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Cornell Cooperative Extension

Southwest NY Dairy, Livestock and Field Crops Program

swnydlfc.cce.cornell.edu

A partnership between Cornell University and the CCE Associations of
Allegany, Cattaraugus, Chautauqua, Erie and Steuben Counties.



CROPS COWS & CRITTERS newsletter

Crops, Cows & Critters
Newsletter
Volume 4 • Issue 1 • January 2023

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Newsletter layout and design by Katelyn Walley-Stoll.

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For accommodations or accessibility concerns, please contact our specialists at least one week prior to the scheduled event. If you need information provided in a different format, call 716-640-0522.



Forage and Pasture Management Workshop

Saturday, February 25, 2023

9:30am - 3:30pm

Pioneer High School

12125 Countyline Rd, Yorkshire



The registration fee is \$40 per person. Registration is required by February 10th.

To Register: Use this link: https://reg.cce.cornell.edu/Forage_Management_Workshop-23_2023
the QR Code below or Contact Lynn Bliven at lao3@cornell.edu or (585) 268-7644 ext 18

Keynote: Getting the Most out of Your Pastures and Hayfields without Breaking the Bank
Dan Steward, WNY Crop Management

Stored Forage Track: Stored Forage Economics • Making Quality Hay and Balage Panel •
Analyzing Forage Reports to Match Livestock Needs

Pasture Track: Setting up a Grazing System • Handling Livestock Safely • Equine Pasture Management

This event is hosted by:

Cornell Cooperative Extension

CCE Allegany, CCE Chautauqua, CCE Livingston,
CCE NWNYS Dairy, Livestock and Field Crops Team,
CCE SWNY Dairy, Livestock, and Field Crops Team



Cornell Cooperative Extension offers educational programming and research based information to agricultural producers, growers, and agribusinesses. Cornell Cooperative Extension is an employer and education recognized for valuing AA/EEO, Protected Veterans, and Individual with Disabilities and provides equal program and employment opportunities. For accommodations, please contact Lisa Kempisty at (716) 664-9502 or ljk4@cornell.edu at least one week prior to the event.

Please join us on Saturday, February 25th
at Pioneer High School in Yorkshire to learn
more about Forage and Pasture
Management!

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Registration is \$40/person, but if you're in
need of financial assistance, just let us
know! Register by February 10th.

Tips for Avoiding Copper Toxicity in Sheep

By Amy Barkley, Livestock Specialist

Copper is a micromineral required for normal body functions in animals. It's also used as a medicinal tool for some conditions, such as parasite treatments and hoof scald. However, around sheep, it should always be used with caution. Copper is only needed in very small amounts by sheep, and overconsumption can lead to toxicity issues. The nutrient is stored in the liver and kidneys where it can build up to toxic levels over time. It can be released into the bloodstream in response to a stressful event such as shearing, transport, or running the animals through a chute, which can cause serious medical conditions, including death.

For most sheep, feeding a balanced mineral designed for them will provide the right amount of copper in addition to a forage-based diet to not have to worry about improper supplementing. However, there are some circumstances when you should be considering copper concentrations in the diet more closely.

How Much Copper do Sheep Need?

Sheep need around 4-6ppm (parts per million) of copper, when looking at a diet from a dry matter perspective. This is the bare minimum to prevent deficiency. Typically, 8-11ppm is fed, and this is OK for most animals. The ppm value is calculated from the sum of copper consumption from forage, concentrate feeds, and supplements.

What do I need to watch out for?

Minerals designed for other species: Species other than sheep are not as sensitive to copper, and have higher tolerances and physiological needs. Supplemental minerals for these animals have copper levels that are often too high for sheep. In the Northeast, salt supplements for sheep should be fed separate from minerals, and those salts should have no copper added. That way, the sheep can consume the salt they'd like without chancing toxicity.

Concentrates: For sheep being supplemented with grain, make sure that the grain formula is designed for sheep and that the sheep are not overconsuming it. This is especially important for dairy sheep because they need a higher level of concentrates in their diet to produce optimally. Review the copper concentrations on your grain labels and make sure that your sheep are getting no more than they can tolerate.

If you are mixing your own concentrate, check the nutritional values of the feedstuffs you are mixing together, especially soybean meal and corn distillers grains, which are naturally high in copper. To check these values, you can have your feed tested through an accredited laboratory, or you can reference the Dairy One Feed Composition Library to see average copper values for each kind.

Grass Exposed to High Copper Fertilization: Poultry and swine manures can have a disproportionately high level of copper in them because poultry and swine diets sometimes contain copper as a growth promoter or feed additive. The higher levels of copper can be taken up by forages. There are some management strategies to consider if you use either of these manures. First, allow time between the application of manure and letting sheep graze on the fertilized pastures to reduce the chance of sheep ingesting the manure. Second, know that repeated applications of poultry or swine manure over multiple years can make the potential for toxicity greater. The way to alleviate high copper soils resulting from fertilizing is to add Molybdenum (Mo) at the same time or liming to a pH where the copper won't be absorbed as much by the plants. This pH is greater than 7, and difficult to achieve in SWNY soils. Testing the soil copper levels in forages in fields where these manures have been applied before grazing or feeding is good insurance.

Diets that are too low in Molybdenum and Sulfates: Molybdenum is a copper agonist, meaning that it reduces the copper absorption. Sulfates create a copper substance called



Sheep only need 4-6 ppm of copper and can quickly receive more than that if they're exposed to minerals designed for other species.

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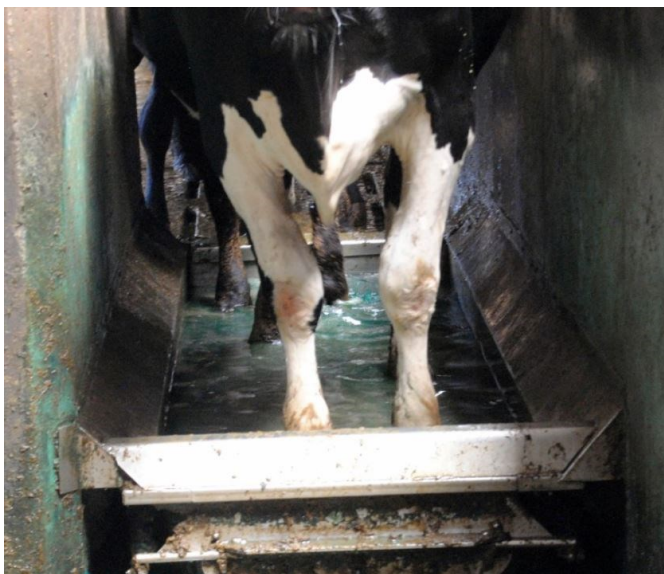
Grass that sheep may graze on can be exposed to copper if it's used for spreading poultry and swine manure.

“copper thi-molybdate” in the rumen, which doesn’t allow the copper to be absorbed by the body. These minerals are needed in the correct proportion with copper to help reduce the chance of toxicity. The dietary Cu:Mo should be 6:1 to 10:1. Some forage-based diets can have forages that don’t have this proper ratio. This is another reason why we recommend getting your forages tested!

Water Treatments and Footbaths: Copper sulfate is commonly used for treating drinking water to lessen algal growth. Water treated with copper sulfate should not be provided to sheep. This substance is also used in footbaths and is highly toxic because of the levels used. Sheep should not be allowed access to footbath solutions containing copper sulfate. Furthermore, forage that grows where footbaths have been dumped previously should not be fed to sheep, as they have a good chance of containing toxic levels of copper. ■

Resources and Further Reading:

Dr. Mary Smith, *Chronic Copper Poisoning in Sheep*. Suttle, N.F., 2012. *Control of hepatic copper retention in Texel ram lambs by dietary supplementation with copper antagonists followed by a copper depletion regimen*.



Copper Sulfate turns water blue, as is shown in this footbath for dairy cattle. Photo from University of Wisconsin.

Upcoming Seminar Series for NYS & NJ Veterans!

Setting Your Farm’s Financial Resolutions Online webinar via Zoom

Tuesday, January 31st

And

Thursday, February 2nd

6:30pm - 8pm

Make your record keeping plan for 2023! Join Katelyn Walley-Stoll for an interactive and applicable conversation about farm financial planning, suitable for beginning and established farm businesses.

