



Fall 2024

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When transporting cows

- Milk all lactating dairy cows just before transporting to market
- Minimize the number of times cattle need to be handled during transport
- Do not transport animals with distended udders causing pain and ambulatory issues

When transporting calves

- Ensure proper colostrum consumption
- Proper identification
- Vaccinate
- Proper navel care

**Infographic adapted from the American Association of Bovine Practitioners



The Farmers Assuring Responsible Management (FARM) Animal Care program helps American dairy farms demonstrate their dedication to providing high quality animal care. Version 5 of the program started on July 1, 2024.

Minor updates to FARM 5.0

- Adequate, quality colostrum must be fed to calves in a timely manner.
- Pain management must be provided (req met within 9 mo) when disbudding calves. Approved methods include cautery (hot iron) or caustic paste.
- Continued education maintains importance and must be met within 9 months of evaluation for all employees and family members.
- Euthanasia protocols should identify trained individuals and a method for death confirmation.



Are my dairy cows and calves fit for transport?

Aerica Bjurstrom
Regional Dairy Educator

Importance of fitness for transport

- Ensure survival of animal to the final destination
- Carcass quality for market cows
- Reduce long-term health issues and stress
- Ensure consumer safety

DO NOT TRANSPORT AMBULATORY ANIMALS WITH:

 Cancer eye or blindness in both eyes	 Fever greater than 103F	 Drug residues	 Peritonitis	 Bone fractures or lameness (4 or 5 on a 5-point scale)
 Unreduced prolapse	 Cows calving or high likelihood calving during transport	 Suspected nervous system symptoms	 Visible open wounds	

WHEN TRANSPORTING COWS

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WHEN TRANSPORTING CALVES

- ✓ Ensure proper colostrum consumption
- ✓ Proper identification
- ✓ Vaccinate
- ✓ Proper navel care

Learn more at <https://dairy.extension.wisc.edu>
An EEO/AA employer, University of Wisconsin-Madison Division of Extension provides equal opportunities in employment and programming, including Title VI, Title IX, the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act requirements.

DATCP Dairy Survey

In May 2024, DATCP mailed 5,419 surveys to dairy farmers across Wisconsin using a list obtained from DATCP's Division of Food Safety. We received 1,611 responses, resulting in a response rate of 30%. The tables below are a summary of good responses. Not every respondent answered every question, so totals may not add to 1,611 and may vary between the herd size and region tables. Because we do not know how non-respondents would have responded, we cannot generalize the survey results to all dairy farmers in Wisconsin. In the following tables, "Herd Size" refers to the number of cows currently being milked. In the 2020 Dairy Producer Survey, "Herd Size" included cows being milked and dry cows.

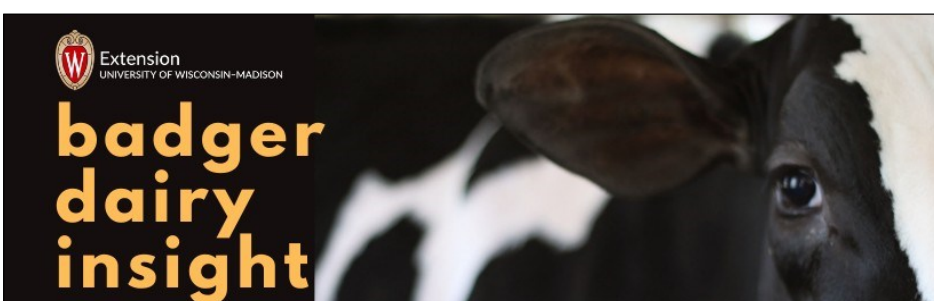
Visit the link below for the full survey.
<https://datcp.wi.gov/Documents2/DairySurvey2024.pdf>

SAVE THE DATE

2025 Breakfast on the Farm

Sunday, June 15, 2025

EL-NA Farms. Algoma



Join the University of Wisconsin-Madison – Division of Extension's Dairy Program on the third Tuesday of each month from 11am-12 pm CST for the Badger Dairy Insight webinar series. New this year we are switching our webinars to a monthly platform. We are featuring your local Extension Dairy Program Educators and UW Specialists as they present on current dairy topics. Take the opportunity to learn from and discuss with experts on the dates below.

