North Country Ag Advisor

www.nnyrap.cce.cornell.edu

"Your trusted source for research-based knowledge"

Cornell University Cooperative Extension
Northern New York Regional Ag Team

January 11, 2017
Milk Quality Program
10-3pm Mo’s Pub and Grill, Malone

January 12, 2017
Milk Quality Program
10-3pm CCE of Lewis County

January 18, 2017
Lamb Cutting 2.0
SUNY Cobleskill
Our Mission

“The Northern New York Regional Ag Team aims to improve the productivity and viability of agricultural industries, people and communities in Jefferson, Lewis, St. Lawrence, Franklin, Clinton, and Essex Counties by promoting productive, safe, economically and environmentally sustainable management practices, and by providing assistance to industry, government, and other agencies in evaluating the impact of public policies affecting the industry.”
Manure management is an important and sensitive part of a dairy or livestock operation. It’s both a waste product and a highly valuable resource, and it needs to be handled and applied properly either way you view it. Applied during spring and summer, manure delivers its maximum crop benefit. Actively growing plants make immediate use of the nutrients it provides. For logistical and economic reasons though, many farms apply manure to fields in the fall and winter, when there are no growing plants present. Some do it to ensure adequate manure storage through the winter and some for economic reasons as some purchased manure sources are cheaper during ‘off times’ of the year. Under these conditions, manure nutrients may not be captured on the field. Here are some considerations to help with those decisions.

If capturing the nutrient value of manure is the top priority, inject or incorporate it in the spring. Nitrogen is probably the most valuable nutrient in animal manures and it is best captured when applied just as a plant’s demand for N increases during growth and if manure is incorporated or injected into soil rather than left on the surface. Manure contains 2 forms of N, ammonia N and organic N. Ammonia is a form of inorganic N which is quite unstable, but provides a boost to growing plants just like synthetic fertilizer N. Losses of ammonia N begin immediately when manure is applied and can be minimized by enhancing its contact with soil with injection or incorporation. When injected or incorporated immediately, no ammonia N is lost and the full amount is available to growing plants. As incorporation of manure is delayed, more ammonia N is lost to the atmosphere (see Table 1). Incorporation delayed 5 or more days results in complete loss of ammonia N. Manure which is surface applied in the fall or winter also loses 100% of ammonia N. In these last 2 cases, the manure provides no ‘fertilizer-like’ ammonia N benefit to the crop.

Animal manures also contain organic N. Organic N is stable in the soil, is not at risk of loss, and is slowly mineralized over about 3 growing seasons to provide N to growing crops. Rate of organic N availability to growing plants depends on the type of manure and the dry matter content of the manure. If manure must be applied outside the growing season, use caution to avoid environmental losses. Occasionally, manure must be applied when there will be little or no crop uptake of the nutrients and therefore an increased risk for runoff and nutrient losses exist. Manure may need to be applied outside the growing season in order to manage storage facility volume. In these situations, heed 24-48 hour weather forecasts and land conditions. Avoid applying manure when significant rain or snowmelt is predicted within 24-48 hours. Weather forecasts are not perfect, but if expected precipitation is 0.25 inch or less, there is usually little risk of runoff, even on wet or frozen soils. Rain totals of 0.25 to 0.5 inches will result in some runoff, but not much from soils that have good permeability as long as they are not saturated or frozen. Delay spreading when rain totals above 0.5 inches are predicted or tile drains are already flowing moderately. Manure should not be applied to saturated, ice-covered, or frozen “concrete frost” soils.

### Additional resources:


For more information about field crop and soil management, contact your local Cornell Cooperative Extension office or Cornell University Cooperative Extension NNY Regional Field Crops and Soils Specialists, Mike Hunter and Kitty O’Neil.
Dairy

Tips on Dealing with the Extreme Cold
By Kimberley Morrill, PhD

Many producers are still dealing with the implications of a hot and dry summer. The long-term impacts of heat stress are still being felt on many dairy operations — calves born in September and October were weaker and needed extra attention, reduced reproduction efficiency through August and September is still wreaking havoc on some herds, and the reduced milk production and somatic cell challenges increased the economic challenges faced by many producers. On top of heat stress, many producers are dealing with the impacts of drought leading to reduced feed inventories and water challenges as we move into the winter months. As we move closer to winter and another type of extreme weather, it’s worth taking some time to prepare.

• **WATER** - Regardless if you have dairy cattle, beef, sheep, or goats, water is critical! Livestock require water to maintain their immune system and stay healthy. Decreased water consumption leads to decreased feed intake and decreased milk production. Check water sources throughout the day.
  ◊ Lactating animals have increased water requirements compared to non-lactating and youngstock. This does not change in the winter just because it is cold outside. Look into options to divert the water from the plate cooler to the water tank for the fresh pen, or price out water heaters. Yes, there may be some increased costs in December, January, and February, but it’s likely better than the alternative of decreased milk production and sick cows.
  ◊ Yes, even pre-weaned calves require water and yes, I realize water in hutches does freeze when it’s -10°F (or +20°F). Having grown up feeding calves in hutches in NH, I understand it’s not a fun job, but having sick dehydrated calves is even worse. Providing warm water shortly after feeding milk is when the calves will get the most benefit. Collect the water buckets 20 to 30 minutes later. This prevents frozen buckets and provides another opportunity to observe the calves.

