Cornell Cooperative Extension

Northwest NY Dairy, Livestock and Field Crops Program

Ag Focus

End of Season Management

by Jodi Putman

Last year our weather was cool with record rainfall, but this year has shaped up to be a decent growing season for us and we have the potential to get some top yields in our region. As the fall harvest season begins, it's time to start planting those high quality winter forages that help improve your soil health and at the same time make you money.

Winter triticale that is planted correctly will over-winter and allow for higher protein with a smaller chance of lodging compared to hybrid rye, common rye, and even winter wheat. Planting date is the most critical component for nutrient retention, soil erosion control, soil health improvement, weed control, winter-hardiness, early harvest in the following season, and most importantly - yield. In order to maximize these benefits of planting a winter forage, especially triticale, you need to have the crop in the ground ten days to two weeks before the recommended wheat planting date for your region.

Why Plant a Cover Crop?

Growers utilize cover crops as a management practice to:

- Protect the soil from rain and runoff
- Suppress weeds
- Suppress soil diseases and pests
- Improve soil aggregate stability
- Reduce surface crusting
- Add active organic matter to soil
- Break hardpans
- Fix nitrogen
- Scavenge for soil nitrogen

Winter cereals such as rye, wheat, barley, and triticale are the most widely used cover crops in corn and soybean crop rotations. They are typically planted in late summer through late fall and produce a small to moderate amount of root and above ground biomass before going dormant in the winter. Vigorous growth will resume in early spring, and large amounts of biomass will be produced by mid to late spring.

Increase Surface Residue

By increasing the surface residue to *30% ground coverage from 0%* will result in a **50% decrease in soil erosion,** *Figure 1, page 3.* Smaller decreases in soil erosion occur as more residue is left in the field. It is easier to manage low residue levels vs. large amounts (i.e. corn stalks, straw, and other material) in the spring while greatly reducing soil loss.

Soil Sampling

Fall is a great time to get some of your soil sampling done. Yes, I know it can be daunting task, particularly if you have a large number of acres to cover. Preferably, soil sampling should be done

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Focus Points

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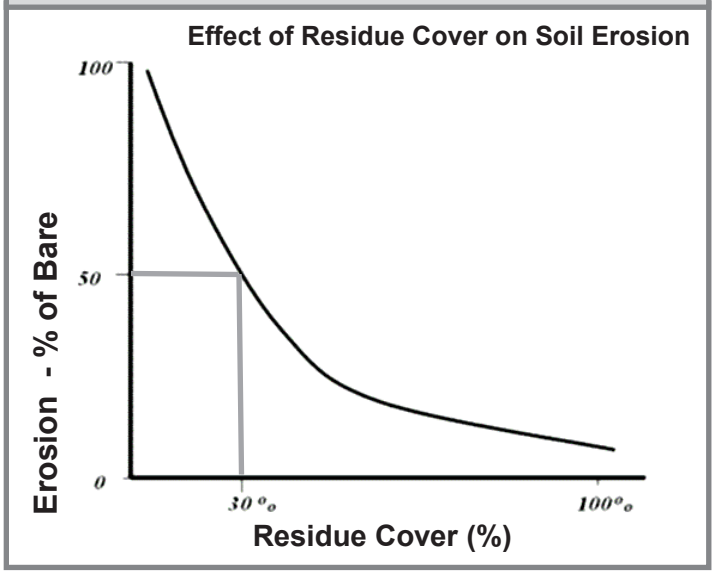
Figure 1: Effect of residue cover on soil erosion, expressed as the percent of that occurring relative to that for a bare surface. Adapted from Laflen & Colvin (1981).



every three years, therefore, it is recommended that you sample one-third of your acres each year. This helps keep all of your acres on a three-year cycle.

Tips for taking an accurate soil sample:

- Sample to the proper depths depending on tillage. This is usually from 6-8 inches.
- Take 15-20 core sub-samples from each sampling area. Remember to take separate samples depending on variation in soil type, topography, and cropping practices.
- Avoid sampling in areas such as hedgerows, wet or eroded areas, and near fences.
- Mix sub-samples thoroughly in a clean plastic bucket.
- Dry wet samples down to room temperature on cardboard or use a fan for quicker drying. Remove any stones, sticks, and roots from the sample.
- Keep samples separated and labeled with a sample name or number.
- Fill out the sample sheet completely or there will be no recommendations generated. Required information includes soil name, acres, past cropping history and future crops for three seasons, and manure history.

Health of Overwintering Alfalfa and When to Rotate

Our first priority is to feed our cows. However, we also have to think about the health of these alfalfa fields going into the winter. Preferably, we want 42 days between the last two harvests which will allow for the plants to accumulate an adequate amount of carbohydrates in the root systems to survive the winter. Alfalfa needs 50 degree days between the late summer harvest and a killing frost (25°F). The other option is to cut late enough that no regrowth occurs and no carbohydrates are being used by the plants. This can be before a killing frost if weather stays cold. To decide when to rotate from alfalfa, you will need to evaluate stand density and yield relative to your needs. Other rotation requirements to factor in would be farm plan, total acreage of forage needed, and ability to reseed. Because most of these factors are farm specific, I will focus on the relationship between stand density and yield. As you may know, alfalfa has a remarkable ability to produce maximum yield over a wide range of stand densities. New seedings should have at least 25-30 plants per square foot the seeding year. Your decision to reseed new fields of alfalfa should be based on the yield potential of the stand, ideally using actual yield from the field.

