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

AG FOCUS

Ask Extension: How Do I Encourage My Egg Layers to Graze?

by Nancy Glazier

I recently visited a contract grower for organic eggs in Ontario County. He is part of a small cluster of farmers in the Finger Lakes region who work with the same company. This farmer raises about 11,000 birds in a barn with floor access for the hens as well as pasture access weather permitting. The farm was looking for input on enticing the birds outdoors and away from the barn to forage. Birds will eat earthworms, insects, and limited quantity of plants. This will offset feed but will never replace it. Estimating protein consumption from foraging needs to be closely monitored to maintain proper egg size. If protein in the diet is too high eggs will be too large to sell.

Most of the farms raise Hy-Line Brown hens, a hardy, prolific layer. Pullets are delivered to the farm at 16 weeks and are in production for 14 months. It may be a variety of bird more likely to forage, but they are still prey animals and need protection from ground and air predators. The perimeter fence must be secure. This farmer has had foxes get in and take birds. Another farmer has had problems with hawks, specifically Northern Goshawks. Though uncommon, they are large hawks more likely to carry a hen away. One way to reduce the risk is to make the paddocks long and narrow; this makes it more difficult for birds of prey make the dive to hit a bird.

The farmer has met his requirements laid out by the egg buyer and his certifier. For rodent control, the immediate circumference of the barn ground is required to be graveled. Beyond that though, the ground is denuded by the hens due to scratching and their hesitancy to leave the security of the barn overhang. Though the pasture is divided into quadrants and grazed by cattle when the hens are not in the paddock, erosion occurs in the denuded area. The birds' instincts are to scratch and dust-bathe in the area. How can the birds be enticed way from the barn to graze more area of the paddocks?

The pasture is divided into quadrants. They have access to one paddock at any time. Erosion occurs in the denuded area. The birds' instincts are to scratch and dust-bathe.

A recommendation was made this summer to plant sorghum-sudan grass to provide tall forage for protection as the hens left the roof shelter. Ample time is needed to allow sufficient growth by preventing access to the young seedings; otherwise, the hens would either pull or scratch up the plants. A concern with this planting was frosted plants and prussic acid. There is very limited research on this topic for poultry. One thought was the plants would be too fibrous for them to attempt to eat. Another option may be triticale. A more permanent option could be reed canary grass. It is slow to establish but would withstand drought or wet conditions.

This is an area around the barn where the hens have scratched and left it bare. Photo by: N. Glazier/CCE NWNY Team

One option may be providing shade/shelter in the pastures. An ideal scenario would be to have established trees already in the pasture. Another option would be portable shade screens to provide cover for the birds away from the barn.

Another option would be to move the waterers farther out in the pasture. This would need to be done in small increments to ensure the birds know where the waterers are located daily.

The hens may forage farther if cattle manure pats were readily available. The cattle could be grazed a week or so ahead of the birds to provide activity. The downside, there would be less vegetative cover, depending on how heavily the cattle graze.

This was an interesting question. No easy answer, but options to try.

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

Livlivingston 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

Margaret Quaassdorff
Dairy Management

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

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

Like us on Facebook

SUBSCRIBE to us on YouTube

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!

Our goal for this blog is to share with farmers and allied industry professionals, technical and applicable resources regarding all aspects of dairy farming, livestock and small farms, field crops and soils, and topics related to farm business management and precision agriculture.

The blog will feature **Crop Alerts, Dairy Alerts, Bilingual (Spanish) Resources, Upcoming Events** and more from our team members. When new material is published, subscribers will receive an email notification.

You can visit the blog at: https://blogs.cornell.edu/nwny-dairy-livestock-field-crops/

Inside This Issue

Upcoming Webinars

November 8, 2021 - Noon (CST)
"A forage and feed outlook"
Mike Hutjens, University of Illinois, and
Mike Rankin, *Hay & Forage Grower*
https://hoards.com/flex-309-Webinars.html

November 15, 2021 - Noon (ET)
"Udder Health: Monitoring and Maintaining Milking Equipment"
Adrian A Barragan, Assistant Clinical Professor, Penn State and Ernest Hovingh, Extension Veterinarian, Penn State
https://extension.psu.edu/udder-health-monitoring-and-maintaining-milking-equipment

December 13, 2021 - Noon (CST)
"Caring for calves in cold climates"
Sarah Morrison, Miner Institute
https://hoards.com/flex-309-Webinars.html

Can You Shed One Blanket This Winter? Selective Dry Cow Therapy Gets Traction with New York Farm Viability Grant. by Kaitlyn Lutz

Do you remember when blanket dry cow therapy was the new tool on farm to improve milk quality? If you do, then you probably also know how far milk quality has come since then. Now herds with BTSCC's of 150,000 are more common than herds at 400,000. The industry deserves a big pat on the back for this improvement.

