

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

Crops, Cows & Critters Newsletter

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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.

Fall Cutting: When is it too Late to Take the Last Cutting?

By Katelyn Miller: Field Crop and Forage Specialist

Drought conditions this summer have left some farmers struggling to capture more feed for their bunks creating the question: **When is it too late to take your last hay cutting?**

Historically, the date October 15th has been used as a cutoff point for harvesting forages with the idea that if a killing frost has not occurred yet, it probably will soon. Although some farms continue to utilize this date for planning their last cutting, accounting for time before the anticipated first frost and Growing Degree Day (GDD on Base 41 F) accumulation also serve as valuable resources for determining harvest timing.

A common rule of thumb utilized for grass or alfalfa is to harvest 4-6 weeks before the first killing frost. This timeline is utilized to provide ample time for carbohydrates to be produced and stored in the crown, while also promoting enough growth for snow cover. If you harvest at this time, the plant should accumulate approximately 500 GDD's.

If you harvest after a killing frost, you do not want the plants to accumulate more than 200 GDD's. Beyond this amount of growth, alfalfa root reserves are again depleted and leave plants susceptible to severe winter temps and winterkill. When you cut at this time, you also want to increase cutting height to a minimum of 6 inches to reduce the amount of bare soil present and provide snow cover since limited growth will occur with cooler fall temperatures.

To calculate how many GDD's have occurred since you took, or are planning to take, your last cutting, utilize this resource from Climate Smart Farming.

<http://climatesmartfarming.org/tools/csf-growing-degree-day-calculator/> . If you'd like assistance due to a lack of internet connectivity, contact Katelyn Miller.

When considering taking a late cutting, here are some considerations:

Are the varieties you planted winter-hardy?

- Planting winter-hardy varieties can allow the crop to withstand a later cutting. It's important to note that plant stress in season also plays a role in winterkill, regardless of variety.

How old is the stand?

- Typically, older stands are more prone to winterkill.
- Reducing the frequency of late fall cuttings can help improve the overall field longevity and plant vigor.

What's it rooted in?

- Fields that are well-drained with adequate soil pH levels and high fertility may be better candidates for a late cutting.

How much spring yield are you willing to lose?

- You may experience reduced first-cutting yields for the following season when taking a fall cutting. Fields cut late in the fall generally break dormancy later in the spring. The gain you experience in fall yield will be about equal to yield loss in the spring.

Deciding to take a late fall cutting is dependent on the needs of your operation. Be sure to weigh out all the possible benefits and consequences.

Below are some additional resources to help you decide if a late cutting will fit your operation:

- <https://www.farmprogress.com/story-how-late-too-late-harvest-alfalfa-9-146837>
- <https://www.farmprogress.com/story-should-make-last-cutting-hay-9-132615>
- <https://extension.sdstate.edu/how-late-too-late-last-alfalfa-cutting>
- <https://hayandforage.com/article-4119-late-fall-alfalfa-cuttings-rarely-pay.html>

If you would like printed copies of any of the resources above, contact Katelyn Miller. ■



Photo from Oregon State University

For assistance with the Growing Degree Day Calculator from Climate Smart Farming, contact Katelyn Miller by calling 716-640-2047.



Be sure to weigh all of the potential benefits and consequences of taking a late fall cutting as it might have implications that reach farther than this year's growing season.

Equipment Maintenance

By GROW; C. Rubione, M. VanGessel, V. Ackroyd, B.

Equipment that enters a field with mature herbicide-resistant weeds will easily become a vector for the spread of those weed seeds to other fields. Using proper precautions and thoroughly cleaning equipment after working in weed-infested fields can greatly reduce the spread of weed seeds to the next field.

General Tips for Preventing Weed Seed Spread with Equipment Maintenance:

1. Harvest herbicide-resistant weed-infested fields last. Plan your harvest ahead of time.
2. Know whether the combine entering the field has recently been in a field containing herbicide-resistant weeds such as waterhemp or Palmer Amaranth. If so, take the time needed to clean it or consider other available options.
3. When purchasing a used combine, take the necessary time to completely clean the combine before use.
4. Utilize an air compressor to remove the bulk of the weed seeds from the combine.
5. Check the rock trap, as weed seeds and debris may be caught here. Drop the rock trap and blow it out with the air compressor between fields.
6. Open trapdoors to clean the grain auger and tailings processor with an air compressor.
7. Once finished steps 4, 5 and 6, deep clean the combine using straw bales and wood chips.
8. On a rainy day, consider a thorough 4-5 hour combine cleaning as a rainy day activity.
9. Since weed seeds can also travel on tillage equipment, thoroughly clean this equipment after infested fields as well.

We often see weeds visible above a cash crop canopy, particularly in soybean fields. Sometimes these weeds are solitary specimens, while other times they are distributed in patches or even rows. Farmers have told us that these weed species are new to their fields and may have been carried into the fields by a combine. It is a plausible scenario: combines have been documented to spread weed seeds from infested fields to new fields. Weed seeds can survive in debris on a combine across seasons.

Most people think that weed seeds are hidden somewhere in the combine and are almost impossible to remove, even during a thorough cleaning-up. This is not true. It is both crucial and possible to deep-clean the combine

before moving to another field, as well as at the end of the season.

A soybean combine works by cutting off both soybeans and weeds near ground level and bringing the material into the header. All the material then feeds into the threshing cylinder. While grain is collected in a bin, straw and chaff are dropped behind the combine as it moves along the field.

Moving from the rear of the combine to the header, straw chopper knives, walker cranks, and straw walkers can allow residue to accumulate. Weed seeds get stuck in the straw chopper and chaff spreader as well as in the unloading auger. To reach many of those parts, the different access gates on the sides of the combine should be opened. Cylinder and concave are composed of many parts where weed seeds easily hide. Since they are difficult to access they should be cleaned with compressed air whenever possible.

Sieves, tailing return chains, drives, tank auger, and transmission are also important parts that must be considered in the cleaning process.

Plant residues containing weed seeds can be removed by opening the stone trapdoor.

Start cleaning a combine from the top and from the header to the rear, following the normal circulation of the material. Certain parts are better cleaned with an air compressor, while others could be done with a leaf blower. Cleaning the grain bin and augers as well as the moisture sensor is essential to prevent wagon and truck contamination with weed seeds.

After the combine is cleaned with a blower or compressed air, let the fans work until no more residue is coming out the back. A tarp could be helpful to see when that happens. The last step is to introduce hay through the header and a combination of hay and wood pellets to the grain bin. Be sure to take the bale pieces apart and feed them into the machine from either the feeding house opening or the header. Depending on how big the combine is, it will take from two to three bales to clean it. With the engine, fans, and all threshing components at normal operating speed and the header turned on, carefully feed bales from the sides of the header to the middle. To clean the grain bin, be sure the auger is not running, mix 25 pounds of wood pellets with half a bale, and introduce the mixture into the grain tank auger.

Combines have been documented to spread weed seeds from one field to the next.



Start cleaning the combine from the top of the header to the rear, following the normal circulation of material.

Then start operating the auger to clean it. Straw fed into a combine after harvest, as opposed to straw as part of the harvest (grain + straw + chaff), moves around the combine more freely to reach those spots containing hidden weed seeds.

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Once the bales have entered the machine, watch the rear of the combine to see when no more material comes out. When that happens, a final, cosmetic cleaning step with the help of a blower may be necessary to remove a few large pieces of straw which might be stuck in different parts of the combine.

