When managing farm businesses, how you support your people is critical to success. The ebb and flow of emotions, anxiety and understanding during the COVID-19 pandemic, requires every business owner and manager to be mindful of the impact uncertainty and risk are having on employees. Yes, we are all sick of masks, social distancing and disinfection and feel like this should be over. However, as the daily news reminds us, the pandemic is not over yet. While it can be hard to know how to address the pandemic as a business manager, one thing is clear: **New York State requires all businesses to create and follow a NY Forward Business Safety Plan** (including farms). This directive has just been beefed up with financial civil penalties for businesses who fail to enforce mask use when social distancing is not achievable.

Developing a NY Forward Safety plan does not have to be difficult or time consuming. Each business’ plan is unique and describes how the business will ensure the safety of the people associated with the business, track contact from people outside the business, and address disinfection, quarantine and/or isolations should they be required if someone is exposed or becomes sick with COVID-19. Drafting the plan and communicating it with your workers gives you a chance to discuss with them the importance of continuing to take precautionary measures.

To assist you with plan development, Cornell Agricultural Workforce Program has developed several useful resources - [http://agworkforce.cals.cornell.edu/novel-coronavirus-covid-19/](http://agworkforce.cals.cornell.edu/novel-coronavirus-covid-19/). These include templates, webinars that drill down on the details, and links to many resources to support your plan. Local health department personnel and Cooperative Extension professionals will gladly answer questions and review your plan to be certain you have addressed the critical issues required by New York State. Developing and communicating a plan with your employees lets everyone on the farm know what to expect should someone involved with the business be exposed to or become sick with COVID-19. The contact-tracing portion of the plan will expedite the intervention required by local health officials in the event of exposure or a confirmed case. Local Cornell Cooperative Extension offices have supplies of hand sanitizer and washable cloth masks available free of charge to farm operations. Be sure to reach out to your local office to arrange a pickup if your supply of masks or sanitizer is running low.

On July 9, the NYS Commissioner of Health established a new rule that codifies many of the directives in the executive orders issued since the start of the Pandemic. It included new provisions, “**Business operators and building owners, and those authorized on their behalf shall deny admittance to any person who fails to comply with this section and shall require or compel such persons’ removal.** Provided, however, that this regulation shall be applied in a manner consistent with the federal American with Disabilities Act, New York State or New York City Human Rights Law, and any other applicable provision of law.” The regulation latter states, “notably, pursuant to section 12-b of the Public Health Law, any person who willfully violates these regulations may be subject to criminal penalties including imprisonment not exceeding one year, or a fine not exceeding $10,000, or by both.” However, pursuant to Executive Order 202.14, the criminal penalty for the willful violation of these regulations is currently limited to $1,000. Each day a business should fail to enforce the directive is a separate violation. Penalties could add up quickly. That is some new incentive to keep being vigilant about COVID-19 social distancing protocols.

Your plan can help to reduce the risk of business interruption due to COVID-19. Communicating with employees and family members about how the business plans to protect folks reduces anxiety and helps to keep people on board with following implemented safety protocols to prevent the spread. Failure by an individual or business owner to enforce required social distancing or wearing of face coverings is now punishable by a substantial fine for each violation.
To simplify information, brand names of products may be used in this publication. No endorsement is intended, nor is criticism implied of similar products not named.

Every effort has been made to provide correct, complete and up-to-date pesticide recommendations. Changes occur constantly & human errors are still possible. These recommendations are not a substitute for pesticide labeling. Please read the label before applying pesticides.

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CONSULTING SERVICES  As your business continues to adjust to the “new normal” it’s crucial to make sure you’re doing all you can to adapt. From operational changes to reworking budgets, the farm business consultants at Farm Credit East are here to guide you. Keep your business Strong at the Roots. Call your Farm Credit East advisor today.

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Water is an Essential Nutrient  
by Margaret Quaassdorff

Water is an essential nutrient

Water makes up about 87% of milk produced by a cow. Thinking about our high producing cows, how do we ensure that she is getting the water she needs for her body maintenance as well as for milk production, and how does that change during heat stress? A high producing dairy cow can drink 40 gallons of water per day, and that amount commonly increases by 50% when combined with heat stress in the summer months. Providing insufficient water or poor quality water can limit milk production, growth, and cause health issues. Readily accessible, clean water promotes higher dry matter intake, healthy rumen function, digestion, nutrient absorption, and waste secretion.

