Cornell Cooperative Extension Northwest NY Dairy, Livestock and Field Crops Program

AG FOCUS



Time to Play It Safe by Joan Sinclair Petzen

The next few months will be the busiest on many farms. This time period coincides with the time of year, June, July, and August, when the most farm accidents occur according to NASD, the National Ag Safety Database. It is an important time for farm managers and supervisors to model safe operating processes with both equipment and animals. Be particularly mindful of both older and younger people working around the farm; accidents happen more frequently to seniors and to younger folks working on the farm.

CCE NWNY Dairy, Livestock Team is fortunate to have an ongoing working relationship with the New York Center for Agricultural Medicine and Health, NYCAMH. Dairy Specialist Kaitlyn Lutz offers on-farm safety training in both English and Spanish. For dairy and livestock farms training is available on:

- **Personal Protective Equipment**
- Tractor, PTO and Equipment Safety •
- Skidsteer Safety •
- Mechanical Hazards •
- **Confined Space Awareness** •
- Manure Safety •
- Animal Handling & Needle Safety •
- Lockout/Tagout •
- Shop Safety •
- Milking Parlor Safety
- Hazard Communication Standard (Chemical Safety) •
- Other topics by request

NYCAMH's Farm Emergency Response Program trainings are designed to help farm workers and farm families learn what to do if they are the first at the scene in an emergency situation on the farm. These training topics help farm families and workers to be able to respond appropriately when they encounter an onfarm emergency:

- Fire Extinguisher and Fire Safety
- **Emergency Preparedness**

- First Aid and CPR Certification through the American Heart Association
- **Basic First Aid**

Take the opportunity to regularly remind everyone on the farm about important safety practices. Help prevent tragedy and afford everyone in your operation the chance to look out for one another and develop safe working habits. Reach out to Kaitlyn Lutz, kal263@cornell.edu or NYCAMH info@nycamh.org to schedule trainings. Download and print or order safety posters directly from NYCAMH at: https://www.nycamh.org/resources/posters.php to

reinforce your safety message or as a reference for conducting a quick safety reminder meeting.

Farm safely my friends!



Skid Steer Safety poster available for download in both English and Spanish on the NYCAMH website.

VOLUME 31, ISSUE 5

A partnership between Cornell University and the CCE Associations in these nine counties:

Genesee, Livingston, Monroe, Niagara, Ontario, Orleans, Seneca, Wayne & Wyoming

Postmaster: Send Address Changes: NWNY Team, Attn: Brandie Waite, 420 East Main St., Batavia, NY 14020 Direct all inquiries on advertising space/rates to: Brandie Waite at 585-343-3040 x138 or bls238@cornell.edu



Nancy Glazier Small Farms, Livestock Genesee County 585.315.7746 (cell)

nig3@cornell.edu



John Hanchar Farm Business

Livingston County 585.991.5438 (office) 585.233.9249 (cell) jjh6@cornell.edu



Kaitlyn Lutz Bilingual Dairy Management Ontario County 585.394.3977 (office) 585.689.3114 (cell) kal263@cornell.edu



Jodi Letham Field Crops & Soils Livingston County 585.689.3423 (cell) jll347@cornell.edu



Margaret Quaassdorff Dairy Management Genesee County

Genesee County 585.343.3040 x 133 (office) 585.405.2567 (cell) maq27@cornell.edu



Joan Sinclair Petzen Farm Business Management

Wyoming County 585.786.2251 (office) 716.378.5267 (cell) jsp10@cornell.edu



Mike Stanyard Field Crops & IPM Wayne County 315.331.8415 x 123 (office) 585.764.8452 (cell) mjs88@cornell.edu



Brandie Waite Administrative Assistant

Genesee County 585.343.3040 x138 (office) bls238@cornell.edu

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.

By law and purpose, Cooperative Extension is dedicated to serving the people on a non-discriminatory basis.