Prior to storing combines at the end of the season, three previously cleaned combines were tested for weed seed retention. Initially combines were run until no residue fell on the tarp used to collect the weed seeds, then straw bales and wood chips were fed through the combine in an attempt to catch and remove any remaining weed seed. Research has shown the straw bale cleaning method to be effective.

After running this test from a first combine, weed seeds were identified and counted. Over 3,000 Palmer amaranth seeds along with other weed seeds were collected. A second combine cleaning resulted in more than 1,700,000 Palmer amaranth seeds collected in total over 3,5 million weed seeds were removed from this cleaning. The third combine received a thorough cleaning and resulted in no weed seed retention.

Combines have been designed for harvesting crops, separating grains from stems and pods, and cleaning the grain of unwanted material. Unfortunately, they are not designed for weed seed self-cleaning.

Consequently, the machine must be carefully cleaned, keeping in mind where weed seeds can hide. The time it takes to deep-clean a combine to remove weed seeds could range from minutes to hours, depending on how often the combine is cleaned and how weedy the fields are. Remember that prevention is the key to managing weed seed dispersal, and combine cleaning is a major part of prevention.

Final considerations

- Prevention is the key to avoid weed seed dispersal and contamination.
- Plan ahead and be proactive.
- Implement a plan for keeping weeds under control, managing fields strategically as well as cleaning the machinery involved.
- Follow a “Weed Seed Cleaning Protocol” with all machinery which could be contaminated with weed seeds. ▪



Top: Combining weedy dry beans.

Bottom left: Palmer amaranth in dry beans.

(Photo by Gary Stone UNL).

Bottom right: Combine cleanout.

(Photo by Meaghan Anderson UNL)

Straw bales and wood chips serve as good tools to clean the combine because they are able to move more freely, reaching spots with hidden weed seeds.



Cleaning equipment serves as a proactive step in reducing the spread of herbicide resistant weeds.

CCE Harvest New York's Regional Farm-to-School Coordinator Program is Looking for Farms to Supply Local Foods to Schools in our Region, Including Meats and Dairy Products

CCE Harvest NY's Regional Farm to School Coordinator Program is working with NYS Department of Education to support schools participating in the [USDA Agriculture and Marketing Services Local Food for Schools Cooperative Agreement Program](#). Local Foods for Schools is a USDA funded program intended to help schools deal with the challenges of supply chain disruptions brought on by the pandemic. The program is designed to strengthen the food system for schools by helping to build a fair, competitive, and resilient local food chain, and expand local and regional markets with an emphasis on purchasing from historically underserved producers and processors. Schools must use funds received through this program to purchase unprocessed or minimally processed domestic, locally grown foods from local producers, small businesses, and socially disadvantaged farmers/producers for use in the school meals programs. In NY State the program is administered by NYS Department of Education. Cornell Cooperative Extension - Harvest NY is the technical assistance provider.

If you would like your farm or food business information shared with schools, please complete the survey linked below by Monday, November 14th. The survey asks about your business, the products you grow, raise, produce, or distribute, and what part(s) of the state your products are available, and should take about 5 minutes to complete.

Survey link: https://cornell.ca1.qualtrics.com/jfe/form/SV_ahCKGXRHXQiDI7I

If you would like to complete the survey over the phone, please contact Amy Barkley at amb544@cornell.edu or (716) 640-0844. Questions about the program can be directed to Cheryl Bilinski at cbt32@cornell.edu. ▪



Economic Feasibility of Co-Digestion of Manure and Food Waste

Webinar on December 1st 12pm-1pm EST



Are you interested in exploring whether a manure and food waste co-digestion enterprise might be feasible at your dairy? This webinar will present the economic feasibility of two scenarios of anaerobic co-digestion on a case dairy farm located in Northern New York.

Scenario 1: addition of food waste (20% by volume) to an existing manure anaerobic digester to electricity system.

Scenario 2: new construction anaerobic digester to renewable natural gas (RNG) system taking in food waste (up to 50% by volume) with manure.

Food waste sources and tipping fees, biogas generation and utilization for energy, and digested effluent storage and nutrient management planning are described. A question and answer session is included.

Speakers

- Lauren Ray, *Agricultural Sustainability & Energy Engineer*, Cornell CALS PRO-DAIRY
- Peter Wright, *Agricultural Engineer*, Cornell CALS PRO-DAIRY

Moderators

- Lindsay Ferlito, *Regional Dairy Specialist – North Country*, Cornell Cooperative Extension
- Angela George, *Dairy Environmental Systems Specialist*, Cornell CALS PRO-DAIRY ▪

Grant funding for the project was provided by the farmer-driven Northern New York Agricultural Development Program.



The Farm to School initiative helps schools make their meals from at least 30% NYS grown/produced ingredients.

6 - November 2022



CCE Harvest NY Coordinators can match the amount of product that a farm or farm business produces to a school district's needs.

Herbicide Supplies and Storage During the Winter

By Dwight Lingenfelter: Penn State Extension

Again, this year, there is a lot of speculation about potential herbicide shortages and price increases on some products for the 2023 growing season. Overall, it does not seem as grim as last year, but indications are that supplies of glyphosate (Roundup, others) and metribuzin should be adequate but likely not back to levels and costs prior to the pandemic.

Products such as glufosinate (Liberty, others), metolachlor (plus other group 15 herbicides), atrazine, dicamba, and 2,4-D might be in shorter supply and with higher prices. Also, some products that are packaged in smaller sizes (e.g., 2.5-gallon jugs) might be limited but other sizes such as totes should be more readily available. Furthermore, with volatile supply chain issues involving many aspects of production as these days, some are asking if it is wise to purchase bulk inventory of herbicides and/or other pesticides.

The short answer is yes, if it makes sense economically, it could be a good idea to start making purchases on some of these inputs. Begin now by working with your dealer to discuss these issues. The intent is not to stockpile products but to have a modest supply for use during the next growing season. However, you must keep in mind appropriate storage parameters, namely issues regarding

freezing of pesticide products during the winter months.

In general, freezing temperatures can change and negatively affect the chemistry of some pesticides inside the container and can also damage the container itself. Premixed liquid products that contain multiple active ingredients seem to be affected more so by low temperatures than single active ingredient products. Some premixes tend to separate in the container and can be difficult to get back into a homogeneous liquid prior to use in the spring. Make sure to read the label for storage instructions. But as a general rule, pesticides are best stored between 40-90°F.