There is no charge to participate in the sessions, however pre-registration is required to allow access.

All webinars will be the third Tuesday of the month at 11:00 AM.

- November**—Reducing enteric methane emissions in US Holstein cows
- December**—Feeding dairy cows to reduce methane emissions
- January**—Ready, set, go: Are your calves fit for transport?
- February**—New technologies in dairy farming and update on the newly launched Smart Farm

For a full list of upcoming webinars and to register, visit <https://dairy.extension.wisc.edu/badger-dairy-insight/>



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Raising calves that thrive in the winter

How to help calves stay warm and healthy in winter

Calves must be born in a very clean, dry environment

Calves are born with only three to four percent body fat. They are also born with a special layer of fat called brown fat. Brown fat's only purpose is to release energy as heat. To prevent using all the fat within a few hours of birth, dry off calves rapidly.

The calving area should also be draft free. Warming boxes or rooms should be considered if calving in outside cold facilities. Four quarts of colostrum should be fed as soon as possible after birth to provide passive immunity and nutrients to the newborn calf.

Increase nutrition

In cold weather, calves need more energy just to maintain body temperature. This is particularly important during the first three weeks after birth, before calves consume much calf starter. Once calves consume starter and begin to ruminate, heat produced by feed digestion helps keep calves warm.

Unless calves are already consuming eight or more quarts of high quality milk replacer or whole milk per day, consider increasing the amount of milk offered up to these levels or higher.

- Research shows this will not result in scours and the extra energy will allow calves to better fight off disease.
- Increase the number of feedings per day from two to three or increase the amount of liquid at each feeding.
- Do not just increase the amount of milk replace powder in the same amount of water. This has the potential to cause dehydration, especially if water access is limited.
- Feed milk at 105 degrees Fahrenheit.
 - Milk can cool rapidly during extreme cold.
 - Adjust the initial temperature to achieve a milk feeding temperature of 105 degrees.

Calf blankets

Wearing blankets in cold weather helps keep calves warm.

Canadian research shows that when calves were housed at a temperature of zero to -22 degrees Fahrenheit, blankets provided a 52% increase in whole animal insulation.

Warm water

- Offer calves warm water daily. This can be a challenge in our winter climate.
- Drinking water stimulates consumption of grain that promotes rumen development.
- Consider offering warm water after calves are finished with their milk.
 - After 10 minutes, empty the water from the pails before it freezes.
 - Another option is to offer warm water other times during the day.

Clean, dry bedding

- Provide lots of clean, dry bedding. Calves' hair coats provide excellent insulation if they are clean and dry.
- Kneel in the bedding. If your knee gets wet, the calf will also get damp when lying down.
- Deep bedding allows a calf to nest down in it and provide a barrier of warm air around itself.
 - Bed calves to a nesting score of three, where the calf is able to nestle deeply into the bedding material, and its legs are not visible.

Ventilation

- Most hutches have openings or vents to keep air fresh for the calves.
- If no air is circulated within the facility, there is an increased disease risk because heat and moisture can create an environment that is open to pathogen growth.
- Well-designed air tubes keep small amounts of fresh air distributed throughout the building without creating a draft.

Delay weaning

Delay weaning during extremely cold weather. Holstein calves can normally be weaned when consuming 1.5 to 2.0 pounds of starter for three consecutive days. However, since weaning is a stressful period, delaying weaning during extremely cold weather is recommended.

Written by James Salfer, Extension Dairy Educator, University of Minnesota Extension

The thermal neutral zone

A newborn calf's thermal neutral zone is between 60 and 77 degrees Fahrenheit. The thermal neutral zone is the temperature at which an animal is the most comfortable and extra energy is not required to maintain normal body temperature.