While not as fun as caring for baby animals, playing in the dirt, and growing food - record keeping is an important tool for farm success. Start the new year off right by setting your farm financial resolutions. In this two part seminar, you’ll learn how to set up a record keeping system, identify your financial goals, and be ready to hit the ground running in 2023. Register to receive a fillable record keeping plan and a quarterly farm financial check list.

Cornell Cooperative Extension’s Southwest New York Dairy, Livestock, and Field Crops Program is a partnership between Cornell University and the five Cornell Cooperative Extension Associations of Allegany, Erie, Cattaraugus, Chautauqua, and Steuben Counties. CCE is an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities and provides equal program and employment opportunities. For accommodations and accessibility concerns, please contact Katelyn Walley-Stoll by calling 716-640-0522.

Farm Ops aims to support military service members and veterans who desire to explore and/or pursue agricultural vocations. Visit us on the web at: smallfarms.cornell.edu/projects/farm-ops.



Farm Ops

For more information about managing copper toxicity in your flock, contact Amy Barkley or your farm’s veterinarian.

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SWNYDLFC’s continued partnership with Farm Ops will bring 10 new and free seminars to NYS and NJ veterans in 2023.

Limit Feeding Beef Cattle

By Charlie Sasscer

Limit feeding is the practice of feeding cattle less dry matter (DM) than they would naturally consume on their own if given ad libitum (unlimited) access to a forage diet (hay, silage, etc.). Limit feeding can result in improvements in feed efficiency, or feed: gain (F:G), as well as result in less manure production. Both of these factors can help to decrease the cost of gain (COG) for growing calves, or the cost to the producer to grow one pound of live animal weight. Such management is especially useful this year, as grain prices are much higher than years past. Limit feeding slows the rate of passage in the gut of the animal, allowing the ruminal microbes to better digest feedstuffs.

New research in limit feeding over the past decade has favored utilizing corn by-product feeds, such as wet and dry corn distiller's grains and wet corn gluten feed (SweetBran), due to their high levels of fermentable fibers. This fermentable fiber provides energy to the animals, with a much lower risk of inducing ruminal acidosis than using grain sources that contain high levels of starch. But corn by-product feeds are not as readily available on much of the east coast as they are in the Mid-west and Great Plains regions. Thus, good management is needed for successful limit feeding with feed sources high in starch, such as corn.

If limit feeding is to be implemented, it is highly recommended to utilize a diet calculator. One of the easiest, user-friendly diet calculators can be found at <https://extension.okstate.edu/programs/cowculator.html>.

Limit feeding example diet with corn by-product and corn silage

INGREDIENT	% OF DM
Dry rolled corn	25.5
Supplement ¹	7.5
Corn Silage	27.0
Wet Corn Gluten Feed (Sweet Bran)	40.0

¹Supplement pellet was formulated to contain (DM basis) 11.09% crude protein, 8.50% calcium, 0.42% phosphorus, 5.50% salt, 0.80% potassium, 0.57% magnesium, 1.70% fat, 11.04% acid detergent fiber, and 331 mg/kg lasalocid.

Utilizing a diet formulation software isn't a 100% accurate representation of what will go into your feed bunk, but it is a good place to start to ensure your cattle are receiving the basic requirements of their nutritional needs, such as protein, fiber, calcium, and phosphorus. While some limited diets utilizing corn by-products may have as low as 13% forage on a DM basis, it is a good recommendation to include at a minimum a forage source at 25% of the diet dry matter to deter acidosis. Corn silage or baleage is a great source of roughage when growing cattle, but good management must be utilized to preserve silage quality and/or utilize a full bale of baleage before it spoils. From there, protein requirements must be met with a source such as soybean meal (SBM), or because we're feeding a starch-heavy diet, urea can be utilized at no more than 1% of the diet. A final consideration is to utilize limestone to balance your Calcium: Phosphorus ratio, as cereal grains are high in phosphorus and limestone is a concentrated source of calcium.

Limit feeding example diet with whole corn and hay

INGREDIENT	% OF DM
Whole shell corn	69.2
Soybean Meal	4.0
Grass Hay, dry	25.0
Urea	0.9
Limestone	0.9

A Ca:P ratio of 1.5:1 is optimal, with a range of 1:1 to 4:1 being satisfactory. While cracked corn is the easiest form of corn for cattle to digest, shell corn can be fed to young cattle without compromising performance, as young cattle are able to digest, shell corn can be fed to young cattle

Limit feeding involves meeting animals' nutritional needs while not providing unlimited access to feed/forages.

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In order to accurately limit feed and optimize nutrition, detailed forage sampling is required.

...Continued from previous page

without compromising performance, as young cattle are able to masticate (or chew) whole corn kernels to break them open and expose the inner starch for ruminal microbes. It is always important to slowly adapt cattle to a new diet and diet ingredients, especially with diets high in starch and utilizing urea. The allocated amount of forage intake, if not more, should be provided initially, and over the course of several weeks, the amount of forage should be decreased as the amounts of corn and urea are brought up to desired levels in the diet.

Many management considerations must be accounted for when limit feeding. Beginning cattle weights are needed to calculate how much feed to give to the cattle, with a goal of 2-2.2% per lbs of body weight on a DM basis. Calves should be weighed at least every other week to readjust the diet and ensure that adequate DM is being provided. In order to provide the proper amount of feed, a scale or mixer wagon with scales is needed to measure out ingredients. Options can be as basic as a manual hanging scale, more advanced such as an electronic platform scale, or more luxurious options such as a mixer wagon. Strong facilities are also needed, as hungry cattle will try to push out of feed bunks and find ways out of fences in search of food. For successful limit feeding, the provided diet needs to be the only diet, meaning cattle need to be kept in dirt lots so they are not consuming forages out in a grass run. Adequate bunk space is also required for all animals to eat at the same time, as the diet will usually be consumed within 4 hours. This can be up to 24" of bunk space per head. Despite these strict guidelines for the implementation of limit feeding, great cattle performance can result. From a health management standpoint, limit feeding makes it easier to observe sick cattle, as the animals should be hungry and eager to eat at feeding times. Any animals with a poor appetite should be evaluated for sickness. As mentioned before, feed efficiency is greatly increased with limit feeding, as much as 20-40+%. With less DMI intake, less manure is produced, as much as 43% less. This can lead to significantly less equipment usage for cleaning pens and spreading manure. If a producer is interested in implementing limit feeding, a good understanding of nutritional and facility management is needed. Private consultants or university extension services can provide this knowledge, and help guide a producer through the successful implementation of a limit feeding program. ■

This article appears in August 2021, Edition 2, Cattles Tales Livestock Newsletter

For more information about Livestock nutrition balancing and feeding strategies, contact Amy Barkley.

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Operations Managers Conference

January 31st & February 1st, 2023

Doubletree by Hilton, East Syracuse, NY

Presented by Cornell CALS PRO-DAIRY and the Northeast Dairy Producers Association

Operations Managers Conference provides an opportunity for the people responsible for day to day activities on dairy farms to increase their management and operations skills. This year's conference theme and topics focus on managing for consistency while leading through change.

Featured keynote speakers and presentations apply across management specialties and include:

What You Do Everyday Matters in Building Consumer Confidence

Everything You Must Know About Sleep But Are Too Tired to Ask!

The Intersection Between Animal and Human Wellbeing and Productivity

Using DairyComp to Evaluate Employee Performance and Compliance

Conflict Management for Those Who Don't Like Conflict Management

Creating a Culture of Safety in Your Workplace

Planting Green: Advantages of Delayed Cover Crop Termination in Western New York

CAFO Updates: How Do They Apply to Me as a Middle Manager?

Registration for the full event is \$300 with options for single day attendance. Contact Heather Darrow by calling 607-255-4478 for more information.



The Operations Managers Conference is open to all farms, and is targeted towards Dairy Farm managers.