• **ENERGY** – Thermoregulation is how animals (and people) are able to maintain a core body temperature when the temperature outside changes. When the temperature outside drops below the thermal neutral zone (TNZ) the animal must divert energy from the diet to maintain body temperature. This is energy that could have been used for growth, production, or immune function.
  ◊ **Lactating cattle** - Often we do not worry about cold stress with lactating dairy cattle because as they ruminate they are producing heat, however if the temperature drops below zero, or cows are not housed in a dry and draft free environment, adjustments may be needed to account for increased energy needs. Work with your nutritionist to make sure energy needs are being met for cold conditions.
  ◊ **Feed Inventories** – Work with your nutritionist (or CCE Specialist) and do a forage inventory. This allows you to know how much feed you actually have available. During the cold months animals need more energy and may deplete already reduced feed inventories much quicker. If you may need to purchase feed, it is better to know early and get a plan in place, than to run out mid-winter.
  ◊ **CALVES NEED MORE ENERGY!** When the temperature drops below 60°F calves need more energy. Calves have less than 5% body fat and do not have a functioning rumen to help keep them warm. If you do not increase the energy in their diet, they will use the energy to stay warm and will not grow. To improve health, growth, and stay warm you want to feed a milk replacer that is formulated for cold weather, feed adequate amounts of milk replacer (make sure the calves get enough MCals/day), and milk should be warm when fed so the calf does not have to use energy to warm the milk while digesting it. Provide each calf with a calf jacket, provide enough bedding so the calves can nest, make sure bedding is clean and dry, and make sure the calf is protected from the wind. During extreme, below zero cold, a third feeding of milk/milk replacer may be needed to provide enough energy to calves.

• **Udder Care** – Udder prep, pre- and post-milking, is always important and in wintertime it is even more important as chapped or frozen teats are a great place for bacteria to thrive. Unfortunately, freezing temperatures and teat dip don’t always mix. Keep using a pre- and post–dip, just make sure teats are dry before the cows leave the parlor. Switch from a water based to a glycerin based teat dip. Store teat dips in an area that is less likely to freeze; freezing can inactivate some ingredients and can cause some ingredients to separate. Make sure milking systems are functioning properly as well as provide cows with clean, dry housing and protection from the wind.
• **THE BARN**

◊ **Smoke and Fire Detectors** – Make sure these are in all of your barns and in your house and make sure they work. With all of the heater systems that are used during winter, safety should be the #1 priority.

◊ **Windows and Doors** – Double check that all windows and doors that have been opened during the day (or warmer weather) have been latched to prevent water or other items from freezing.

◊ **Vaccines** – Make sure vaccines, medication, and other thermal sensitive items are properly stored, or temporarily relocated. A farmer told me it was so cold out that the vaccine was freezing in the syringe, unfortunately, this inactivates the vaccine and provides no benefit to the animal and costs the farmer twice the money as they now have to buy another round of vaccine.

◊ **Space heaters** – Space heaters can be the difference between freezing and 33°F, but USE WITH CAUTION and COMMON SENSE! Do not place near flammable items such as paper towels or bedding.

• **YOU** – You have spent all day, out in the cold caring for the animals that are your livelihood. You need to take care of yourself.

◊ **WATER** – Dehydration can occur in winter months just as easily as in the heat.

◊ **Clothing** – Dress in layers and wear clothes that wick away the sweat. Keep extra clothes in the barn and in your vehicle. If you get wet, don’t “tough it out”, take a few minutes, put on warm, dry clothes, and stay healthy. A few minutes added onto chores is a lot better than frostbite due to wet socks or a week in the hospital with pneumonia due to wet overalls.

◊ **STRESS** – Many farmers are already dealing with a high stress load due to the drought, milk prices, and challenging margins. Unfortunately, a long, cold, and snowy winter can increase both stress and depression. To help combat some of the emotional challenges TAKE A BREAK; it’s important not to get overwhelmed. This can be as simple as a 15 minute coffee/hot chocolate break to warm up and catch up with your kids, a trip to town to get a coffee, go visit a neighbor, or take your spouse out to dinner and talk about something other than the farm.

Additional resources to deal with stress are available at your local CCE offices, from the Regional Ag Team and from FARMNET.
FARM Version 3.0 Program Changes - In effect January 1, 2017
By Lindsay Ferlito and Kimberley Morrill, Ph.D

The FARM Program is reviewed every three years by a technical writing group. This group consists of farmers, veterinarians, and researchers. They review feedback from current evaluators and producers as well as recent research to update the FARM program guidelines and manual. During this review, changes were made to multiple chapters of the manual and phase one and two priority areas were identified.

Phase One Priority Areas include:
◊ Veterinarian Client Patient Relationship (VCPR)
  ⇒ Official form signed by Veterinarian of Record
◊ Dairy Cattle Care Ethics and Training Agreement
  ⇒ Signed annually by all employees with animal care responsibilities indicating:
    • Received training in stockmanship AND areas of responsibility
    • Will not abuse animals
    • Will report any abuse witnessed
◊ No tail docking after January 1, 2017.