The next best method is to count stems when the alfalfa is 4-6 inches tall and use the chart in Figure 2. Fields with good stem densities (>55 stems/square foot) can suffer some plant loss and still yield well the following year. Plant health becomes a major consideration in marginal stands. Typically, yields often begin to decline in the third year of production in WNY. The best time to make stand decisions is in the fall. During the last growth period, record stem density, then randomly sample some plants to assess crown and root health. Stands that fall below 40 stems per square foot, or three to four healthy plants per square foot, are no longer profitable.

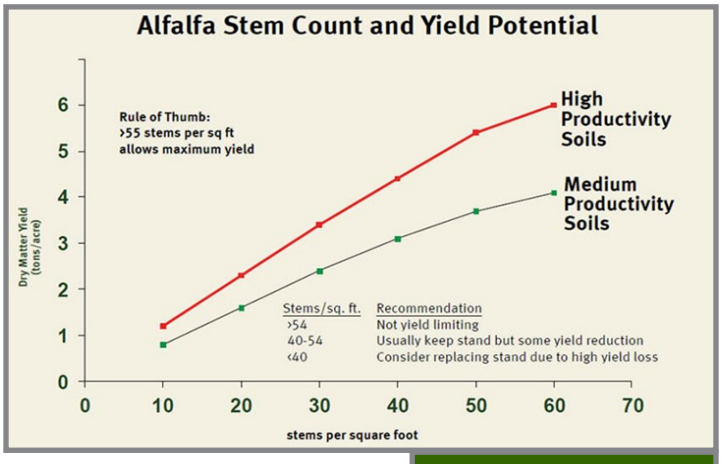


Figure 2 source: Pioneer

Upcoming Webinars

THE FEED SUPPLY:
THE QUALITY CARDS WE'VE BEEN DEALT
October 8, 2018, noon CST
Mike Hutjens, University of Illinois, and
Mike Rankin, Hay & Forage Grower Magazine
https://hoards.com/flex-309-Webinars.html

DAIRY MANAGEMENT MONDAYS
Is your cow ready to breed?
October 15, 2018, 1:00p.m.-2:00p.m. EST
Adrian Barragan, Penn State
https://extension.psu.edu/dairy-management-mondays

TECHNOLOGY TUESDAYS
Cold Weather Calf Housing & Care
October 9, 2018, 8:30 a.m.
Dan McFarland, Penn State
https://extension.psu.edu/technology-tuesdays

Closing Out the Grazing Season *by Nancy Glazier*

The temperatures are getting cooler, the days are getting shorter, and sadly, another grazing season is coming to an end and with it goes cheap feed. It is time to start planning your transition to winter feed and off pastures.

There is quite a bit of variability and unpredictability involved with this transition, though experience helps. One important point is to make the transition over a period of time to allow for the rumen microbial transition. Too quick of a transition will give an immediate impact to the bulk tank, but also result in a loss of gain or growth.

One of the first steps is to estimate when your grazing season will end. Grass growth will slow down through the fall, but will come to a halt after a hard frost or two. This date will vary across our region. By this end point, the milk herd will be off pasture and fed a ration in the barn. Young-stock and dry cows can linger out on stockpiled pastures, small grains, or even cover crops, which will delay the transition.

The next step is to estimate how much dry matter is available from pastures and then calculate the amount needed per day. If your usual amount of pasture is still available, continue grazing. By the time this issue hits your inbox or mailbox (~10/1), you might be already transitioning. Karen Hoffman, NRCS Resource Conservationist with a focus on dairy grazing nutrition, recommends for the milking herd to increase or add quality (for the protein) stored forages first, then add protein from grain or concentrate. As time moves on, less protein will be available from pastures. An easy way to do this when feeding a TMR, is just mix the amount for more cows. When over 50% of the TMR level is being fed, add 1 lb. of protein every 3 days. When TMR hits 70% of the usual winter feed, you'll need to check protein and NFC levels. Your nutritionist should be able to assist you.


Photo source: Nancy Glazier

This also means reducing animal time on pasture. Animals will need to be on pasture less time to prevent overgrazing. To ensure an early spring green-up, it is important to leave residual of 3-4 inches, depending on grass species. I do not like to see grass shorter than that. This residual provides the leaf area for root and crown reserves. If the leaf area is not there, growth will be slower in the spring. If you question this, do a side by side trial. Graze a paddock short leaving more residual next to it. If you plan on frost-seeding pastures in the spring, graze it short to allow for seed to soil contact.

Also, make sure you remove temporary fencing from the pastures so they do not get damaged from wildlife and weather. Blow out or empty waterlines. It might be helpful to make notes from this year's grazing season, tracking what worked well and what did not. Think about which pastures need improvements or renovations. This will help come next spring.

Pricing Corn Silage *by John J Hancher*

Summary

- Analysis suggests corn silage price depends on: corn silage quantities, alfalfa hay price, the price received by farmers for milk, and corn grain price.
- Analysis for NY suggests that estimated corn silage price is most sensitive to corn silage quantities, alfalfa hay price and corn grain price.
- Price estimates combined with an understanding of relevant supply and demand factors from an individual farm business owner's perspective can aid decision making regarding corn silage price. Given recently available alfalfa hay and corn grain prices (May through July, 2018, and August 14, 2018, respectively), price analysis for NY suggests an estimated corn silage price of about $41 per ton. The Fall 2017 estimate was about $54 per ton.

Determining Corn Silage Price

A farm business owner can examine how much corn silage he/she would be willing to supply to a market at a given price. Analysis of the farm business' cost structure for corn silage production combined with consideration of other factors help to define the supply relationship. A seller can develop a target based upon the above, but actual market conditions provide no guarantee that a buyer will purchase quantities desired at a price that achieves the producer's cost target.

Some farm business owners might approach the problem of determining corn silage price from a value in production, or input demand perspective. Amounts of corn grain and corn stover in a ton of corn silage, relevant prices, and corn silage's place in the milk production process are key variables. A buyer can develop a price target based upon the above, but actual market conditions provide no guarantee that a producer will sell the quantity desired at a price that matches the buyer's willingness to pay.