Drinking behavior of dairy cattle

Different factors affect drinking behavior of cows, and cows typically spend around 10 minutes per day drinking, and about 30 minutes per day hanging out around the waterer in freestall housing. Cows like to drink water at the same time as their herdmates, and drink the most when feed intake is the greatest, and when they come back from the parlor. Dairies that offer water on the return from the parlor and multiple access points throughout the pen take advantage of this behavior. Providing at least 3.5 linear inches of accessible waterer perimeter, with a supply rate of 6 to 7 gallons per minutes should be adequate in most situations. When water is of moderate temperature and clean quality, cows drink without hesitation. The type of waterer (trough, tank or bowl) can change how long and how often cows drink. Cows take more frequent drinks from water bowls, but the volume at one time is not as great as at a trough. Social dynamics of the pen or stalls where cows are housed affects drinking behavior, where submissive cows drink less water overall (and consequently produce less milk) when sharing a water bowl with a more dominant cow in a tiestall situation. Pairing cows appropriately can make sure that both cows have equal access. In a pen setting, there should be more than one waterer available, and two cows should be able to pass by each other without causing a traffic jam. Having more than one waterer available, and allowing cows to move by freely will help mitigate resource guarding by dominant cows.

Importance of water for calves and heifers

Free choice fresh water is an essential component of any successful calf program, especially in the heat of the summer. Obviously water is key to hydration and body electrolyte balance, and is necessary for elimination of bodily waste, and taking excess heat away from the body. Water is also key for digestion, absorption, and efficient metabolism of nutrients, especially when the calf begins to intake grain. Though water intake by young calves is small, it is significant. Studies show that calves offered free choice water from day one to day 28 of life significantly increases calf starter grain consumption and average daily gain with a lower incidence of scours compared to calves not receiving free choice water in that time period. Calves can dehydrate quickly, so offering fresh water or a bottle of electrolytes during an additional “feeding time” during heat stress improves calf health and performance throughout that time period and beyond. Water should not be offered ice cold, but should be cooler than the ambient temperature on hot days to help the calf cool off. It is also important to notice any calf that is looking “off” and to give it oral electrolytes and/or subcutaneous or IV fluids (depending on severity) immediately. Noticing a depressed dehydrated calf over the weekend, and waiting to take action, will earn you a dead calf by Monday morning. Weaned dairy heifers consume 1 to 1.5 gallons of water per 100 pounds of body weight, so make sure there is enough accessible as the animals grow, refilling buckets regularly or transferring the heifer to a different housing situation as necessary.

All in all, water is the most important nutrient for health and performance on our dairy farms, and fresh clean water should always be offered free-choice to all animals.

When water bowls are shared, make sure cows are paired appropriately to ensure equal access. Photo: J. Bertoldo
Summer-Seeding by Jodi Putman

Summer provides us with an opportunity to successfully establish alfalfa and other perennial forages. It is important to pay attention to timing and your seedbed conditions. Having adequate soil moisture and a seedbed that maximizes seed-to-soil contact will help to ensure a rapid, more uniform emergence. Summer seeding offers a number of advantages over spring seeding:

- Less weed pressure, therefore this can be an optimum time to seed legume-grass mixtures, which have limited herbicide options.
- Spreads out the planting workload.
- Harvest a small grain crop followed by a full forage production year after seeding.
- Perennial forages can get a jump start on the growing season and can produce at or near established stand production the following year.
- Increase soil health, reduce soil erosion through the winter months.
- More time to prepare an optimal seedbed in the summer.

For optimum crop establishment and to minimize winter-kill, approximately 6 to 8 weeks are needed for the seedlings to germinate and develop sufficient root reserves to survive. Ideal planting depth for alfalfa in clay or loam soils is ¼ to ½ inch at a rate of 15-18 lbs. /acre.

Here are some recommendations for summer-seedings:

1. Plant only if conditions are right
   a. Never seed in dry soil—a light rain (1/2” or less) can germinate seed, but the new seedling will die from drought in a matter of days if no more rain is received.
   b. Weeds must be controlled.

2. Plant at proper date
   a. Next to dry soil, planting too late is the biggest cause of summer seeding failures.
   b. Dates vary based on temperature and moisture availability. *Need at least 45 frost free days of good growing to build up adequate carbohydrate reserves for winter.

3. Weed control
   a. Use a burn-down herbicide before planting to control perennial weeds and destroy any remaining vegetation from the previous crop.
   b. Do not use a cover crop with summer seedings as it will slow establishment down and compete for water.

4. Fertility
   a. Have soil tested and follow lime and fertilizer recommendations.
   b. Optimum pH level is 6.8. Liming should be done 6 to 24 months prior to planting.
   c. Phosphorus is critical to proper root and seedling development. Potassium increases yields and stand persistence.

5. Variety selection
   a. Plant alfalfa varieties with high genetic potential for yields, quality, persistence and the pest resistances you will need for maximum long-term performance from your alfalfa stand (disease resistance and winter hardiness).

