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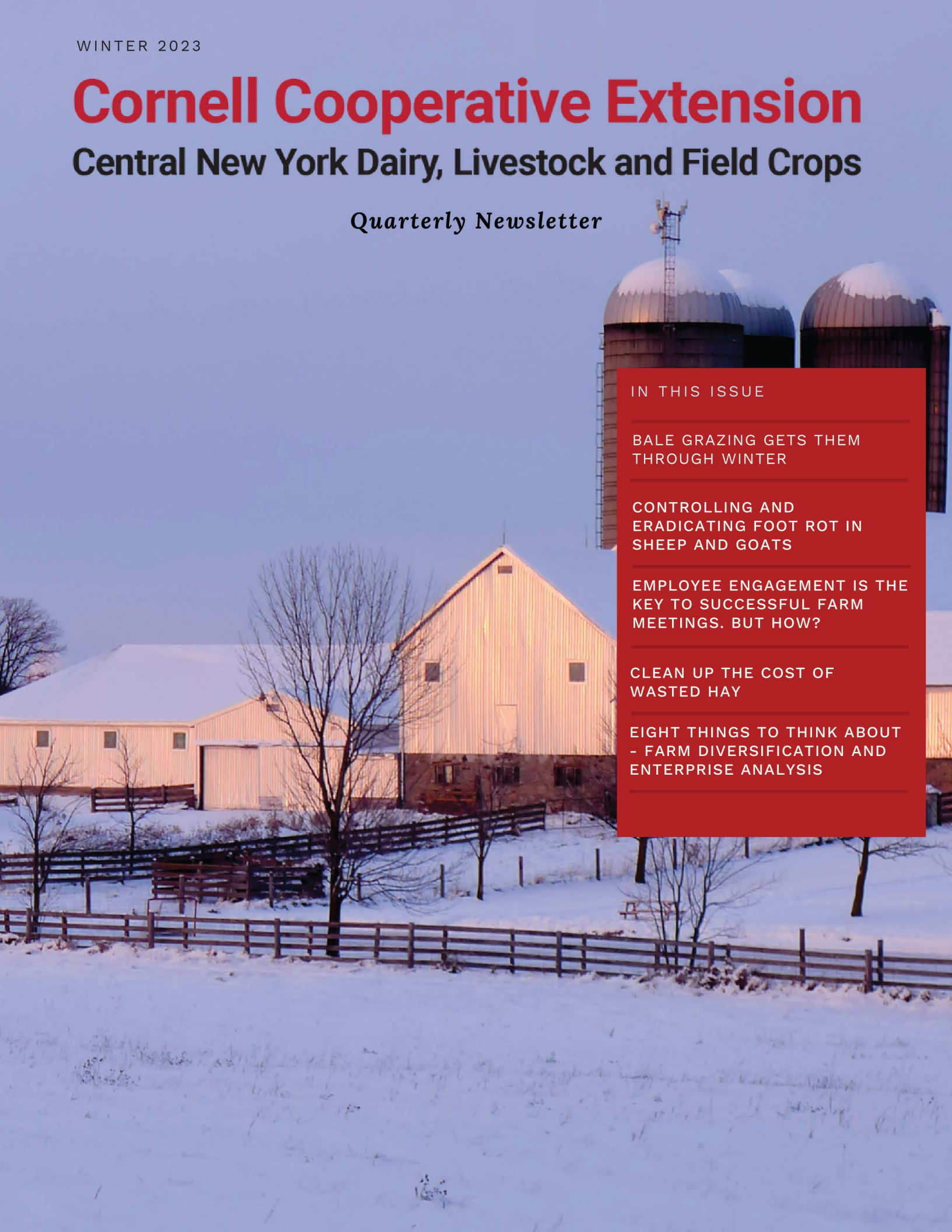
Quarterly Newsletter



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Bale Grazing Gets Them Through Winter

By Jesse Buzzard, Hay & Forage Magazine

Grazing livestock in Northern regions where winters are long and harsh can prove challenging. For some producers, bale grazing has become a cost-effective, time-saving strategy to break past the pastoral barriers of these colder climates while also providing a way to improve pasture soil health in the process.

For ranchers and brothers Shane and Aaron Nerbas of Nerbas Bros. Angus, this winter-grazing method has been rewarding.