Growing Degree Days

By Katelyn Miller, Field Crops and Forage Specialist

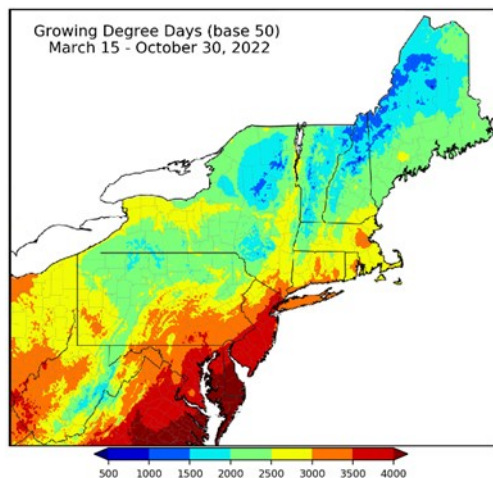
What do Growing Degree Days represent?

Growing degree days (GDD), also known as heat units, are used to estimate the growth and development of certain pests and crops within a growing season. It is commonly used to track the accumulation of average daily temperatures in any 24-hour period throughout the lifetime of a crop and includes minimum and maximum thresholds for growth and development. For corn and soybean development, when maximum air temperature has exceeded 86 degrees Fahrenheit, the growth rate virtually ceases. The same goes for when the minimum (also known as base) air temperature has dropped below 50 degrees Fahrenheit. For alfalfa, the base temperature is 41 degrees Fahrenheit. When the temperature goes beyond these values, the maximum and minimum values are used in the equation below. You can also use tools such as the Climate Smart Farming tool which can be found here to calculate accumulated GDDs (<http://climatesmartfarming.org/tools/csf-growing-degree-day-calculator/>).

$$\text{GDD } ^\circ\text{F} = \frac{\text{Max Temp F} + \text{Min Temp F}}{2} - 50 \text{ (Lower Base Temperature in F for Corn)}$$

(subtract)

Growing Degree Day formula from Kansas Corn STEM



Accumulated Growing Degree Days from March 15th – October 30th, 2022, from the Climate Smart Farming Tool.

What can GDDs be used for?

Utilizing GDDs serves as a more reliable method of predicting crop, weed, and insect development compared to calendar dates. Harvest decisions can be made by planning planting and harvest dates, determining time to maturity and forage

cutting dates. By predicting development, the best timing for fertilizer and pesticide application can be determined. Decisions such as relative maturity length and variety can be determined in part by utilizing GDDs because it helps to evaluate how the crop is suited to your region and growing climate. These factors combined help to facilitate better overall crop management.

What can impact GDD accumulation?

The rate of plant development for any hybrid is directly related to temperature, so the length of time between the different stages will vary as the temperature varies, both between and within growing seasons. Environmental stress such as nutrient or moisture deficiencies may lengthen the time between vegetative stages but shorten the time between reproductive stages. The number of kernels that develop, final kernel size, rate of increase in kernel weight, and length of reproductive growth period will vary between different hybrids and environmental conditions.

How much variability is there in GDDs?

Although GDDs are calculated, there is still variability between how the same crop grows between different fields, and even within the same field. Corn can be separated in development from a few days to a few weeks and still flower at approximately the same time and ripen within the span of a few days. This phenomenon is referred to as synchrony, which allows farmers to apply herbicides, additional nutrients, and most importantly, allow for harvest in a single operation. This cannot be achieved without a coordinated response to the plant's development. For example, an early maturing hybrid may produce fewer leaves than a later maturing hybrid because of the shorter window it must flower in. As the picture shows below, there can be some variance in GDDs regardless of if the same hybrid is planted which is important to consider for managing harvest timing and feed quality. ■

An 85-90 day hybrid requires 2,000 - 2,100 GDD
A 90-95 day hybrid requires 2,100 - 2,250 GDD
A 95-100 day hybrid requires 2,250 - 2,350 GDD
A 100-105 day hybrid requires 2,350 - 2,500 GDD
A 105-110 day hybrid requires 2,500 - 2,650 GDD

Resources Used:

<https://nutrien-ekonomics.com/latest-fertilizer-research/growing-degree-days-calculator-benefits-and-use/>
<http://corn.agronomy.wisc.edu/Management/L011.aspx>
<https://www.farmprogress.com/corn/making-sense-corn-yield-trial-results>

Utilizing the formula above or tools such as the Climate Smart Farming Tool can allow you to track GDD accumulation to help you make crop management decisions on your farm.

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The chart above represents general relative maturity compared to Growing Degree Day accumulation based on yield trials in South Dakota; Farm Progress.

Labor Law Changes for Year End 2022

From Richard Stup, Cornell Agricultural Workforce Development

Originally Published here: <https://agworkforce.cals.cornell.edu/2022/12/23/labor-law-changes-for-yearend-2022/>

New York state made a few changes to state labor regulations that take effect here at the end of 2022.

Labor Postings Now Required Electronically

Employees have been required to post certain notices about federal and state labor laws in a place where employees can easily view them. Usually we find these in offices or break rooms, sometimes collecting a bit too much dust, because they should be reviewed and updated at least once per year. Governor Hochul recently signed A7595/S6805 requiring employers to provide digital versions of any federal or state notices that are already required for posting. These digital notices may be provided on a company website or via email. Employers must also notify employees that the postings are available electronically. NYS Department of Labor does provide electronic copies of posters. The federal government also provides a FirstStep poster advisor for employers.

Pay Transparency

The governor also signed legislation requiring all employers with 4 or more employees to disclose a pay rate or “range of compensation” whenever advertising for a job, promotion, or transfer opportunity. The law defines the “range of compensation” in this way: “the minimum and maximum annual salary or hourly range of compensation for a job, promotion, or transfer opportunity that the employer in good faith believes to be accurate at the time of the posting of an advertisement for such opportunity.” This law does not take effect until September 17th, 2023. NYS Department of Labor must formulate rules and provide public outreach about how this law will be implemented, so stay tuned for more information.

Minimum Wage

Of course, the state also mandated that minimum wage in upstate New York will rise to \$14.20/hour on December 31, 2022, so employers should update their payrolls accordingly. Minimum wage is already at \$15/hour in all other regions of the state. ■

For more information on Farm Labor Management, contact Katelyn-Walley-Stoll by calling 716-640-0522.

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Minimum is \$14.20/hour!**



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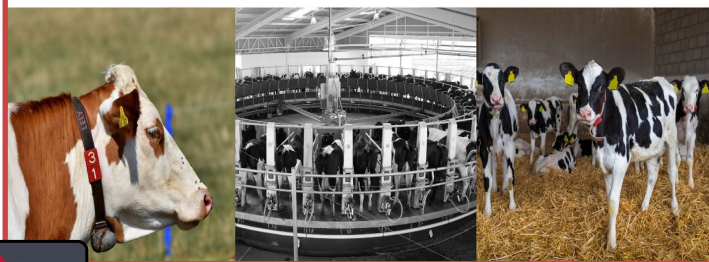
Dairy Technology Tuesdays

This seven-part webinar series offers cutting edge information about dairy technology from industry experts. If you are thinking about incorporating new technology or have already implemented innovative technology this series is for you.

**January 10 to February 21, 2023
12:30 PM to 1:30 PM EST**

Topics:

- Calf Technology.
- Health Monitoring and Reproductive Management.
- Barn Climate Systems and Footbath Technology.
- Feeding and Nutrition Technology.
- Future Technology.
- Milking technologies.
- Renovations Considerations When Adopting Technology.



Remember to update your labor notice posters in your office/break rooms. You'll also need to provide digital versions on a central webpage or via email.

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How to Use Corn Silage Hybrid Trial Results

By Joe Lawrence, Thomas Overton, Allison Lawton, and Margaret Smith

A number of independent Corn Silage Hybrid Testing Programs, including the New York (NY) Corn Silage Hybrid Trials, offer valuable information on hybrid performance. But what if the hybrids you're looking at are not found in individual trials? Hybrids in the trials are a subset, and on the surface may seem limited in their usefulness. However, the results can offer a wealth of information beyond the ranking of participating hybrids. In fact, just looking at the top performing hybrids from a single year, while interesting, has limited value. Trial data for an individual hybrid is most useful with multiple locations and multiple years to understand how the hybrid performs across a wide range of conditions. This level of data can be hard to come by in the independent trials but may be available from seed companies. In the absence of data on a specific hybrid, independent trials offer the opportunity to study how participating hybrids performed relative to their peers at each location, which characteristics, among the participating hybrids, resulted in the most consistent performance, and the expected range in results for important values, such as starch content and fiber digestibility. With this information, you are equipped to ask individual companies for data on these important characteristics and values in their hybrids. While the specific hybrid may not be in the trial, a company should have information on other hybrids that share the same lineage or have similar performance to a hybrid that exhibited desirable characteristics in the trials.