Although factors in price determination, the two approaches described previously in isolation, don't completely determine price and quantity. Supply and demand relationships work simultaneously in markets to determine price and quantity. Empirical price analysis brings supply and demand relationships together to determine price.

Corn Silage Price Analysis

Empirical price analysis suggests that corn silage price is a function of corn silage quantities, alfalfa hay price, the price received by farmers for milk sold, and corn grain price. The ordinary least squares regression model here expresses corn silage price as a linear function of the above variables. The analysis is somewhat rough, elementary. However, readers of the original August 2012 Ag Focus article describing this work, and readers of annual update articles, note that the analysis and estimates help farm business owners price corn silage.

Corn Silage Price Estimates – Fall 2018

The ordinary least squares regression model reported in August 2012, updated here to reflect additional data available to date and changes in other underlying factors, produced corn silage price estimates for NY. Below, estimated corn silage price is a function of alfalfa hay price and corn grain price with other factors (corn silage production and milk price) fixed at expected levels. Expected corn silage quantity is set at 8,311 tons, the average for the period 2007 through 2016.

- estimated corn silage price ($/ton) = -0.1445 + (0.1730 x price of alfalfa hay ($/ton)) + (3.3828 x price of corn grain ($/bushel))

(Continued on page 7)

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Suppose...

- NY alfalfa hay price is $161 per ton, the three month average of the period May, June, July 2018. (USDA/NASS. Agricultural Prices. Washington, DC: National Agricultural Statistics Service. July 30 and August 29, 2018 releases), and
- corn grain price is $4.00 per bushel (Western NY Energy. "Corn Bids." August 14, 2018. Approximate value based upon reported bids for fall 2018.)

Using the estimating equation and the above prices for alfalfa hay and corn grain, estimated corn silage price is about $41 per ton. Compare this to last fall's estimate of about $54 per ton. Suppose alfalfa hay price is $175 per ton (the annual average for the period 2007 through 2016), and expected corn grain price is $4.00 dollars per bushel, then estimated corn
silage price would be $44 per ton. Buyers and sellers use an estimate as a base, typically, adjusting for quality and/or costs for harvest, hauling and storage based upon the situation, for example, when pricing standing corn for silage.

Corn silage price estimates combined with understanding of relevant supply and demand factors from the individual farm business owner's perspective, including local conditions (growing conditions), can aid decision making regarding corn silage price.

PRO-DAIRY Agri-Service Award Winners are Recognized at the NYS Fair

2018 Cornell CALS PRODAIRY Agriservice Awards Finalists Announced [Press Release] Retrieved from: https://prodairy.cals.cornell.edu/sites/prodairy.cals.cornell.edu/files/shared/documents/Agriservice%202018.pdf

NYS Agriculture Commissioner Richard Ball and Cornell CALS PRO-DAIRY Specialists presented the PRO-DAIRY Agriservice Awards to George Mueller, Willow Bend Farm, Clifton Springs; Gerald R. Bertoldo, DVM, Batavia; and Peggy Murray, Copenhagen during the Dairy Day Recognition and Awards breakfast on August 30 at the NYS Fair. These awards are given in appreciation and recognition of outstanding contributions to NYS agriculture through support of PRO-DAIRY.

L-R Kathy Barrett, Jerry Bertoldo, Peggy Murray, George Mueller, Jason Karszes *Photo Credit: Julie Berry*

"This year's recipients are recognized for their close involvement with PRO-DAIRY programs over time, and in particular, for the many collaborative partnerships they have developed with PRO-DAIRY," Tom Overton, PRO-DAIRY Director said.

George Mueller, Willow Bend Farm, has been exceptionally involved in dairy industry leadership at the local, regional and statewide levels in New York. He is a tremendous example of leadership to the industry, including his approaches to business management and his development of young people at all stages of their careers.

The New York dairy industry is also recognized for its high caliber allied industry professionals and supporters. Two retiring Cornell Cooperative Extension Associates are recognized for leadership in their counties as well as their contributions to the dairy industry statewide.

Dr. Gerald R. Bertoldo has provided leadership to a number of initiatives, both within herd health management, and to larger efforts, such as development of the Calf Congress. His innovation to develop programs for the Hispanic workforce, farm owners and managers, has greatly benefitted the New York dairy industry. His collaborative approach with fellow Cornell Cooperative Extension educators is a model to follow.

Peggy Murray has made exceptional contributions to farmers in Lewis County and across the North Country through her dedicated work on business management, including integral use of the Cornell Dairy Farm Business Summary and Analysis Program, collaboration with PRO-DAIRY specialists on educational programs, development of the Academy for Dairy Executives Program, and work at all levels of the dairy industry.

PRO-DAIRY's mission is to facilitate New York State economic development by increasing the profitability and competitiveness of its dairy industry. PRO-DAIRY specialists have made a positive impact on the technical knowledge, management skills and economic strength of New York State's dairy industry since 1988. Visit PRO-DAIRY online at http://prodairy.cals.cornell.edu/.

New Regulations to Prevent Sexual Harassment

Adapted from Rich Stup, Cornell University, Agricultural Workforce Specialist

The 2018 New York State budget included new regulations addressing sexual harassment in the workplace. They will be effective on October 9, 2018 for all New York employers, including agricultural employers.

The New York State Department of Labor (NYSDOL) has released a draft model sexual harassment policy and training program, two things that employers will be required to put into place. It is open for public review and comment until September 12, 2018. The draft models can be accessed at DOL's website: https://www.ny.gov/combating-sexual-harassment-workplace/employers.
Until the final model policy and training are published, stay up to date by subscribing to the Ag Workforce Journal, http://agworkforce.cals.cornell.edu/the-ag-workforce-journal/. Rich Stup will post new information as soon as it is released.