For more details and many useful links, please refer to the National Pesticide Information Center's Storage of Pesticides webpage: <http://npic.orst.edu/health/storage.html>

Another good resource is Penn State's Effect of Cold Temperatures on Pesticides article: <https://extension.psu.edu/effect-of-cold-temperatures-on-pesticides>

Please contact Katelyn Miller for printed version of these publications. ▪

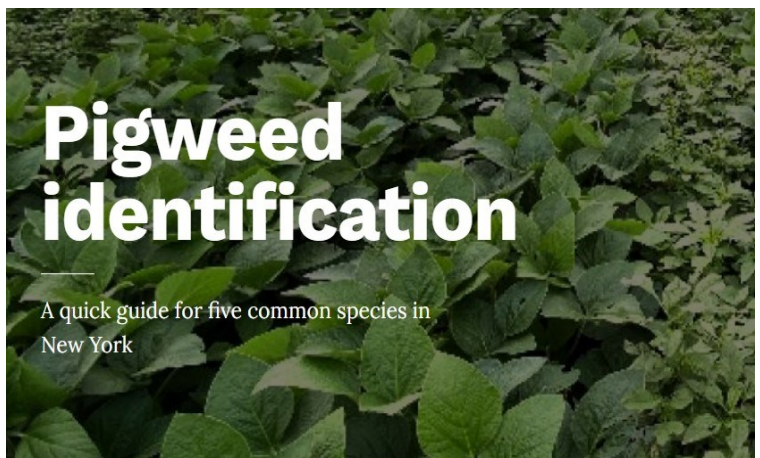


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Pigweed
identification

A quick guide for five common species in
New York

Check out Cornell CALS new Pigweed
Identification Website:

[https://cals.cornell.edu/weed-science/weed-identification/
pigweed-identification](https://cals.cornell.edu/weed-science/weed-identification/pigweed-identification)

For a printer friendly version: [http://hort.cornell.edu/
sosnoskie/pigweed-identification-quick-guide.pdf](http://hort.cornell.edu/sosnoskie/pigweed-identification-quick-guide.pdf)

Freezing temperatures can change and negatively affect the chemistry of some pesticides.

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Check out Cornell CALS new pigweed
identification website, or contact Katelyn
Miller for more information.

Professionalizing Human Resource Management in Farms: Why and What This Means

By Richard Stup (rstup@cornell.edu)

Agricultural Workforce Specialist for Cornell Agricultural Workforce Development.

A trend is emerging across the dairy industry, with some farmers becoming very professional in how they hire, develop, and lead employees. These farmers are highly aware that good employees are the most important asset for business success and that they may already be the scarcest resource available to farms. These professional human resource management (HRM) farms are consistently well-managed because they have excellent people in every position, and they are opening up a lead as they outperform other dairies who just can't find or retain good people.

WHY PROFESSIONALIZE?

The business case for professionalizing HRM is clear. Labor has been in short supply for years and this is likely to continue. The competition for good employees will remain fierce. Once employees are in place, employers need to take every action they can to ensure that employees are productive and engaged in their work, so they will stay. A professional workplace removes barriers to employee success, enhancing performance and business profitability. Finally, modern agriculture has its opponents. The industry can't afford to have unconscionable violations such as farm employees housed in substandard conditions or abusive relationships at work. If it does, then agriculture's opponents will use these shortcomings to attack farms and the industry as a whole in the media and through the legal system.

AN UNPROFESSIONAL WORKPLACE

I grew up on a small family dairy farm. One big advantage of that lifestyle is that farm kids learned to do just about everything. Early in my working career I worked weekends for a single farmer so he could visit his girlfriend in another state. His operation was not a professional workplace. I had to use a rolling start for the TMR wagon tractor and bang on the electrical switchbox just so to make the silo unloader run. Worse, if the well pump breaker kicked off, I had to climb down in a pit to reset it. While climbing into that pit one weekend as I was working alone, I wondered: "How long will it take them to find me if I get electrocuted down in this pit with the water, pipes, and electricity?" You can't find people today willing to work in conditions like this, and they shouldn't have to.

A PROFESSIONAL WORKPLACE

In contrast with an unprofessional workplace, let's consider the characteristics of a professional workplace. Management plans and maintains the physical places where people work. Equipment, tools, and supplies are located close to where employees perform their tasks so they can be conveniently used. The workplace is kept organized, meaning that extra clutter is removed diligently supplies are replenished, and storage and workspaces are updated to enhance employee performance. Attention and work time are allocated to maintain organization. Picture in your mind a neat, stocked, and organized machinery repair shop where the proper tools are stored conveniently, contrasted with a cluttered and dirty shop where the right tools seem to never find their way back to where they belong.

The workplace should be clean. After all, we're in the food production business. A clean workplace also makes it easier to spot problems, like broken equipment, leaks, and spills. Clutter and dirt tend to hide problems, often making them worse.



Labor has been in short supply for years and this is likely to continue. The competition for good employees will remain fierce.

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Once employees are in place, employers need to take every action they can to ensure that employees are productive and engaged in their work so that they will stay.

A professional workplace is kept in good repair. This doesn't mean that everything needs to be new, just well-maintained. Employees are quickly frustrated when broken equipment and tools force them to find less efficient workarounds. Frustration is amplified when employees ask to have something repaired and their request is ignored or takes way too long. Create and manage a repair system, make red tags available for employees to indicate something needs repair, create a log for reporting repair needs and tracking completion, and most importantly, assign responsibility and authority to someone to complete repairs on a timely basis.

Safety is a sign of a professional workplace. Safety equipment, shields and warnings signs should be in place, along with personal protective equipment. Safety training should start with new employee onboarding and continue with regular refreshers. Larger farm workforces should have a safety committee in place. The committee's purpose is to ensure that safety is a central part of the workplace culture, that procedures are in place to maintain safety, and to constantly look for ideas to improve overall safety.

A great trend in recent years is high visibility vests provided to farm employees and required at work at all times. When farm management purchases this safety gear for employees, it sends many messages beyond just, "Hey...I'm here!" Messages to employees like:

- You're important
- You're worth investing in
- We care about your health and well-being
- We want you to get home to your family safe
- We do things right around here

MEETING EMPLOYEES' NEEDS AS HUMANS

I'd like to share a little secret with farm managers. Your agribusiness partners, the veterinarian, nutritionists, and other service people who visit farms regularly, they all know which farms have bathrooms that are fit for use by humans and which do not. It says something about farm management when they provide an employee bathroom that is reasonable versus one that is an atrocious, filthy hellhole. The employees who work there don't have the luxury of waiting to go at the next stop, they are stuck and have to use the hellhole. This is not acceptable. Fix the bathroom, put a cleaning schedule in place, allocate paid work time for cleaning, and use your management skills to provide an acceptable, usable bathroom for your employees and everyone who visits your farm. Employees are humans and have needs as such. Provide a breakroom

where they can relax on break, a locker or cubby to put their personal items, a refrigerator to stash their lunch, a microwave to heat it up, and a source of clean water. While you're at it, think about ergonomics on the farm. Where can the workplace be modified to make work easier on the limbs and backs of employees?

CLEAR POLICIES, RULES, AND EXPECTATIONS

Workplace culture flows down from owners and senior management, and they have the opportunity to establish workplace behaviors through clear expectations, rules, and policies. A professional workplace has a strict policy against behaviors such as sexual harassment and discrimination. It also uses an employee handbook to clarify expectations about items such as: pay schedules and increases, hours and overtime, cell phone usage, attendance and timeliness, leave from work, and other benefits. Many of these things are taught to new employees during their onboarding experience, which also serves as their first exposure to the farm's effective leadership practices.

EFFECTIVE LEADERSHIP

Professional HRM just can't exist without effective leadership. Professional managers know that supervising others is their most important responsibility. In fact, supervising others appears clearly in a manager's job description as their main responsibility. These professional managers are crystal clear about the three parts of effective supervisory leadership:

- Set clear expectations about behaviors and performance.
- Provide training and other learning opportunities.
- Provide effective feedback to employees about their performance.