Remember To Check Out The NWNY Team Blog!

The blog will feature **Crop Alerts**, **Dairy Alerts**, **Bilingual** (Spanish) Resources, Upcoming Events and more from our team members. You can visit the blog at: https://blogs.cornell.edu/nwny-dairy-livestock-field-crops/

For more information about our program, visit us online at: <u>https://nwnyteam.cce.cornell.edu/</u>



THE FORAGE SOURCE, LLC

Your Source For Success 5 Mil Black & White Seal Fresh Gold Oxygen Barrier Feed Fresh Silage Inoculant Easy Roll Stands, Tire Shooters and Dump Carts Save Time, Save Money









Tom Frederes Cell: 716-485-6454 Office: 1-833-FORAGE1 tomfrederes@gmail.com

Inside This Issue

Time to Play It Safe by Joan Sinclair Petzen1
Performance of Northwest NY Region Dairy Farm Business Summary Cooperatives in 2021 by Joan Petzen & John Hanchar5
Spring Crop Comments by Mike Stanyard7
Beef x Dairy is a Strategic Management Tool by Margaret Quaassdorff9
Be a #1 Fan! No, We're Not Talking the Bills We're Talking Ventilation. by Kaitlyn Lutz11
Are Dung Beetles in Your Pastures? by Nancy Glazier13
Stop Shrinking Your Margins by Jodi Letham15

Upcoming Webinars

May 9, 2022 - Noon (CST)

"Hypocalcemia and the transition cow" Jeff Goff, Iowa State University https://hoards.com/flex-309-Webinars.html

June 13, 2022 - Noon (CST)

"Air quality and greenhouse gas emission" Frank Mitloehner, University of California-Davis <u>https://hoards.com/flex-309-Webinars.html</u>





IT PAYS TO BE A CUSTOMER-OWNER.





This year we paid \$91 million in patronage dividends.

Farm Credit East is customer-owned, which means customers share in the association's financial success. This year, qualifying borrowers received \$91 million from our 2021 earnings. That's equivalent to 1.25% of average eligible loan volume and adds up to \$1 billion since our patronage program began.

Discover the difference. No other lender works like Farm Credit East.

farmcrediteast.com | Batavia 800.929.1350



Performance of Northwest NY Region Dairy Farm Business Summary Cooperators in 2021 - Results for April 8, 2022

by Joan Petzen and John Hanchar

At this point, consider these results preliminary – we expect that the sample size will increase prior to final reporting of results.

Due to the pandemic and the government response, government receipts were unusually large in 2020. The magnitude of the receipts impacted accrual operating receipts, profitability and other measures, affecting comparisons to 2020. An unusually large increase in government receipts from 2019 to 2020 resulted followed by an unusually large decrease from 2020 to 2021.

Summary

- Milk receipts per hundredweight (cwt.) rose 5.4 percent to \$19.95 per cwt. when compared to 2020.
- In 2021, the operating cost of producing a cwt. of milk equaled \$15.45, almost unchanged relative to the adjusted value for 2020.
- As of April 08, 2022, results indicate that Northwest New York region (NWNY) dairy farms in Cornell University Cooperative Extension's Dairy Farm Business Summary (DFBS) Program achieved lower levels of profit in 2021 compared to 2020 -- for example, in 2021, the rate of return on all assets without appreciation as a percent averaged 5.1 compared to 7.6 percent in 2020.

Introduction

The results reported here represent averages for the following.

- 30 NWNY dairy farms cooperating in 2020, data accessed April 10, 2021
- 31 NWNY dairy farms cooperating in 2021, data accessed April 8, 2022

Regarding the findings reported here please note the following.

