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Evaluating Your Pasture System
By Katelyn Miller, Field Crop and Forage Specialist

As we reach the end of grazing season, it’s a great time to evaluate your pastures production this past year. Did it produce what you expected? This article plus the handout should serve as a guide to help look at your pasture’s productivity.

**Soil Properties:**
Soil is the backbone of your pasture system. Creating a soil testing program is crucial to managing your soil inputs economically. Understanding your pH and nutrient levels is an important step towards productive pastures. In September, I wrote an article about soil sampling, so go check that out!

The ideal pH varies by species, and some may be different than you think. It’s important to also think about if the species is a grass or legume. The rhizobia responsible for fixing nitrogen prefers a neutral pH, whereas grasses can tolerate a lower pH. Keep this in mind for maintaining proper pH.

When a pasture mix contains 30% legumes, your nitrogen needs are met. Your soil test results will help determine the right amount of phosphorus and potassium to apply. Additionally, the soil type and drainage of your pasture are important. For example, planting alfalfa in poorly drained soil is not recommended because of its long taproot.

**Production:**
A recovery period is the time that it takes a plant to regrow after grazing. Leaving adequate time between grazing will improve stand persistence and provide more forage. It is recommended to not graze below 3 inches as grazing too close will impact regrowth also. There are tools like grazing sticks and forage squares that can help calculate forage availability. Camila discussed using these tools in the August issue of Crops Cows and Critters.

Additionally, we must think about the seasonality of the species planted. Soil pH and nutrition may be the reason your species are not producing, but it could also be your production expectations. For example, cool season grasses produce lots of forage in May and October, but not in the heat of the summer. When selecting species, consider when they are going to produce the most. Consider mixing cool and warm season grasses and legumes to increase forage throughout the season.

**Weed Pressure:**
Controlling weeds is an important aspect of pasture management. Weeds in a field compete for light, nutrients, and water with your desired species. Additionally, their presence hurts both yield and forage quality. To control weeds though, they must be properly identified.

Properly identifying weeds helps to determine the right control method(s). Control can be based on many factors including the time of year and the growth cycle of the plant. Although the goal is to eradicate, controlling seed production can be a helpful strategy. Reducing the number of seeds in the seedbank will make control easier in years to come.

Overall, your control options will depend on your production system and availability of inputs. The best weed control option is to combine a variety of control methods. This is known as integrated weed management. Rotating cultural, biological, mechanical, and chemical control will provide the best weed control. Relying on any one method is difficult and not recommended for control.

If you have any questions in relation to pasture management, contact Amy, Camila, or Katelyn Miller for assistance!
Mycotoxins are toxic compounds produced by fungal pathogens of corn (and other grain crops) that cause ear rots and decrease grain quality and silage. Not all pathogens that cause ear rots produce mycotoxins, so it is important to correctly identify the ear rot. With corn harvest approaching, the combinations of different weather patterns impacting corn production raise concerns about ear rots, sprouting, and the risk of mycotoxin contamination. Mycotoxins are toxic compounds produced by fungal pathogens of maize (and other grain crops) that cause ear rots and decrease grain quality and silage. Contamination with mycotoxins occurs in the field when environmental conditions are favorable for disease development. At harvest, grain drying is critical to stop fungal growth and further mycotoxin contamination; however, since mycotoxins are highly stable, drying will not reduce the already existing mycotoxin levels in grain.

It is important to note that not all pathogens that cause ear rots produce mycotoxins. Before managing grain affected by ear rots and mycotoxins, you should correctly identify the type of ear rot(s) impacting your crop. There are many fungal species associated with ear rots. However, there are distinctive characteristics and scouting tips that you can use to identify the causal agent and to know if there is a risk for mycotoxin contamination.

**THE MOST COMMON EAR ROTS IN PENNSYLVANIA**

**DIPLODIA EAR ROT**

Caused by Stenocarpella maydis (Diplodia maydis) and Stenocarpella macrospora. Signs of the disease include a gray to brown mold mat that starts to develop at the base, middle, or tip of the ear and black specks (pycnidia) on the husks, shanks, and kernels (Figure 1). The causal agent can produce toxins called diplodiatoxins and chaetoglobosins that have been reported to cause intoxication in ruminants (diploidiosis) in South Africa, Australia, Brazil, and Argentina. However, there have been no reports of diploidiosis in the United States.

**GIBBERELLA EAR ROT**

Caused by Fusarium graminearum and favored by cool and humid weather conditions. Symptoms include a reddish discoloration that begins at the tip of the ear, where a red to bright pink mold develops toward the base of the ear (Figure 2). The fungus may contaminate corn with the mycotoxin deoxynivalenol (also known as DON or Vomitoxin) and Zearalenone, which can cause feed refusal and reproductive problems in farm animals, respectively. Many online resources have valuable tools for identifying Gibberella and sampling corn for DON.

**TRICHODERMA EAR ROT**

Caused by Trichoderma viride and favored by excessive rain. Signs include a dark green mold growth that covers most of the ear (on and between the kernels), which can also be observed on the husks (Figure 3). No mycotoxin issues have been associated with Trichoderma ear rot.