“Bale grazing for us has been a huge benefit for the land,” Shane Nerbas said.

Waste from hay that cattle leave behind and manure are deposited back onto the soil. This has an additive effect on lower quality pastures and puts nutrients back into the soil where they are most needed.

"There are also many other positives like reduced competition between cattle when grazing, reduced labor, and a better quality of life for both our families and the animals,” Nerbas noted.

The Nerbas brothers run approximately 600 head of cows and up to 300 yearlings on their cow-calf operation located in Canada’s historic Assiniboine River Valley near Shellmouth, Manitoba. Their bale-grazing season typically starts around December 1.

Hurdles to overcome

The duo began bale grazing their cattle about 15 years ago. However, this long run of experience didn’t begin without some challenges.

“We were a bit naive when we started,” Nerbas said. “We would set out all the bales in one big grid and limit feed, giving the cows three to four days of feed (about two rows) at a time. But we weren’t successful and had lots of troubles with cows going through the polywire even if we had the system grounded well.”

The brothers fixed their management issues by creating more paddocks and using cross-fencing. The setup includes 12 paddocks with a central watering system that connects all paddocks.

Factors such as pasture health and productivity are important details Nerbas and his brother consider when deciding which paddocks will be used for bale grazing. Poorer pieces of ground, such as those with thinning forage, bare spots, or less productive yields, are given top priority and bales are placed early in the fall.

“We like to have bales placed by October 1 before things freeze over,” said Nerbas.

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Each year, six different paddocks are chosen to bale graze. A 21-day supply of bales is set up in each paddock. The paddocks are constructed with wooden posts and single-strand, high-tensile wire. Every 21 days, cattle are moved to the next paddock.

"We have heard about other people doing shorter or longer durations, but 21 days has been a great fit for us," said Nerbas. "Instead of moving a wire to feed the cows, they get it all at once. Once they've cleaned it up, it's off to the next paddock."

Nerbas noted a plus of this method is it eliminates the stress of setting up and taking down fence.

"Many people assume that this is very wasteful, but the math doesn't lie," Nerbas said. "There are enough bales in a 21-day paddock that all animals will get 3 percent of their body weight per day. More often than not, we reach or exceed the 21 days. Also, any feed leftover is considered biological capital to us," he added.

For the last seven years, Nerbas pointed out, they have been setting up their bale grazing in pastures that also have stockpiled forage.

Not every situation will be the same for everyone, but it's vital in today's cattle industry to keep your costs down however you can. Bale grazing can help do that. I have never met anyone who has tried it and went back to conventional winter hay feeding.

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"A benefit of this is if we have a mild stretch of weather, the cattle will leave the bales for the day and head out to graze," said Nerbas. "So usually the last paddock we graze for the season will not get used up and be carried over to the following winter."

Limit losses

Late in the bale grazing season when the weather gets milder, Nerbas explained cattle may be limit-fed bales. This is done mainly to allow for more efficient feed utilization. The freezing and thawing accompanied by warmer temperatures often leads to more waste and fouling of hay. Limiting the number of bales cattle graze at a time can reduce losses.

In these situations, the brothers use a portable fencing cart known as the Power Grazer equipped with a mile of wire, a solar panel, and a Gallagher fence charger to fence off and limit the number of bales cattle can access.

For those interested in giving bale grazing a try, Nerbas recommends first-time bale graziers start on a small scale. For example, set aside one to two fields for bale grazing the first year.

Another detail experts suggest paying attention to is how the land reacts post-bale grazing. Declines in pasture quality can mean animals or bales are stocked too heavy.

Additionally, keep fences hot; winter weather can put a drain on electric fences. Having a high-quality fence charger capable of maintaining 10,000 volts will help to keep this from becoming a problem.

Controlling and Eradicating Foot Rot in Sheep and Goats

By Dr. tatiana Luisa Stanton, Small Ruminant Extension Associate, Cornell University

There are several contagious diseases that affect sheep flocks and goat herds in the NE United States. Herd productivity is difficult to improve without first eradicating these diseases from a herd. In a perfect world, goat and sheep owners purchase breeding stock that is free of these diseases or practice quarantine measures that identify infected newly purchased animals before they are exposed to the main herd. In reality, farmers are often faced with controlling a disease once it is established in their herd. This fact sheet addresses eradication programs for one of the most common infectious diseases, foot rot.