- The averages reported for 2021 and 2020 are not averages for the group of same farms that participated in the DFBS Program in both 2021 and 2020. However, the averages reported likely reflect a large number of farms participating in both 2021 and 2020.
- The DFBS Program uses a whole farm approach to calculate operating, purchased input and total costs of

producing milk per cwt., subtracting accrual non milk operating receipts from accrual operating, purchased input, and total costs for the farm. To provide 2020 cost of producing milk per cwt. values for equivalent comparison across years, 2020 calculations exclude reported government receipts from non milk accrual operating receipts.

Size of Business

- The average number of cows per farm for 2021 to date is 1,210 compared to 1,245 in 2020.
- Worker equivalents per farm averaged 21.4 and 22.6 for 2021 and 2020, respectively.
- Tillable acres per farm totaled 2,170 in 2021 and 2,100 in 2020.

Rates of Production

- Milk sold per cow in pounds averaged 26,872 in 2021 compared to 26,149 in 2020.
- Hay dry matter per acre was virtually unchanged at 3.5 tons, while corn silage per acre rose to 20.4 tons from 19.1 tons.

Income Generation

- Gross milk sales per cow increased from \$4,946 in 2020 to \$5,361 in 2021, an increase of 8.4 percent.
- Gross milk sales per hundredweight (cwt.) rose from \$18.92 to \$19.95.

Cost Control

- Dairy feed and crop expense per cwt. of milk rose about 11.9 percent, averaging \$7.17 in 2020 and \$8.02 in 2021.
- In 2021, the operating cost of producing milk per cwt. averaged \$15.45, while the cost in 2020, adjusted for the amount of accrual government receipts, averaged \$15.32 per cwt.

Profitability

• Net farm income without appreciation per cwt. of milk

(Continued on page 6)

Performance of Northwest NY Region Dairy Farm Business Summary Cooperators in 2021 - Results for April 8, 2022

(Continued from page 5)

averaged \$2.92 in 2021 compared to \$3.93 in 2020, a decrease of 25.7 percent.

- Rate of return on equity capital without appreciation as a percent averaged 5.8 in 2021 compared to 9.1 percent in 2020.
- In 2021, the rate of return on all assets without appreciation as a percent was 5.1 compared to 7.6 percent in 2020.

Final Thoughts

Owners of dairy farm businesses cooperate in the Cornell University Cooperative Extension DFBS Program for the purpose of identifying strengths and weaknesses, progress towards goals. DFBS cooperators compare their results to results of other cooperators. DFBS results also provide farmers with a base for budgeting activities. If you are interested in realizing the benefits of DFBS participation and, or budgeting then please contact John Hanchar.





For your always growing side.

As a Farm Bureau member, you may be eligible for a discount on your farm insurance from the #1 farm insurer.¹

Let me know how I can help protect your farm or ranch. GLOBAL GREEN INSURANCE AGENCY 315-946-6022 DAVIDM@GGIAUSA.COM

SNL Finandal, 2017 (National) Market Share Report. Products underwritten by ationwide Nutual insurance Company and Arfliated Comparies. Home Office Jourbus, OH 4325. Subject to underwriting guidelines, reiew, and approval. roducts and discourts not available to all persons in all states. Nationwide, le Nationwide N and Eagle and Nationwide is on your side are service marks. Nationwide Nutual insurance Company. The Farm Bureau and the letter's FB er egistered service marks of American Farm Bureau and used under license Nationwide Nation Arc. 2019 Nationwide Arc. 2015A0 (2019) 11577516



FULL-SERVICE MACHINESHOP

Gas Engines * Diesel Engines * Natural Gas Engines * Heavy-Duty Machining

Engine Assembly & Machining

- Boring Honing * Decking Line Boring * Magnafluxing *
- Crank Shaft Balancing * Crank Welding & Grinding * Flywheel Resurfacing

2905 Simpson Road, Caledonia, NY 14423 585-538-4395



Spring Crop Comments by Mike Stanyard

Controlling Marestail in Soybeans

Marestail continues to be a problem in soybeans as it is resistant to multiple herbicides including glyphosate. The first rule to managing marestail is starting clean whether through tillage or herbicides. We know that its seeds blow around all fall and land everywhere. To germinate, they need to be on the top of the ground. If they are covered just a little bit by soil, they will not germinate. We are even seeing some no tillers utilize speed tillers to manage slugs and hopefully some marestail.