Mycotoxins are toxic compounds produced by fungal pathogens of corn (and other grain crops) that cause ear rots and decrease grain quality and silage. Not all pathogens that cause ear rots produce mycotoxins, so it is important to correctly identify the ear rot.
We are saving seeds for herbicide resistance screening. If you have suspicion of resistance on your farm, contact Katelyn Miller at 716-640-2047.

There are many pathogens that cause ear rots. Identify which ones are associated with mycotoxin contamination.

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**FUSARIUM EAR ROT**

Many different *Fusarium* species cause this ear rot. Signs include a brown discoloration or a white mold on scattered kernels (Figure 4). Affected kernels may also show a starburst pattern (white streaks radiating from the point where the silk was attached). Fusarium ear rot may lead to contamination with mycotoxins called fumonisins which are highly toxic for horses and swine.

**PENICILLIUM EAR ROT**

Several *Penicillium* species can cause this ear rot. Signs include a green-blue powdery mold between kernels near the tip of the ear (Figure 5). Different *Penicillium* species affecting different maize can produce mycotoxins. However, these are considered to be a more significant problem in silage.

**ASPERGILLUS EAR ROT**

This ear rot is caused by the fungal species *Aspergillus flavus* and *Aspergillus parasiticus* and it is characterized by a dusty olive-green mold on kernels. The disease is favored by years with above-average temperatures and below-average rainfall. In addition to kernel damage, the risk associated with Aspergillus ear rot is the contamination with aflatoxins. (Figure 6)

Once you have identified the type(s) of ear rots in your field, you should assess the severity and the extent of the damage. Scout before harvest and pay particular attention to areas in your field exposed to the most severe weather conditions. If the risk of mycotoxins is high, you should contact your crop insurance agent and take a proper sample for mycotoxin testing.

If your corn tests positive for mycotoxins, that does not mean you have to dispose of it immediately. Depending on the levels of mycotoxins, there are maximum limits and recommendations that can guide you on what to do with the contaminated grain, in addition to local recommendations.

There are also recommendations for the next growing season that can help you reduce the risk of mycotoxins, including hybrid selection, insect protection, and residue management.

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**We are saving seeds from weed species to screen for herbicide resistance.**

**Desired Species to Collect:**
- Waterhemp
- Palmer Amaranth
- Redroot Pigweed
- Common Lambsquarters
- Horseweed
- Common Ragweed
- Foxtails (yellow, green, or giant)

Do you have these weed species in your fields? Are you suspicious of herbicide resistance? Reach out to Katelyn Miller at 716-640-2047 or km753@cornell.edu.
Keys to Successful Business Transfers  
By Don Hofstrand, Iowa State University. Adapted.

Where are You Going?
The family members need to have a common vision of where the business is going. Is the goal to expand the business or maintain it at its present size? Will the expansion be financed with debt or equity capital? Will enterprises be added to diversify the business or will some be dropped in favor of specialization? If you have a common vision of your business future, will the objectives of the individual family members be met? Family members will work together towards a common vision only if the vision will achieve their personal objectives.

Do You Really Want to Farm?
Does the younger party really want to farm? Or is a son or daughter coming into the business because of pressure from the parents to continue the business. Often the most successful situations are those where the son or daughter has experienced something else before returning to the farm. Such experiences may increase the younger party’s appreciation of farming and provide with a wider perspective on situations facing farmers.

Is the Operation Large Enough?
Will the operation provide sufficient income for both families? If not, have you made arrangements to supplement the income? Insufficient income can be the cause of a wide range of other problems. Family relationships are often strained when there is insufficient income for all parties.

Strengthen Family Relationships
The underlying success of a business agreement depends on healthy family relationships. Both the younger and older party need to be understanding and tolerant of each other's faults. Often the parents tend to become conservative as they get older. The younger party may be venturesome and willing to try new ideas. Both parties must have the ability to compromise.

Improve Communication Skills
Good communication involves both talking and listening. People are usually much better at talking than they are at listening. Remember, you must understand the other person’s point of view before you can expect him/her to understand yours. It is important to keep all members of the farm family informed, both those active in the farm business and those not actively involved. This can help diffuse jealousies and bad feelings.

Recognize Individual Differences
Everyone is different. Some people are gregarious and others are quiet. Some people are action oriented and others are analyzers. We are attracted to and respect people who are like ourselves. But team members who are different tend to complement each other. One person’s weakness is another person’s strength. So teams made up of team members who have different qualities and talents are usually more productive than teams made up of people who are similar.

Encourage Diversionary Activities
The key to success in operating a family farm is to keep personal life-styles out of the farm operation. Separate business from social life. Too much family contact can be a problem. Family members should be encouraged to participate in off-farm activities that don’t involve other family members. Service clubs, farm organizations, or community organizations are good activities. Everyone needs vacations and time-off - and more than just a weekend. The families should decide how much time-off is to be provided and under what circumstances it will be permitted.

Fit the Agreement to the Situation
People often ask, "What is the best type of business arrangement"? They assume that if they find the one best arrangement, all of their problems will be solved. But this one-size-fits-all approach is usually not adequate. The best business arrangement depends on what you want to do. If you pick the business arrangement first, you may have to change your individual situation or your goals to conform to the business arrangement. First assess your individual situation. Then pick the type of business arrangement that fits you best.