Foot rot is a chronic, debilitating disease. Although it is rarely life threatening on its own, it causes painful lameness. Animals respond by eating poorly and losing weight, further compromising their health. The disease is highly infectious. It is not to be confused with the "hoof rots" seen when hooves are allowed to get too long causing the hoof wall to separate from the sole of the hoof (as viewed from the bottom side) and pockets of decay to form in these spaces. Aggressive hoof trimming and topical application of a germicide readily cure most "hoof rots".

Instead, foot rot first shows up as a smelly blister or raw spot just above the hairline between the two toes of a hoof. This stage is often referred to as "foot scald". It exhibits the same signs as ovine interdigital dermatitis (OID), which is not nearly as contagious and is the true "foot scald" condition. Unfortunately, in most cases when you observe the typical signs of foot scald in your herd or flock it is not OID but is instead the highly contagious condition called "benign foot rot". Benign foot rot is very similar to athlete's foot in terms of smell, pain and contagiousness. In sheep, the disease then progresses to "foot rot" where the hoof walls separate from the skin at the hairline and/or the horny tissue of the hoof resulting in extremely thick, highly misshapen hooves and extreme pain. Goats generally do not progress past the benign foot rot stage, i.e., typical signs are foot scald, regardless of the severity of their foot rot infection. However, there are exceptions.

In trying to eradicate either benign foot rot (often misidentified as foot scald) or advanced foot rot, there are several things to keep in mind. Foot rot requires a synergistic infection between two bacteria 1) Dichelobacter nodosus, previously known as Bacteroides nodosus, and (2) Fusobacterium necrophorum. However, foot rot can only occur if D. nodosus is available, and the D. nodosus can only survive in feces, soil, or pasture for a maximum of 2 weeks.Thus, if you can get animals off a specific pasture or barn pen for two to three weeks, the barn floor or pasture will be free of the disease and no longer a source of infection. Instead, the sole source of infection will be carrier animals. Another thing to keep in mind is that the disease is far easier to eradicate under dry conditions than under wet (snow or mud) conditions.However, symptoms of the disease often disappear during dry conditions. It is easy for a farmer to fool him or herself into thinking that the disease has spontaneously cleared itself up and stop treating their animals right when conditions are best for ridding the flock of foot rot once and for all. Even though symptoms may disappear during dry weather, the disease is lurking, waiting for the next wet spell.

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The goal in an infected flock is to control the disease as much as possible during wet seasons so that few of your animals become potential carriers. Hooves in infected herds should be trimmed regularly (there is now some disagreement on this) and trimmers disinfected between animals. Most commercial topical ointments used for thrush control in horses or diaper rash control in babies do not contain enough copper or zinc sulfate to combat foot rot. Instead, veterinarians will often recommend a combination of foot bath solutions for the entire flock, and possibly, systemic oxytetracycline antibiotics for animals with severe symptoms. Foot baths can be made by cutting an old hot water heater in half lengthwise or out of wood. Plastic foot baths can be purchased from livestock supply companies. Plastic cement mixer tubs purchased from hardware stores tend to be less sturdy but can be used. You may need to build a chute around the bath to ensure that animals do not sidestep it. Two common effective foot bath solutions are 1) copper sulfate 10% (16 lbs in 20 gallons of water) or 2) zinc sulfate 10% (8 lbs in 10 gallons of water with 1/3 cup of laundry detergent to help with mixing). Both solutions can be toxic and care should be taken that animals do not drink them. Rags or wool tags can be put in the bottom of the foot bath to reduce splashing and discourage drinking. Dry baths of 10 lbs of zinc sulfate in 90 lbs of hydrated lime can be used in doorways if foot baths are unavailable but are normally less effective. However, they are often the only alternative in freezing conditions and have been shown to be effective at controlling although not necessarily eradicating foot rot during this very challenging time of the year. Smaller solutions of zinc sulfate for dipping hooves individually can be made by mixing 1 part zinc sulfate with 9 parts water and adding some detergent.

