degrees F. Also, grain moisture will increase as the grain is warmed.

“The goal for summer storage should be to keep the grain as cool as possible to limit insect activity,” Hellevang says. “Insect reproduction is reduced at temperatures below about 60 degrees F.”

Provide an air inlet near the bin roof eave and an outlet near the peak to reduce the hot air in the top of the bin. Similar to venting an attic, the heated air rises and is exhausted at the peak. A ventilation fan to exhaust the hot air is another option. Hot air under the bin roof will heat several feet of grain at the top of the bin to temperatures conducive for insect infestations.

Running the aeration fan for a few hours to push air up through the cool stored grain will cool grain near the top. Pick a cool morning every two to three weeks during the summer to run the aeration fan, and only run the fan a few hours to minimize heating grain at the bottom of the bin. Cover the fan when it is not operating to prevent additional heating of the grain.

Having grain at an appropriate warm-season storage moisture content is very important to store grain safely during the summer, according to Hellevang. The maximum moisture content for warm-season storage is 13 to 14 percent for corn, 11 percent for soybeans, 13.5 percent for wheat, 12 percent for barley, and 8 percent for oil sunflowers.


Mold growth will occur at summer temperatures if the grain exceeds the recommended moisture content. The allowable storage time for 15 percent moisture corn is only about four months at 70 degrees and two months at 80 degrees.

Checking the grain moisture content is important because moisture measurements at harvest may have been in error due to moisture gradients in the kernel, grain temperature, and other factors. In addition, the moisture may have changed while the grain was in storage due to moisture migration or moisture entering the bin.

When checking the moisture content, follow the moisture meter manufacturer’s procedure for obtaining an accurate moisture measurement. Temperature adjustments, cold grain, inaccurate sample quantity, and moisture variations across the kernel frequently cause substantial measurement errors.

Verify the accuracy of the measurement by warming the grain sample to room temperature in a sealed plastic bag before measuring the moisture content. A period of six to 12 hours in a sealed container also permits grain moisture to reach equilibrium across the kernels. Also, compare the on-farm measured value to that of the sample using a meter at the elevator or other market location.

Hellevang suggests checking the stored grain at least every two weeks. While checking on the grain, measure and record the grain temperature and moisture content. Rising grain temperature may indicate insect or mold problems. Insect infestations can increase from being barely noticeable to major infestations in three to four weeks when the grain is warm.

“Grain temperature cables are a wonderful tool, but do not rely on them to replace inspecting for insects or crusting and detecting odors or other indicators of storage problems,” he says. 

*Source: North Dakota State University*

# From the Desk of Dr. Loretta

**What is the latest on Industrial Hemp?** A new article called Wisconsin Industrial Hemp Production: A basic FAQ guide for growing an old crop in a new era gives a timeframe for the current rules that the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) is writing. It also discusses Agronomic considerations for growing the crop and provides resources.

Please click to view more information on: [Wisconsin Industrial Hemp Production: A basic FAQ guide for growing an old crop in a new era.](#)

## Farmers for Healthy Soil-Healthy Water (HSHW)

The Farmers for Healthy Soil-Healthy Water (HSHW) received a grant that allows them to offer an incentive program for planting cover crops. This funding comes from the Wisconsin Department of Agriculture Trade and Consumer Protection (DATCP), with some funding also coming from the Lake Sinissippi Improvement District and the Beaver Dam Lake Improvement Association. Acres with a successfully established cover crop will receive \$20.00/acre. Participating farmers, must match 1:1 (pay for, plant, and successfully establish) 1 acre for every acre of covers getting an incentive payment. Only acres in Dodge County will be eligible to receive payment from HSHW. If you farm land in Dodge County, those Dodge County acres are eligible.

Please see the enclosed Dodge County Farmers for Healthy Soil-Healthy Water Cover Crop Incentive Program (CCIP) Application Guidelines and application form.