Concerns of Off-farm Heirs
We often focus on the child that is coming back to farm, but non-farming children should also be considered. The on-farm child may have received special economic considerations such as gifts of property or a share of the farm income that is larger than their contribution to the business. Will this cause resentment from the non-farming children? Should they also receive gifts?

Don Hofstrand, retired extension value added agriculture specialist, agdm@iastate.edu
Dear Dairy Farmer,

In June, the SWNY team released a survey to understand better the on-farm use of tools to evaluate colostrum management. We had 22 responses, and as shown in Figure 1, just 22.7% of respondents assessed colostrum quality using a colostrometer or refractometer. In addition, just 9.1% consider their transfer of passive immunity as a way to check the colostrum program.

Routine evaluations of calf immune status is the gold standard to ensure we know we are succeeding in our colostrum program. However, performing it continuously can be time-consuming and expensive for some farms, especially considering labor challenges. Alternatively, colostrum audits once or twice a year can help farmers identify and troubleshoot problems or provide essential data to step up our colostrum management practices.

The SWNY team is doing a pilot experiment to understand how colostrum audits can help improve calf health, and we are looking for farms willing to participate. This would include:

- A farm visit to understand colostrum management and sampling for colostrum quality and blood samples to assess herd immune status;
- After visit summary, which will include a report and recommendations (if necessary) to improve herd immunity status;
- A follow-up visit to re-evaluate herd immune status six months after the first one.

Your cooperation will contribute significantly to a better understanding of calf audits to improve calf health and will be appreciated. If you are willing to participate, please contact Camila Lage at 607-422-6788 or cd546@cornell.edu

If you want to learn more about the importance of evaluating the transfer of passive immunity in your herd and colostrum audits, please read our latest article on it, “Transfer of passive immunity in calves: Ensuring calf health and profitability”.

I am looking forward to hearing from you!

Warm regards,

Camila
Calves rely heavily on colostrum for immunity. Successful transfer of passive immunity is crucial. Evaluating and improving immune transfer can reduce deaths and the number of days calves are sick, enhancing overall herd performance and profitability.

Calves are the future of the herd, and everything that happens during the development phase can have long-term effects on their productive life and herd profitability. Calf immunity heavily relies on the transfer of immunoglobulins from colostrum within 24 hours after birth, as there is minimal transfer of immunoglobulins from the dam to the calf during gestation. Ensuring successful colostrum management is crucial for achieving adequate transfer of passive immunity (TPI).

Colostrum Management
The success of colostrum feeding management depends on the amount fed, the quality of the colostrum and the timing, also known as the three Q's: Quantity, Quality and Quickness of feeding colostrum. We recommend feeding 10% of the body weight of high-quality colostrum, which consists of colostrum harvested hygienically and with high concentrations of immunoglobulins 50 g/L IgG’s (Brix ≥22) within six hours after birth. An additional suggestion to improve your colostrum management is the implementation of a second feeding of 2-4 quarts of colostrum 6-12 hours after the first feeding. Here you can find more information on how to evaluate your colostrum and tips on harvesting, storing and thawing colostrum to optimize immunoglobulin absorption.

Impact of failure of passive immune transfer
Failure to transfer immunoglobulins to the calf through colostrum feeding, also known as failure of passive immune transfer (FPT), is a significant concern for dairy producers as it is associated with increased calf morbidity (number of animals that get sick) and mortality (number of animals that die), as well as poor growth. It’s considered FTP when a calf has serum IgG concentration lower than 10g/L.

Successful transfer of passive immunity reduces mortality in the pre and postweaning phase and improves rates of gain and age at first calving. Benefits from colostrum may be attributed to protective immunoglobulins as well as high levels of nutrients and bioactive compounds that stimulate growth and development, according to Godden et al., 2019.

A national study conducted in 2013 showed that approximately 13% of dairy calves in the United States still have FPT. Although a considerable number, it shows significant progress in colostrum management compared to a previous national study in 1993, which reported 41% of calves in the U.S. having FPT.

Interestingly, calf morbidity rates have changed little since 1993, which tells us that improvement in colostrum management aiming at individual calves achieving serum IgG >10 g/L reduces the risk of animals dying from disease but not the chance of getting sick. A study conducted by Heinrichs & Heinrichs in 2011 observed that calves experiencing more illness and treatments during the first days of life had lower milk, protein and fat production during their first lactation and throughout their lifetime. These findings suggest that reducing pre-weaning morbidity rates can lead to long-term productive cows.

Based on Lombard and colleague’s study, passive immunity should be evaluated both on calf- and herd-level to maximize calf health, reduce use of antibiotic and minimize future performance losses.

Calves rely heavily on colostrum for immunity. Evaluating and improving immune transfer can reduce deaths and the number of days calves are sick, enhancing overall herd performance and profitability.

To determine success of passive immune transfer on an individual level, the new goal is to have at least 40% of calves in a herd with serum IgG concentrations ≥ 25.0 g/L, and less than 10% with concentrations below 10 g/L.
The SWNY team is doing a pilot experiment to understand how colostrum audits can help improve calf health, and we are looking for farms willing to participate FREE of any costs.