If a Phase One Priority Area is not met, this will create a Mandatory Corrective Action Plan. A Mandatory Corrective Action Plan (MCAP) is a written plan agreed upon between the dairy producer and FARM 2nd Party Evaluator and/or Veterinarian of Record (VOR) that outlines necessary steps to comply with Priority One Animal Care Standards. The MCAP requires re-evaluation not to exceed one years’ time. Failure to complete the MCAP may result in a Notice of Removal from the FARM program.

Phase Two Priority Areas include:
◊ Herd Health Plan which includes:
  ⇒ Protocols for newborn and milk-fed dairy calves.
  ⇒ Protocols for pain management.
  ⇒ Protocols and training for non-ambulatory animal management.
  ⇒ Protocols for euthanasia.
◊ Animal Observations by evaluator:
  ⇒ Lameness
  ⇒ Body Condition
  ⇒ Hock/Knee

If Phase Two Priority Areas are not, this will lead to a Continuous Improvement Plan. A continuous Improvement Plan (CIP) is a written proposal that identifies any areas for improvement in animal care. It specifies actions to make the improvement and a suggested timeline for completion, with a re-evaluation in 3 years.

If you need assistance will documentation, protocol development, training, or would like to prepare for your second party evaluation please contact your regional dairy specialists, Kimberley Morrill or Lindsay Ferlito. Additional resources are available on the FARM website [http://www.nationaldairyfarm.com/] listed under producer resources.

Thank you

We would like to take a moment during the holiday season to thank you for your business. We realize you have options and are honored that you choose DeLaval Dairy Service as one of your partners in dairy production.

www.delaval-us.com
Quality Milk Program

January 11, 2017
Mo’s Pub and Grill
Malone, NY
10-3PM

January 12, 2017
Cornell Cooperative Extension of Lewis
County Lowville, NY
10-3PM

Guest Speakers:
- Jessica Scillieri Smith, DVM, Senior Extension Associate,
  Quality Milk Production Services, Canton NY
- Rick Watters, PhD, Senior Extension Associate, Quality Milk
  Production Services, Warsaw NY

Topics (30 min each):
- Economics
- Review of anatomy and physiology
- Basics on mastitis causing pathogens
- What to do with a negative culture
- Milking procedures – from the basics to new technologies
- Equipment – a pulsator is a pulsator, no matter where it’s located
- Keeping good records and using the information you

Registration:
Cost is $35.00 per person.
Register Online at:
https://reg.cce.cornell.edu/milkqualityprogram2017_10512

For more information contact Tatum Langworthy at 315-788-8450
or email at tlm92@cornell.edu.

Cornell University
Cooperative Extension
Northern New York Regional Ag Team

Cornell Cooperative Extension is an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities and provides equal program and employment opportunities.
During times of low commodity prices, bad weather, and (insert your personal dilemma here), it can feel like everything is out of your control. That feeling invades every aspect of your life, it creeps and lingers into your farm’s day to day operations, and can be toxic to making progress. It’s just as daunting though to try to make changes when your environment won’t seem to cooperate long enough to give you time to think about and implement those changes. I’m suggesting a simple 3 step process to help focus energy and efforts at a time when it can be difficult to even get each day’s tasks completed.

**Step 1: Set a Goal** - This is a deceiving step. There are always goals for your farm business, you know that you have them, but do you ever write them down? This may seem tedious, but the impact is huge. This can be in any form, from a notebook scribbled in at 11:00pm, to a typed list that is printed and posted in the barn. The important part is that you set a goal higher than your current performance, and that the goal follows the SMART goals mantra: S=specific, M=measurable, A=achievable, R=relevant, and T=time bound. Those are all relatively self-explanatory, but it’s important to think about each of those aspects when laying out goals. Some example goals could be to reduce debt to a certain level for a major purchase, or increase product quality to obtain certain premiums.

**Step 2: Monitor Current Information** - This is where you collect the current information about your business. How did you perform on this parameter last year? What were the protocols in place then that caused that result? What are the current protocols in place? Once you have collected the information you will be able to evaluate what parameters are affecting the goal you would like to meet. From this data collection, you can decide which parameters to change to reach your goal. A tip to collecting and evaluating information is to take a portion of one day a week and dedicate it to this task. Set it aside in your calendar and then make plans to revisit for a period of time over which you think you can collect an adequate amount of information to make a decision.

**Step 3: Take Corrective Action** - After collecting and evaluating your information it is time to make a decision. That decision needs to be implemented and monitored in the weeks following to ensure that it is achieving the desired results. It is important to stay committed to the change, the phrase “Rome wasn’t built in a day” definitely applies to farms. Be patient and persistent with your changes; it will take time to see results. The final step of taking action is to re-evaluate after giving your action enough time to take effect. If the desired results are achieved you can continue, if not it is time to go back to step 2 and find a new plan of action.