Some dairy businesses are professionalizing their HRM as a competitive advantage and gateway to long-term success. Other farms must increase their professionalism rapidly to find and keep good employees. Support is available from industry organizations, extension, and even some outsourcing companies, to improve farm HRM. This type of change, unfortunately, can be difficult, because it involves changing personal beliefs and behaviors. Professional managers value employees as assets to invest in and develop, rather than viewing HR as a necessary evil of business growth. Changing this personal value is the first step to become a professional human resource manager. ▀

For more information and resources to update your farm's Human Resource Management, contact Camila Lage or Katelyn Walley-Stoll.



Richard Stup (rstup@cornell.edu) is the Agricultural Workforce Specialist for Cornell Agricultural Workforce Development.

Managing Diet Nutrient Variability Through Improved Forage Sampling Practices

Jorge Barrientos-Blanco, Joe Lawrence, and Kristan Reed

LOW DIET ACCURACY DECREASES PROFITABILITY

High feed prices and volatility due to market and supply chain disruptions caused by the COVID pandemic are restating the importance of maximizing feed use efficiency. Diet accuracy is one management factor that can improve feed efficiency. In this context, we define accuracy of the delivered diet as the alignment in nutrient composition of the formulated diet and the diet delivered to the feedbunk. Low accuracy of delivered diets increases the risk of underfeeding and overfeeding cows due to high uncertainty and inconsistency of the nutrients delivered to the bunk and available to the cow. Underfeeding and overfeeding cows can decrease milk yield, increase nutrient waste, and increase the risk of health issues that affect the use efficiency of dietary nutrients. Low accuracy of formulated diets can result from poor mixing management and ingredient composition variability. However, better mixing management practices and better understanding and management of ingredient variability can improve diet accuracy. For example, optimizing sampling practices will identify important changes in feed composition and enable timely adjustments to diet formula to minimize the risk of underfeeding or overfeeding cows. Production and feed efficiency losses due to diet variability may seem small when considered for an individual cow, but these losses add up, and improved diet and feed management can lead to real savings. For example, in a simulation study, St-Pierre and Cobanov (2007) found that implementing optimum sampling practices in a 1,000-cow farm could decrease the costs related to the changes in forage composition by \$250 a day.

IMPACTS OF MIXING AND INGREDIENT COMPONENT VARIATION

Ingredient loading error, loading order, mixing time, mixer blade and kicker plate condition, and mixer scale accuracy are key sources of variability introduced during the mixing process (Mikus, 2012, Trillo et al., 2016). Good maintenance protocols and record-keeping will help to maintain accuracy of the delivered diet and prevent unnecessary losses at the feedbunk. Feed ingredients contribute to the variation of the delivered diets in proportion to the square of the inclusion rate and the degree of nutrient variability in the ingredient. Byproducts have the highest level of nutrient variability, followed by forages, and grains have the lowest levels. Due to the high inclusion rate (40 to

60 percent), forages often account for the largest proportion of diet nutrient variation and thus are the focus of an on-going study to develop management protocols to minimize the impacts of forage nutrient variation.

UNDERSTANDING AND MANAGING FORAGE NUTRIENT VARIABILITY

Our project includes three main goals:

- Improve understanding and quantify the factors that influence variability
- Optimize sampling practices for farm-specific conditions
- Develop a tool to guide implementation of optimized practices and monitor forage nutrient composition

During the summer of 2020 and spring 2021, we collected corn silage and haylage samples at harvest and feedout from eight New York dairy farms with three silage storage methods (bunker, bag, and drive-over pile). During harvest, we collected samples from each truck load delivered to the silo and composited samples for every 15 to 20 acres within each field. We recorded the location within the bunkers and silo bags of the forage from each field, the weather conditions during growth and at harvest, and the soil type and texture of each field. During the spring of 2021, we collected two independent corn silage, haylage, and TMR samples at feedout, 3x per week for a period of 16 weeks, from the same eight N.Y. dairy farms sampled at harvest. We recorded the weather conditions on the day of feedout and identified the fields-of-origin of the forages fed that day. We used a mixed-model analysis for harvest and feedout datasets to identify the most relevant factors causing variation in the nutrient composition of corn silage and haylage.

Unsurprisingly, the mixed model analyses identified field as the highest source of variation in forage nutrient content during harvest and Feedout. This suggests that reformulating diets when forage from a new field is fed could improve diet accuracy. Therefore, we estimated the average field-of-origin feeding time for each silage type at each farm and used those values as inputs to an optimization algorithm. Using this method, our estimates for the average stable time of forage nutrient composition for corn silage and haylage ranged from four to 18 days, which is a much shorter time frame than the 30 days suggested by St-Pierre and Cobanov (2007) and varies with the farm size and silo type. If true, the shorter

Diet accuracy, which means the alignment in nutrient composition between the diet that was formulated and delivered to the feed bunk, is one management factor that can improve nutrition efficiency.



Implementing optimum sampling practices in a 1,000-cow farm could decrease the costs related to the changes in forage composition by \$250 a day.

stable periods suggest that forage composition changes more frequently than previously suggested, which will impact diet accuracy and associated costs.

OPTIMUM SAMPLING PRACTICES AT DAIRY FARMS

To illustrate the influence of the expected stable time, we found optimal sampling practices for corn silage and haylage on a small (100 milking cows) or large farm (1,200 milking cows) with either bunk or bag silos using the renewal reward model and genetic algorithm suggested by St-Pierre and Cobanov (2007) to minimize the Total Quality Cost. Total Quality Cost refers to the cost related to sampling and changes in forage components. It includes the costs of labor associated with sample collection and reformulation, sample analysis costs, and expected losses in milk production or increases in feed costs due to underfeeding or overfeeding. To optimize the sampling methods, we found the number of samples to collect, sampling frequency, and acceptable limit of variation before diet reformulation for each combination of management practices that minimized the Total Quality Cost.

Consistent with results from St- Pierre and Cobanov (2007), our analysis suggests different sample numbers, sampling frequency, and tolerable level of variation minimize the Total Quality Cost for farms of different sizes and different expected variation in forage nutrient composition (Table 1). Also, in alignment with previous reports, the recommended number of samples ranged from one to two samples, and farms with a greater number of cows benefit from more frequent sampling. However, our results suggest that smaller ranges of acceptable variation are needed to minimize the Total Quality Cost associated with forage nutrient variability. In practice, this recommendation means that a forage monitoring and diet reformulation protocol would be more sensitive to smaller changes in corn silage and haylage nutrient composition. The Total Quality Cost estimates from our approach to quantifying the expected forage variability through average stable time are higher than estimates from St- Pierre and Cobanov (2007). These higher costs are a result of increased sampling and lab analysis costs due to smaller tolerable level of variation and expected higher frequency of overfeeding and underfeeding.

MONITORING FORAGE COMPONENTS VARIABILITY

Nutritionists and farm managers can use the recommended sampling practices produced from the optimization method under development to monitor forage nutrient composition with x-bar charts. This tool can help

nutritionists and farmers detect abrupt changes in forage components and determine if the changes warrant action. The optimal limits of variation for each farm provided by our algorithm can be used as inputs to set the upper and lower limits for the allowable change in a forage component. When a sample analysis indicates that a forage component exceeds the acceptable level of variation, the industrial process control methods recommend taking another sample to verify the result and exclude the possibility of sampling or laboratory error. If a second sample analysis confirms the abrupt change in forage composition, the recommended action is to adjust the diet formulation. However, to ensure that process control recommendations translate effectively to dairy cattle diet formulation and delivery, our next steps will be to implement our proposed sampling and diet management protocol in a commercial farm setting and measure changes in diet accuracy and milk production. If confirmed, we will implement the protocol optimization method and x-bar chart in a decision support tool to help guide forage management and sampling and diet reformulation timing.