Table 1. Target percentages of calves in each transfer of passive immunity category, IgG concentration, total protein, and equivalent Brix values

<table>
<thead>
<tr>
<th>Classification</th>
<th>Serum IgG (g/L)</th>
<th>Total protein (g/dL)</th>
<th>Equivalent Brix (%)</th>
<th>Hard goal (% calves)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>&gt;25.0</td>
<td>&gt;6.2</td>
<td>&gt;9.4</td>
<td>&gt;40</td>
</tr>
<tr>
<td>Good</td>
<td>18.0-24.9</td>
<td>5.8-6.1</td>
<td>8.9-9.3</td>
<td>~30</td>
</tr>
<tr>
<td>Fair</td>
<td>10.0-17.9</td>
<td>5.1-5.7</td>
<td>8.1-8.8</td>
<td>~20</td>
</tr>
<tr>
<td>Poor (Failure)</td>
<td>&lt;10.0</td>
<td>&lt;5.1</td>
<td>&lt;8.1</td>
<td>&lt;10</td>
</tr>
</tbody>
</table>

Instead of using a cutoff point of ≥ 10 g/L to determine success of passive immune transfer on an individual level, the new goal is to have at least 40% of calves in a herd with serum IgG concentrations ≥ 25.0 g/L, and less than 10% with concentrations below 10 g/L. These new goals are driven by research demonstrating that higher serum IgG concentrations than traditionally recommended in dairy calves lead to improved health, increased disease protection and, ultimately, lower morbidity rates.

Evaluating 4,489 calf records from a commercial dairy farm in Michigan, Crannell and Abuelo compared the risks of morbidity, mortality and growth until weaning across the four categories of TPI proposed by Lombard and colleagues. The results revealed that calves with poor TPI had a higher risk of experiencing diarrhea, pneumonia and mortality when compared to those with excellent TPI. Likewise, recent research conducted in 2023 in Germany found that calves displaying an elevated TPI exhibited reduced susceptibility to pneumonia and decreased overall morbidity. Additionally, these calves demonstrated lower mortality rates in the preweaning phase.

Best practices for TPI evaluation

Keep a regular check on calves: To implement the new serum IgG recommendation, farmers should routinely check enough newborn calves within 2 to 7 days of age. This will help determine the percentage of calves falling into different serum IgG concentration categories.

Sampling strategies for different herd sizes: On smaller farms, sample each heifer calf individually. For larger farms, consider sampling every heifer or choose specific days of the week to sample all calves aged 2-7 days.

Evaluating the program: It's a good idea to set a regular time for program evaluation. Monthly evaluation works well for most farms, while larger farms may prefer weekly evaluations.

Farm audits: Alternatively, to a continuous evaluation, audits can be performed once or twice a year. To do that, sampling at least 14 animals on the evaluation day or a small herd until 14 animals are evaluated can be a good strategy.

It's important to understand that because many factors affect an individual calf's ability to ingest and absorb IgG, not every calf will achieve serum IgG concentrations above a critical threshold. Thus, it is expected that at least a small percentage of calves will have a failure of passive transfer even when an optimal colostrum management program is in place. As mentioned in the previous section, we want to maximize the number of animals with excellent TPI and minimize animals with FPT.

Best practices for TPI evaluation

Keep a regular check on calves: To implement the new serum IgG recommendation, farmers should routinely check enough newborn calves within 2 to 7 days of age. This will help determine the percentage of calves falling into different serum IgG concentration categories.

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Importance of evaluating FPT in your farm

- Allows monitoring and assessing passive immunity transfer's effectiveness in your herd.
- Helps identify potential issues or gaps in colostrum management practices.
- Enables timely intervention and adjustments to improve passive immunity transfer rates.
- Facilitates informed decision-making for breeding and culling strategies based on the data trends.
- Provides valuable information for veterinarians and consultants to offer targeted advice and support.

Evaluating transfer of passive immunity

Measuring TPI is essential to identify Failure of Passive Immunoglobulin Transfer (FPT) and audit farm colostrum management based on herd-level TPI.

If calves fail to receive sufficient immunoglobulins through colostrum feeding within the first 24 hours of life, it can be attributed to various factors such as colostrum of poor quality, the inadequate volume of colostrum provided or other circumstances like high bacterial contamination that hinders proper absorption. Also, delayed colostrum administration can result in insufficient absorption of immunoglobulins.

The SWNY team is doing a pilot experiment to understand how colostrum audits can help improve calf health, and we are looking for farms willing to participate FREE of any costs.
Breeding Holstein cows to quality beef steers can result in animals that grow more like a beef animal than a dairy animal. Selecting for good marbling and muscling genetics result in fleshier, better marbled crosses.

Beef steers are a co-product of milk production. While purebred Holstein steers have been raised for meat for some time, there has been a relatively recent increase in the production of beef on dairy crosses (beef x dairy). Although both raised for beef, these animals grow differently and finish differently than pure beef breed steers. Because of this, it’s important to understand how these animals grow and how genetics impact their final carcass yield and quality.

Beef production begins at a day of age, where bull calves should be fed colostrum, following the same program as that of replacement heifers. If calves are bought in, it is good practice to confirm that a sound colostrum management program was followed. Although there is no research indicating the effects of feeding colostrum on the health and growth potential of bull calves, research does indicate that improper feeding of colostrum in replacement heifer calves has severe implications on their development. Furthermore, calves that are destined for beef should be dehorned and properly castrated to help prevent discounts when those animals mature.