The best way to keep yourself accountable to these changes is to share your goals (written) and your progress to a third party on a regular basis. That could be monthly or quarterly, and shared with a vet, loan officer, nutritionist, CCE regional specialist, or profit team. This will help keep you on track and keeping up with them to make sure that you don’t get buried in the day to day task of putting out fires.
NNYRAP Farm Finance 101

By Kelsey O’Shea

Ever wish you paid more attention in that accounting class? Maybe you’re a bit rusty on financial ratios, or looking to learn something new. Each month I will go over an accounting or finance topic as it relates to your farm business, so stay tuned. This month is on lender lingo:

• **Revolving Loan** - a loan that becomes re-available as principal is paid down with each payment. There is usually a maximum limit set and these types of loans are most often renewed annually (example: line of credit).
  - **Short Term Loan** - typically a revolving or non-revolving loan and terms are less than or equal to 7 years. Typically secured by livestock or equipment.
  - **Operating LOC** - typically a revolving loan that is scheduled over a 1 or 2 year maximum term that is designed to finance the normal operating expenses of a business. The repayment schedule coincides with the normal business cycle of the operation.
  - **Capital LOC** - could be a revolving or non-revolving loan that is used to purchase equipment or make improvements to the property and is henceforth scheduled over 3-10 years.
  - **General LOC** - typically a revolving loan that is scheduled over 5 years or less that can be used for both operating and capital purposes.

• **Non-Revolving Loan** - a loan that has a finite amount disbursed at the beginning of the loan and with principal funds that do not become re-available (example: long term real estate loan).
  - **Long Term Loan** - typically a non-revolving loan that is secured by a mortgage on real estate and terms are 30 years or less (typically scheduled over 15, 20, or 25 years).
  - **Mortgage** - a document executed by attorneys that perfects a lien on real estate and is required on loans to be scheduled over more than 10 years.

Knowing what kind of credit you need or your business is very important. How your debt is structured can influence your profitability and long term financial success. Be sure to evaluate your debt situation annually at a minimum.
Feeding grain to lambs, sheep or goats can be a challenge. They love the grain and can knock you down, Velcro you to the feeder, or stand on your chest to get to the grain bucket. On top of that, grain is expensive so you don’t want to waste any along the way. At the Extension Learning Farm, we only feed grain to weaned lambs, ewes in the last month before lambing, and sometimes replacement stock if we have a separate place to house them. Feeding grain is labor intensive unless you are feeding a total mixed ration (TMR), usually involving scooping, carrying buckets, and scooping some more.

So let’s look at some styles of feeders that can make grain feeding easier and more efficient, not to mention safer. If you have to feed from inside the pen then you better have a really good dog to keep the sheep back and save your knees. Most of the time we try to figure out a way to feed from outside the pen or at least from one side of the feeder.

There are a couple ways to accomplish this situation. The first is to line up the feeders along an outside exposed edge of the barn or barnyard. Using a one sided feeder, you can walk along the outside and scoop or pour the grain in as you go. The sheep or goats will mob the feeder, but you will be safely on the other side. You could even be feeding through the side of the barn with openings you design to allow getting the grain into the feeders. Keep in mind who will be doing the feeding. I can easily reach over a cattle panel to throw grain into a feeder, but it is not very handy for my shorter niece who helps me.

Another method is to make alleys into your barn by putting the feeder perpendicular to the barn walls and throwing the grain down through the two sided feeders or walking between two feeders with the sheep on both sides of you, but on the other side of the feeders. The Premier1 style feeder allows you to walk down through the feeder to feed on both sides and this can work with the feeders all in a line or used as pen dividers off an alley. This works better for smaller people since it is a little like walking the balance beam with a bucket in your hand and a raging sea of sheep on each side of you.

Closing the sheep out of an area, placing the feed, and then letting them back in can work, but they quickly catch on to your trick and it can be hard to get them out of the feeding area. Then they may push so hard on the gate that they hurt you or each other in their rush to get in and get to the feeders. I suggest something stronger than a hog panel and something that is easy to open and close if you decide to use this method. At the Extension Farm we use this method for putting out round bales. However, their rush to get to new round bales isn’t quite as desperate as their rush to the grain feeder.

There are other things to think about too, like should the sheep or goats eat at ground level or in an elevated feeder? How high should the edge of the feeder be and how deep? If the feeder sides are tall, the feeder can still work if the feed pan part is not too deep (couple inches). If your animals have to reach over and down to reach the feed, the sides need to be a little lower. Fifteen to 20 inches works well for my hair sheep and short commercial Dorsets. Other breeds may need adjustment up or down depending on their size.

Feeding at the ground level can work too, in the right situation. I fed large lambs along the manger in an old stanchion barn by placing a board along the floor that added up to 9 inches high (with the curb). We wired another board above and left an 8 or 9 inch gap. We strung rope every 6 or 7 inches by drilling holes and basically sewing the rope up and over and down and over until we had little rope dividers. It worked great; however, it would not be great for horned goats.

I have also fed through upside down hog panels put on metal posts (upside down so the big holes are at the bottom). For lambs this works great, but for larger animals the holes would be too small. The lambs ate out of wooden grain boxes placed along the panels.

In the old dairy barn at the Extension farm we built feeders with uprights that the sheep had to eat through into the old cow mangers. They worked well except that the lambs fit through the slats and slept and pooped in the manger.

You can make your feeders or buy them. Both usually come in 4 foot or 8 foot sections. About 8 sheep will fit on an 8
foot feeder, less if you have a large breed, the sheep have a lot of wool on them, they are very pregnant, or any combination of those things. When feeding groups of lambs it is especially important to have enough bunk space. If you don’t, the large lambs hog all the grain and the small lambs get crushed by the bigger lambs.