This grant program from American Farmland Trust helps beginning, women, veteran, and historically resilient farmers improve their farm viability, increase their climate resiliency, and gain access to farmland.

Learn more and apply here:

<https://farmland.org/future-brighter-future-fund-applicants/>

OR

Reach out to Katelyn Walley-Stoll for assistance
716-640-0522
kaw249@cornell.edu

Applications are due by November 15th

Jorge Barrientos-Blanco (jab924@cornell.edu) is a graduate student in the Cornell University Department of Animal Science.

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Joe Lawrence (jrl65@cornell.edu) is a Senior Extension Associate with PRO- DAIRY. Kristan Reed (kfr3@cornell.edu) is an assistant professor in the Cornell University Department of Animal Science.

Farm Insurance Basics

Article courtesy of Farm Commons

What insurance should I purchase for my sustainable farm?

How much insurance do I need?

The last thing you want is to be stuck with no insurance if a catastrophic incident occurs; even worse is to be stuck with no coverage despite having insurance! This tip sheet discusses risk and return when seeking insurance for your farm operation. Ultimately, only you can decide on the best approach for the present and future stability of your farm business.

First step: Prepare a risk assessment

Consider starting with a basic risk assessment. A risk assessment is simply a means of identifying the vision you've created for your farm and then identifying potential problems. This will assist in planning how you will handle them.

Start with a clear vision of your long-term goals for your operation. Here are some questions to get you started:

- Are there aspects of your business that you would like to grow down the road, such as value-added products or agritourism?
- Do you, or do you plan to, position yourself as a family-friendly farm where there are lots of on-farm sales, CSA pick-ups, events, activities, and so on?
- Is business concentrated in restaurants, grocery stores, and other retailers?
- Is your farm operation already at the scale, or do you plan to grow to, where you need to have workers—including employees, interns, or volunteers?

Considerations like these will help you make decisions about what to prioritize and maximize the time, effort, and money you put toward insurance and other risk management strategies.

Next, identify your existing and future risks. To do this, ask yourself the following question:

- What assets or aspects of my farm—now and in the future—are essential to the resilience and success of my business?

Is there a structure or piece of equipment that is fundamental to the success of your operation? In other words, ask yourself what would happen if significant items on your farm were damaged or stolen. This could include crops and livestock, as well as seeds and animal feed.

What about farm guests? Are they essential to your operation? If so, what would happen if someone got injured and your farm business was on the hook

for their medical bills? What about workers? Worker injuries pose a significant liability risk to farms as no matter how many precautions are taken, worker injuries can and do happen. If you have or plan to have workers, how will you manage this risk? Ask similar questions for each aspect of your farm operation.

This process is kind of like taking an inventory of your farm operation. By identifying the essential assets and aspects of your business you can strategically decide which risks to prioritize.

Second step: Decide what to insure

The next step is to decide among common insurance strategies for addressing the farm's risks. Common insurance strategies fall into these categories: crop and livestock damage, property damage, guest and customer injuries, worker injuries, and retail and wholesale sales liability.

Crop and livestock damage

Crop and livestock insurance covers the farm from significant loss caused by a natural disaster. Diversified farms traditionally have had limited options, but the Whole Farm Revenue Protection (WFRP) policy, now provides revenue coverage for diverse crop and livestock production. The WFRP policy covers a wide variety of naturally caused losses such as hail, disease, or flooding. Multi-Peril Crop Insurance (MPCI) policies are available for selected commodities and regions, and provide coverage on an average market price basis. The Noninsured Crop Disaster Assistance Program (NAP) provides limited coverage for crops not otherwise insured through the Farm Service Agency (FSA).

Action Step: Contact a local insurance agent who sells crop insurance. A list is available at the USDA Risk Management Agency website. NAP policies are available by contacting FSA. RMA also has several fact sheets on crop and livestock insurance available on its website, which can be found through an online search: "RMA fact sheets."

Property damage

Property insurance generally covers damage to property from weather events, theft, or vandalism. Property insurance policies can also cover losses from equipment breakdown or loss of electrical power. The property covered can include buildings, tools, equipment, machinery, seed stock, animal feed, and so on.

Action Step: Relying on your risk assessment, identify the property for which you would like coverage. What do you estimate is the replacement value of these

A risk assessment is simply a means of identifying the vision you've created for your farm and then identifying potential problems. This will assist in planning how you will handle them.



For more information about insurance options for your farm, contact Katelyn Walley-Stoll by calling 716-640-0522.

items? Contact your insurance agent to explore your options for getting these items covered. Be sure to update your insurance agent if any improvements are made or the value of these items increases.

Guest and customer injuries

Whether the farm hosts guests and customers, agritourism events, u-picks, farm stand sales, CSA pick-ups, or just a party, if someone were to get injured the farm could be on the hook. The farm could also be on the hook for injuries at off-site locations, such as a CSA drop site. Insurance coverage is a crucial risk management strategy for injuries. No matter how safe a farm is, any farm can be called into court to defend themselves. Insurance policies generally provide an attorney to defend the farm's safety and compensate the injured person for his or her injury. Standard farm property and liability policies provide coverage for injuries to farm guests and customers. However, any off-farm or special activities such as events, processing, u-pick, and CSA drop sites, among others, may need individual endorsements, event riders, or separate policy lines.

Action Step: Discuss with your insurance agent every aspect of your farm operation including any off-farm activities and all diverse ventures on the farm. Your agent should recommend a policy plus endorsements or commercial lines of coverage to address each of them.

Worker injuries

Farming is dangerous and worker injuries can and do happen no matter what precautions are taken. The most risk adverse approach is to carry workers' compensation or other insurance to cover injuries for ALL of the farm's workers—including employees, interns, and volunteers—whether required by law or not. If a farm does not carry workers' compensation, the farm should explore other options as injured workers (or their health insurance companies) may sue the farm. A commercial policy may offer coverage for part-time and seasonal workers. For year-round employees, finding coverage other than workers' compensation may be very difficult.

Action Step: Contact your insurance agent to purchase workers' compensation or discuss liability coverage options for workers.

For more information on workers' compensation in Minnesota and Wisconsin please view Farm Commons' free webinars Make Employment Law Work for Your Farm for each state.

Retail and wholesale sales

Farms selling to grocery stores and wholesale

distributors may wish (or be required by the buyer) to carry a commercial general liability insurance policy. Commercial insurance extends the farm's liability coverage to a broader set of circumstances including off-farm sales and coverage for things like indemnification and recall costs, to name a few possibilities. Some commercial policies provide some product liability coverage so any farmer with significant sales may want to explore this option.

Action Step: Contact your insurance agent to discuss whether you are covered for legal liability issues that may arise from wholesale sales—including liability minimums and indemnification clauses—or whether a commercial policy is more cost effective for your situation.

Third step: Decide how much

Insurance policies have monetary limits; rare is the policy that will cover the full extent of the damage, no matter how great. These limits come in different forms. Specific covered items such as equipment and buildings may have limits on their replacement value. Liability coverage for injuries and such will have total liability limits. Umbrella policies might be available to raise or distribute policy limits, but a limit remains. Generally, the more coverage the more expensive the premiums. Unfortunately, there's no cut and dry equation for determining exactly how much insurance to get.