As these calves begin their lives, a farm should focus on respiratory health, which is impacted by a calf’s receipt of colostrum (timing, quality, and quantity), being given a proper milk replacer, and having clean, dry housing. If being sold as feeders, these animals should receive a vaccination series consistent with the expectations of buyers.

Holsteins have a relatively high amount of natural inbreeding, which results in genetics that act similarly, even across individuals. This makes production predictable in regard to growth rates, feed intake, and feed conversion, but also mortalities and culls. That said, these purebred animals need more TLC than their beef counterparts. Their thin hide makes them more susceptible to production losses because of cold weather. Dry bedding is important to maintaining health throughout their grow-out. A floor surface that allows for good footing will help decrease the chances of slipping and joint swelling.

The ideal market weight of Holstein steers is between 1,400 and 1,550 pounds, resulting in a yield of 58.6 - 61.5%. This is lower than for beef breeds, which yield closer to 63%, because their characteristics have not been optimized for beef production.

Holsteins have a lower dressing percentage than beef-type steers due to heavier bone structure, lighter muscling, less subcutaneous fat, a larger proportion of gut, more abdominal fat, and larger livers. That said, they have higher marbling scores due to their genetic a propensity to store intramuscular fat. However, this doesn't translate to a difference in tenderness and taste, since the primary difference in taste and texture come from absence vs presence of modest marbling (Select/low Choice), rather than degree of marbling.

Now that we've introduced Holstein steers, let's talk a little bit about beef on dairy animals.

Sexed semen in the dairy industry has resulted in surplus dairy heifers over the years. There are therefore surplus matings available to producers that can be used to produce something other than a replacement heifer. While there is little money to be made from Holstein calves, a crossed animal (beef crossed with Holstein) could result in the receipt of a price premium for Certified Angus Beef, should that calf meet the phenotypical standards for such. These standards include:

1. A predominantly solid black hair coat (>50%)
2. The potential for modest or higher marbling at maturity (average and high Choice, Prime)
3. Superior muscling, which overrules dairy cow influence of leaner muscling

While animals with these phenotypes can be attained by breeding Holsteins to beef sires, there are some challenges. The first is that sexed semen doesn't yet exist in the beef industry. Therefore, it's expected that 50% of all offspring are going to be heifers, and it has not yet been established if these animals consistently bring a price premium over pure Holstein heifers.
Second, to overcome the relatively large frame and weak muscling of the dairy dam, choosing a bull with characteristics that will compliment those of the cow will help develop the proper muscling and frame for the crossbred offspring.

Another challenge lies in that dairies typically breed year-round, rather than seasonally like beef operations, making it more challenging to obtain and grow large sets of uniform calves, especially if farmers are interested in selling to feedlots or large loads of fed cattle to processors. That said, if these animals are being sold into the freezer trade, this challenge may be a benefit to some producers who don’t mind feeding smaller animal groups and are looking to have availability year-round.

Where genetics are concerned, there are traits to consider when breeding beef to dairy. Marbling is highly heritable and is only slightly more heritable than muscling. These traits are not a result of hybrid vigor, but instead of genetic selection. Respiratory health is important for fast-growing quality calves, and this is an inherent benefit of crossbreeding.

Dr. Dan Schaefer created a list of his preferred genetic selection criteria for Holstein matings. These are:
1. Black coat (homozygous)
2. Polled (homozygous)
3. Frame size of 5 - 5.5 (on a 1-9 scale)
4. Muscling where the ribeye area (REA) is in the top 20% of the breed
5. Marbling which is in the top 20% of the breed
6. Calving ease in the top 50% of the breed

Dr. Schaefer mentions that these genetics compliment those of Holsteins. If breeding Jerseys, the difference in the recommendations is to select a sire with a frame size of 6-6.5 instead of 5-5.5 and an emphasis on muscle to bone ratio when selecting among sires for that top 20% for ribeye area.

The bottom line is that breeding for a black crossed calf isn’t enough: that calf needs to meet the physical characteristics to grow and yield like a proper meat animal. The reasoning behind all of this selection is to create offspring with better feed conversions, gains, and cut-out potentials.

Publicly available reports for feedlot performance indicate that until the first 400 pounds of growth, Holstein and beef x dairy animals perform similarly. From 400 pounds on, they begin to show differences. Holsteins take an extra 50 average days on feed to achieve a similar, but lower daily gain and higher feed conversion when compared to beef x dairy animals. Holsteins should be put on their finishing diet at 750 pounds. Beef x dairy animals can be finished starting at 850 pounds. Beef-type animals should be put on a finishing diet around 950 pounds. The finishing weights for these animals are 1,450 lbs, 1,375 lbs, and 1,300 lbs, respectively.

In summary, regardless of whether growing Holsteins or beef x dairy, there are differences in rearing, management, quality, and yields as compared with pure beef animals. However, when approached from a perspective which idealizes genetics and grow-out needs, a higher percentage of quality beef animals can result.