Mike Hunter of the CCE Northern Ag Team has been conducting herbicide trials on marestail for the last two seasons. Here are his recommendations of the best herbicide options for no-till burndown in soybeans:

- Glyphosate or Glufosinate + Sharpen[^] + metribuzin (6 oz.)
- Or premix containing saflufenacil (Verdict, Op Till)
- Paraquat + 2,4-D LVE* + metribuzin (6 oz.)
- Sharpen⁺ + 2,4-D LVE^{*} + metribuzin (no grass control)
- *2,4-D Ester (1 pint of 4 lb/gal formulation) must be applied 7 days prior to planting to avoid injury to soybeans, ^Sharpen (saflufenacil) use 1 oz. rate for no plant restrictions and use an MSO at 1 gal/100 gal of water

Remember there is no effective postemergence marestail control in conventional or glyphosate tolerant soybeans. Consider planting Xtend, XtendFlex, Enlist E3 or Liberty Link soybeans to allow for effective postemergence control options if necessary. For best results, marestail should be sprayed under four inches tall.

The Importance of Utilizing Pheromone Traps to Monitor Armyworm and Cutworm Moths

Common armyworm (CAW) and black cutworm (BCW) are two very importance pests that invade New York every spring. These two moths do not overwinter here and arrive on stormfronts coming up from the southern US. This means that our winter weather has no effect on the moth populations that we may see each year. This is why it is so important to monitor the first arrival of these moths and how many are taking up residence here. Both of these moths are active at night so we never see them flying around. That is what makes pheromone traps such an effective monitoring tool.

We put out six CAW and six BCW pheromone traps out

across NWNY in early April. These green bucket traps have a pheromone lure which attracts only the male moths. The traps are checked weekly for the first arrival and more importantly when a significant number of moths arrives at one time (9 over a 2-day period). Once this number is caught, we calculate the number of degree -day units (Base 50°F) accumulated each day. It takes roughly 300 degree-days for BCW larvae to be big enough to cut corn plants (4th instar). This is not a scientific process but it gives us a good idea of when we should be out there scouting for signs of crop injury. We will be sending out weekly catch alerts on our team Blog.

How Do you Determine if your Wheat Has Reached Feekes Stage 6?

Feekes stage 6 is a very important stage to identify. This is officially the stem elongation or jointing stage. This is the stage where all of your nitrogen should now be applied (first shot or second shot). I know a lot of early N went out this year and it looked like the wheat responded beautifully. To determine if you are at FS 6, pull up a couple of primary tillers. Peel down the lower leaves like you were peeling a banana and expose the shiny lower stem. If you can see a visible bump or node (like the knuckle on your finger), then you are at FS 6 (see picture). The tiny spikelet is developing right above this first node. The number of kernels is already developed. You can cut the stem vertically and see for yourself. It usually takes 7 days to reach FS 7, which is the emergence of the 2nd node. FS 8 is the first emergence of the flag leaf and that takes another 7 to 10 days. As things get heated up, we will run through these stages quickly!



The nodes are the darker green areas on the stem. Photo: M. Stanyard / CCE NWNY Team

WESTERN NEW YORK

- We support our local NY corn farmers by providing competitive bids for your old and new crop corn, including on-farm pricing. Payment within 2 days.
- Give us a call to discuss our high protein (32%+), low fat Dairy Distillers Grain.
 - Bulk commodity and grain transportation services available through our subsidiary, Shelby Transportation. Give us a call for a transportation quote.