If feeding grain to ewes with small nursing lambs, great care must be taken to ensure that none of the lambs are sleeping by the feeder before you put in the grain. Extra bunk space is a must so the lambs can get out from between the ewes and also have room to learn to eat grain themselves.

Feeding a TMR solves a lot of these problems because the ration is in front of the animals most of the time and there isn’t the big rush to get to the feeder when the grain is put out. Many large flocks feed a TMR both for labor savings and good feeding strategy.

If you decide to make your own feeders, Premier1 Sheep Supplies (www.premier1supplies.com) has a good set of plans that includes a hay rack made with panels with 4x4 openings and a grain pan underneath. I found that we had to pull the hay to one end or not feed the hay in the feeder in order to deliver the grain. Roto-cut hay would probably work better. Like most feeders, the poor quality hay builds up a bird’s nest-type situation with the stubble on the bottom. Then you have to go down through and flip the hay over or move it to one end to feed the grain. They also have an extra board along the bottom to help keep animals from getting underneath and getting stuck. Don’t skip this part - it is important.

Another style uses large PVC pipe cut lengthwise and set in wooden holders. PVC is easy to clean or dump. Probably the easiest grain feeder is made by purchasing 1x6 Amish lumber and making a long box. The feeders can be flipped over after feeding to keep them clean. Some designs include a handle that splits the feeders lengthwise so you can use to carry it, flip it or carry it with a tractor.

There are many purchased styles of feeders as well. Most have a plastic pan with a metal feed rack above. They can work great for a small farm. Just be sure to check the height and remember what works for the ewes and nannies might not work as well for the lambs and kids. Be sure they can’t go under if you are planning to use them for pen dividers. Pay attention to how easy they are to clean out. Can you clean them with your hand, a dust pan, a broom, etc? There are also feeders that are basically a plastic grain trough that you place on the ground and throw the feed in. It is a good idea to pick those up or turn them over between feedings so the animals don’t stand in them and get them muddy and manure-covered inside.

Check for things like metal around the outside. I had a nice set of store bought feeders that were leg amputators when they were lined up because they had an edge of metal all the way around the feed pan part that made a dangerous clamp when they were placed end to end and then animals pushed their way into them.

If you google “sheep feeder plans” online, there are lots of good plans out of Colorado state. One nice feeder for a small farm or for using in pens is shaped like a pentagon. I have made it in the shape of a square, but the pentagon is better because they are less likely to try to run through it and drag the feeder all over the pen. If choosing goat feeders, remember that goats like to get into the feeders and stand in them.

My ideal grain feeder would have a flexible auger to the grain bin (or bags) that I could use like a hose to meter out feed directly into the feeder. Scooping and carrying buckets is very hard on your hands, wrists, and shoulders after a few years. Even a small vacuum that would blow the grain into the buckets from the bags would be an improvement. I have the occupational therapy students at Clarkson working on this one.

Think about what you are feeding, how you are going to get the grain to the feeder with a bucket in your hand, the time of year and how weather will affect your feeding, and the cost in money and labor. Look through catalogs, visit some other farms, and look through the plans online to make some yourself. Different feeders work well in different situations. Planning ahead and modifying your feeding style can make your chore-time much more enjoyable and less dangerous.
High-moisture Corn for Swine

By Ron Kuck

High-moisture grains properly ensiled in sealed or non-sealed storage, or preserved with an organic acid, are suitable swine feeds, but no one should convert to high-moisture grains expecting to improve feed efficiency or growth performance.

1. Even though a higher initial capital investment is required, sealed storage is a more popular method of storing high-moisture grains than unsealed storage because there is greater control over the grain and less loss because of spoilage.

2. High-moisture grain removed from either sealed or unsealed storage is subject to rapid spoilage, especially in warm weather. Automated feeding equipment and careful attention given to the daily amount of feed mixed, distributed, and consumed can give good performance.

3. Storage of acid-treated grain permits use of less expensive storage facilities than that for ensiling grain, and there is little danger of the grain spoiling shortly after removal from storage. However, it may cost as much or more to treat the grain with an organic acid than it does to dry it. Also, the acid from the treated grain may cause corrosion in feed handling and storage equipment.

4. Rate of gain and feed efficiency, when compared on an equal dry matter basis, have been essentially the same for pigs fed high-moisture or dry grains when the grain and supplement have been mixed together rather than fed free-choice.

5. Free-choice feeding of high-moisture grain may be used successfully if proper intake of protein supplement relative to grain intake is assured. Free-choice feeding is not recommended for pigs under 60lb.

6. Since slower rate of gain and higher feed requirement per pound of gain usually result with the free choice feeding system, it is recommended that the high-moisture grain should either be mixed with a pelleted supplement or included in a complete ground and mixed ration.

7. The amount of high-moisture grain used in a complete mixed ration will have to be corrected to compensate for the higher moisture content compared to using dry grain.

8. There is no apparent advantage to grinding or cracking high-moisture corn for growing-finishing pigs other than for mixing purposes. However, grinding or cracking increases the feeding value of high-moisture sorghum (milo), barley, and wheat.

9. The possible use of high-moisture grain in a swine feeding program is primarily an economic and operational rather than a nutritional decision. Therefore, the various costs involved should be carefully examined.