Therefore, for some producers selective dry cow therapy (SDCT) feels like stepping back towards the dark ages of poor milk quality and rampant *Strep ag*. However, we have seen a few other practices come back around after "going out of style" decades earlier (i.e., Group housed calves). We are bringing back these old practices now with a new perspective and a stronger focus on precision management. The purpose of this article is to address concerns and provide information about an opportunity here in NY for your farm to adopt SDCT.

Concern # 1: *I've tried SDCT in the past and it went horribly wrong.*

It is important that your farm meets the following criteria before implementing SDCT:

1. Bulk tank SCC regularly < 250,000
2. No *Strep ag* in the herd and good control of *Staph aureus*
3. Regular DHIA testing or other SCC monitoring system
4. Routine detection and recording of clinical mastitis
5. Use of systematic dry-off lists
6. Monitoring of subclinical and clinical mastitis and/or bulk tank cultures
7. Routine use of **teat sealant** at dry-off by *well trained* staff

In my experience overseeing the selective dry-off process for over 5,000 cows in New Zealand, the step often missed is #7. Choosing the right person and educating them on the proper use of teat sealant alone as well as the associated risks goes a long way.

Concern #2: *I'm happy with my bulk tank SCC and my premium and don't want it to start creeping up.*

Numerous countries have now mandated or strongly encouraged SDCT, so we can look to them for long term data. The Netherlands banned blanket dry cow therapy in 2013 and did a follow-up study looking at udder health parameters over the following 4 years. The analysis included 1.67 million cows over 17,000 herds and results showed a small but significant *decrease* in bulk tank somatic cell count (Santman-Berends et al., 2021; https://doi.org/10.3168/jds.2020-18973).

A newer US study by Rowe et al. (https://doi.org/10.3168/jds.2019-17961) published in the Journal of Dairy Science in 2020 addressed the question of individual cow response to blanket dry cow therapy vs. SDCT. This study enrolled over 1,200 cows from 7 dairies (2 of which were NY dairies). They were dried off between May -August, so many of them were fresh during the peak of summer. They were followed out for the first 120 DIM and found no significant difference between groups for SCC at test day or clinical mastitis risk.

One point to make here is that many older studies looked at selective dry off *without* using internal teat sealants and showed higher SCC and clinical mastitis rates in these groups. This reinforces the importance of an internal teat sealant in your SDCT program.

Concern #3: *Is it worth the effort? What are my gains?* Financially speaking, if your herd meets the above-mentioned criteria and you manage your SDCT program diligently, then you have a lot to gain. The 2020 Journal of Dairy Science study described above determined a financial benefit of using SDCT compared to blanket treatment. To input your farm's data in a cost calculator visit: https://dairyknow.umn.edu/research/udder-health/selective-dry-cow-therapy-cost-calculator/

The other benefit is targeted use of antibiotics. The food animal industry is under scrutiny from various stakeholders as to our use of antimicrobials. Adopting SDCT is one way that we can show our stakeholders that we are using antibiotics judiciously, without harming our animals or our wallets.

Concern #4: *How do I decide which cows get only teat sealant and no dry cow tubes?*

You're in luck! A group in New York has received grant funding to assist dairy farmers in implementing SDCT on their farms (https://nyfvi.org/selective-dry-cow-therapy-program/). Please talk with your herd veterinarian for more information. This grant helps to cover the cost of

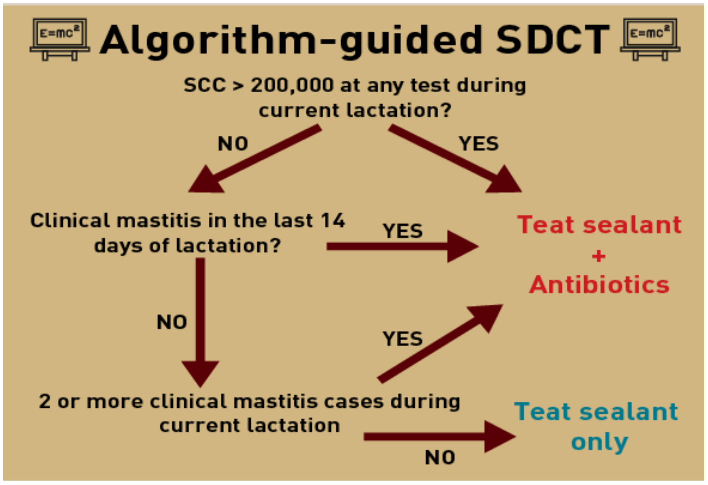
(Continued on page 6)

Can You Shed One Blanket This Winter? Selective Dry Cow Therapy Gets Traction with New York Farm Viability Grant.