Once the dry season arrives or animals are being managed under dry conditions, eradication of the disease can take place in earnest. Animals should be carefully examined for lameness or interdigital blisters and separated into a symptomatic and an asymptomatic group. If hooves are to be trimmed, use separate hoof trimmers for each group and disinfect the trimmers between animals. The two groups should be regularly run through an effective foot bath and moved into separate uninfected pastures or pens. The symptomatic group should be run through the foot bath at least every three days for a minimum of 4 treatments. Animals should stand in the bath a minimum of 5 minutes, if at all possible. Standing in a foot bath for 1 hour results in rapid curing of the disease but is often not feasible. Symptomatic animals can be injected with an effective antibiotic such as oxytetracycline following your veterinarian's recommendations.However, antibiotic treatments are usually not recommended for asymptomatic animals as these treatments can make identification of subclinical and/or carrier animals which are not ready to be introduced into the "clean" group more difficult. A middle group can be established of animals that appear to become free of the disease. Any animal that relapses should be noted down and returned to the symptomatic group. Members of the middle group can be added over time to the clean group. One recommendation is that they be free of symptoms for at least 30 days and undergo at least 2 foot bath treatments in the middle group prior to joining the clean group. Once the flock has made it through a wet season without any signs of foot rot or foot scald, you can consider the flock disease free.

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Animals that continually relapse or whose reintroduction into the clean group results in other animals getting infected are likely to be carriers and should be removed from the herd. If too valuable for culling, they can be isolated for special attention such as severe paring down of the hoof, daily packing and wrapping of the affected feet in a zinc sulfate, copper sulfate or Terramycin solution (1 packet of soluble terramycin powder mixed in ½ cup of water with enough alcohol added to end up with a 2 quart mixture). However, there is usually a predisposing factor that causes an animal to be a carrier. With the exception of founder, most of the factors that predispose an animal to becoming a foot rot carrier are related to genetics. Culling of suspected carriers is often the best decision for flock improvement.

Even in dry weather, the eradication of foot scald or foot rot is a time consuming task. However, as someone who eradicated it from their herd 15 years ago, I want to emphasize the long term rewards in labor savings and herd productivity that result from eradication. It is well worth the effort!

Employee Engagement is the Key to Successful Farm Meetings. But How?

by Kaitlyn Lutz, DVM Bilingual Dairy Specialist, CCE NWNY Dairy, Livestock and Field Crops Team

As I'm settling into my job here with the NWNY team I am getting the opportunity to sit in on more employee meetings as a translator. I have found it a great way to get a sense of a dairy and a helpful exercise in determining what resonates with employees versus what leaves them frustrated or disconnected.

It's timely to therefore talk about how to engage employees in these meetings as our industry continues to face new challenges such as overtime regulation. As we focus on labor efficiency and retention with a renewed importance, consider these ideas to get more from your employee meetings.

Listen more

Consider these scenarios:

Moocho Milk Dairy:
Our SCC has been increasing over the past 2 months. I'm frustrated because you have all been trained on our milking procedure and why it's important. I need you guys to do a better job at cleaning teat ends or else no one will be getting bonuses.

Green Acres Dairy:
As you guys know, our SCC has been increasing over the past 2 months. I know you all work hard to follow our protocols and I'd like to hear your ideas as to why we're having this problem?

Which one makes you feel more valued? The point here is to engage your employees by listening to them and showing them that you respect their opinion and recognize their efforts. The other benefit of this style is it generates solutions as a team, giving employees more ownership over their work. The outcome? More motivation and accountability.

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Specific Positive Feedback

While much feedback is given individually outside of a meeting setting, it can be valuable to give specific positive feedback during group meetings. A common mistake is for meetings to focus on the negative and end with a vague positive comment to the group. Stop running into gates with the skid steer! Don't push cows! Feed colostrum faster! But thanks for working hard, great job guys! This often comes off as insincere and causes employees to shut down. Consider thinking of a few specific, timely points to encourage your employees with positive feed- back in the next meeting.

Timeliness

This one ties in with feeling valued. We all know time is valuable and we should treat our meetings as such. Often meetings run very long and become unproductive when employees feel like their only opportunity to communicate with their manager is in the meeting. Create opportunities for employees to communicate with their manager outside of meetings. Weekly or monthly meetings work well to keep the communication going and keep on-task.

Agenda

A piece of advice from Dr. Rich Stup, director of Ag Workforce Development, is for managers to keep a standing agenda. If you have the same basic agenda at each meeting this takes the stress off the manager to prepare a new agenda each time and helps employees know what to expect.