Five Steps to Preventing Sexual Harassment

1. Prepare a written policy.

The new law requires that all employers have a written policy against sexual harassment. We won't know exactly how to comply with the new law until NYSDOL issues the final model policy.

2. Provide the policy in writing to employees.

The new law requires employers to provide employees with a written copy of the sexual harassment policy.

3. Train everyone at hiring and annually.

Training is needed to be sure that employees understand sexual harassment and how they can prevent and report it. You should plan to conduct sexual harassment prevention training each year for all employees. New employees should have a brief review of your sexual harassment policy within a week of their start date.

New York's new law has some specific things to say about the training. For starters, it has to be "interactive." The training must also include (quoting directly from the law):

- An explanation of sexual harassment consistent with guidance issued by the department in consultation with the division of human rights;
- Examples of conduct that would constitute unlawful sexual harassment;
- Information concerning the federal and state statutory provisions concerning sexual harassment and remedies available to victims of sexual harassment; and
- Information concerning employees' rights of redress and all available forums for adjudicating complaints.

4. Act immediately when there is a complaint of sexual harassment or management becomes aware of a harassing situation.

No employee should have to work in a stressful and threatening environment caused by sexual harassment. Management needs to take action immediately in response to a complaint of harassment. Depending on the situation, these actions will include:

Listen carefully to the complaint and be sure to take any complaints of harassment seriously.

Assign a responsible person to investigate the situation including talking with the accused person and any witnesses. In small businesses, the investigator will often be an owner.

Decide whether the behavior is sexual harassment.

Plan and carry out discipline and/or assignment changes as needed. Communicate your decision and action plan clearly with the accused and the accuser.

5. Document every action you take.

As an employer, it is wise to begin documenting all of your employee-related actions. You should keep a paper or electronic file (or both) for each employee and diligently record all significant actions or events that take place. In the context of sexual harassment prevention, consider recording the following items:

* The date on which you provided the policy to your employee.
* The date at new hire and in each subsequent year on which your employee was trained in sexual harassment prevention.

Carefully document any sexual harassment incidents involving an employee, even minor ones. Keep track of every action that was taken in the resolution procedure, record who, what, where, when, why, and how. You might need this information when another incident occurs later with the same employee, or if you need to defend your actions in court against a claim of not dealing with sexual harassment appropriately. Detailed, written records that demonstrate management's good faith efforts are much better than faulty memories in a court of law.

Dolorem Ipsum Dolor *By Timothy X. Terry – Harvest NY*

It is said that upwards of 90% of project strategies fail to deliver on their intended results. This can represent significant loss of time, effort, and capital – not only the lost initial investment, but the unrealized rewards, as well.

There are four main factors that go into a successful execution: collaboration / communication, visibility, alignment, and accountability.

Collaboration and Communication – You will need to answer the question: How is the information in the plan communicated and tracked? It is important to understand that communication is two-way especially in the formulation of the plan. This is where you should engage your frontline people to find out what is and isn't possible or what is or isn't already happening. There is no sense in putting together a plan that is doomed to failure simply because the tools and/or personnel are not available to implement it. For example, on a university research farm that I managed in the upper Midwest, the faculty researchers set out to do a project on narrow strip intercropping (NSI). This is where you have narrow strips (6-8 rows) of corn, soybeans, and hay alternating all the way across the field. They wanted to see if the same benefits could be achieved in strips as narrow as four rows. We were utilizing ridge-till technology at the time and had a 4 -row planter on 36" centers to match the ridges. This worked great to plant 12' wide strips of corn and soybeans, but for harvesting the hay we only had a 14' hydro -swing haybine and a pull type chopper – anybody see a problem yet? But wait, there's more! The research plot they picked out abutted to another plot running perpendicular to the narrow strips. Needless to say, there was some serious, and sometimes heated, discussion on planting day. The take-home message: much of the difficulty could have been avoided if they had given me the opportunity to review and comment on the structure of the project. Additionally, if you ask for their input people feel valued and you will generally get more buy-in to the project's success because they feel they have some skin in the game.

Visibility – This might also be called transparency. In other words, does the team executing the plan have access to all the information they need, when they need it, and in the appropriate context to make informed decisions? Too many times I have seen plans fail or at least perform poorly because upper management treated information like a state secret and everything was on a need-to-know basis. If things changed, or the plan was starting to go sideways, timely adjustments could not be made because everything had to be run back up the "chain of command" for approval or adjustment.

Alignment - Simply put: Do you have the right people, in the right jobs, at the right time? Furthermore, does everyone know exactly what to do, what is expected of them, why, and how does it all align with the big picture?

Staffing is always a difficult task and it may take you a couple of shuffles of personnel to get it right. Obviously, if it's something like record keeping or neonatal calf care you want a detail oriented person. However, if it is cleaning out freshening pens or maintaining crop equipment you will want someone who is a self-starter, can work efficiently, and can change gears quickly when necessary.

Accountability – How will you hold individuals across the farm organization accountable for their results? This is more about tracking progress than meting out punishment. (Yes, if someone is not doing their job they should be reassigned, retrained, or dismissed; but I'm digressing) How will you know you and/or your team is making progress? Is the plan going a little awry or entirely off the rails? Set some intermediate milestones so you will know quickly how things are progressing or if any adjustments and/or retraining is required.

Lastly, and this comes from personal experience, if you are going to hold someone accountable, give them the authority, within guidelines, to make the necessary adjustments to achieve the goal. Nothing is more frustrating than to be held accountable for a certain result, but not have the authority to make the tweaks crucial to getting there.