Call now for more information: Corn: (866) 610-6705 Distillers Grain: (315) 247-1286 Shelby Transportation: (585) 798-6696



Helping farms grow better crops and navigate complex and changing environmental regulations through independent consulting

- Crop Consulting
- Environmental Planning
- Soil Sampling
- Precision Agriculture Services



607-252-2002 | acscrops.com

Beef x Dairy is a Strategic Management Tool by Margaret Quaassdorff

There are many reasons dairy producers choose to incorporate beef semen into their dairy breeding programs, and the trend has increased again over last year. As a result of extra attention to this topic, more dairy producers are becoming progressively strategic with their use of beef semen in the name of profitability, efficiency, and sustainability.



It is no longer profitable

The beef x dairy calf is a valuable co-product of the dairy farm. Photo: M. Quaassdorff / CCE **NWNY** Team

in most cases to raise a heifer and sell her as a 1st lactation cow. In addition, we have become good at creating heifers (thanks to sexed semen technology), keeping them alive and healthy, and getting them bred. This has resulted in most farms carrying too many replacements for their needs. One of the greatest benefits of incorporating beef semen into your dairy's breeding strategy is heifer inventory control. Do you know your number? I am talking about the number of

heifer replacements you need to meet your current herdsize goals. This number is going to be influenced by several factors:

- The number of cows you should be milking (are you maintaining, reducing, or in expansion mode?)
- Cull rate (think about if this number is inflated due to making room for heifers to enter the milking herd)
- Calf mortality rate
- Non-completion rate (heifers that do not enter the milking herd)
- Age at first calving
- Calving interval
- Calf sex ratio
- Cushion (how many extra should you keep each month in case of unexpected circumstances? Hint: The answer is not "All of them")

Once you know your number (Penn State has a user-

friendly app to help calculate this, https://extension. psu.edu/penn-state-dairy-herd-metrics), you can feel more confident that you will not need to keep every heifer born on the farm. This not only reduces the number of difficult emotional decisions when it comes to selling a heifer that is not needed, but this is a huge savings when it comes to feed and labor costs! You can now also make a strategic decision as to which cows you want calves from, and which will carry a beef x dairy calf. This offers a great opportunity to efficiently accelerate the genetic progress you can make in our herd. Other benefits of implementing beef x dairy strategies on dairies include: keeping mature profitable cows in the herd longer (also

more favorable to consumers), and earning a premium price for healthy beef x dairy calves.

Dairy now contributes to 21% of total beef in the United States in the form of finished steers, cull dairy cows, and finished dairy heifers. This beef x dairy calf is a co-product of our dairy farms. The best thing that all dairy producers can do right now to maintain the quality of that animal for our beef customers is to have excellent co-

REFINING YOUR DAIRY LINEAGE

According to responses from surveyed NY dairy producers in 2020 and 2021, (Quaassdorff and Hicks, unpublished) farmers are using a variety of factors to help determine from which cows they will generate future replacements:

- Genomic testing
- Milk production data on the cow
- Pedigree information
- Animal composition/type
- Health characteristics of the cow
- Lactation number

lostrum management. Quality colostrum and newborn calf care are imperative to the success of beef x dairy animals in the beef sector. As of now, the premium for a healthy beef x dairy calf still holds at approximately \$150 over a Holstein bull calf, and that is something we want to sustain.

Beef x dairy is a hot topic in both dairy and beef industries today. I look forward to keeping up with the sector as it unfolds, and the variety of ways dairy farmers can use this management strategy and trend to optimize their own businesses.



Joan Sinclair Petzen accepting recognition from Peter Landre, CCE Assistant Director for Regional Ag Teams.





Calcium Lime - Magnesium Lime Gypsum-Organic Gypsum

BEST SERVICES - PRODUCTS - PRICES

For Sale: New and Used Lime - Litter - Fertilizer Spreaders **KERSCH'S AG LIME, LLC** 510 Wyoming Road, Wyoming, NY 14591 **Call Chris 585-356-9162** 844-388-**LIME** (5463) Fax: 585-584-3264 Serving Agriculture For 45 Years

NWNY Team Webinars Available When You Are

The NWNY Team has several recorded on-demand webinars available on our YouTube channel. Several topics are available to view for free, anytime and some are available in both English and Spanish.