Don’t Miss Out on the 2020 NY Corn and Soybean Contests
by Mike Stanyard

The annual corn and soybean yield contests sponsored by the New York Corn & Soybean Growers Association are underway. On the following page is the 2020 yield contest entry form. This form and contest rules can be found on the NY Corn & Soybean Growers Association web page at: https://nycornsoy.org/yield-contests/. Entry forms must be postmarked by Friday, August 30 and mailed or emailed to Mike Stanyard. Cost is $30 per entry. This year the grand corn and soybean champions win an all-expense paid trip for two to the 2020 Commodity Classic in San Antonio, TX.

The deadline for the National Corn Yield Contest sponsored by the National Corn Growers Association is August 15 and the entry form can be found on their webpage at: https://www.ncga.com/for-farmers/national-corn-yield-contest. Please remember that this is a different contest than the state contest sponsored by the NYC&SGA. I would encourage growers to enter both corn contests. Applicants in the NGCA contest can use their contest harvest results to fulfill the requirements in the NYC&SGA contest as long as they fill out the entry form and pay the entry fee by August 30. Good Luck!
2020 New York Grain Corn and Soybean Yield Contests
Entry Form and Field Designation

Entries must be RECEIVED and PAID by August 30, 2020

Name_________________________________ Farm Name_________________________________

*Only one person per farm may enter and no more than two entries each for corn and soybean*
Address_________________________________ State_____ Zip_________ County__________

Email__________________________________ Home Phone________________ Work/Cell Phone________________
Sponsor(if sponsored)______________________

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I hereby agree that all the contest information provided by me pursuant to this Yield Contest shall be the property of the New York Corn and Soybean Growers Association and can be used and distributed at the sole discretion of the Association.

Signature of the Entrant________________ Date________________

Number of grain corn entries (limit 2 per farm) _______ x $30/entry  Total _______  Number of soybean entries  (limit 2 per farm) _______ x $30/entry  Total _______
New NYCSGA membership Renew NYCSGA
($99/year membership not required to enter state contest) _______

Method of Payment (check one) : __________ Total Enclosed _______

- Bill my seed provider-name/phone#________________________ (contest only)
- Cash  □ Check(payable to NYCSGA)  □ Credit card

Credit card number________________ Sec Code_____________Billing Zip Code________________

Return to: Mike Stanyard, Cornell University Cooperative Extension, Wayne County CCE
1381 Route 88N, Newark, NY 14513 Email: mjs88@cornell.edu. Questions? Call 585-764-8452

If this form is properly submitted, you will receive the appropriate Harvest Report Forms in the mail or email if provided.

For complete contest rules and more information visit:

https://nycornsoy.org

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Performance of Northwest NY Region DFBS Cooperators in 2019 — Results for June 23, 2020 by John Hanchar and Joan Petzen

Summary
- Milk receipts per hundredweight (cwt.) rose 11.8 percent to $19.53 per cwt. when compared to 2018.
- In 2019, the operating cost of producing a cwt. of milk was $15.36, a decrease of 0.5 percent relative to 2018.
- As of June 23, 2020, results indicate that Northwest New York region (NWNY) dairy farms in Cornell University Cooperative Extension’s Dairy Farm Business Summary Program achieved greater levels of profit in 2019 compared to 2018 -- for example, in 2019, the rate of return on all assets without appreciation as a percent averaged 5.0 percent compared to 0.3 percent in 2018.

Introduction
The results reported here represent averages for the following.
- 35 NWNY dairy farms cooperating in 2018, data accessed July 28, 2019
- 38 NWNY dairy farms cooperating in 2019, data accessed June 23, 2020

The averages reported for 2019 and 2018 are not averages for the group of farms that participated in Cornell University Cooperative Extension’s Dairy Farm Business Summary and Analysis Program (DFBS) in both 2019 and 2018. However, the averages below reflect a large number of farms participating in both 2019 and 2018, suggesting that the results reflect to a fairly large degree the same farms for the two comparison years.

Size of Business
- The average number of cows per farm for 2019 to date is 1,062 compared to 1,052 in 2018.
- Worker equivalents per farm averaged 20.2 and 20.5 for 2019 and 2018, respectively.
- Tillable acres per farm totaled 1,872 and 1,879 for 2019 and 2018, respectively.

Rates of Production
- Milk sold per cow averaged 25,975 pounds in 2019 compared to 25,542 in 2018.
- Hay dry matter per acre was unchanged at 3.6 tons, while corn silage per acre fell slightly from 19.6 tons to 19.3 tons.