Comparing to the Location Mean

The mean for a location is the average value of the measured parameter (yield or % starch). Since several localized factors, such as weather and soil type, influence the performance of the hybrids at a particular location, studying the absolute values (yield per acre, % starch or fiber digestibility) is not suggested. It is much more helpful to study the trial mean and compare hybrid performance relative to this mean to gain a better understanding of how it performed under the conditions at that location.

Whole Plant Dry Matter (DM) Considerations

In any testing program, the goal is to harvest all hybrids as close to the same stage of maturity (whole plant DM) as possible. In practice it is recognized that there will be variation in DM at harvest. Yields are corrected to a uniform DM for reporting. They are generally reported at 35% DM. However, it is also important to acknowledge the effect of DM on forage quality. It is recommended to only compare the

forage quality results of hybrids that are within three percentage points of DM to each other.

Impact of Location

When data for multiple locations within the same trial are available or data on the same hybrids grown under slightly different management in other testing programs are available, it can be very useful to understand the effects that weather patterns, planting dates, seeding rates and other differences can have on the hybrid. This insight helps to address questions regarding the ability of a hybrid to perform consistently across conditions or if there are specific conditions where it performs best that match the conditions typical of your farm. Again, utilizing company data in conjunction with other trials can be very powerful for this. It is also important to note that differences in growing conditions does not just impact yield, it can have large impacts on forage quality. While we commonly look at important factors such as whole plant dry matter and starch content, the effect of growing conditions on fiber digestibility was very apparent.

Fiber Digestibility

In recent years several advances in ruminant nutrition have increased our understanding of fiber digestibility, how this drives how much a cow will eat and the implications on her potential to produce milk. The measurement of undigested neutral detergent fiber (uNDF) is being reported by more hybrid testing programs and was an integral piece of data in the new approach to predicting potential milk yields in the NY Corn Silage Testing Program. Results are online at scs.cals.cornell.edu/extensionoutreach/field-crop-production/variety-trials#corn-silage. Starting in 2016, the NY trials used new methods to evaluate the milk producing potential of corn silage. The Cornell Net Carbohydrate & Protein System (CNCPS) model was used to predict the expected milk yield (in pounds per day) of a typical, Northeastern high lactating ration with each of the participating corn hybrids entered into the same total ration. Again, the relative ranking of the hybrids is more useful than the absolute values, but this approach uses a much more in depth analysis to assess how each hybrid may perform in an actual ration compared to previous approaches. It is evident in the report how the uNDF content of each hybrid may affect the potential dry matter intake of the ration and the subsequent effect on projected milk yield.

Starch Content & Digestibility

Starch content is a popular number to look at and

Just looking at the top performing hybrids from a single year, while interesting, has limited value.

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For the 2022 NY VT Corn Silage Hybrid results, go to: <https://ecommons.cornell.edu/handle/1813/111905> or call Katelyn Miller.

justifiably so. At the risk of excessive repetition, this is another case where it is critical to look at these values in the context of the location mean, rather than absolute values as growing conditions and stage of harvest (whole plant dry matter) can affect this value. Starch digestibility is more challenging. We know this value changes as the silage ferments, and laboratories continue to refine their ability to accurately predict starch digestibility using NIR methods, compared to the more intensive wet chemistry laboratory testing methods. It is also recognized that results from green (unfermented) samples, as are often used in Hybrid Testing Programs, are less consistent. It is generally accepted that a hybrid with good starch digestibility before fermentation will remain incrementally better after fermentation when compared to a hybrid that starts with lower digestibility before fermentation. Inquiring with a company about their data is quite beneficial, especially if they have wet chemistry data on fermented samples. It is always best to compare

results from the same laboratory. However, if the results available are from different labs, ask for data from multiple hybrids to establish the relative differences in like datasets.

Yield and Agronomic Characteristics:

While yield often receives too much attention in silage hybrid selection, you do want strong hybrids that have a competitive yield and are able to handle potential stressors. Some of these stressors may be more broadly driven by weather, while others may be typical of the micro-climate you farm, such as soil drainage, air drainage (disease prevalence) or elevation driven temperature trends. This is another instance where rather than focusing on actual yield numbers, pooling data from multiple locations and sources and matching this with weather data from those locations will help you understand if a hybrid's performance is consistent across conditions or if it excels and falters in certain situations that may be applicable to your area. ■

Strategic Farming:

Let's Talk Crops 2023

This webinar series is a live, online program which will provide up-to-date, research-based information to help optimize your crop management strategies for 2023. Sessions will be held over Zoom, which can be accessed via your computer, phone, or other mobile device, and run from 9:00 to 10:00 am (Central Standard Time) Wednesdays, January 11 through March 29, 2023. For more details and to register, go to <https://z.umn.edu/strategic-farming>.

There is no charge to participate, thanks to generous sponsorship from the Minnesota Soybean Research and Promotion Council. Not able to attend a day? No problem. Sessions will be recorded and posted for viewing later at your convenience.

Dates

- **January 11: Forecast for the season – Weather, economics & supply chains**
Ed Usset, Extension grain marketing economist and Pete Boulay, Assistant State Climatologist, DNR
- **January 18: What's bugging my corn? An outlook on corn rootworm and more**
Anthony Hanson, Extension educator – IPM, and other IPM specialists
- **January 25: Climate factors and nitrogen management**
Dan Kaiser, Extension nutrient management specialist, and Brad Carlson, Extension educator – water resources
- **February 1: Semi-Dwarf corn & SCN breeding efforts**
Rex Bernardo, Professor and Endowed Chair, Corn Breeding and Genetics, and Aaron Lorentz, Associate Professor, Soybean Breeding and Genetics
- **February 8: Are biologicals in corn & soybean logical?**
Seth Naeve, Extension soybean agronomist, and Dan Kaiser, Extension nutrient management specialist
- **February 15: Weed management in the era of increasing herbicide resistance**
Debalin Sarangi, Extension weed management specialist
- **February 22: "Can I take an N credit?" and other cover crop FAQs**
Anna Cates, State soil health specialist, and Matt Ruark, Extension soil scientist, University of Wisconsin-Madison
- **March 1: Expanding your rotation with small grains**
Jochum Wiersma, Extension small grains specialist
- **March 8: Corn Tar Spot: Distribution, development, and management**
Dean Malvick, Extension plant pathologist, and Darcy Telenko, Extension field crop pathologist, Purdue University
- **March 15: Alfalfa weevil and other alfalfa management challenges**
Craig Shaeffer, Extension forage agronomist and Anthony Hanson, Extension educator – IPM
- **March 22: Soybean Pests – What's up with the new and old...are they a big deal?**
Bob Koch, Extension entomologist
- **March 29: Get your planters ready**
Extension researchers, educators, and agronomists

Some potential stressors to consider when picking a hybrid are micro-climate, soil drainage, elevation, or temperature trends.

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Minnesota's "Let's Talk Crops" webinar series is free to producers Wednesdays until March 29th. Contact Katelyn Miller for more information.

3 New Year's Resolutions for Farm Financial Management

By Katelyn Walley-Stoll, Farm Business Management Specialist

The beginning of the new year offers us a chance to reset, start with a blank slate, and have the best of intentions for the months ahead. While many of us might make New Year's Resolutions around our health, farm production, and others – I can bet that you've never set some for your farm's financial management!

Farm financial record keeping is an important tool for monitoring the health and success of your farm business. This involves tracking the incomes and expenses of the business, along with inventories, capital purchases, debt payment schedules, and more as it pertains to your farm business. Here are three New Year's Resolutions for Farm Financial Management that you might consider to help improve your farm's financial wellbeing in 2023:

1. State your Who, What, Where, When, Why, and How of record keeping. Setting up a record keeping system may sound easy in theory, but can quickly fall apart as we get busy with all of the things. I would encourage you to answer the following questions for *your* farm, write the answers down on a piece of paper, and pin them to your farm office wall, breakroom fridge, or truck cab.