A good starting point is to ask yourself the following questions:

- If a particular item was damaged, how what repair or replacement value would the farm business need to stay afloat?
- How high is the risk that such an incident or damage will occur?
- How devastating might a particular risk be if it materialized?
- Are buyers, partners, or other entities expecting a specific level of coverage?
- How much can the farm reasonably afford for insurance risk protection?

Consider more coverage for those items or aspects of your farm business where your discomfort with the risk is highest. The goal is to strike the right balance of not paying too much in premiums but paying enough to be sure that adequate coverage is available if and when you need to file a claim. ▀

DISCLAIMER: This guide does not provide legal advice or establish an attorney-client relationship between the reader and author. Consult an attorney for advice specific to your situation and the state in which you operate.

An insurance package might be assembled from among several options including a farm liability policy, endorsements, or a commercial line of insurance.



Finding an insurance agent who you can trust is vital for getting an insurance package that adequately addresses the farm's needs.

Dairy Market Watch



October 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
Sep 21	\$1.93	\$2.60	\$19.84	\$16.89	\$16.53	\$16.36	\$16.81	\$0.28	\$17.41	\$0.88	\$1.50
Oct 21	\$1.94	\$3.01	\$20.33	\$17.08	\$17.83	\$17.04	\$17.29	(\$0.54)	\$17.89	\$0.06	\$1.54
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

September Utilization (Northeast): Class I = 30.9%; Class II = 24.7%; Class III = 28.7%; Class IV = 15.7%.
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 38, September 23rd, 2022)

Dry Products: The low/medium heat nonfat dry milk (NDM) market is weaker in the mostly series across regions. Domestic and international buyers are slow to procure surplus loads at this point in the year. Lactose prices are generally unchanged to lower. Loads are moving mostly through contracts. Prices of acid and rennet casein are steady this week. Market tones are quiet.

Cheese: Cheese production is steady in the Northeast and West, though some plant managers in these regions say they are running below capacity due to supply chain delays and staffing shortages. In the Northeast and West, food service demand is steady though retail demand is noted by stakeholders as softening. Some Northeastern cheese contacts say internationally produced loads of cheese are becoming cheaper, and they relay a concern that this may negatively impact export demand. Spot loads of cheese blocks are available in the Northeast and West.

Butter: In the Northeast and West, cream is becoming more available for butter churning. Some butter manufacturers in the Northeast say they have no extra butter currently. Butter inventories remain tight in the Northeast and West. Retail and food service demands for butter are strong in the Northeast and West.

Fluid Milk: U.S. milk production is mixed, with a rise in output levels in the East and Midwest regions. Production volumes are steady to lower in some Western states, as localized cold snaps impacted cow comfort. Ahead of the fall holiday, Class II demand in the East is very active. Bottling sales are trending higher in the Pacific Northwest while most other states in the Western U.S. report steady bottling sales. Condensed skim markets are seeing added interest from customers, while volumes are limited for spot sales. Overall, cream supplies improved this week, although loads are less available in some areas.

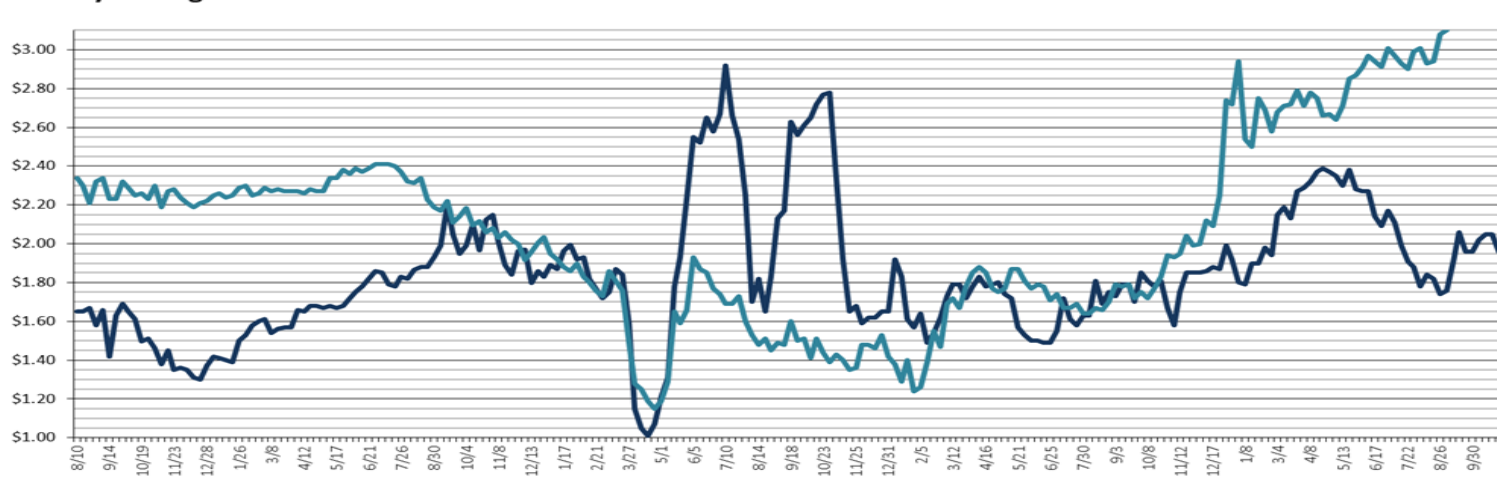
Friday CME Cash Prices					
Dates	9/30	10/7	10/14	10/21	10/28
Butter	\$3.14	\$3.21	\$3.17	\$3.20	\$3.14
Cheese	\$1.96	\$2.02	\$2.05	\$2.05	\$1.96

September's Albany \$/Gallon to the farmer was \$2.09, last seen in March of this year. Prices continue to trend downward.



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 - October 20, 2022 by Bob Cropp, Professor Emeritus, University of Wisconsin-Madison

Originally published here: <https://fyi.extension.wisc.edu/kewauneeag/files/2022/10/Dairy-Situation-and-Outlook-October-2022.pdf>

The price of barrel cheddar cheese strengthened to above \$2 per pound from mid-September and continuing into October reaching as high as \$2.2450. The price of barrel cheese was well above 40- pound cheddar blocks being as much as \$2.775 per pound higher. Butter has been well above \$3 per pound all of September and October reaching a record high of \$3.2675 per pound.

Buyers purchasing cheese and butter to build stocks to meet the upcoming strong holiday sales pushed cheese and butter prices higher. Good domestic sales as well as exports helped to strengthen prices. Compared to a year ago, August butter exports were 71% higher and cheese exports 6% higher. But as stocks are filled we can expect lower butter and cheese prices lowering the Class III and Class IV price. Both the Class III and Class IV price could fall below \$20 by December.

Milk prices are likely to average lower in 2023. With milk production increasing only about 0.3% in 2022 we can expect with stronger milk prices this past year higher milk production. But any increase in milk production will be hampered by high feed costs, labor shortage and labor cost, high construction cost for expansion, and fewer available dairy replacements. Also, some dairy cooperatives still have in place base plans to limited milk expansion. So, the increase in the average number of milk cows is likely to be limited.