Information in this article was originally shared by Dr. Dan Schaefer from the University of Wisconsin-Madison in his presentation, "Capturing Full Value for Holstein and Crossbred Steers". This presentation was given on May 10th, 2021, through Hoard's Dairyman. The full webinar can be viewed here: https://hoards.com/article-30174-capturing-full-value-for-holstein-and-crossbred-steers.html
NYBPA REGION 1
FARM TOUR & POTLUCK
LEVEL I & II BQA TRAINING

Cornell Cooperative Extension
SWNY Dairy, Livestock, and Field Crops Program

Phillips Farm Inc.
Shining Star Cattle Company

Phillips Farm Inc. is a 1,200 cow family-owned and operated dairy farm located in Southwest Erie County. Ann and David Phillips run the farm with a team dedicated to animal health and well-being. With the increased popularity of beef on dairy in NYS, 50% of the cows on the dairy are bred to quality beef sires to make beef x Holstein calves that move through a value-added calf care program before being sold as young calves or feeders. Some of these calves are raised out for the freeze trade. Ann and her son, Tyler Strub (Region 1 NYBPA Chairman), are part of the three-generation family owned and operated Shining Star Cattle Company in Springville NY.

SCHEDULE:
Saturday, November 4, 2023
1809 Brant Road, North Collins, NY 14111

Tour of Phillips Farm Inc.: 10:30am - 12pm
NYBPA Region 1 potluck and lunch for BQA training participants: 12pm - 1pm
BQA Level I training (also serves as continuing education): 1pm - 3:30pm
BQA Level II (Chuteside) training: 3:30pm - 4:30pm

You are welcome to register for any part of the day’s trainings and activities. Roast beef sandwiches are generously provided by Phillips Farm Inc. and Shining Star Cattle Company for lunch; if you’d like, please bring a side dish, drink, or dessert pass!

WHAT YOU WILL LEARN
Stress reduction and management through low impact handling * Herd health management and biosecurity * Identification and recordkeeping * Transportation considerations * Introduction to VCPs, veterinary drugs, and veterinary equipment * Chute-side manner and how to properly give injections

BQA Program Cost: $15 per farm
Farm Tour and Lunch: Free

Please register by Wednesday, November 1st
https://tinyurl.com/SWNYBQA2023
Call or email Kelly Bourne
klb288@cornell.edu
585-268-7644 ext 10

Maintaining a BQA certification shows the safety and quality of the product you’re producing.

Participation in the BQA program is one of the accepted options for NY Grown and Certified program requirements.
New to processing and selling meat? This workshop will provide a helpful overview of the process!

Join experts from NC State and Cornell’s Dyson School for this workshop.

Registration is $10 per farm, which includes dinner.
Pre-registrations are needed by Tuesday, October 17th,

TO REGISTER:
Visit our website: https://tinyurl.com/MeatMarketingSWNY
Contact Amy at (716) 640-0844 or amb544@cornell.edu

THE TOPICS WE’LL COVER INCLUDE:
- Evaluating livestock for ideal harvest timing
- Livestock handling & delivery for meat quality
- Working with your processor (including addressing difficult situations)
- Carcass math: breakdown and pricing
- How much value does value-added add?
- Creating customer and processor-friendly bulk meat sales
- Introduction to MeatSuite.com & the Cornell Meat Pricing Calculator
- Sneak peak at the forthcoming Meat Processor Directory

Thursday, October 19th, 2023
6:30pm - 8:30pm
Town of Aurora Senior Center
101 King St., East Aurora, NY 14052

This workshop is provided at a reduced cost thanks to work supported by USDA/NIFA under Award Number 2021-70027-34693.
With the current volatile dairy market, rising input costs, and continued challenges in commercial dairy production, dairy farm owners are looking for new ways to improve their profitability. If you're a dairy farmer interested in diversifying or vertically integrating your business, one option could be on-farm processing of raw milk into value-added goods and bottled fluid milk for sale. While this might seem like a fun, lucrative, and sustainable new venture at first glance, it's important to consider how you'll need to adjust and address your farm's business plan to accommodate for this change.

1. **Management Team Support.** It's no secret that there are many hands involved when it comes to dairy production. The owner, their family and friends, and employees seem the most direct, but there's also folks outside of the immediate farm that provide insight and support. People like bankers, lenders, accountants, financial advisors, crop advisors, veterinarians, nutritionists, milk cooperative leaders, and more. When diversifying into value-added production, that circle of support will grow even larger. Direct customers and wholesalers, product suppliers, inspectors, and more. Thinking about the people around you, your trusted advisors and helping hands, consider how your farm diversification will affect them and your relationship with them. Hopefully, this is a positive move for all involved. But, you may work with some who are hesitant, or have (oftentimes, very valid) concerns for this business venture. Without everyone on board and in the loop, there could be potentially disastrous consequences later on down the road. Bringing in third-party advisors, like Cornell Cooperative Extension Specialists or NY FarmNet Consultants, to moderate a management team discussion can be a helpful preventative step.