Topics Include:

<u>Transition Cows</u> <u>Calf Care</u> <u>Feeder School</u> <u>Focus on Farm Management</u> <u>Sustainability</u> <u>Waterhemp Control in Soybeans and Corn</u> <u>Pasture Management</u> <u>Marketing Meat Products</u>

Visit: https://www.youtube.com/user/CCENWNY

Be a #1 Fan! No, We're Not Talking the Bills... We're Talking

Ventilation. by Kaitlyn Lutz

Click, woosh, hum. All the fans in the dry-cow barn kicked on at the same time, drowning out the voice of Anna Meyerhoff, NYCAMH Farm Safety Trainer, in the middle of her discussion on the importance of hearing protection on dairy farms. It was March 31st and one of the first warm days we had seen in a while. It was interesting to think of the different perspectives we all have on a situation.

Anna: great example of a loud noise that can cause permanent hearing loss!

Me: great example of a farm providing excellent dry-cow cooling!

Producer: Great, fans are working. Shoot, we need to fix that fan belt. Ugh, energy prices are going to hurt us this summer.

Heat Stress in NY

By now we have all heard about the effects of heat stress on cattle. There is more research coming out every year to prove additional benefits and financial incentives to cool dairy cattle during all stages of lactation and the dry period. But does it pay in our northern climate?



Well-spaced fans over headlocks and stalls. Photo: K. Lutz / CCE NWNY Team

The short answer is yes. In NY state, the number of "heat stress days" is approximately 80 annually, according to a nationwide study published by University of Florida in the Journal of Dairy Science in 2016. Focusing on dry cows, they assumed an average milk loss in the subsequent lactation of 10 lb/cow/day of heat stress during the dry period. This ends up being about 800lbs/cow/ lactation or \$160/cow @ \$20 cwt milk. With a 500-cow dairy, that's approximately \$80,000/year (the study assumed a 400-day lactation). That could pay for about 100 52″ fans. Not a bad return on investment. Remember, the example above only considers dry-cow cooling and milk production. In next month's article, we will discuss the further effects that heat stress has on cows and calves in-utero.

Fan Maintenance

Our fans are only as good as the maintenance they receive. Remember, if we have high-speed fans spaced properly over our stalls and feed bunk but 30% of them are not working, we are not getting a good return on investment. Also, annual fan maintenance is a way to improve efficiency of your existing equipment without spending much money. Christopher Abbott-Koch, an Energy Analyst with EnSave, recommends adjusting loose belts, but warns that over-tightening can cause wear on the bearings. He also says that cleaning dusty fan blades off can increase the efficiency of your fans by 10%. When combined, proper fan maintenance can increase fan efficiency by up to 40%! Not a fun job, but time well spent.



A fan ready for spring cleaning. Photo: K. Lutz / CCE NWNY Team

You May Be a Bills Fan, But you're Not a Fan of Bills. Let's Talk Money:

To find out more ways to increase energy efficiency on your dairy, NYSERDA offers an Agricultural Energy Audit Program specifically for farmers. This is a free program where a technician comes out to the farm and invento-

Be a #1 Fan! No, We're Not Talking the Bills... We're Talking Ventilation.

(Continued from page 11)

ries all stationary equipment used on the operation. They use records to analyze the farms' energy use and then make recommendations on how to decrease energy usage or increase the output. NYSERDA also works with producers to find funding for the upgrades they're interested in pursuing, through grants, financing partners etc.

The resulting recommendations, if implemented, can save between 10-35% in energy expenditure. In our recent "Net Zero for NY Dairy" webinar, Jeremy Elias from NYSERDA provided a few examples of dairies who had made energy upgrades through the program in recent years. Here is one example he shared:

Demko Dairy, Lowville, NY. They upgraded all of their fans and switched to all LED lights.