Follow up

A common frustration of employees is a lack of follow-up after meetings. Make sure to write a list of action items after meetings. Don't be afraid to delegate when appropriate. Often employees are happy to help fix problems if they have the tools to do so.

Timelines for follow-up are also key. If employees know when to expect the crowd gate to be fixed, for example, they are less frustrated, even if it takes time for the part to come in.

Final Thoughts

If you are having trouble with meetings becoming gripe sessions, consider inviting a meeting facilitator (i.e., consultant, extension agent). As employee engagement increases, you'll see this pattern change. So, pick something to try at your next meeting!

Lastly, if you have trouble with communicating because of language, meetings with a translator can help both parties be fully heard.

Clean Up the Cost of Wasted Hay

By Ember Friedrichsen, Iowa State University

Feeding livestock hay in the winter may be an inevitable expense to an operation, but paying for wasted hay doesn't have to be. Choosing an appropriate feeding practice and adhering to a strict feeding schedule can help keep hay waste to a minimum this season.

Charlie Ellis with the University of Missouri Extension says feeding practices will vary with climate, labor availability, and ultimately, producer preference. Therefore, the field specialist in agricultural engineering shares some advantages and disadvantages of the following strategies.

Cone and ring feeders. According to Ellis, cone feeders are the most efficient at minimizing hay waste. Sheeted ring feeders allow more waste than cone feeders, and open ring feeder are the least efficient design of the three. Nonetheless, placing any type of feeder on an elevated surface in a well-drained area will reduce hay waste in general.

In addition to feeder design, the type of bale will factor into hay waste around a feeder. Ellis says square bales produce less waste, whereas large round bales contribute more waste — as much as 45% of the bale.

Processing bales. Another method for feeding hay is to process bales and add the material to a mixed ration. Ellis says this approach allows farmers to mix low and medium quality forage into feed without animals sorting out higher quality hay. Processing bales can also dilute forage with high nitrate levels so it is safe to feed to livestock.

One problem with this practice is the forage particle size after processing. Smaller forage particles dissolve easier in the rumen, and this can cause cows to feel hungrier faster. Ellis says this may lead livestock to eat more feed, which will incur greater feed costs. Additionally, processing bales can be a costly practice in itself.

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Unrolling bales. Ellis notes there are many benefits to spreading hay over a large area as opposed to using a feeding cone, ring, or a feed bunk. For instance, all cows will have equal access to hay, and unrolling bales can reduce hoof damage and compaction that could occur in more isolated feeding areas. This method also allows a more even distribution of nutrients from hay and manure across the field.

Limit access to feed. If unrolling bales isn't an option, Ellis says limiting animals' access to hay in cone and ring feeders or feed bunks will help alleviate losses. To do this, provide one bale per 10 cows if using a cone or ring feeder, or allocate about 30 inches of bunk space per cow if using a feed bunk. Divide the herd into groups according to animals' age and pecking order. Then, feed cattle once a day at the same time of day.

Ellis recommends feeding hay that has been stored outside first to prevent further spoilage and improve palatability. Moreover, make sure animals clean up most of the previous day's hay before allocating more. Overall, Ellis notes it may be necessary to cull aggressive animals that interfere with other cows' ability to access feed.

Eight Things to Think About - Farm Diversification and Enterprise Analysis

By Katelyn Walley-Stoll, Business Management Specialist, SWNYDLFC Team

Katelyn's 8 Things to Think About...

1. **Farm Diversification comes in many shapes and sizes.**
2. **Diversification reduces income variability.**
3. **Increasing or changing enterprises is added risk.**
4. **Clarifying your farm goals will help determine viability.**
5. **Leverage existing resources before paying for new ones.**
6. **Develop an enterprise budget to determine breakeven.**
7. **Identify your market and its capacity beforehand.**
8. **Revisit, Analyze, Pivot, and Improve.**

- Have you ever had a dream about adding of changing something on your farm, homestead, or business?
- Have you ever made a decision without making a budget first?
- Have you ever planted or grown or raised something without knowing who you were going to sell it to?
- Have you ever implemented a dream that went terribly wrong? Or a dream that went terribly right?