When environmental temperatures are below the thermal neutral zone, the calf uses energy just to maintain its body temperature. Even on a warm winter day of 40 degrees Fahrenheit, the maintenance requirement for calves younger than three weeks old is 40 percent higher than when temperatures are within the thermal neutral zone. At zero degrees, the maintenance requirement is about double.

Additional measures must be taken during the winter to help calves stay warm, healthy and continue to grow in the cold.

Six Common Traits of Top-Yielding Fields

With or without a yield monitor, the person driving the combine or forage harvester for many years can probably point out on a map where the best and worst yields consistently come from. What is happening to those areas of fields that consistently produce exceptional yields?



Many factors affect crop yield; only one of them is fertilizer. The six factors listed here have a strong relationship with consistently better-yielding areas of a farm field:

1. Optimal soil fertility. Soil tests typically are used to fertilize the soil for nitrogen, phosphorus and potassium. The management goal is to apply the right source of fertilizer or manure at the right rate, at the right time, in the right place so the crop has access to those nutrients as it progresses through key growth stages. For example, applying manure or fertilizer to very low or low soil test fields provides a 60% to 90% probability of yield increase.

2. Deep topsoil. Crops grown in deeper topsoil have a greater volume of soil where roots can explore for water and nutrients. When the soil depth allows crop roots to extend down 3 to 6 feet (alfalfa roots can reach depths up to 30 feet) without hitting soil compaction, hardpans, bedrock, high water tables or other root restrictions, better yields can be obtained.

3. High organic matter. Most farmland has soil organic matter that ranges from 1.5% to 6%. Organic matter is an easy metric for a farmer to track because it is always provided on current lab soil reports. Not all soil types have the same potential for organic matter. For example, organic matter of 1.8% is good for sand but would be very low for clay soil. Organic matter has a natural attraction to water and nutrients. It can absorb and hold as much as 90% of its weight in water, storing that water for the crop between rainfall or irrigation events or providing resilience during extreme weather (both flood and drought). Organic matter releases nearly all its stored water for the crop. In contrast, heavy clays can also hold high quantities of water, but much of it is held too tightly and the crop cannot access it.

4. Good drainage. Soil drainage is essential to crop production and management. Higher-yielding areas are usually never too wet or too dry. Either the field is blessed with a naturally well-drained soil type or a combination of cultural practices and tile are used. Tile drainage removes excess water, keeping the water table below the root zone when the soil is saturated.

5. Lack of slope. Another common feature of better-yielding areas is lack of slope. The length, steepness and direction of slope greatly influences crop management and production. Farmland with slope greater than 2% is usually subject to erosion. The steeper the land, the more erosion can occur, and more management is required for successful cropping. For example, on an easily erodible soil with no conservation practices, a slope from zero to 1% has a relative productivity of 95%. But as the slope increases to 5% to 8%, productivity drops 30%.

6. Ideal soil pH. Finally, optimal soil pH that both crops and soil organisms can access and cycle nutrients more efficiently. The optimal pH for most crops and soil is 6.5 to 7.0. Not only does this pH range make nutrients like phosphorus more available, but coupled with ideal temperature and moisture conditions, soil life including microorganisms and fungi can ramp up decomposition, nutrient recycling and nitrogen-fixing bacteria that increases N mineralization.

Many of the above characteristics are dependent on the soil Mother Nature blessed your farm with. This emphasizes the importance of keeping topsoil in your fields by stopping wind and water erosion, and "feeding your soil" with soil health practices. The five principles of soil health are:

- Maximize soil cover.
- Maximize presence of living roots.
- Maximize crop diversity.
- Minimize disturbance.
- Integrate livestock.

These five practices promote and support an ideal and healthy soil for your upcoming crop. Soil's importance to crop growth and yield can be summed up this way: "It's better to plant \$2 seed in a \$25 hole than \$25 seed in a \$2 hole."

Chris Clark is a certified crop adviser and a University of Wisconsin Extension nutrient and pest management outreach specialist for northeast Wisconsin.