One requirement to participate is that your electricity supplier is an investor-owned utility (i.e., National Grid and NYSEG) and you are paying the supplier benefits charge (SBC), which you can see on your utility bill. If you're interested in having an energy audit for your farm, now is the time! Here is the contact information: aeep@nyserda.ny.gov or 1-800-732-1399.

Energy Savings (Over life of measure)	Implementation cost	Outside funding	Payback time
800,000 kwh	\$400,000	\$150,000	Less than 6 years



Helping you find innovative, data driven solutions that increase the profitability, efficiency, and sustainability of your operation, both inside and outside the barn.



800-344-2697 | dairyone.com

Are Dung Beetles in Your Pastures? by Nancy Glazier

There are many species of dung beetles in New York. Of the 90 or so species of dung beetles in the United States, less than a dozen are significant for dung dispersal. After this summer we will have a better handle on what species are present. Through a project with the NYS IPM program, we are surveying 12 farms across the state. Three farms are in the NWNY region, in Wyoming, Livingston, and Ontario Counties.

Dung beetles are in the Scarab family, the same family as European chafers and are anywhere from $\frac{1}{4}$ " to $\frac{1}{2}$ " in length. They range in color from black to brown to red; some have patterns on their wing covers. These beetles are known to increase grazing by accelerating the decomposition of dung, their sole food source. They remove pats from the pasture, which exposes more grass for grazing and reduces livestock pasture rejection. They are also nitrogen recyclers. They accomplish this by burying the manure in the soil and prevent loss of nitrogen to the atmosphere. Dung beetles dry out manure pats which reduce the suitability for pest species to breed and reduce cattle parasite populations. In southern states these beetles do a great job of controlling horn fly reproduction. They also contribute to the added accumulation of soil organic matter.

There are three types of dung beetles: rollers, tunnelers and dwellers. The rollers are probably the best known from watching nature shows and seeing the huge pair of beetles rolling dung (or brood) balls away from the elephant piles. They do that same thing in cattle pastures, but not on as grand a scale. The females lay an egg in the ball, bury it and cover with loose soil. The ball provides a continuous food source for their offspring. In previous surveys there was one species found in NY.

A second group is the tunnelers. They dig a tunnel under the pat, place the manure inside for their larvae and fill with loose soil. The tunnelers can be spotted by the piles of loose soil next to or on top of the crust of a dung pile. This group provides the most rapid degradation of the pat. Soil moisture is critical for both breeding and dung burial among species of these first two groups. The ground needs to be moist to allow them to dig.

The third group is the dwellers. They stay right in the pat

to reproduce. They don't dig, and generally don't form the brood balls.

Dung beetles are drawn to the fresh pile by smell. They detect smell with their antennae which have large platelike ovals or tiny "clubs" on the ends. Their antennae are a distinguishing characteristic of scarab beetles. Research has found some beetles will fly up to 10 miles to find fresh manure. Some even catch rides on the tips of livestock tails. The adults feed on the liquid portion of the manure.

Collection process will use a modified Berlese funnel, a small tote with a bottle attached to the bottom at one end. This system reduces collection of other ground or manure insects. A sample of manure will be placed on the end of the tote opposite the bottle. The beetles will naturally move out of the manure into the bottle and fall into a small amount of alcohol. The top of the tote will have a sealable lid to prevent the beetles from escaping. Each farm will have 8 of these collectors in a large tote with a lid. Collections will be made weekly from May 1 to October 1.

You can look for dung beetles in your own pastures without a trap. Just look for holes or loose soil around the pats or take a shovel or the toe of your shoe and open it up. You may be surprised at all the beneficial activity in there!