- **Who?** Choose ONE person who is the primary gatekeeper of the farm financial records. While it might seem easier, in theory, to spread out the workload – things can quickly fall through the cracks without clearly defined roles. This doesn't mean that one person has to do all of the work, but there should be one person who is making sure all of the work is getting done.
- **What?** Decide what types of records you need to keep based on your farm's operation. This includes farm expenses (usually the total, vendor name, description of purchase, method of payment) and farm incomes (sales receipts, volume/number, purchaser) at a minimum.
- **When?** Choose a time of the day, week, or month (depending on your farm size and record volume) to be a routine space for financial record keeping. This could be every morning when you stop in at the farm office to print off DairyComp sheets, every Sunday night after you pack kiddo backpacks for school and plan the week ahead, or the first of every month when you're working on your monthly bills. Pick a time that works for you and stick to it.
- **Where?** Locate a place that can be your

designated record keeping area. This could be an office desk and computer, an accordion folder with a notebook and a calculator, or a folder in your phone photos where you keep receipts as you receive them.

- **How?** There are a few categories of record keeping methods. None of them are "wrong", and you do need to choose the one that is going to for you – not the one that you *want* to work for you.



Define the Who, What, Where, When, Why, and How of your record keeping system. Write it down and hang it up someplace where you'll see it often.

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2023 is a new year and a new chance to reset your farm financial plans and analysis - here's to a fresh start!

Electronic Accounting: Things like QuickBooks where you are inputting data based on a Chart of Accounts. This is great for clear and easily summarized data, but not great for folks who aren't computer savvy.

Ledger Accounting: This could look like a spreadsheet where you're tracking and tabulating data or a paper ledger book. Data is entered regularly and is categorized. Great for those who are a step away from QuickBooks, but it does require some math and preparing financial statements on your own.

The Shoebox: Also known as the corkboard, the truck dash, and the folded up wallet. This is a centralized (hopefully) place where receipts are kept and, at some point, tallied up or categorized. This isn't the best record keeping system as things can easily be lost in the shuffle and there is no monitoring of financial wellbeing.

Outsourcing: If you know that record keeping isn't your strongest skill, outsourcing is a viable option! You do have to pay for this service, but you can oftentimes make up for this expense by having up to date and efficient financials for your farm business.

- **Why?** Determine why *you* would like to keep better financial records and state your goal for doing so!
2. **Make record keeping work for you.** After talking to several farms about record keeping over the years, I think there is this idea out there that record keeping isn't worth investing time in unless you can do it "perfectly". However, any effort towards keeping financial records will benefit your business at the end of the day. Instead of trying to have the perfect, color-coded, financial accounting software with all of the bells and whistles, try starting small with a system that will work for you.

You're not doing this for "fun", so having a system that is intuitive and meets your needs should be the priority! The main way, in my experience, that record keeping can work for you is by getting you the information you need to make sound financial decisions. Things like your current debt to asset ratio, your net farm income with and without owner/operator labor and management, and your cost of production are key financial indicators. If you've got solid records, these numbers are easy to get to and can help you with decision making!

3. **Celebrate the small wins!** Farming is full of too many hard decisions. Rarely do we take the time to celebrate the little things, and record keeping is a great way to share some positive vibes on your farm. Did you get caught up on entering your receipts? Recognize that you just completed a task that will help improve your farm business! Pay all of the month's bills on time and without any overdrafts? Wow! You're awesome! Put together a balance sheet for your lender without too much sweating and swearing and trudging through the snow counting round bales? Gosh – you did the hard work and now you're reaping the benefits! Give yourself a pat on that bat when it comes to competing record keeping tasks.

Here's to a safe, successful, and (hopefully) profitable 2023! If you need any assistance with setting up a record keeping system that works for you, preparing financial statements, OR would like to participate in a financial benchmarking program, please reach out to Katelyn Walley-Stoll, Farm Business Management Specialist, at 716-640-0522. ▀

Setting up a basic recordkeeping system

WHO	Who is responsible for organizing records and entering transactions?
WHAT	What categories will you track? Revenues; expenses; other payments.
WHEN	Set aside time for record keeping. Make a schedule with goals and deadlines.
WHERE	Identify where records are kept, whether digital or physical.
HOW	What accounting system should you use? Current system vs. catching up.
WHY	Peace of mind. Saves time. Knowledge is power.

Don't worry about how your record keeping system looks or compares to what others might use! Choose something that fits your needs and style.



For more information about setting up a record keeping system or financial analysis, contact Katelyn Walley-Stoll at 716-640-0522.

Dairy Market Watch



December 2022

Prepared by Katelyn Walley-Stoll. Funded by PRO-DAIRY.

An educational newsletter to keep producers informed of changing market factors affecting the dairy industry.

Milk Component Prices			Milk Class Prices				Statistical Uniform Price & PPD				
Month	Butterfat	Protein	I (Boston)	II	III	IV	Jamestown, NY		Albany, NY		Albany \$/gal. to farmer
Nov 21	\$2.15	\$2.75	\$21.23	\$18.40	\$18.03	\$18.79	\$18.39	\$0.36	\$18.99	\$0.96	\$1.64
Dec 21	\$2.29	\$2.59	\$22.42	\$19.84	\$18.36	\$19.88	\$19.34	\$0.98	\$19.94	\$1.58	\$1.74
Jan 22	\$2.95	\$2.35	\$22.96	\$22.83	\$20.38	\$23.09	\$21.59	\$1.21	\$22.19	\$1.81	\$1.91
Feb 22	\$3.02	\$2.31	\$24.89	\$23.79	\$20.91	\$24.00	\$22.52	\$1.61	\$23.12	\$2.21	\$1.99
Mar 22	\$3.09	\$2.71	\$26.13	\$24.76	\$22.45	\$24.82	\$23.59	\$1.14	\$24.19	\$1.74	\$2.09
Apr 22	\$3.41	\$3.42	\$27.63	\$25.71	\$24.42	\$25.31	\$24.92	\$0.50	\$25.52	\$1.10	\$2.20
May 22	\$3.10	\$3.86	\$28.70	\$25.87	\$25.21	\$24.99	\$25.42	\$0.22	\$26.03	\$0.82	\$2.24
June 22	\$3.33	\$3.41	\$29.12	\$26.65	\$24.33	\$25.83	\$25.83	\$1.50	\$26.43	\$2.10	\$2.28
July 22	\$3.36	\$2.91	\$29.12	\$26.66	\$22.52	\$25.79	\$25.21	\$2.69	\$25.81	\$3.29	\$2.23
Aug 22	\$3.40	\$2.14	\$28.38	\$26.91	\$20.10	\$24.81	\$24.27	\$4.17	\$24.87	\$4.77	\$2.14
Sep 22	\$3.56	\$1.88	\$26.87	\$26.51	\$19.82	\$24.63	\$23.67	\$3.85	\$24.27	\$4.45	\$2.09
Oct 22	\$3.65	\$2.45	\$25.96	\$25.73	\$21.81	\$24.96	\$23.62	\$1.81	\$24.22	\$2.41	\$2.09
Nov 22	\$3.37	\$2.53	\$27.34	\$24.67	\$21.01	\$23.30	\$23.12	\$2.11	\$23.72	\$2.71	\$2.04
November Utilization (Northeast): Class I = 31.1%; Class II = 22.8%; Class III = 28.7%; Class IV = 17.4%.											
Class I = fluid milk; Class II = soft products, cream, and yogurt; Class III = cheese (American, Italian), evaporated and condensed products; Class IV = butter and milk powder.											

Dairy Commodity Markets (Excerpt from USDA Dairy Market News – Volume 89, Report 50, December 16th, 2022)

Dry Products: Dairy powders, for the most part, are under some bearish pressure. Low/medium heat nonfat dry milk (NDM) prices are lower across the regions. NDM demand remains sluggish. Buttermilk powder prices slipped nationwide. Some contacts suggest lower prices could spur buying interest, but likely not until the next quarter. Dry whey prices were mixed in both the Northeast and West.