Authors: Jerry Hawton, University of Minnesota; Dave Bache, Purdue University; Bruce McKenzie, Purdue University
The app provides daily dairy reports with CME daily spot prices for cheese, butter, and nonfat dry milk (NDM), and recaps weekly CME prices. It also summarizes futures markets for Class III, Class IV, Cheese, Whey, NDM, Butter, Corn, Soybean, and Live Cattle contracts.
Are you a farm that has been in business for fewer than 10 years, have an operation farm income of minimum of $10,000, New York State resident, at least 18 years old, and participate in the day to day production of the farm? Then you may want to inquire about the New York State New Farmers Grant.

The New York State 2016-2017 budget has set aside $1 million to support beginning farmers. These funds are intended to improve farmer’s profitability. The minimum grant funds are $15,000 with a maximum of $50,000 for up to 50% of the total project costs. However the remaining 50% must be matched by the farmer. The deadline for this grant is January 27, 2017. For further information on the New York State New Farmers Grant please check out http://esd.ny.gov/businessprograms/newfarmersgrantfund.html.

Additional funding options are available for farms that may or may not meet the New York State New Farmers Grant. Some additional funding agencies to consider looking at include Farm Service Agency, United States Department of Agriculture, Regional Economic Development Council, County Industrial Development Agency, and banking institutions.

Farm Service Agency: https://www.fsa.usda.gov/
United States Department of Agriculture: http://www.usda.gov/
Regional Economic Development Council: http://regionalcouncils.ny.gov/

---

**TIRE RECYCLERS INC.**

585-851-9550

- Car
- Light Truck
- Commercial

**ATTENTION FARMERS -**

We will cut your tires on site.
Call for Free Estimate!

Jefferson - Oswego - St. Lawrence - Franklin - Oneida - Essex - Clinton - Herkimer - Onondaga - Cayuga - Madison - Albany - Warren

Free Estimates
Fully Insured
Meat the Labels - Part 2
By Mackenzie Waro, HNY

In August, the terms ‘Natural’ and ‘No Hormones Administered’ were discussed. In this segment, we will decipher the terms ‘Grass Fed’ and ‘Antibiotic and Chemical Free’.

The term Chemical free is not allowed to be used on a meat label. The term No Antibiotics may be used on labels for meat or poultry products if sufficient documentation is provided by the producer to the United States Department of Agriculture (USDA) demonstrating that the animals were raised without antibiotics. This label claim will require paperwork and for the producer to work with the processor to create the correct meat label.

On January 12, 2016, the Agricultural Marketing Service (AMS) of the USDA withdrew the Grass Fed claim for ruminant livestock and the meat products derived from such livestock. AMS will no longer verify applicant’s programs to the Standard. The USDA Grass Fed Program was designed to create opportunities for small-scale livestock producers who would like to have their ruminant animals certified as grass fed. The program required that ruminant animals be fed only grass and forage, with the exception of milk consumed prior to weaning. Animals certified under this program could not be fed grain or grain by-products and must have continuous access to pasture during the growing season. Even though USDA AMS does not verify the grass fed claim, producers can still use the label on their meat packages.

Using these terms on meat labels and marketing materials can be tricky, and it is better to ask if you can use the terms rather than use them incorrectly. Visit fsis.usda.gov or contact Mackenzie Waro, NNY Livestock and Meats Processing Specialist, for more details.
2017 Farmer Tax Calendar

January 2017
• Give employees their copy of Form W-2 by January 31, 2017.
• Give qualified vendors Form 1099 by January 31, 2017.

January 15
• Social Security, Medicare, and withheld income tax is due, and if the monthly deposit rule applies, deposit the tax for payments in December 2016.

January 31
• File Form 943 to report Social Security, Medicare taxes, and withheld income tax for 2016. Deposit any undeposited tax. If your tax liability is less than $2,500, then you can pay it in full with a timely filed return. If you deposited the tax for the quarter in full and on time, then you have until February 10 to file the return.
• File NYS Form-45 for the last quarter of 2016.
• Federal Unemployment Tax – File Form 940 (or 940-EZ) for 2016. If your deposited tax is $100 or less, you can either pay it with your return or deposit it. If it is more than $100, you must deposit it; however if you deposited all of the FUTA tax when due, you have 10 additional days to file.

February 15
• Social Security, Medicare, and withheld income tax. If the monthly deposit rule applies, deposit the tax for payments in January.
• Have employees fill out new W-4.

February 28
• File Form W-3 (Transmittal of Wage and Tax Statements) along with Copy A of all the forms W-2 you issued for 2016.
• File Copy A of all forms 1099 with form 1096. Annual Summary and Transmittal of U.S. Information Returns with the IRS.

March 1
• Farmers file your 2016 income tax return (Form 1040) and pay any tax due; however, you have until April 15th to file if you paid your 2016 tax by January 15, 2017.

March 15
• Social Security, Medicare, and withheld income tax. If the deposit rule applies, deposit the tax for payments in February.

April 15
• Farmers – File an income tax return (Form 1040) for 2016 and pay any tax due if you did not file by March 1.
• Partnerships – File a 2016 calendar year return.
• Social Security, Medicare, and withheld income tax. If the monthly deposits rule applies, deposit the tax for payments in March.

April 30
• Federal Unemployment Tax – Deposit the tax owed through March, if more than $100.
• File NYS Form–45 for the first quarter of 2017.