2. **Business Life Cycle.** Over time, businesses tend to follow a general lifecycle, pictured here. Farms are no exception and travel through a launch and start-up phase (as a new farm entirely or under new management/ownership through succession), to a period of growth, then a peak production of business maturity, and, finally, a decline to an exit phase (or transition to new ownership/management). Depending on where you, or your successors, are in the business cycle will affect any decisions you might make when diversifying your dairy. For example, if you're just getting started, do you want to add something new to your plate? If you're thinking about exiting the business, how will this new venture affect your retirement goals or transition to new ownership? Understanding where your business is, and what your future goals are for production, is an important consideration when considering a new venture.

3. **Financial Position and Borrowing Capacity.** You know the old adage "You Can't Manage What You Can't Measure"? This applies here as well, and having an accurate understanding of your farm's financial position is a key business planning consideration. You can work with your lender, financial advisor, or local Farm Business Management Specialist to perform a Financial Analysis of your farm business. While it might seem tedious, it'll give you a whole farm picture of your financial health by analyzing your balance sheet and income statement items. Do you know if your farm is profitable right now? If your farm is currently profitable, or has the potential to be, what would be the motivation to start a new venture? If you're not profitable right now, what would change if you added a new venture? While it won't come as a surprise to you, creating a milk processing facility on your farm requires a lot of cash. Consider your options for financing such a venture and the current borrowing capacity of the farm.

4. **Cash Flow Budgeting and Profit Potential.** For dairy producers, cash flow tends to be straightforward. Your milk is picked up regularly and you receive a check regularly throughout the entire year. However, a value added business will have an entirely different cash flow, depending on your market. If you're working with wholesale buyers, you might be fronting product that you won't receive a paycheck for right away. If you're going to be marketing directly to consumers, how will you handle the times of the year where customers might not be buying? Additionally, start-up costs associated with this new venture will impact the liquidity of your overall farm business, and limit your responsiveness to change. It's also important to have an idea of how long it will take for you to make a profit with this new venture as you balance start up highs and lows and customer recruitment to plan for cash availability.

5. **Calculating Your Cost of Production.** Do you know how much it will cost you to make and sell a gallon of milk? Tub of ice cream? Block of cheese? Calculating your cost of production by unit of sale can be a daunting process, but will be important to know what your breakeven price is and influence your business planning. An example -

**While Value-Added Dairy might be a trending topic, it isn’t the right fit for every farm business.**

Diversifying your dairy operation is one way to reduce price volatility and support a successful business over time.
let's say you have an idea to make the most delicious, pint sized chocolate milks around. So, you listened to your friendly, neighborhood Farm Business Management Specialist and calculated what it would cost for you to make each of these pints of milk. This included the actual cost of producing the milk, the processing equipment and utilities, flavor ingredients, packaging, marketing, and more! You add all of those budgeted costs up, divide them by your anticipated production, and get to a cost of $12.30/pint of delicious chocolate milk as your cost of production. In this scenario, how long do you think it would take to be profitable at $12.30/pint? Or, would you ever be profitable, depending on your target consumer? Knowing your cost of production, or anticipating based on your enterprise budgets, will help you make decisions about how to move forward.

6. Opportunity Cost. Now, this consideration is one of the ones that gets me the most eye rolls, but from a "let's operate our farm as a business" perspective, makes a lot of sense. Opportunity cost is "the loss of potential gain from other alternatives when one alternative is chosen". Consider how much time and money and management effort will be involved in starting up a new value-added venture. What would your return on investment be if you used that money someplace else? This could look like improving your current farming operation, diversifying into a different venture, or even investing it via traditional routes. One example where I see this occur is, especially, with time. If the time you're spending growing and developing your plan was spent on, for example, improving your herd health - what would happen? Another consideration is how your current farming operation will change if you're spending time and effort on a new project - do you have a plan in place to keep things running smoothly if you're elsewhere? If you consider alternatives, and Value-Added Dairy still has the biggest returns, great. If it doesn't, how will this play into your business planning?

7. Wellbeing. One final Business Planning consideration I would urge you to evaluate is how this new venture will affect the wellbeing of your farm, your family, and yourself. This will change over time and vary by situation, but, in general, any new venture will cause a lot of stress and could negatively impact your wellbeing. Having a support system in place and a "plan" for how to handle things when the going gets tough can make all of the difference during those low times. Additionally, knowing how value-added production will bring you closer to your overall goals, your "why", will help motivate and safeguard your wellbeing which should be of upmost importance.

Save the Date (Registration Opening Soon)

New York Labor Roadshow VII: December 2023

Offered by New York’s Ag Workforce Development Council

NORTHERN NY
December 13, Old McDonald’s Farm
Sackett’s Harbor

EASTERN NY
December 15: Greenwich Elks
Greenwich, NY

CENTRAL NY
December 19, Cornell Agritech, Jordan Hall
Geneva, NY

WESTERN NY
December 20, Genessee Community College
Batavia, NY

Labor continues to be the primary challenge for many farm businesses and this event aims to tackle those challenges head-on with these topics:

- Experienced attorneys to address: managing in a union environment, complying with equal employment laws, and managing regulatory audits
- Staying in compliance with employee policies
- I-9 compliance
- Overtime: compliance, payroll systems, and employer reimbursements
- Farm Safety and OSHA compliance
- Workforce development

We’re currently working on a project which will provide the opportunity for farms to tour and visit value added dairy operations.