Cheese: Milk is available in all regions, and cheesemakers in the Northeast say this is enabling them to run busy production schedules. Contacts say retail demand is softening, while food service sales are steady. Export demand is mixed in the West, as some stakeholders say purchasers in Asian markets are steadily ordering loads. Spot loads of cheese are available to purchase in the Northeast and Midwest.

Butter: In the Northeast and West, cream is available to meet year-end production needs. Butter makers are running active schedules in all regions. In the Northeast, retail demand remains strong, though some contacts suggest new orders are starting to slow. Bulk butter purchasers in the Northeast and West are limiting their orders as they are trying to avoid purchasing at higher price levels. Butter inventories are relatively tight in the Northeast but are growing.

Fluid Milk: Eastern and Midwestern Class I orders have reportedly heightened in the weeks prior to the yearend holidays. Regardless, milk production continues to move higher in most areas of the country, as processors are reporting milk offers are coming in regularly. Condensed skim supplies are reportedly growing, seasonally. Some butter makers say they are full on cream and are not able to add extra spots to their already busy churning schedules.

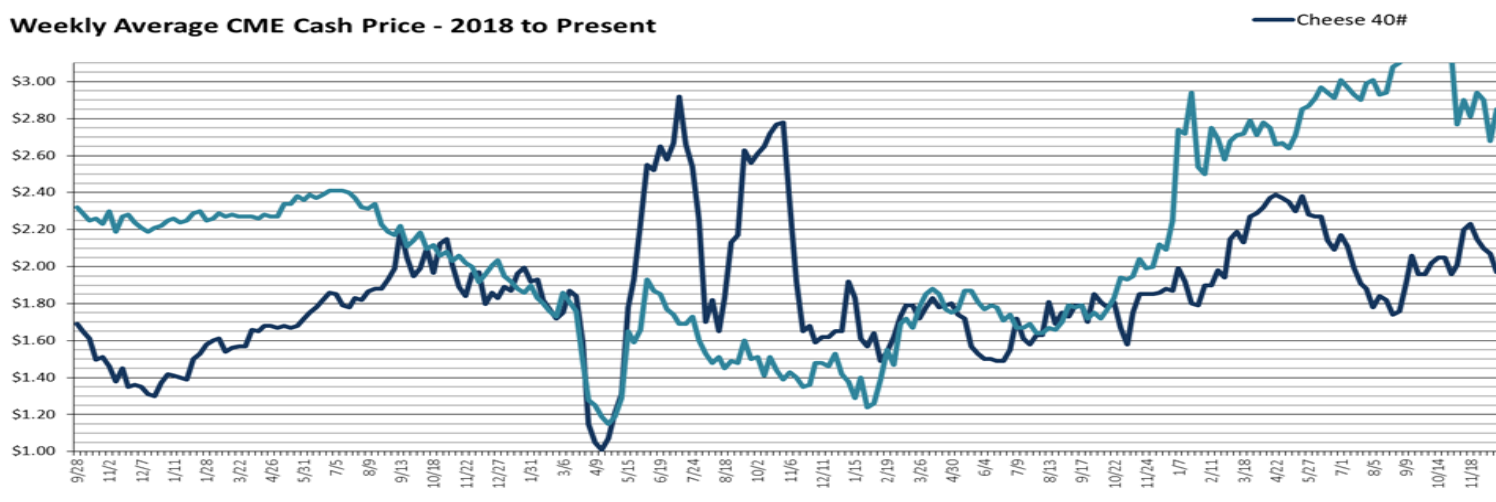
Friday CME Cash Prices					
Dates	11/18	11/23	12/2	12/9	12/16
Butter	\$2.81	\$2.94	\$2.90	\$2.68	\$2.85
Cheese (40# Blocks)	\$2.23	\$2.15	\$2.10	\$2.07	\$1.97

December 2022's Albany \$/gallon to the farmer was \$2.04. Note this is before deductions like hauling, promotions, etc.

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For more information on Dairy Business Management and Market Analysis, contact Katelyn Walley-Stoll, Farm Business Management Specialist, at 716-640-0522 or kaw249@cornell.edu.

Weekly Average CME Cash Price - 2018 to Present



Dairy Situation and Outlook - December 19, 2022 by Bob Cropp, Professor Emeritus, University of Wisconsin-Madison

Originally published here: <https://fyi.extension.wisc.edu/kewauneeag/files/2022/12/Dairy-Situation-and-Outlook-December-2022.pdf>

November milk production was 1.3% higher than a year ago, the fourth straight month of production more than 1% higher than a year ago. Milk cow numbers increased from January to May by 52,000, then declined from June to August by 6,000 only to increase again by 7,000 September to November. November cows were 38,000 above a year ago, an increase of 0.4%. Milk per cow in November was 0.9% higher than a year ago. Milk production for the year will be about 0.3% higher than 2021 due to the average number of cows down 0.4% and milk per cow 0.7% higher.

Milk production is likely to be higher in 2023. Normally dairy producers respond to higher milk prices by expanding the herd and feeding for more milk per cow. But feed prices will remain high and lower milk prices in 2023 with tighten margins. USDA is forecasting a very modest increase in the average number of milk cows, just 10,000 more, an increase of 0.1%. Milk per cow is forecasted to increase by 1.0% resulting in an increase in total milk production of 1.1%. But cow numbers could very well increase by more than this milk per cow could be higher.

It has been a good year for milk prices. Class III will average near \$21.95 compared to \$17.08 for 2021, an increase of \$4.87. Class IV will average near \$24.50 compared to \$16.09 for 2021, an increase of \$8.41. The forecast for 2023 is still for lower milk prices. USDA has forecasted the Class III price to average \$19.80, \$2.15 lower than 2022 and Class IV to average \$20.10, \$4.40 lower than 2021. We could easily see Class III dropping to the \$18's first half of the year and getting back to the \$19's for the second half. But so much can change as we move through the year.

Stronger milk production has put some downward

pressure on milk prices. December Class III will be near \$20.50 compared to \$21.01 for November. December Class IV will be near \$20.20 compared to \$23.30 for November. Dairy product prices have weakened. Cheddar barrels averaged \$1.9454 per pound for November but have weakened in December to now \$1.735. Forty-pound cheddar blocks averaged \$2.1186 per pound for November, have ranged in from \$2.06 to \$2.1125 but are now \$2.00. Dry whey has been mostly \$0.44 to \$0.45 per pound but is now \$0.41. Butter averaged \$2.8634 per pound for November, was \$2.90 early December and is now \$2.700. Nonfat dry milk averaged \$1.4056 per pound for November and is now \$1.36.

Dairy exports have been a positive factor for milk prices in 2022. The latest export data showed October exports on a milk solids equivalent basis was 9% higher than a year ago. This marked the seventh consecutive month of growth. Exports of nonfat dry milk/skim milk powder were up 10%, dry whey up 17%, butterfat up 43% and cheese up 4%. Cheese exports have now increased above year ago levels for sixteen straight months. Except for butter U.S. dairy product prices have been competitive on the world market. In addition, milk production in Oceania and Western Europe has been lower.

USDA is still forecasting some increase in dairy exports for 2023. With still the possibility of a recession in 2023 there remains uncertainty as to the growth in domestic milk and dairy product sales. So, it will be interesting see how milk prices turn out in 2023. As of now it looks like a good year for dairy producers but not as good as 2022. ▀

We could easily see Class III dropping to the \$18's first half of the year and getting back to the \$19's for the second half. But so much can change as we move through the year.

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World prices have weakened but so have U.S. prices keeping U.S. prices competitive. But milk production in Western Europe and New Zealand is starting to increase.

A Farm Advisory Team Can Help You Succeed

By Chris Zoller, Extension Educator, Agriculture and Natural Resources, Tuscarawas County, Ohio State University Extension

Managing all the complexities of a dairy farm is no easy task. Weather, animal nutrition and health, crop variety selection, managing people, and monitoring financial performance are just a few of the items that add to the complexity. Fortunately, there are several people available as a team of advisors to help you address the challenges and contribute to your success.

Farm Advisory Team

You likely are meeting and working with many of the potential team members already, just on an individual basis. Your veterinarian, nutritionist, agronomist, lender, attorney, and Extension Educator are a few of these people. Each brings their own set of knowledge, skills, and experience to the table to analyze, diagnose, and provide recommendations to address challenges and the direction of your farm.

