Extension
UNIVERSITY OF WISCONSIN–MADISON

Summer 2022 Dairy Program

The University of Wisconsin – Division of Extension is moving to have Regional Dairy and Crops Educators across the state. These positions will provide research-based education to dairy and crop producers by assessing the needs of farmers in their region and designing and delivering educational programming and services to meet those needs.

Dairy and crop production are the largest agricultural industries in the state, and Regional Educators will offer specific expertise that can serve those industries across several counties.

Please feel free to reach out to your regional educators covering Barron, Pierce, Polk, and St. Croix Counties. The Regional Dairy Educator is **Ryan Sterry**, and the Regional Crops Educator is **Michael Geissinger.**

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Regional Dairy Educator
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We Want to Hear From You

What are the educational topics that would be of most value to your dairy farm enterprise? What are the challenges and opportunities you see in the next year and beyond? We want to hear from you as educational programs are scheduled in our new Regional model. Feel free to contact Michael and Ryan directly, or if you wish to remain anonymous, we have created a brief online dairy producer questionnaire at https://forms.gle/EvhczBBiCcd5h6Ar9

Alternative Forage Study

The University of Wisconsin Madison Division of Extension is looking for farms to participate in a research project involving alternative forages. Over the past several growing seasons forage shortages have become a challenge for many producers. Polar vortices and inconsistent snow cover have resulted in several years of alfalfa winterkill. Furthermore, frequent and heavy rains have delayed corn silage planting and harvest, creating forage quality and quantity issues. There has been an increase in planting of winter rye and winter triticale after corn silage as well as sorghum or other crop species to replace damaged alfalfa fields. While these alternative forages have helped increase the forage inventories of producers, there is a need for research based feeding guidelines and to better understand the economic implications of planting and harvesting these forages. The purpose of this research project is to collect data to help answer these questions.

The protocol for this study will involve collecting forage samples at the time of harvesting as well as one to three fermented samples during feed out. The samples should be labeled with farm name, date of sample, and species of forage. These samples will be analyzed for quality. Yield will also be measured with drive over scales where available or through estimates of storage inventories or in field measurements before harvest.

Data for the economic analysis of these forages will be collected by a survey completed by the producers participating in the study.

If you are a farmer that is growing an alternative forage such as winter rye, winter triticale, sorghum, or other species of forages besides corn silage and alfalfa and would like to participate in this study please contact Ryan at ryan.sterry@wisc.edu or 715-531-1950.

Pricing Standing Hay

An agreeable market value for any given alfalfa stand can vary tremendously. This year's pricing is further complicated by high grain, fuel, and fertilizer prices. That said, the three most significant factors to consider when determining the potential value for standing forage includes: **A)** Expected Dry Matter (DM) Yield in Tons per Acre, **B)** Estimated Value of a Ton of DM, and **C)** Harvesting Costs. These principles apply whether pricing a particular cutting or for the entire season.

When a drive-over scale is not available to measure yield, buyers and sellers need to estimate the potential DM yield based on stand density and cutting distribution as accurately as possible. The updated 2022 Determining the Value of Standing Alfalfa factsheet covers these topics in much greater detail (https://outagamie.extension.wisc.edu/files/2022/05/Determining-the-Value-of-Standing-Alfalfa-in-2022-Final.pdf). In short, an average of 55 stems per square foot is defined as not limiting alfalfa yield. Yield distribution varies with the number of cuttings expected and cutting number (Table 1). The Wisconsin Alfalfa Yield and Persistence (WAYP) program has tracked real-world alfalfa performance in Wisconsin for fifteen years. The WAYP program has observed yield ranges of less than 3.0 tons per acre to more than 6.0 tons per acre, with the most observed yield being 4.0-4.49 tons per acre per year.

The absence of daily price quotes for forages, such as those available for corn and soybeans, requires us to find other means to establish a price. We recommend starting with the Upper Midwest Hay Market Report. This Extension resource provides current auction prices for quality-tested hay per ton (https://cropsandsoils.extension.wisc.edu/hay-market-report/). A nice feature of this report is showing the range in prices based on forage quality.

Harvest costs can be estimated using the costs reported in the Wisconsin Custom Rate Guide 2020 at https://fyi.extension.wisc.edu/news/2021/05/12/2020-custom-rate-guide/ or the 2022 Iowa Farm Custom Rate Survey at https://www.extension.iastate.edu/agdm/crops/pdf/a3-10.pdf. As an example, one may spend $17 per acre cutting and conditioning the alfalfa, $14 per acre merging the alfalfa, and $55.00 per acre chopping, hauling, and filling an upright silo or a bunker silo (adjust your costs as needed) resulting in $86.00 per acre invested for each cutting. Your harvesting costs may be higher or lower than those cited here; however, these costs are used for this example. If you harvest four (4) cuttings, total harvest costs are $344.00/acre for the season ($86.00 X 4 cuttings = $344.00). If the buyer's harvesting costs are less, you can adjust downward. If the buyer’s harvesting costs are higher, you can adjust upward.

An important factor to remember is when you purchase an already harvested crop, you know (or can test for) its quality. When was the last time you successfully harvested all your alfalfa without any weather damage? Alfalfa purchased standing in the field has unknown quality until after harvesting due to weather risk, insect or disease pressure, advancing maturity, leaf shatter, and harvesting losses. When determining the final price, these factors need to be considered and accounted for. An adjustment of 25 percent to the value of the alfalfa standing in the field may be considered a reasonable method to further account for the buyer's risk. The buyer and seller can decide if they wish to use a factor other than 25%.