Dolorem Ipsum Dolor is really non-sense Latin that is taken from a treatise on ethics by Cicero in 45 BC. The remainder of the sentence reads,"Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit ...," which translates as, "There is no one who loves pain itself, who seeks after it and wants to have it, simply because it is pain..." Since the 1500's it has been used as a placeholder or dummy text, and that is exactly what it is doing here – I was having difficulty coming up with an appropriate title. However, I left it in because I thought its uniqueness might pique your interest.


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Too Many Heifers Cost Too Much to Keep *By Margaret Quaassdorff*

As I have been visiting dairies, and meeting with producers around the region, a common discussion topic seems to be circulating. That is, "We seem to have too many heifers", or "I'm running out of space for calves and heifers", or "When milk price comes back, we'll need to put up another heifer barn." Those comments go along with, "I'd hate to sell her, as market price is so poor, we don't even recoup the cost of raising her."

With improved calf and heifer care management practices, and the increased usage of sexed semen selecting for heifer calves and calving ease, dairy producers who do not plan to expand their operations are facing the challenge of raising too many replacements. This is not only problematic square footage-wise, but also economically in the face of low values of calves and heifers at the sale barn. Cost factors such as feed type and intake, labor, wet calf value, age, size, and rates of morbidity and mortality all contribute to the variable cost per day to raise a replacement heifer.

Dr. Matt Akins, University of Wisconsin Extension dairy specialist, shares that even though heifers are currently only fetching a low price ($400-1,200 according to Western NY Livestock Auction Reports, September 2018) at the sale barn depending on age and quality of the animal, the longer you keep excess heifers in your system, the more feed and variable costs add up. "The sooner you can cull heifers you don't need, the better, because of the cost of raising them and the low return for springers," Akins says. Akins recommends culling extra heifers sooner to save more money due to the feed and variable costs rising as heifers grow older. Heifers consume an increasing amount of dry matter as they grow larger, so even though they might be consuming a lower cost ration, feed and variable costs might increase from less than $2/head/day at six months of age to nearly $3/head/day as heifers get closer to freshening. Akins recommends culling heifers between the ages of 10 and 12 months. In this age range, the animals have not yet entered the reproduction program, but there has been sufficient time to evaluate

calves for their quality and ability to become profitable members of the herd.

Overall, a farm that does not need every heifer calf born on the dairy, given the current markets, should know that it is in their best interest to limit the number of heifers they raise to the number of replacement heifers they actually need plus a few extra for cushion. If you feel as though excess heifers may be eating you out of house and home (or farm and barn), please reach out to extension and your current consultants for resources to determine the best mode of action to make your heifer inventory work for you.

Heifer Age	Heifer Value	Variable cost/day
6 months	$400	$1.90
12 months	$600	$2.50
18 months	$800	$2.60
22 months	$1,000	$2.90
Source: Dr. Matt Akins and Dr. Victor Cabrera, UW Extension		

Tools from UW Extension to help you calculate the number of replacement heifers you need on an annual basis can be found here:
http://dairymgt.info/tools.php

Visit our Pro-Dairy site for resources to help you further explore the economics of different heifer replacement decision outcomes here: https://prodairy.cals.cornell.edu/business-management/resources/

Errors in Configurations in Map Creation

By Ali Nafchi

Coordinate Reference System (CRS), Datum, and Projection

To have same the configuration for the same map (imported/exported as a .shp file) it needs to match the Coordinate Reference System for different software at the time of creation of such files. If the CRS is not the same for a map, you will get errors in configurations (area, coordination,…), even if you are using the same software. Pictures following this article show the same map with three different projection (CRS) and you can see the errors as the same type of errors you found (errors in coordination, area,…).

In SMS software the Projection dialogs allow the selection of a map projection for creating maps. When you are importing or creating a new map, you can only have one Datum/Projection so the first data you create a map with will drive what Datum/Projection your mapped data is displayed with.

Datum & Projection??

A datum is a mathematical model that describes the true shape of the earth's surface. The shape is different due to the influence of the continents and there are datums for different parts of the earth based on different measurements. Using the wrong US datum with a US map, coordinates can be off by up to 1/5 mile. By default the datum is set to **WGS84**, which is what most GPS units output data in. In the United States it is best to pick **NAD83**, often referred to as State Plane, as the datum.

A projection is used in conjunction with a datum to produce all or part of a round body on a flat sheet, i.e. a map. By default the projection is set to Lat/Lon which corresponds to the default datum and how GPS data is logged by your equipment. The list of available projections will reflect the selected datum. For NAD83, the projections are listed by state and region and UTM Zone (for example **for this area we can use NAD83/New York/West or WGS84/UTM Zone 17**).

Projection Settings

At the time of creating or importing new map the Datum/Projection or CRS information can be defined in them.

To check if this information (which is strictly used during the import process so that the software can properly import the raw data from your file),

Right click on grower's name, go to Edit Item. Then click Edit Grower, choose projection. Now you can see the Datum/Projection that is associated with your map which should be (**NAD83/New York/West**). If it is not, set your Grower(s) projection to the right setting.