Income Generation
- Gross milk sales per cow increased from $4,463 in 2018 to $5,072 in 2019, an increase of 13.7 percent.
- Gross milk sales per hundredweight (cwt.) rose from $17.47 to $19.53.

Cost Control
- Dairy feed and crop expense per cwt. of milk fell about 4 percent, averaging $6.87 in 2019 and $7.15 in 2018.
- In 2019 the operating cost of producing a cwt. of milk was $15.36, a slight change of negative 0.5 percent relative to 2018.

Profitability
- Net farm income without appreciation per cwt. of milk averaged $2.44 in 2019 compared to $0.32 in 2018.
- Rate of return on equity capital as a percent without appreciation averaged 5.1 percent in 2019 compared to negative 1.7 percent in 2018.
- In 2019, the rate of return on all assets as a percent without appreciation was 5 percent compared to 0.3 percent in 2018.

Final Thoughts
Owners of dairy farm businesses cooperate in Cornell University Cooperative Extension’s DFBS Program for the purpose of identifying strengths and weaknesses by comparing their results to results of other cooperators. DFBS results also provide farmers with a base for budgeting activities. Budgeting is especially valuable during unfavorable economic conditions such as those currently faced by farm business owners. If you are interested in realizing the benefits of DFBS participation and/or budgeting then please contact John Hanchar or Joan Petzen.
I recently received a question about buttercups in hay. I knew that buttercups were safe for livestock to eat when found in hay, but not while growing in pastures. I decided to investigate a little further to gain a better understanding of the mechanisms involved.

Buttercups are in the genus Ranunculus, which includes weeds and ornamental plants. There are approximately 24 species found in NYS; some are native, while others are not. They are perennial weeds primarily found in meadows, pastures, long-term hayfields, and roadsides. Tillage prevents them from becoming established in cultivated fields.

In doing some research on Cornell’s Poisonous Plants website (https://poisonousplants.ansci.cornell.edu/toxicagents/ranunculoside.html), the toxic agent produced in buttercups is protoanemonin. Its formation takes a bit of chemistry to occur in buttercups. Ranunculosides are volatile lactones. Upon hydrolysis (water added or the plant chewed) the molecule is split into ranunculin and glucose. Ranunculin is then converted into protoanemonin, an unsaturated lactone. When the plants are dried for hay, protoanemonin is very unstable and converts into anemonin, then further into anemonic acid.

As with most poisonous plants, there is a degree to its toxicity. According to Cornell’s website, ranunculin, protoanemonin and anemonin all have medicinal properties. Tall buttercup leaves may be rubbed on the skin to ease rheumatism, gout, or arthritis. Ranunculin has antifungal properties. Prolonged skin exposure may lead to redness or blistering. The quantity of the compound consumed is key. When grazed, animals’ mouths will become red and irritated, excessive salivation occurs and diarrhea. The plants are bitter tasting so most animals will not eat a lot unless no other plants are available. Contrary, feeding trials with sheep and cattle fed tall buttercup have been conducted with no ill effect. The animals needed to be conditioned to eat it. Toxicity can vary with plant age, growing conditions, and other factors.

Some species are considered more toxic than others. These include tall buttercup (R. acris), kidney-leafed buttercup (R. abortivus), creeping buttercup (R. sceleratus), R. flammula, and seaside buttercup (R. cymbalaria).

In my very limited, anecdotal field research, the species I have found to be most prevalent in the western part of the region is tall buttercup. This species reproduces by seed.

In general, issues from plant poisonings happen when grazing occurs on less productive areas of farms. Roadsides, ditches, wooded or wet areas are likely locations for weed encroachment. Best management practices to reduce populations include keeping pasture fertility levels adequate to encourage grass growth, avoid overgrazing, and clip weeds prior to seed set. Spot spraying with an herbicide may be beneficial before toxic weeds become well established. Effective treatments include 2, 4-D or Banvel/Clarity at label rates. Apply in the fall or early spring to rosettes or other growth. Make sure to follow labels regarding grazing.

I also remember holding buttercups under someone’s chin. If the reflection was yellow, that person liked butter! I don’t recall getting blistered skin from picking them, either.
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General Questions & Links:
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Food Production, Processing & Safety Questions:
https://instituteforfoodsafty.cornell.edu/coronavirus-covid-19/

Employment & Agricultural Workforce Questions:
http://agworkforce.cals.cornell.edu/

Cornell Small Farms Resiliency Resources:
https://smallfarms.cornell.edu/resources/farm-resilience/

Financial & Mental Health Resources for Farmers:
https://www.nyfarmnet.org/

Cornell Farmworker Program
www.farmworkers.cornell.edu
www.trabajadores.cornell.edu (en espanol)