Initial Planning

Before assembling your advisory team, develop a list of questions, issues, or concerns you want assistance and guidance from your team members. Divide the list into immediate, short-term (less than one year), medium-term (one to five years), and long-term (greater than five years) goals or issues you wish to address.

If you've never done it before, completing a Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis of your farm business may be beneficial. This analysis can help guide discussion and direction.

This is also a time to consider who would be a good person to be the facilitator of the team. A good facilitator supports the use of teams, is a good listener, can work with groups, and is well organized. The role of the facilitator is to guide discussion, keep the team focused on their task, and communicate accomplishments and expectations. The facilitator may also assist with periodic check-ins to monitor progress.

Getting Started

Forming the advisory team is not difficult. Again, you are already working in some capacity with each potential team member. The goal here is to bring all the members together at the same time.

After you have developed your list of goals and completed your SWOT Analysis, now it's time to invite team members. A phone call or personal visit with each member is suggested. This allows you to discuss your reason(s) for inviting them, what you hope to accomplish, gauge their level of

interest, discuss time commitment, and identify potential meeting dates and times. A call or face-to-face visit with the person who you identify as the facilitator is important. This person is key to the success of the team and needs to understand their role and expectations.

First Meeting

A written agenda is strongly encouraged. This helps everyone see the task at hand and keeps the team focused and on track.

Begin the first meeting with an introduction of members, including their role. While most may think they have a good understanding, a brief overview of your farm operation gets everyone on the same page. Describe farm size, cow numbers, animal housing, etc.

Following introductions, share with the team your SWOT Analysis and the concerns you've identified previously. Allow members to review, digest, and react to these. The beauty of an advisory team is that each member will approach an issue from a different perspective and provide possible solutions that others might not have otherwise considered. Remember...two heads are better than one. The facilitator will take notes and lead much of the discussion among members.

Wrapping Up

As the established ending time approaches, the facilitator needs to summarize the discussion, reference notes they have taken, and identify next steps. The next steps include the date, time, and location for the future meetings and tasks to complete (along with the person responsible). These should be sent to all team members. Depending upon the complexity and number of topics you wish to address with the team, the frequency of meetings may vary. I believe you should meet with your advisory team at least once a year.

Summary

Farm advisory teams can bring together those with diverse knowledge and skills all focused on your long-term success. Devote time to completing a SWOT Analysis, developing your goals and areas of concern, and invite team members to join you.

If you have questions about advisory teams, your local Extension Educator is a great resource to help you navigate the process. For the SWNY Region, reach out to Camila Lage or Katelyn Walley-Stoll. ▀

Farm advisory teams can bring together those with diverse knowledge and skills all focused on your long-term success.

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If you want to learn more about how to put together an advisory team please feel free to call or email Camila Lage at 607-422-6788 or cd546@cornell.edu

Low Colostrum Yield in Dairy Cows

By Dr. Victor Malacco, MSU Dairy Extension, <https://www.canr.msu.edu/news/low-colostrum-yield-in-dairy-cows>

Have you ever noticed that cows produce less colostrum during the fall and winter months? The deficiency in colostrum production is sometimes reported as no colostrum production at all. Despite the phenomenon observation, little is known about its causes.

Colostrum is essential for the newborn calf. Because the placenta of the cows completely separates the dam and fetal blood, no antibodies or immunoglobulins transfer occurs during gestation. Therefore, the newborn's immune protection relies primarily on the colostrum immunoglobulins absorbed in the intestine during the first 24 hours after birth. In addition to antibodies, colostrum is a good source of several nutrients and bioactive compounds. It provides growth factors important to the developing calf, peptides with anti-microbial activity, and when fed fresh, can transfer immune cells to calves. The success of transferring the immunoglobulins to the calf depends on the timing that it will receive the colostrum and the colostrum quality, cleanness, and quantity. The quantity can be a challenge during the fall/winter months when the cows start to drop the colostrum synthesis.

It is well known that nutrition, dry period length, milk production history, and the number of calvings affect colostrum immunoglobulin concentration and its nutrient composition. However, the risk factors that result in low colostrum production remain unclear. A study by Gavin and colleagues conducted in a dairy herd in Texas evaluated the colostrum production and quality of 2,988 Jersey dairy cows during a year to assess possible effects of photoperiod,

temperature, and cow factors on colostrum production. They observed an average colostrum production of 9.4 lbs. in a range of 0 to 58.4 lbs. Interestingly, they noted a considerable variation during the year, with average colostrum production of 14.5 lbs. in June, 5.5 lbs. in January, and 10.6 lbs. in May. They also observed that cows with more than one lactation had a more significant decline in colostrum production from June to December, on average, compared to first lactation heifers, with 35% of them producing no colostrum in December compared to 1% of the first lactation heifers. The primary factor identified by the authors affecting colostrum production was the photoperiod. They observed that longer sunlight duration 21 days before and at calving day strongly correlated with greater colostrum yield. They also highlighted that genetics could influence colostrum production, with the yield varying between sire lines within the Jersey breed.

Similarly, a study by Soufleri and colleagues conducted in Europe evaluating 1,017 healthy Holstein cows from 10 farms observed effects of the number of calvings, milk production in the previous lactation, and season of calving on colostrum yield with lower colostrum production observed in fall and winter months (13 lbs.) and greater on spring and summer (16 lbs.).

A more recent study led by Rossi and co-authors conducted at three commercial Michigan dairy farms observed the lowest colostrum yield during winter (4.5 quarts) by cows milked within 6 hours after calving when compared to the other seasons (5.7, 6.2, 5.7 quarts of colostrum during spring, summer, and fall, respectively). Interestingly, regardless of the season, only 40% of cows produced sufficient first milked colostrum to support the second meal of colostrum to calves (6 L total yield).

To date, the relationship between photoperiod and colostrum yield is an association, and a cause-effect relationship is yet to be determined. The speculation around the reduction in colostrum production and photoperiod length is related to the variation of hormones like melatonin and prolactin. The light incidence in the cows' eyes controls melatonin secretion by the pineal gland, with long days resulting in low melatonin concentrations. On days with short photoperiod, melatonin concentrations are high, and could inhibit the release of the hormone prolactin and IGF-1. These hormones are essential for the induction and maintenance of lactation, and their

Continued on next page...



Are you noticing that your cows are producing less or lower quality colostrum during the fall and winter months?

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Researchers noted a variation in colostrum production during the year, with average colostrum production of 14.5 lbs. in June, 5.5 lbs. in January, and 10.6 lbs. in May.

January 2023 - 17

lower concentrations could explain the low colostrum synthesis in cows exposed to reduced photoperiod. However, more studies are necessary to confirm this theory.

The reduction in colostrum yield seems to be a seasonal variation, with dry cow management and cow factors playing only a minor role in this phenomenon. Since providing extra daylight is not possible for many farms, the potential adverse effects of the colostrum shortage on calf health need to be addressed through well-planned banking of high-quality colostrum and the use of colostrum replacement strategies when necessary.

Another strategy already adopted for farms that have a low prevalence of failure of transfer of passive immunity and recommended by Michigan State University Extension is the second feeding of 2 to 3 quarts of colostrum 6 to 12 h after the first feeding. Calves that received a second colostrum feeding were less likely to develop morbidity, had better growth rates in the pre-weaning phase, and tended to produce more milk in the first lactation, as Rossi and colleagues reported. ■

Colostrum yield seems to follow a seasonal pattern.

Dairy farmers should alter their colostrum management programs and anticipate the low colostrum season.