For more information about dairy farm diversification, please reach out to Katelyn Walley-Stoll by calling 716-640-0522.
**Dairy Market Watch**

*September 2023*

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

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<table>
<thead>
<tr>
<th>Milk Component Prices</th>
<th>Milk Class Prices</th>
<th>Statistical Uniform Price &amp; PPD</th>
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<tbody>
<tr>
<td>Month</td>
<td>I (Boston)</td>
<td>II</td>
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<tr>
<td>Sep 22</td>
<td>$26.87</td>
<td>$26.51</td>
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<tr>
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<td>$25.96</td>
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<tr>
<td>Aug 23</td>
<td>$19.87</td>
<td>$19.91</td>
</tr>
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</table>

**August Utilization (Northeast):**
- **Class I = 28.2%**
- **Class II = 28.0%**
- **Class III = 29.7%**
- **Class IV = 14.1%**

**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.**

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**Dry Products:** Low/medium heat nonfat dry milk (NDM) prices are higher across the regions. Buyers from Mexico continue to make purchases. High heat nonfat dry milk prices adjusted higher in the West, while unchanged in the Central and East regions. Dry buttermilk prices are steady throughout the regions, as supplies tighten. Export interest is fair. Acid casein prices are unchanged, but rennet casein prices are lower.

**Cheese:** Unseasonably warm weather has negatively impacted milk production in some Northeast states, while milk volumes in the region are being drawn upon by school bottling purchasers. Contacts in the Northeast say cheese demand is lighter compared to the summer months. Cheese demand is steady from retail and food service purchasers in the Midwest. Cheese barrel makers say inventories are not currently a concern, despite increased bearishness for cheese barrels compared to blocks.

**Butter:** Cream volumes are tight throughout all three regions, and contacts in the Central region note that cream is having a significant impact on butter production. Contracted cream volumes are keeping butter churns active in the East. Butter inventories are tight in the East. In the East, food service sales are steady, though retail demand is softening.

**Fluid Milk:** In the West region, farm level milk production varies. California, the Pacific Northwest, and the mountain states of Idaho, Utah, and Colorado report flattened milk output, as hot weather eases. The Central region’s milk output is down along seasonal lines, as active Class I demand squeezes processors’ milk intakes. East region milk producers are seeing flat to steady milk production. Bottling demand is steady to strong. Meanwhile, regional cream supplies have tightened. Cream cheese production is seeing an uptick in some regions.

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### Friday CME Cash Prices

<table>
<thead>
<tr>
<th>Dates</th>
<th>Butter</th>
<th>Cheese (40# Blocks)</th>
</tr>
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<tbody>
<tr>
<td>9/1</td>
<td>$2.64</td>
<td>$1.95</td>
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<td>9/8</td>
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<tr>
<td>9/29</td>
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For more information about Dairy Farm Business Management, or analyzing your farm’s current finances, contact Katelyn Walley-Stoll.

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April 23 $/1600 lbs. Albany price was $1.75 which shows the beginning of an uptick in milk prices, which should show in your next milk check.

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Cornell Cooperative Extension is an employer and educator recognized for valuing AA/EO/E, Protected Veterans, and Individuals with Disabilities and provides equal program and employment opportunities.
Domestic demand has been positive for higher cheese prices pushing the Class III price higher.

While fluid (beverage) milk sales continue below a year ago the sales of both butter and cheese have been higher.
Finding local farm service providers can be a challenge. This database makes it a little easier.

18 - October 2023

This information is annually shared in our newsletter as requested by the USPS and is not a misprint. Thank you!
2024 Needs Assessment for Cornell Cooperative Extension’s Southwest New York Dairy, Livestock, and Field Crops Program - We Need Your Help!

Our program first began in 2019 when the Cornell Cooperative Extension Associations of Allegany, Cattaraugus, Chautauqua, Erie, and Steuben Counties came together to offer high-quality, specialized programming to the region’s dairy, livestock, and field crops producers. As we look ahead to the new year, we would like to survey the community and learn more about the topics you’re most interested in hearing from us about.

Please consider completing this survey to share your anonymous feedback. You can:

1. Complete this form and mail to: CCE SWNYDLFC, c/o Kelly Bourne, 5435 Co Rd 48, Belmont, NY 14813.
2. Complete this form online by visiting our website and scrolling down to “Announcements” (swnydlfc.cce.cornell.edu).
3. Complete this form and text a photo of it to 716-640-0522 (Katelyn Walley-Stoll).
4. Call any of our team specialists, listed on page 2, to chat over the phone or request a site visit.

Please describe your farming operation or agribusiness.
What is something that you’ve recently accomplished or changed that you’re proud of?

What are the biggest challenges your farm is facing?
What do you think are the biggest challenges that the industry or your farm neighbors are facing?

What types of service or resources from CCE do you find the most valuable? This could include workshops and trainings, newsletters, email updates, on-farm and phone consultations, research, webinars, and more.

What types of programming, resources, or research would you like to see from our team?

Is there anything else you’d like to share with our program?

Your time spent providing feedback for our program will help us to adapt to regional needs and create effective programming, research, and resources.

We’re currently looking for members of the region who are interested in serving on our Advisory Committee. Please call Katelyn Walley-Stoll at 716-640-0522 if interested.

October 2023 - 19
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