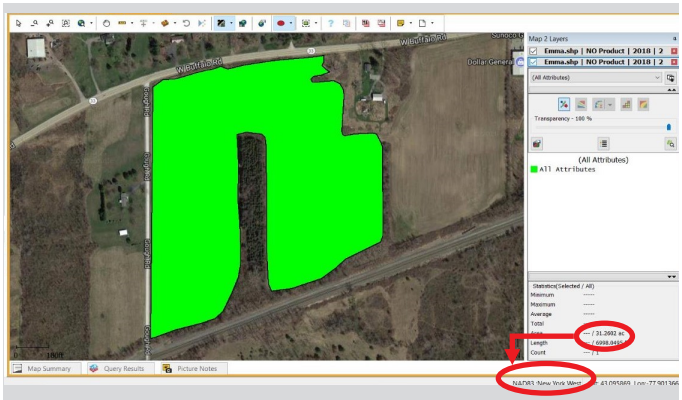


Figure 1. NAD83: New York West, Area: 31.2602ac

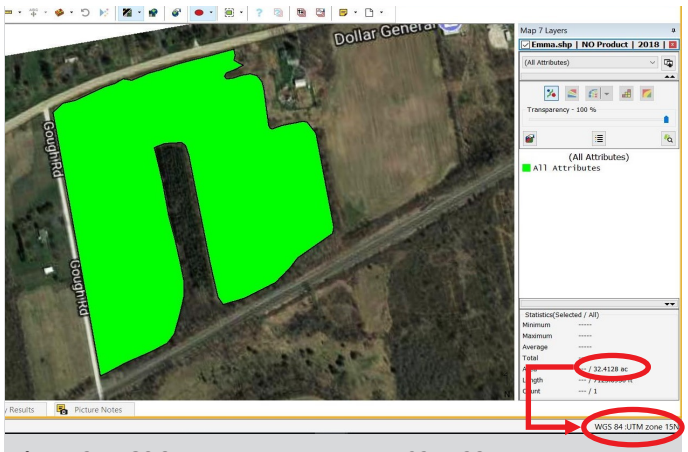


Figure 2. WGS 84: UTM zone 15N Area: 32.4128ac

Figures 1-8 sourced from Ag Leader.

(Continued on page 15)

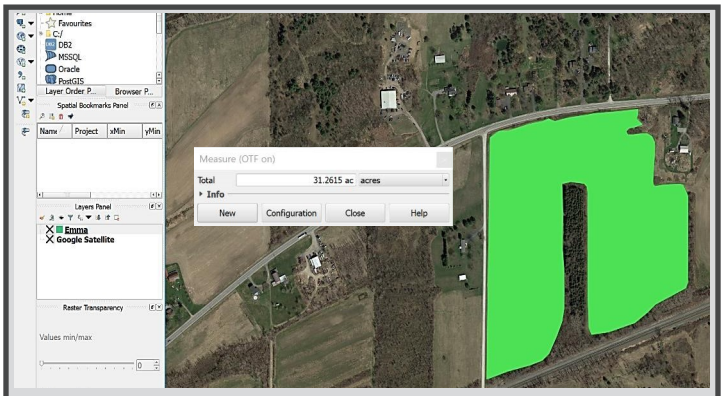
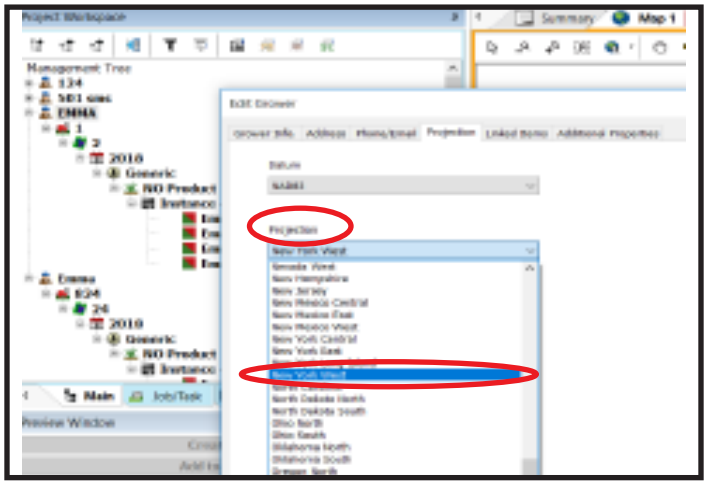
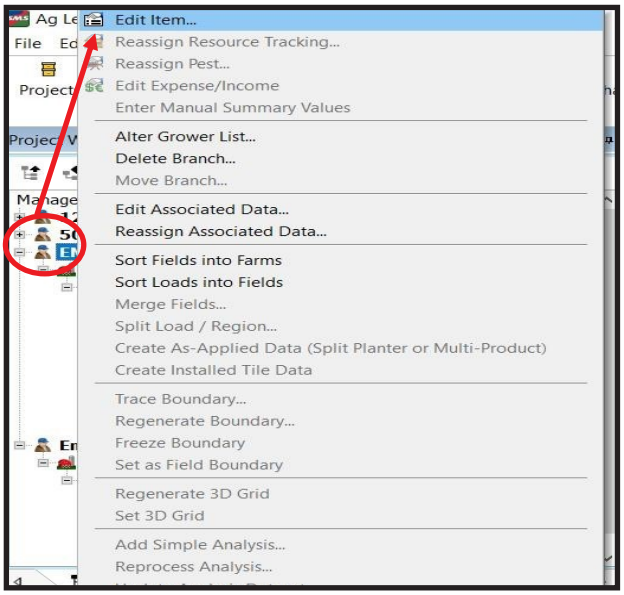
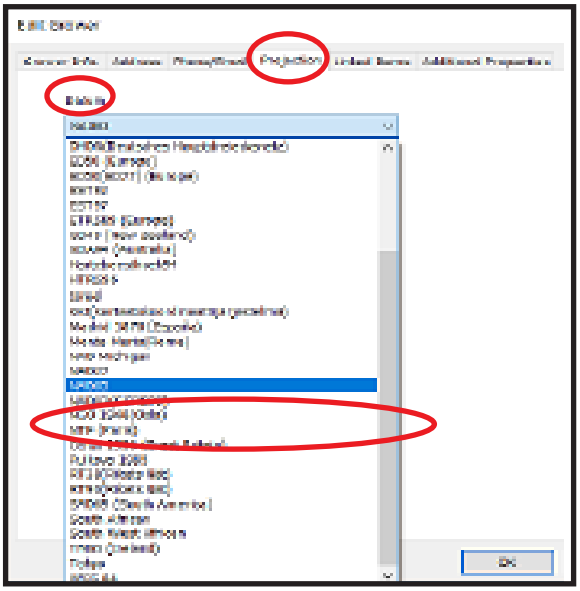
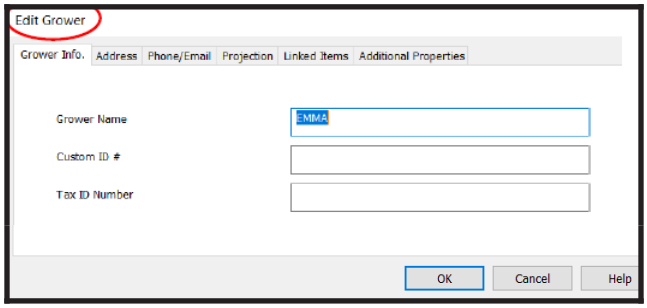