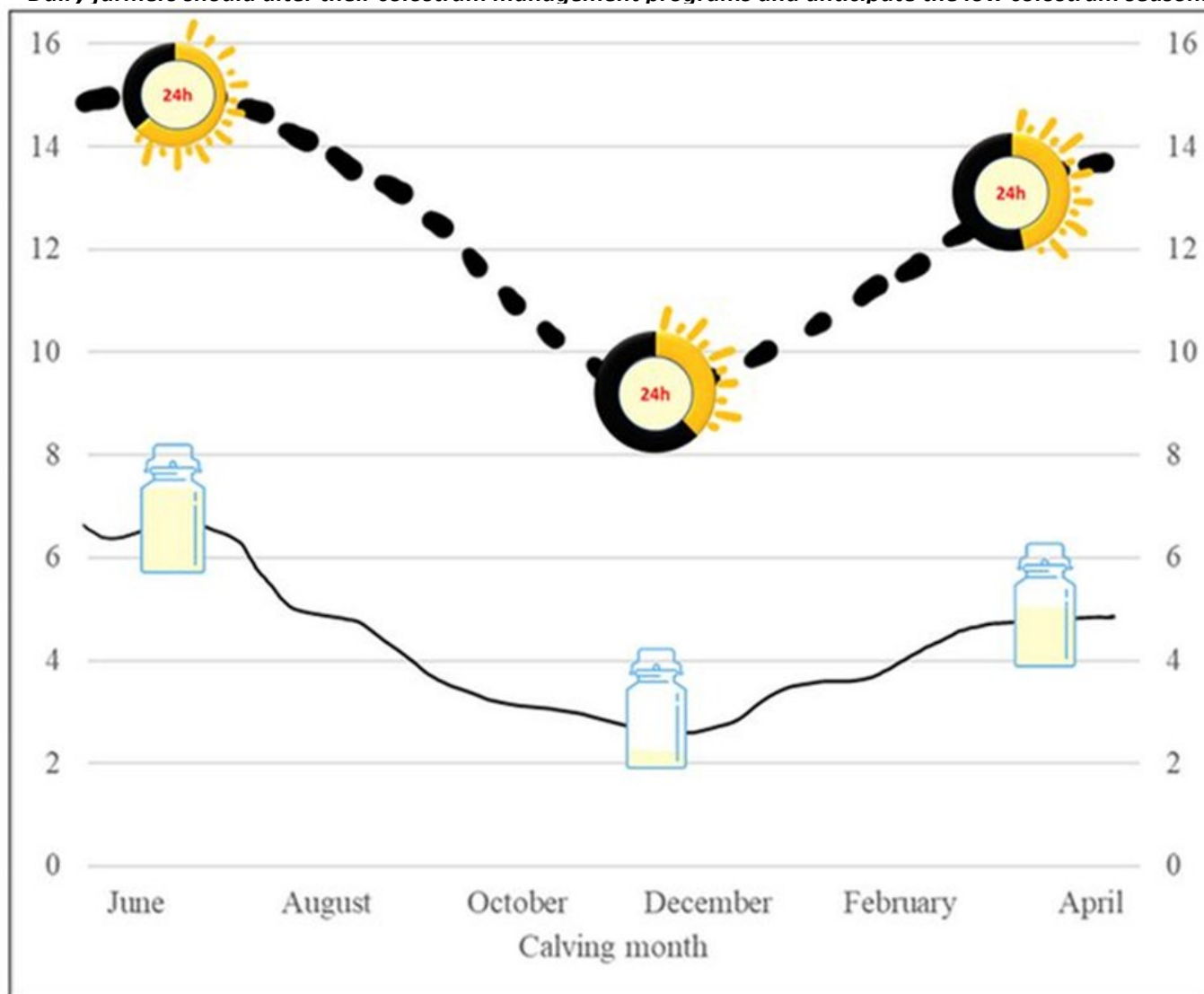


Figure 1. Daytime length and colostrum production over a 12-month period.

A well-planned banking of high-quality colostrum can help you go through winter without possible colostrum shortage.

**CROPS
COWS &
CRITTERS**
newsletter

If you are interested in evaluating the colostrum quality or learn more about how to plan a colostrum banking please contact Camila Lage at 607-422-6788.

Dairy Advancement Program

The Dairy Advancement Program through the New York State Department of Agriculture and Markets and the New York State Department of Environmental Conservation is designed to enhance long-term viability of New York dairy farms while maintaining a commitment to environmental stewardship. The program is coordinated through Cornell PRO-DAIRY and delivered to farms in partnership with Cornell Cooperative Extension and agriservice professionals.

Eligible projects assist New York dairy farmers to position their farm for long term economic and environmental sustainability. Funds are used to engage professionals to improve human resource management processes, for financial analysis and to create business plans, to design new or remodeled facilities, to develop farmstead environmental plans, including design of practices identified in the farm CNMP.



The Dairy Advancement Program is administered through Cornell CALS PRO-DAIRY with support from Cornell Cooperative Extension of New York State and agriservice professionals.

For more information contact:

Caroline Potter
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272 Morrison Hall
Ithaca, NY 14853

Phone: (315) 882-2083
e-mail: dap@cornell.edu



Visit us online at:

prodairy.cals.cornell.edu/dairy-advancement/



Cornell CALS
College of Agriculture and Life Sciences

Dairy Advancement Program

Business Planning

Human Resource Management

Environmental Planning



Supporting excellence in the New York state dairy industry

DAP Funding is available for Advisory teams!

This is a reminder that there is still Dairy Advancement Program Funding available to assist the farm's new advisory teams with improving specific aspects of dairy business performance. You can apply for up to \$ 3,000.



Business Project Funds

With a preference for small to midsize farms, projects will address specific business needs necessary to meet the challenges of today and position the farm for long term viability.

Program funds may be used to engage the services of a dairy industry professional in the following categories:

Funds will cover 80% of eligible costs up to:

Human resource management - \$2,500 to improve HR management processes including performance, leadership, and farm policies. Examples of eligible options include development of SOPs, job descriptions, and employee handbooks, etc.

Business planning - \$5,000 to develop a business plan or \$2,500 to continue planning in a subsequent year for farms previously awarded. Planning may include, but is not limited to planning and analysis of operations, transition analysis, facility planning and farmstead layout planning.

Recordkeeping systems - \$2,500 for implementation and support of a new, (or significant update to an existing) record keeping system.

Operational business planning - \$2,500 for the first year of budgeting and planning with an operational focus to assist with analyzing costs and opportunities for improvement of current operations.

Advisory Team - \$3,000 to assist the farm new to advisory teams with improvement of specific aspects of dairy business performance.

Business projects are funded through the NYS Department of Agriculture and Markets

Position Your Farm for Economic and Environmental Sustainability

- ⇒ Improve your current human resource management processes.
- ⇒ Prepare detailed budgets for financial improvement.
- ⇒ Analyze operational efficiencies to improve the bottom line.
- ⇒ Understand the impact transitioning to the next generation has on the business.
- ⇒ Plan the layout of future structures on the farmstead.
- ⇒ Plan and budget for environmental improvements on the farm (current and future).
- ⇒ Bring together a team of advisors to assist with improving current operations, addressing management challenges, and improving business effectiveness.

Eligibility

- You must be a dairy cattle farm shipping milk in the state of New York (dairy heifer boarding operations under the large CAFO size are eligible to apply for environmental planning funds).
- You must have complete financial records for business planning.
- You must complete and submit an application to: prodairy.cals.cornell.edu/dairy-advancement/

Program funds cover 80 percent of a project's cost. The farm is responsible for 20 percent as well as any amount exceeding the value of the award. Awarded funds are disbursed through Cornell University directly to the industry professional providing services.

Environmental Project Funds

Program funds may be used to engage the services of a dairy industry professional in the following categories:

Comprehensive Nutrient Management Plan (CNMP) for dairy farms < 300 mature cows

Funds will cover 80% of eligible costs up to:

CNMP - \$6,000 for a certified planner to develop a new Comprehensive Nutrient Management Plan (CNMP).

CNMP - \$4,500 to update an existing CNMP.

Engineering Services for Best Management Practices on dairy farms < 700 mature cows

Funds will cover 80% of eligible costs up to:

BMP - \$5,000 to design a single best management practice (BMP) identified in the farm CNMP.

BMP - \$10,000 to design a combination of BMPs identified in the farm CNMP.

BMP - \$3,000 for construction oversight and as built certification of a single BMP, up to \$6,000 for a combination of BMPs.

BMP - \$2,500 to evaluate an existing structure (BMP).

Non-contact cooling water reclamation system - \$10,000 to install a new water reclamation system.

Environmental projects are funded through the NYS DEC Environmental Protection Fund

In addition to advisory teams, DAP has funds available to improve recordkeeping; go through the Business Planning process to prepare for succession, expansion and more.

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You can contact Katelyn Walley-Stoll or Camila Lage in Southwest New York to apply or learn more.

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