Domestic demand is likely to be dampened some with continued high inflation and at the same time the possibility of the economy being in a recession. Dairy exports

are setting a record in 2022 both in volume and value. The question is can exports continue this growth path? Milk production continues below year ago levels in the EU, New Zealand and Australia, all major dairy exporters. This leaves open opportunities for U.S. exports especially if U.S. prices of cheese, nonfat dry milk and whey products remain price competitive.

While the forecast is for lower milk prices in 2023 how much lower is uncertain. As of now it looks like for the first quarter Class III could be in the \$19's and Class IV in the \$20's. Second quarter prices could weaken some as milk production increases seasonally with some increase in prices third quarter and prices peaking early fourth quarter. It looks like Class IV prices may averaging higher than Class III. USDA is forecasting fairly strong milk prices with Class III averaging \$19.80 for the year and Class IV averaging \$21.00. But milk prices are very sensitive to changes in milk production, domestic sales or dairy exports and can easily change higher or lower by \$1 per hundredweight or more. Because of this price risk along with anticipated high feed costs dairy producers may consider signing up for the 2023 Dairy Margin Coverage program for up to five million pounds of milk marketings at the \$9.50 margin for a fee of \$0.15 per hundredweight. Profits may also be protected with the Dairy Revenue Protection program and the Livestock Gross Margin Plan for Dairy. Also, dairy futures currently offer opportunities to protect favorable prices by hedging Class III or buying Class III Put options. ■

Buyers purchasing cheese and butter to build stocks to meet the upcoming strong holiday sales pushed cheese and butter prices higher.



Milk prices are likely to average lower in 2023. As of now it looks like for the first quarter Class III could be in the \$19's and Class IV in the \$20's.

Highly Pathogenic Avian Influenza Update:

A backyard flock of 10 birds was confirmed positive for HPAI on November 1st in Monroe County, followed by a positive flock of 110 birds in Sullivan County on November 4th. These cases are part of the uptick in detections that we've seen across the Northeast as we move through the fall migration season. Flock owners are encouraged to keep their flocks safe through biosecurity measures and to keep an eye out for any unusual disease symptoms or deaths in their flocks. An update on the case loads and locations in both domestic poultry and wild birds from October 26th can be found on page 18.



Managing for Optimum Body Condition Scores in Beef Cattle

By Dr. Mark Johnson, Oklahoma State University Beef Cattle Breeding Specialist

During the normal production cycle a cow should be in her best body condition at the time of calving. After calving, the nutritional stress of lactation will cause most cows to lose weight and body condition up to the point of weaning. Bottomline: it is easier to feed cows for optimum Body Condition Scores (BCS) when they are dry.

The (BCS) system is intended to provide a consistent way to quantify relative fatness of cows to serve as a management tool for producers. If cows are to maintain a calving interval of one year, they must bred back within 80 - 85 days after calving. In cows of all ages, it is well established that BCS at calving time determines the rebreeding performance of beef cows in the subsequent breeding season. The system, used to assess a cow's body energy reserves, ranges from 1 to 9. A score of 1 indicates cows that are thin and emaciated, cows of BCS 9 are fat and obese. Pictures and definitions of the BCS system can be found in Chapter 20 of the 8th edition of the OSU Beef Cattle Manual.

There is a strong relationship between weight and BCS. For each unit change in BCS, cows should gain or lose approximately 7% of their BCS 5 weight. For example, a cow that weighs 1,300 lbs. at a BCS 5 should reach a BCS 6 at 1,391 or drop to a BCS 4 at 1,209 lbs. Cows maintaining body weight, therefore having ample energy reserves before parturition, exhibit estrus sooner than cows losing weight. Body weight change during pregnancy is confounded with fetus and placenta growth. Therefore, the estimation of body fat by use of BCS is more useful in quantifying the energy reserves of beef cows. The process of fetal development, delivering a calf, milk production and repair of the reproductive tract are all physiological stresses. These stresses require the availability

and utilization of large quantities of energy to enable cows to rebreed in the required 85 days. Cold and/or wet weather often faced by spring calving cows adds additional environmental stress resulting in energy intake that is below body maintenance needs. The cow compensates by mobilizing stored energy or adipose tissue which is why adequate BCS at calving is so critical to reproductive performance.

Producers should manage their calving season, genetic potential for growth and milk levels, grazing system, supplementation program and herd health to achieve an average BCS of 5 to 6 (target 5.5) in the mature cow herd at calving time. The goal for first calf heifers is a BCS of 6. Typically the greatest reproductive challenge in beef cattle is the breed back of two-year old females raising their first calf, lactating for the first time and still growing themselves, accordingly the higher BCS of 6 is recommended. This fall, as you wean, assess the BCS of cows and manage your feeding and supplementation program accordingly. It will pay dividends in the reproductive performance of your cow herd next spring. ■

References

Beef Cattle Manual. Eight Edition. E-913. Oklahoma Cooperative Extension. Chapter 20.

Oklahoma Cooperative Extension Service. AFS-3283. Body Condition Scoring of Cows.

Scores shown on the next page...

The body condition scoring scale for beef cattle is 1-9, but if you have dairy cattle, they will be scored on a scale of 1-5.

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Cattle that are too lean or over conditioned at breeding time may not be able to get pregnant and might experience calving issues.

Beef Cattle Body Condition Scores

Images and descriptions from "Body Condition Scoring of Cows" by David Lalman, Glenn Selk, and Daniel Stein, 2017



BCS 1. (Above) The cow is severely emaciated and physically weak with all ribs and bone structure easily visible. Cattle in this score are extremely rare and are usually inflicted with a disease and/or parasitism.

BCS 2. (Not Pictured) The cow appears emaciated, similar to BCS 1, but not weakened. Muscle tissue seems severely depleted through the hindquarters and shoulder.

BCS 3. (Not Pictured) The cow is very thin with no fat on ribs or in brisket and the backbone is easily visible. Some muscle depletion appears evident through the hindquarters.



BCS 4. (Above) The cow appears thin, with ribs easily visible and the backbone showing. The spinous processes (along the edge of the loin) are still very sharp and barely visible individually. Muscle tissue is not depleted through the shoulders and hindquarters.

BCS 5: (Not Pictured) The cow may be described as moderate to thin. The last two ribs can be seen and little evidence of fat is present in the brisket, over the ribs or around the tail head. The spinous processes are smooth and difficult to identify.



BCS 6. (Above) The cow exhibits a good smooth appearance throughout. Some fat deposition is present in the brisket and over the tail head. The back appears rounded and fat can be palpated over the ribs and pin bones.



BCS 7. (Above) The cow appears in very good flesh. The brisket is full, the tail head shows pockets of fat and the back appears square due to fat. The ribs are very smooth and soft handling due to fat cover.

BCS 8. (Not Pictured) The cow is obese. Her neck is thick and short and her back appears very square due to excessive fat. The brisket is distended and she has heavy fat pockets around the tail head.

BCS 9. (Not Pictured) These cows are extremely obese and may have problems with mobility due to excessive weight and restriction of limbs. The animal's topline will be square and flat with large dimples or pockets due to excessive fat cover. The front leg set will be wide due to a bulging brisket. The entire underline will bulge with fat, including the udder and naval. The tail head will not be visible as it will be covered in a large mass of fat. ■

At the time of calving, beef cattle should have a body condition score of 5 - 6, which will provide enough stored energy to help nurse the growing calf.