Dung beetles will be caught in a trap. Manure and a small amount of soil is placed in the bottom of the container and alcohol is put in the bottle. Beetles crawl in and are collected. New manure is placed in the container weekly. Photo: N. Glazier / CCE NWNY Team



Stop Shrinking Your Margins by Jodi Letham

In a year when feed prices remain high, minimizing the loss of valuable homegrown feeds should be a priority. Research has demonstrated the devastating effect of forage shrink. Nonetheless, we frequently overlook homegrown feed shrinkage due to the difficulty of monitoring losses and/or believing there's surplus inventory.

Here's how feed disappears:

- A. Field, harvest, and transportation losses.
- B. Fermentation (ensiling) losses.
- C. Feedout losses.

One solution to limit field and harvest losses is knowing when the right time for 1st cutting should occur. Harvest is not linked to a certain calendar date but instead is dependent on growing degree day accumulation (heat) and soil moisture. Harvesting hay at the proper growth stage will also ensure high quality feed and hopefully reduce the amount of grain supplemented in the feed ration. A guide and chart have been provided below to help you determine proper timing to obtain the highest quality forage.

Fermentation shrinkage can be minimized by employing alfalfa height indicators to estimate harvest timing, attain the correct Neutral Detergent Fiber (NDF) content, and aid in the right ensiling process. Neutral detergent fiber digestibility will give dairy producers a more accurate estimate of total digestible nutrients (TDN), net energy



(NE), and feed intake potential. An increase in NDF digestibility will generally result in higher digestible energy and forage intakes (less refusal) ultimately leading to an increase in milk production.

Reduce feedout losses by intensively managing and aggressively feeding from the exposed haylage/silage surface, limiting oxygen exposure, or mitigating the detrimental impact of oxygen.

Remember, there's not a set order in which you have to harvest your forage fields. If your forage quality is poor, this could spell disaster, as you will be forced to purchase additional energy and protein. The NWNY Team will be posting Crop Alerts with updated height measurements beginning in May. For more information on shrink please visit: <u>https://rockriverlab.com/file_open.php?id=66</u>

Percentage Stand	Alfalfa Height	NDF Goal	What to do:
100 % Grass Stand	13 Inches tall	50% NDF	Start to cut Grass Stands
50% Grass- 50% Alfalfa	23 Inches tall	44% NDF	Cut your Mixed Stands
100 % Alfalfa	30 Inches tall	40% NDF	Cut Alfalfa Stands

Cornell Cooperative Extension of Livingston County NWNY Dairy, Livestock & Field Crops Team 3 Murray Hill Drive Mount Morris, NY 14510

Postmaster: Dated Material Please Expedite Nonprofit Org. U.S. POSTAGE **PAID** Permit No. 298 Rochester, NY

>> UPCOMING EVENTS <<



May 2022

<u>Dairy Cattle Welfare Council Symposium</u> - May 18-19, 2022 at the Marriott Syracuse Downtown, Syracuse, NY. Promoting dairy cattle welfare and ethics through science and implementation of best practices. To learn more or to register visit: <u>https://www.dcwcouncil.org/symposium</u>

June 2022

<u>On-Farm Herdsperson Training</u> - Save the Date! Training to be held in early June, details coming soon! Updates can be found on the NWNY Team website, <u>https://nwnyteam.cce.cornell.edu/</u>

2022 Small Grains Management Field Day - Thursday, June 2, 2022 from 9:30am to Noon at Poormon Farms in Seneca Falls, NY. Pre-registration is required. DEC Points available. For more information visit: <u>https://cals.cornell.edu/2022-small-grains-management-field-day</u>

On-Demand Online Courses:

Offered by Cornell PRO-DAIRY

Basic Dairy Nutrition https://cals.cornell.edu/animal-science/events/basic-dairy-nutrition-shortcourse

Calf and Heifer Management https://cals.cornell.edu/education/degrees-programs/calf-and-heifer-management

Transition Cow Management https://cals.cornell.edu/education/degrees-programs/transition-cow-management



Helping you put knowledge to work 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.