May 15
• Social Security, Medicare, and withheld income tax. If the monthly deposit rule applies, deposit the tax for payments in April.

June 15
• Social Security, Medicare, and withheld income tax. If the monthly deposit rule applies, deposit the tax for payments in May.

July 15
• Social Security, Medicare, and withheld income tax. If the monthly deposit rule applies, deposit the tax for payments in June.

July 31
• Federal Unemployment Tax – Deposit the tax owed through June, if more than $100.
• File Form NYS-45 for the 2nd quarter of 2017

August 15
• Social Security, Medicare, and withheld income tax. If the monthly deposit rule applies, deposit the tax for payments in July.

September 15
• Social Security, Medicare, and withheld income tax. If the monthly deposit rule applies, deposit the tax for payments in August.

October 15
• Social Security, Medicare, and withheld income tax. If the monthly deposit rule applies, deposit the tax for payments in September.

October 31
• Federal Unemployment Tax – Deposit the tax owed through September, if more than $100.
• File Form NYS–45 for the 3rd quarter of 2017.

November 15
• Social Security, Medicare, and withheld income tax. If the monthly deposit rule applies, deposit the tax for payments in October.

December 15
• Social Security, Medicare, and withheld income tax. If the monthly deposit rule applies, deposit the tax for payments in November.

Source: IRS
Pining For the Evergreen Smell

By Paul Hetzler, CCE St. Lawrence County

Of all the memorable aromas of the holiday season, nothing evokes its spirit quite like the smell of fresh-cut evergreen. Although over 80% of American households where Christmas is observed use artificial trees, about eleven million families still bring home a real tree.

Every species of conifer has its own mixture of sweet-smelling terpenols and esters that account for their “piney woods” perfume. Some people prefer the fragrance of a particular tree, possibly one they had as a child. A natural Christmas tree is, among other things, a giant holiday potpourri. No chemistry lab can make a polyvinylchloride tree smell like fresh pine, fir, or spruce.

The origins of the Christmas tree are unclear, but evergreen trees, wreaths, and boughs were used by a number of ancient peoples, including the Egyptians, to symbolize eternal life. In sixteenth-century Germany, Martin Luther apparently helped kindle (so to speak) the custom of the indoor home Christmas tree by bringing an evergreen into his house and decorating it with candles. For centuries, Christmas trees were brought into homes on December 24th and were not removed until after the Christian feast of Epiphany on January 6th.

In terms of New York State favorites, the firs—Douglas, balsam, and Fraser—are very popular aromatic evergreens. Grand and Concolor Fir smell great too. When kept in water, firs all have excellent needle retention.

Scots and White Pine also keep their needles well. While our native White Pine is more fragrant than Scots, the latter far outsells the former, possibly because the sturdy Scots can bear quite a load of decorations without its branches drooping.

Not only do spruces have strong branches, they tend to have a strongly pyramidal shape. Spruces are not quite as fragrant as firs or pines though, but they’re great options for those who like short-needled trees. Many field guides say White Spruce buds smell like cat urine, but based on robust White Spruce sales, plenty of folks don’t think so.

Do yourself and the local economy a favor this year by purchasing a natural tree from a local vendor, who can help you select the best kind of tree for your preferences and also let you know how fresh they are. Some trees at large retail outlets were cut many weeks before they show up at stores. Of course, cutting your own tree from a Christmas tree grower ensures freshness and can be a memorable family experience.

For the best fragrance and needle retention, cut a one- to two-inch “cookie” from the base before placing your tree in the stand, and fill the reservoir every two days. Research indicates products claiming to extend needle life don’t work, so save your money. Tree lights with LED bulbs don’t dry out the needles like the old style did, and are easier on your electric bill too.

Whatever your traditions, may your family, friends, and evergreens all be well-hydrated, sweet-scented, and a source of good cheer this holiday season.
How Many BTUs in Your Yule Log?
By Paul Hetzler, CCE St. Lawrence County

The tradition of burning a Yule log or Christmas log, has largely faded away in most parts of the world. Although often depicted as a modest-size birch log, the monster Yule logs back in 6th and 7th century Germany were intended to burn all day (in some cultures, for twelve days) without being entirely consumed. The unburned portion of log was kept to bring good luck to the household and was used to light the following year’s Yule log.

While a birch log is picturesque, it doesn’t compare with many other hardwoods in terms of heat value and how long it will burn. All people are created with equal value; with logs, not so much.

Heat value, whether from coal, oil, or wood, is measured in BTUs, or British Thermal Units. One BTU represents the energy required to heat a pound of water one degree Fahrenheit. Firewood is usually hardwood, though that’s a misnomer in as much as some hardwoods are actually quite soft. Basswood and Eastern Cottonwood, for example, have a BTU per (dry) cord rating of around 12 million, lower than that of White Pine (16 million) or Balsam (20 million).

As those who heat with wood know, hard maple is the gold standard for firewood, producing a whopping 30 million BTUs per cord. You’d have to burn twice as much Butternut or Aspen to get the same heat. Hickory, Beech, Black Locust, White Oak and Ironwood (Hop Hornbeam) come in just behind hard Maple. The iconic Paper Birch has about 20 million BTUs per cord, respectable but not a premium fuel.