I'm guessing that you said "YES" to at least one of these things! When conversations about farm diversification come up, I always bring it back to our shared experiences... as dreamers, as doers, as innovators, as people who say "Well, that could have gone better". Specifically, to take this hot topic and break it down, here are my 8 considerations that (I think) are universal in conversations about farm diversification.

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1. Farm diversification comes in many shapes and sizes. Farm diversification is the act of increasing the number of enterprises on your farm. In this case, enterprises is just a fancy word for "things to do or sell". Farm diversification could be adding new products to sell, changing how you sell those products, and/or implementing new ways to make products. This is a great example of not putting all of your eggs in one basket (pun fully intended).
2. Diversification reduces income variability. We all know that farming is act with a lot of inherent risk. Farm diversification can help reduce production risk on your farm in several ways. As you add and sell additional enterprises to your farm business, you can reduce cash variability. For example, let's say you sell produce every summer at the farmers market. Your cash inflows are quite variable as you see a spike in the market season and little to no income the rest of the year. If you added selling eggs, for example, that's a product that would be available to sell, and earn cash from, throughout the year. You also have the opportunity to spread fixed costs over more commodities - instead of that new tractor just plowing corn fields, it can also plow pumpkin fields. With farm diversification, you can additional utilize resources throughout the year and have a larger range of products to help increase market access.
3. Increasing or changing enterprises is added risk. When considering adding any new farm enterprise, it's important to consider the possible consequences to your business. A new venture is risky with typically high first year losses, particularly if it's something that you'll need to gain new skills to master. There's also questions about market access if you're new to the game and the longevity/sustainability of new ventures, especially if they're jump on the bandwagon type crops (I'm looking at you goat yoga, hops, and hemp). Additionally, farm diversification can take you from specialized and efficient production (I only milk cows) to "mile-wide, inch deep" inefficiencies (I milk cows, grow pumpkins, process cheese, train oxen, harvest cut flowers, and go to farmers markets every week). None of these unintended consequences are deal breakers, but they're all important considerations.
4. Clarifying your farm goals will help determine viability. I haven't met a farmer yet who got into the business of farming because they loved paperwork and planning. But, you should be sure that a new business venture fits into your farm's business plan. Don't have a business plan? No worries - we've got loads of resources to help you build one that will work for you! Having a business plan in place will help you to clarify your personal and farm goals to verify your new venture will fit in.

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5. Leverage existing resources before paying for new ones. Your farm is filled with resources, even if it sometimes feels like those resources are running thin. These can be categorized into physical, financial, and human resources. If you're planning for a new venture that will require the purchase or addition of several new resources, you should first consider if your farm has any underutilized resources that already exist that could be the foundation for a different enterprise.

6. Develop an enterprise budget to determine breakeven. Who doesn't love budgets?! An enterprise budget is a slice of your whole farm budget pie. This looks at the incomes and expenses associated with a specific enterprise on the farm, taking into account variable and fixed costs. Having an enterprise budget (don't worry - we have resources to put those together, too) will help you determine a breakeven price and the financial viability of a new venture.

7. Identify your market, and its capacity, beforehand. Don't do anything without knowing who you're going to sell to. Don't do anything without knowing who you're going to sell to. DON'T DO ANYTHING WITHOUT KNOWING WHO YOU'RE GOING TO SELL TO. That's a marketing plan in a nutshell. You shouldn't start a new venture on your farm without first knowing where/who/what your market is and verifying that there's room for you.

8. Revisit, analyze, pivot, and improve. But also - have an exit plan. When you decide to embark on a new farm enterprise, be sure to hold yourself accountable for checking in on how things are going. Revisit your budget, your business plan, and your books often. Analyze if the new enterprise is serving you and your farm positively - have you seen an improvement in profitability? Cash flow? Is the new venture providing your farm with benefits that outweigh the cost and your time? If the answer to any of these questions is "no", don't be afraid to pivot! Schooch some things around, change markets or tactics, and see if you can make it improve. If you do these things without success, don't be afraid to enact your exit plan and try something new.

For more information about farm diversification, contact Katelyn Walley-Stoll at 716-640-0522. This article was written as part of Cornell Cooperative Extension's "Diversifying Your Dairy" initiative. This material is based upon work supported by USDA/NIFA under award number 2021-70027-34693.

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NORTHEAST EXTENSION RISK MANAGEMENT EDUCATION

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