## Healthy Soil-Healthy Water Series of Educational Events

The Dodge County Healthy Soil-Healthy Water Workshop was hosted by the Dodge County Farmers for Healthy Soil-Healthy Water group in partnership with the Dodge County Alliance (UW-Extension, Land & Water Conservation, Farm Bureau, DNR, and 3 lake associations). Approximately, 175 participants (including several from Fond du Lac County) attended the Feb. 7<sup>th</sup> workshop, where nine local farmers shared their methods for establishing cover crops by frost-seeding, seeding after wheat, interseeding, or fall seeding methods. Plus, Ray Archuleta, aka “the Soil Guy,” and Justin Morris, provided a deeper understanding of how healthy soil equaled more benefits for your farm. Farmers who shared their experiences and success stories using covers were Jeff Gaska, Dale Macheel, Marty Weiss, David Roche, Jordan

Crave, and Tony Peirick. In addition, Dr. Loretta Ortiz-Ribbing discussed results from the 2017 on-farm cover crop trials conducted in Dodge County (Photo 1).

At this meeting, the Farmers for Healthy Soil-Healthy Water announced their cover crop incentive program which is funded by the Wisconsin Department of Agriculture Trade, and Consumer Protection (DATCP) with some funding also coming from the Lake Sinissippi Improvement District and the Beaver Dam Lake Improvement Association. **More details about this cost sharing program is contained in this newsletter.**



*Ray Archuleta explains soil healthy concepts at the Healthy Soil-Healthy Water Workshop. Photo credit: Bill Boettge*

**SAVE OUR LAKES II** once again, an evening program, was held and attended by about 58 people to hear dynamic presentations from local farmers, UW-Extension, DNR, and Ray Archuleta regarding agricultural practices that are helping reduce sediment and nutrient runoff into our lakes and rivers. This event was organized by the Beaver Dam Lake Improvement Association, Fox Lake Inland Lake Protection & Rehabilitation District, and Lake Sinissippi Improvement District.



*Mike Sorge (DNR) explains history of producer led efforts. Photo credit: Bill Boettge*



*Photo credit: Bill Boettge*

## Follow-up at the Farm Shop

Day two of the Healthy Soil-Healthy Water workshop series was hosted by Joe and Jacob Condon. About 95 people (including several from Fond du Lac) attended to learn from Jordan Crave and Charlie Hammer about using covers in manure systems. Ricky Kratz, Brendon Blank, and Dr. Loretta discussed species selection, benefits, and biomass results from their 2017 cover crop species demonstration trial. Justin Morris used a rainfall simulator to illustrate how rainfall infiltrates or runs off bare soil compared to those with pasture grass or cover crops.



Fond du Lac County

227 ADMINISTRATION/EXTENSION BUILDING  
400 UNIVERSITY DRIVE  
FOND DU LAC WI, 54935

NON-PROFIT ORGANIZATION  
US POSTAGE PAID  
FOND DU LAC WI 54935  
PERMIT 110

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## Mark Your Calendars for Up Coming Agricultural Events

### March 2018

- 14-15 PDPW Annual Business Meeting & Conference | Alliant Energy Center, Madison
- 19 M Fond du Lac County Market Livestock Project Orientation | 7:00 pm | Prairie Theater, UW-Fond du Lac
- 20 Tu WI Dairy & Beef Cattle Well-Being Pre-Conference for dairy workers | 9:30 am to 3:00 pm | Tundra Lodge, Green Bay
- 21 W WI Dairy & Beef Cattle Well-Being Conference | 9:30 am to 3:00 pm | Tundra Lodge, Green Bay
- 27-29 WPS Farm Show | Oshkosh
- 29 Th Spring Grazing Conference | 9:30 am to 3:30 pm | Randolph Community Center, Randolph

### April 2018

- 5 Th Heart of the Farm - Farm Women's Meeting | 9:30 am to 3:00 pm | Millhome Supper Club, Kiel
- 16 M Fond du Lac County Market Livestock Sale Sheep & Meat Goat Initial Weigh-in | 5:00 pm to 7:00 pm | Fond du Lac County Fair Grounds
- 16 M Fond du Lac County Market Livestock Sale Swine Identification Forms Due | UW-Extension Fond du lac County
- 16 M Fond du Lac County Jr Dairy State Fair Planning Meeting | 7:30 pm | UW-Extension Fond du Lac County

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Visit us on the web at <http://fyi.uwex.edu/fdlag>

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