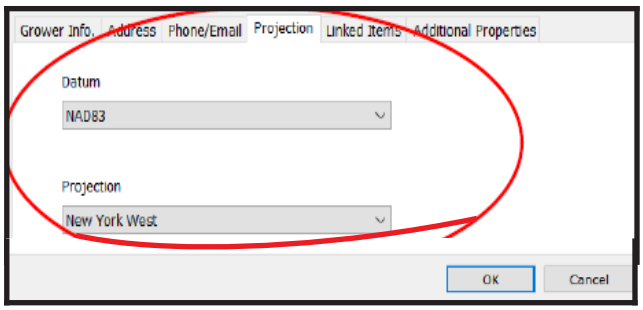
Figure 3. QGIS Software Showing the same area as WGS84, UTM zone 17N and NAD83, New York, West Area: 32.2615ac











For more information, please visit https://support.agleader.com/kbp/index.php?View=files&CategoryID=179.

Fall Crop Topics *By Mike Stanyard*

NY and US Corn Production up in 2018.

New York corn grain production is forecast at 102.6 million bushels, up almost 30% percent from last year. Based on conditions as of September 1, yields are expected to average 158 bushels per acre, down 3 bushels from 2017. Area harvested for corn grain is expected to increase 30 percent to 630 thousand acres.

U.S. corn production is forecast at 14.8 billion bushels, down less than 1 percent from last year. Based on conditions as of September 1, yields are expected to average 181.3 bushels per acre, up 4.7 bushels from 2017. If realized, this will be the highest yield on record for the United States. Area harvested for grain is forecast at 81.8 million acres, unchanged from the August forecast, but down 1 percent from 2017. (Source: NASS NY Field Office).

Estimating Corn Grain Yields

Despite some areas in the region that had a spell of really dry weather, there is some great corn out there! Many corn yield contest entries cannot wait for the combines to get rolling. Here is how to do some rough estimates:

1. Count the number of harvestable ears in a length of row equal to 1/1000th of an acre. For 30-inch rows, this would be 17 ft. 5 in.
2. Then, on every 5th ear, count the number of kernel rows and number of kernels per row and determine the average. Do not include kernels that are less than half the size of normal sized kernels.
3. Yield (bu/ac) = (# of ears) x (avg. # rows) x (avg. # kernels) divided by 90. The value of 90 represents an average of 90,000 kernels in a 56 lb. bushel of corn. This number can be increased to 95 in years of smaller kernels or decreased to 85 in good years with larger kernels. (85 may be more accurate this year)
4. ***Example: (24 ears) x (18 rows) x (30 kernels/ row) / 90 = 144 bushels/acre***
5. Repeat this procedure in a couple of areas within the same field for better accuracy. This is truly an "estimate" and many references state that there can be a plus or minus 30 bushels from actual yields.

Making Sure Grain Bins Are Ready for Harvest

Inspection is the key first step in preventing pest infestations. Take a tour around the outside of the bin. Check for loose bolts and cracks around the base. Look for signs of rodents and woodchuck holes under the bin. Make sure there are no bird nests in the vents and nearby augers. Get inside that bin and inspect for possible openings (light coming in where it shouldn't). Are there areas where moldy grain is stuck to the side of the bin? Go inside your empty bin after a rain storm. Is there any water on the bin floor from a leaky vent? Are there any low spots in the floor where a support has fallen?

After inspecting the structure, sanitation is crucial! Eliminate any weeds growing within 30 feet of the bin. Insects can feed on weed seeds too! Clean up any spilled corn or soybeans around the bin, fan, and augers, which would otherwise provide a refuge for insects that can eventually move into a clean bin.

Clean up all remaining grain on the floor of the bin.

(Continued on page 17)

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Take a long-handled broom and remove any grain stuck to the walls, around the door, supports, and in the fan opening. If there are a lot of fines remaining on the floor, clean up with a shop vacuum. Many fines accumulate in the space below the floor. Removing the floor and cleaning these out is not something you want to do every year! If you are continually having insect problems, seriously think about it.

We are very limited when it comes to empty bin insecticide treatments. Tempo® SC Ultra and Storcide ™II (see label for application restrictions) are both labeled. Diatomaceous earth (Dryacide®) is a non-insecticidal silica sand that can be applied as a dust in the bin and below the floor.