A short video discussing factors in pricing standing hay is available at https://youtu.be/gzpjlMtkpaI

Farm Technology Days

Roehl Acres & Rustic Occasions are hosting the 2022 Wisconsin Farm Technology Days from July 12-14. This Clark County farm, owned by the Dennis and Suzie Roehl family, is home to over 500 registered dairy cattle and 750 crop acres.

Are you breeding your dairy cattle to beef sires? Visit UW Madison Division of Extension Dairy and Livestock program educators at Farm Technology Days to learn about beef breeding options and calf care tips to enhance your opportunities to provide the beef cross calf markets and consumers' desire. Recent UW-Madison research demonstrating the benefits of paired calf housing will also be a featured topic, benefiting both dairy replacement heifer and beef x dairy calf growers.

For more information visit https://www.wifarmtechdays.org/

Heat Stress

With summer comes the heat and humidity. A successful dairy farm requires a healthy environment for cattle to thrive in; in the summertime, special care needs to be taken to ensure that calves, cows, and humans are not experiencing heat stress.

Extension provides strategies to prevent heat stress and improve the welfare of your cattle. Learn about techniques and tools to reduce or abate heat stress in cattle and what impact heat stress has on developing heifers. Use production records from data management software, such as Dairy Comp 305 and Bovisync, to identify times of heat stress to intervene early before production drops significantly. In addition, there is feed management information and nutritional strategies to best manage through the summer heat. There are also tips that address the human side of avoiding heat stress while working on the farm.

Articles, videos, and Spanish translation heat stress resources can be found on our Extension Dairy website at https://dairy.extension.wisc.edu/article-program/heat-stress/ or by contacting Ryan.

How To Avoid The Risks Of Heat Stress in Dairy Farm Workers

By John Shutske, Maria Fuenzalida Valenzuela and Jim Versweyveld

Each summer, dairy farm producers and their employees work through days of extreme heat and humidity – often starting in May or June and continuing into September. While we certainly need to protect our dairy cattle during these hot days, it is also an important time to be conscious of how to protect ourselves and our dairy farm workers during summer heat.

Heat-related illness can develop quickly and progress to deadly stages. Heat exhaustion – an early stage of heat-related illness – can turn into heatstroke. A significant percentage of people who develop heatstroke will die. Several studies suggest that high body temperature from working in the heat can impair a person’s ability to think correctly and make complex decisions. Heat can also slow down a person’s reaction time.

It is difficult to give a specific temperature or humidity level that will “warn” farm workers of unsafe conditions. During physical activities, the body generates heat. During intense activities, farm workers can have a hard time cooling themselves. Exposure to direct sunlight also raises body temperature. A person’s ability to stay cool also depends on clothing, conditioning to heat and humidity, and level of health and fitness; air movement will also impact the ability to cool oneself.

What are the Signs of Heat Stress?

Here are a few indicators of heat-related illness and recommendations for treatment from the American Red Cross:

Heat exhaustion: Symptoms are cool, moist, pale, or flushed skin with heavy sweating, headache, nausea, or vomiting, dizziness, and exhaustion. A person with heat exhaustion may have a normal or rising body temperature. If heat exhaustion is suspected, the person should be moved to a cool, shaded place. Their clothing should be loosened, and moist cloths applied to the forehead, wrists, and chest to cool down. A person who is alert should drink cool fluid every 15 minutes. If symptoms do not improve after an hour, a qualified health professional should be consulted. A person with underlying health problems should see a doctor right away.

Heatstroke: Symptoms are hot, red skin, changes in consciousness, a rapid and/or weak pulse, and rapid, shallow breathing. A person experiencing heatstroke can have a high body temperature — sometimes as high as 105 degrees Fahrenheit. Skin will often feel dry. Heatstroke must be treated as a life-threatening emergency and 911 should be called for emergency assistance. While waiting for help, the person must be cooled quickly by being immersed in cool (not ice-cold) water or having saturated cloths applied and sprinkled with cool water. Fans can be used to speed cooling. A person with heatstroke should drink cool liquids, but only if they are alert. The person should be monitored as in any urgent first-aid situation, including if they are properly responsive and comfortable.

What are Some Steps Dairy Workers Can Take to Reduce Heat Stress?

- Plan strenuous tasks for cooler times of the day – morning or early evening.
- Help dairy employees gradually acclimate to hot conditions by initially exposing them to short work periods and more frequent breaks.
- Arrange for work in shaded, well-ventilated areas whenever possible.
- Watch for high temperature/high humidity outdoor conditions and adjust assignments to reduce risk.
- Use fans to help evaporate sweat, providing an important cooling effect.
- Wear lightweight, breathable clothing.
- Wear a hat to provide sun protection when working outdoors. Hats should be loose-fitting and well-ventilated.
- Apply sunscreen to protect against sunburn and skin cancer.
- Drink often! Dehydration accelerates heat illness potential. Water is the best (and least expensive) drink for outdoor work. Sports drinks are OK for most people but avoid sugary soda and caffeine. Salt tablets are not recommended unless a doctor advises them.
- Anyone who must restrict fluid intake because of a medical condition should check with a doctor about how to work safely in hot weather.

Heat-related safety is serious business. Heat exposure kills more people each year than floods, tornadoes, lightning, and hurricanes combined. The American Red Cross and the American Meteorological Society report that heat kills more than 1,000 people each year in the U.S.

By being aware and taking specific actions, people can make sure they and those around them beat the heat.

Resources for Medical Assistance for Workers Without Health Insurance

- Free clinics: Call 2-1-1. These clinics offer medical services to people for free.
- Community centers: https://www.findahealthcenter.hrsa.gov/ and https://www.wphca.org/page/FindHealthCenter
- Medical assistance options for Hispanic farmworkers COVID19 (English and Spanish) https://farms.extension.wisc.edu/coronavirus/#safe