Timing calving with high quality forage availability can keep condition on your brood cows longer and more economically than feeding stored forages.

Fall 2022 Update on the Bird Flu

By Amy Barkley, Livestock and Beginning Farm Specialist

(October 26, 2022) As we move into the heart of the fall migration season, cases of Highly Pathogenic Avian Influenza (HPAI) are on the rise. The cooler, wetter weather and decreasing sunlight are resulting in an ideal environment for the virus to stick around. We urge poultry owners continue to take precautions to keep their birds safe.

So far in 2022, there have been 568 confirmed cases of HPAI in domestic birds in 43 states. All states in the Northeast, including New York, have been affected. In the past month, outbreaks in the neighboring states of Connecticut, New Jersey, Pennsylvania, and Rhode Island have been detected. While the last case in New York was identified on April 6th, the virus is still circulating in our wild bird populations, with 164 positives in wild birds identified to date. Within the past month, wild bird cases have been identified in Albany, Chemung, Clinton, Cortland, Dutchess, Madison, Nassau, Orange, Sullivan, Tomkins, Westchester, Wyoming, and Yates counties. Between positive domestic flocks in neighboring states and wild bird positives, our state's poultry are still under threat.

This disease is not showing a preference for flock types; both commercial and backyard flocks have been affected. Commercial flocks have made up 43% of those affected, with the remaining 57% of affected flocks are classified as backyard. In wild birds, waterfowl and raptors have been most impacted, as well as water-associated birds such as pelicans, storks, gulls, terns, dunlins, and turnstones. Game birds including pheasants and turkeys and perching birds including grackles, juncos, crows, and ravens can also catch the virus.

Because of how quickly and aggressively HPAI spreads in birds, it's important that we take measures to protect them. These include:

- Creating a barrier between wild birds and domestic birds by keeping domestic birds inside, in a run with a solid roof, and/or out of areas that wild birds frequent.
- Limiting the number of people who have direct access to your poultry.
- Wearing footwear designated to be only worn in poultry pens.

We urge producers to keep an eye out for suddenly high rates of death in your flock and be prepared to report any suspicious whole flock illness. Reports can be sent to New York State Department of Agriculture and Markets at 518-457-3502 or the USDA (United States Department of Agriculture), 866-536-7593. ▪



HPAI 2022 Confirmed Detections

as of November 7, 2022

Last reported detection Saturday, November 5, 2022

Data updated weekdays by 12pm Eastern

[Download Data](#)

605 Confirmed Flocks

Birds tested and confirmed having HPAI

46 Affected States

States with at least one confirmed infected flock

Commercial Flocks

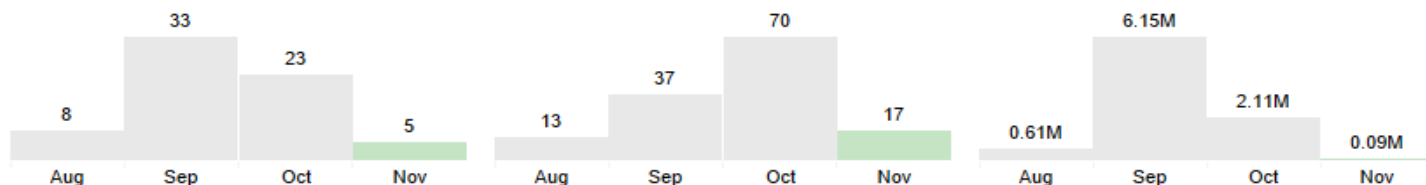
258

Backyard Flocks

347

Birds Affected*

49.09M



*Number of birds on confirmed infected premises.
Bars reflect most recent 4 months (numbers may not add up to total).

If you have any questions about HPAI, please contact Amy Barkley at 716-640-0844 or amb544@cornell.edu.

**CROPS
COWS &
CRITTERS**
newsletter

The HPAI outbreak continues to be rapidly evolving, and CCE will continue to provide regular updates.

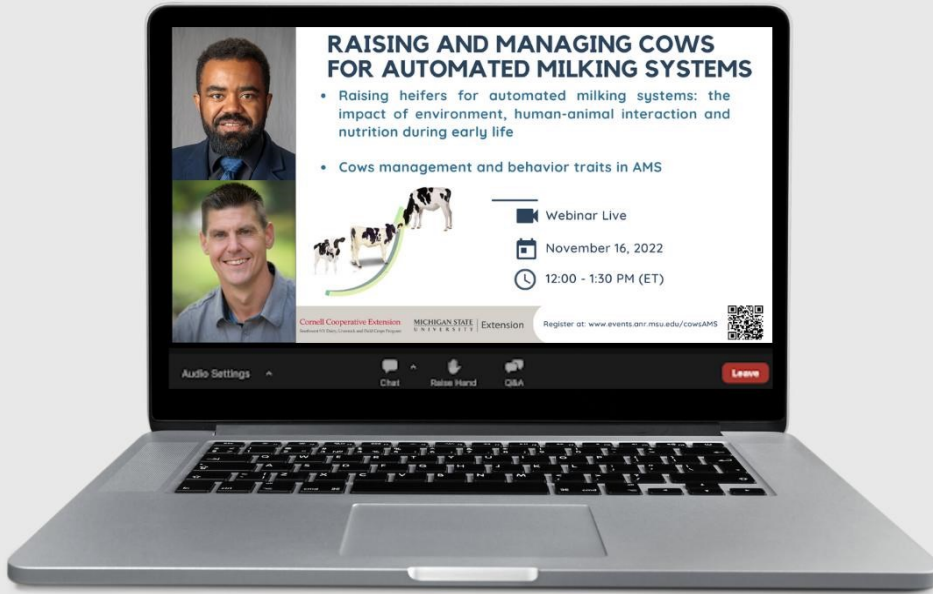
**WEBINAR: RAISING AND MANAGING
COWS FOR AMS**

November 16th—12:00-1:30 PM

In a dairy farm, cows make several choices daily, and with the introduction of automated milking systems (AMS), they have even more choices. The ability of a cow to succeed in a highly technological environment is largely determined by learning behavior.

- **How do cows' personality traits influence their interaction with AMS?**
- **Can calf cognitive development in early childhood play a role in their future learning ability?**

Researchers have been trying to learn more about those questions, and on November 16th at noon, you will have the opportunity to learn more about them by joining us in a talk with Dr. Joao H C Costa and Dr. Trevor DeVries. Register now on the link below or by scanning the QR code on your phone and bring your questions!



REGISTER NOW!



REGISTRATION LINK: <https://events.anr.msu.edu/cowsAMS/>

HOARDS DAIRYMAN UPCOMING WEBINAR: A FORAGE AND FEED OUTLOOK

<https://register.gotowebinar.com/register/7989705016555369740>



Mike Hutjens, University of Illinois and Mike Rankin, Hay & Forage Grower

The next webinar will take place on Monday, November 14 at noon (Central time).

Hay & Forage Growers Mike Rankin and University of Illinois Mike Hutjens will present, "A feed and forage outlook for the year ahead". This year brought drought, delayed planting, water restrictions, and/or excess moisture during the growing season, all of which influence forage quality and quantity. This webinar will discuss feed quality lab results, ration costs, and by products options.



If you can not attend these events but would like to receive a printed material about it reach out to Camila Lage at 607-422-6788.

Be on the lookout for an upcoming AMS discussion group where we'll look at shared economic and efficiency measures!

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