Soybean Harvest Aids

There have also been questions about herbicide recommendations to help dry down soybeans to get wheat planted earlier. There are a couple products we can apply as harvest aids (Glyphosate, Gramoxone®, Sharpen®, Aim® and Clarity®) but usually only for weed control, not to speed up plant maturation. We can kill the soybean plants earlier but many of the herbicide label restrictions do not allow application until plants are fully mature. See article out of Michigan State for more details, http://msue.anr.msu.edu/news/preharvest_herbicide_options_for_soybeans_weeds_may_be_an_issue. As an example: Gramoxone cannot be applied until 65% of the pods are brown or seed moisture is less than 30%. It also has a 15 day preharvest interval. **Clarity cannot be applied if you plan on planting winter wheat!**

Financial Balancing Act Means Managing Risk is Essential

by Joan Sinclair Petzen

The present long-term downturn in commodity prices brings with it increased financial pressure on farm operations. For many, self-insurance has been the go-to method of risk management. Two new tools, the *USDA Market Facilitation Program* (**MFP**) and *Dairy Revenue Protection Insurance* (**DRP**), are coming on-line, and a third, *Rainfall Index – Pasture, Rangeland, and Forage* (**RI-PRF**), merits consideration.

USDA MFP - The agricultural press is abuzz about the USDA-MFP. Direct payments will help corn, soybean, wheat, dairy, hog and other producers who have been directly impacted by illegal retaliatory tariffs, resulting in the loss of traditional exports. Sign-up for the program is open now through January 15, 2019 at your local Farm Service Agency (FSA) office. An initial payment will be made shortly following signup on fifty percent of the producers' production history.

DRP, announced in August 2018, offers new protection for dairies against quarterly declines in milk revenue. Product pricing flexibility allows producers to choose whether their coverage and indemnities will be based upon Class III and Class IV prices or butterfat and protein percentages. Coverage level choices, from 70 to 95 percent, will add more flexibility. Premium subsidies decline as the coverage level increases. During a policy year, Livestock Gross Margin – Dairy Insurance and Dairy Revenue Protection can both be purchased, but not on the same quarter's production. Producers may participate in the USDA Margin Protection Program at the same time.

RI-PRF - Since the hay crop is critical to the success of livestock operations, whether harvested mechanically or grazed, a drought can significantly impact any ruminant livestock business. We see wider swings in precipitation and yield of forage crops is often impacted for part of the season. RI-PRF crop insurance is designed to provide a cash payment to allow producers to cover a shortfall in forage production during drought. This policy must be purchased by November 15 preceding the crop production season.

Remember the goal of crop insurance is to take the "bumps in the road" out of cash flow from year-to-year. These programs and insurance policies offer producers a chance to choose a coverage option to protect against revenue loss from price changes or weather events. If your business is not in a position to mitigate these risks on its own, then reach out to your advisors, or engage in a conversation with a crop insurance agent, to learn how to reduce your risk through program participation or crop insurance.

For more detailed information about these risk management tools visit the NWNY Team web site for an expanded article and links to more details about the programs and policies. https://nwnyteam.cce.cornell.edu/submission.php?id=773&crumb=business|9

USDA RMA fact sheets and tools were used to source information for this article.

Cornell Cooperative Extension of Livingston County
NWNY Dairy, Livestock & Field Crops Team
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Mount Morris, NY 14510

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October 2018

10-12 ***QMPS-Assessing Udder Health Opportunities: Key Performance Indicators & Monitoring the Milking Center,*** Cornell Vet Teaching Dairy, 225 Tulip Tree Road, Ithaca NY 14853. Three day course has been approved for CE and RACE. $600 fee. For more info and to register, please visit: https://dairy.cornell.edu/seminars/udder-health/

12-14 ***Cornell Sheep & Goat Symposium,*** Morrison Hall, Cornell University, Ithaca NY 14853. To register or to get more information, call Barbara Jones, 607-255-7712, bjj6@cornell.edu, or http://blogs.cornell.edu/newsheep/2018-sheep-goat-symposium/.

12 ***Beef Quality Assurance Meeting,*** 6:00 p.m.-9:00 p.m., Empire Livestock, Bath NY. Presenters include: Mike Baker, Cornell Beef Cattle Ext. Specialist & Dr. Guy Hammond, DVM, Steuben Veterinary Clinic. Program includes dinner, $15/pp or $25 per farm. Pre-Register by Oct. 8th— contact Lynn Bliven, 716-244-0290 or lao3@cornell.edu.

18 ***Beef Quality Assurance Meeting,*** 6:00 p.m.-9:00 p.m., Short Track Fire Hall, 10355 Co. Rd. 15, Fillmore NY. Presenters include: Mike Baker, Cornell Beef Cattle Ext. Specialist & Dr. Tom Wakefield, DVM, Perry Veterinary Clinic. Program includes dinner, $15/pp or $25 per farm. Pre-Register by Oct. 8th— contact Lynn Bliven, 716-244-0290 or lao3@cornell.edu.

26 ***Calving & Neonatal Care Workshop, Day 1***, 9:30 a.m., meet at Wayne County CCE, 1581 Route 88N, Newark NY 14513. Host farm – El-Vi Farms, 11 Pelis Rd, Newark, NY 14513. For questions, call Libby Eiholzer 607.793.4847. Registration is $75 for both days/$40 for one day. To register, call 585.343.3040 x 138, or visit: https://nwnyteam.cce.cornell.edu/event.php?id=740.

November 2018

9 ***Calving & Neonatal Care Workshop, Day 2,*** 9:30 a.m., Meet at host farm Reyncrest Farm, 9666 Alleghany Rd., Corfu, NY 14036. For questions, call Libby Eiholzer 607.793.4847. Registration is $75 for both days/$40 for one day. To register, call 585.343.3040 x 138, or visit: https://nwnyteam.cce.cornell.edu/event.php?id=740.