Of course there are other considerations aside from BTU value in choosing firewood. Even though Balsam heats better than Butternut, it creates more creosote, and tends to throw lots of sparks as it burns. Moisture is also critical. When you burn wet wood, much of the wood’s heat value goes into boiling off the water. Fresh-cut Elm is 70% water by weight—you’d get very little heat from that, assuming you could even keep it lit.

Outdoor furnaces, because they have a blower, are capable of burning green wood. This might be seen as a convenience, but if you burn unseasoned wood in an outdoor furnace you’re spending twice as much time, lifting twice the amount of wood compared to burning dry fuel. How’s your back these days, anyway?

In the Balkans and parts of southern Europe, the true Yule log tradition still lives on, while in other regions, including Quebec, a “Yule log” cake is popular for dessert at Christmas time. If you’re one of the few Americans who will burn an actual Yule log in an open hearth this year, you probably have a good chunk of dry hard Maple or Hickory set aside, plus a remnant of last year’s log with which to light it.

But if that’s not your tradition, you can join millions of Americans who tune into the televised Yule Log Program on Christmas. That log apparently not only burns all day, but was first started way back in 1967. I’d like to know what species of tree it’s from, because with just a few of those trees we could solve the energy problem once and for all.
Classifieds

For farmers only: To place a free classified advertisement in NNY Regional Ag Classifieds, please fill out this form and mail to: Tatum Langworthy at Cornell Cooperative Extension of Jefferson County, 203 North Hamilton Street, Watertown, NY, 13601. Or, you may email your ad to Tatum Langworthy at tlm92@cornell.edu. Please provide all information requested below. Unless specified, your ad will run one time only, in the next monthly publication. Additional ads may be written on another sheet of paper. Please limit each ad to 25 words or less and include your contact information. Deadline for submitting ads is the second Monday of the month for the following month’s publication.

NAME:__________________________________________ FARM NAME: ____________________________
ADDRESS: ___________________________________________ CITY: ____________________________ ZIP: ____________________________
PHONE: ____________________________ AD SECTION:___________________ MONTH(S) TO RUN AD: _______________________
AD: ____________________________________________________________________________________________________________________
________________________________________________________________________________________________________________________

Cornell Cooperative Extension Associations of Jefferson and Lewis Counties reserve the right to reject any advertisement deemed unsuitable for our publication. Cornell Cooperative Extension Associations of Jefferson and Lewis Counties do not endorse any advertised product or business. We are providing an informational service only.

How to Advertise in NNY Regional Ag Classifieds

Farmers: Advertising in NNY Regional Ag Classifieds is FREE for farmers. To place an advertisement, email details to Tatum Langworthy at tlm92@cornell.edu by the second Monday of the month before you want your ad to appear. Publication is the first week of every month.

Fine Print: To qualify for free advertising, you must meet all of the following criteria:
- You must own, rent, or be employed on a farm.
- Your farm must be actively engaged in the production of agricultural commodities, such as milk, meat, eggs, produce, animal by-products, or feed, etc.
- Your goods must relate to farming.

Anyone wishing to purchase a larger display ad in the newsletter, should call Tatum Langworthy at (315) 788-8450 for more information. (All income generated from the sale of ads goes to support publication and mailing costs.)

NNY Regional Ag reserves the right to reject any advertisement deemed unsuitable for our publication.

NNY Regional Ag does not endorse any advertised product or business—we are providing an informational service only.

Livestock

FOR SALE: Corn Silage by the ton ($50 per ton) or 8x200ft ag bags ($8500 a bag). Call 315-212-1386.


Farm Machinery, Equipment, and Supplies

FOR SALE: Large thermal pride oil furnace. Make an offer. Call 315-482-9092.

FOR SALE: Military trailers, tires like new. Call 315-482-9092.

FOR SALE: Kory Wagon Model 6672, good rubber, several to choose from. Call 315-482-9092.

FOR SALE: Ideal brand gutter cleaner. Complete unit, CCW chain, already removed from barn. Call 315-348-8184.

FOR SALE: Rissler TMR Mixer 300 cubic feet. $4000 or best offer. Call 315-783-7823 or 315-783-7074.

FOR SALE: 300– 4’x5’ First Cut Round Bales. Call 315-659-8524.
**What’s Happening in the Ag Community**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empire Livestock Graded Feeder Sale, Gouverneur, NY</td>
<td>December 10, 2016</td>
</tr>
<tr>
<td>Lamb Cutting, SUNY Cobleskill</td>
<td>January 18, 2017</td>
</tr>
<tr>
<td>Miner Institute Corn Congress, Chazy</td>
<td>Feb 1, 2017</td>
</tr>
<tr>
<td><strong>Miner Institute Corn Congress, Canton</strong></td>
<td><strong>Feb 2, 2017</strong></td>
</tr>
<tr>
<td>Beef Cutting 2.0 + Pork Cutting 2.0, SUNY Cobleskill</td>
<td>March 20-24, 2017</td>
</tr>
<tr>
<td>Quality Milk Program</td>
<td></td>
</tr>
<tr>
<td><strong>SAVE THE DATE</strong> - 2017 Cow Comfort Conference**</td>
<td><strong>for more information see page 13.</strong></td>
</tr>
</tbody>
</table>

Cornell Cooperative Extension is an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities and provides equal program and employment opportunities.