(Continued from page 5)

your vets' time as they help to develop this program with you and train necessary staff. There is also a new module on DairyComp305 to help manage cow selection and the dry-off list. You will want to work with your herd veterinarian to decide on the selection criteria that you are comfortable with; however, here is a basic decision tree:

We hope to see some of you instituting SDCT over the coming years and encourage you to ask your herd veterinarian about the NYFVI grant.



Selective Dry Cow Therapy. University of Minnesota Extension. 2020.

Costs of Crop Production - Cash Grain Farms by John J. Hanchar

Summary

- Owners of cash grain farms who understand cost summary and analysis concepts, and apply understanding to calculate costs of producing crops are best positioned to: make wise production, marketing, risk management and other management decisions; and achieve farm and family objectives and goals.
- Alternative cost summary and analysis approaches exist.

Background

Cost of crop production information is valuable to the owner of a cash grain farm looking to answer the following questions and others.

- What crops should I produce?
- When developing a marketing plan, what should my price targets be?
- What production practices should I employ – for example, conventional or reduced tillage practices, a standard or intensive wheat management system?

To best use cost of crop production information, farm business owners should understand two important aspects of costs of production.

First, recognize and understand that a number of cost of production measures exist for a given enterprise, goods or services. Costs can be grouped in a variety of ways – variable and fixed, operating and ownership, cash and non cash are examples. There is no single cost of production. One has to be clear about what is being included.

Second, recognize and understand the different methods used to calculate costs. Is the measure calculated from farm records using enterprise cost summary and analysis? Or, is the measure calculated from farm records using a whole farm method?

Cost Concepts

Costs of production are defined as the value of resources used in the production of goods and services. Traditional resource groupings include land, labor, and capital, where capital is described for its ability to purchase inputs other than land and labor. Labor includes hired family and nonfamily, unpaid family, and operator labor. Examples of goods and services include corn, wheat, soybeans, and custom services among others.

The enterprise cost accounting approach allocates costs to the production of goods or services. Some costs are easier to allocate to a particular enterprise than others. For example, accrual operating expenses such as fertilizers, seeds and plants, and chemicals among others are relatively easy to allocate to corn grain production. Machinery and equipment expenses, both fixed and variable, and labor expenses are more difficult to allocate. Various methods exist for allocating costs including a method that is based upon the hours of use by enterprise.

The whole farm method allocates costs to an enterprise using accrual receipt and expense information from the business' income statement. For example, to estimate the total cost of producing a bushel of corn grain, make the following calculation.

Total cost of producing corn grain = Total costs for the business – Accrual, non corn grain receipts

Dividing by corn grain produced (accrual basis) yields a per bushel measure. Note, use of the word "estimate" above.

An Illustration of the Whole Farm Method

Consider a 1,000 acre representative farm producing corn grain and soybeans. Selected information from the

(Continued on page 8)

Costs of Crop Production - Cash Grain Farms

(Continued from page 7)

farm's annual accrual income statement follow.

- Accrual receipts total $665,861 with corn grain accounting for $444,835 of the total, and soybeans the remainder.
- Accrual operating expenses total $440,026, while depreciation expense is $29,452.

If the value of the operator's labor and management is $50,000 and interest on average equity for the year as an opportunity cost is $21,694, then total costs are $541,172.

Subtracting accrual receipts for soybeans (the non corn grain receipts), $221,026, from total costs for the business, $541,172, and dividing by bushels of corn produced, 85,600, yields an estimate for the total cost of producing a bushel of corn of $3.74. For soybeans, subtracting accrual receipts for corn grain (the non soybean receipts), $444,835, from total costs for the business, $541,172, and dividing the result by bushels of soybeans produced, 18,267 bushels, yields an estimate for the total cost of producing a bushel of soybeans of $5.27 per bushel.

Remember these are estimates derived from the business' income statement. The producer who is not comfortable with estimates from the whole farm method can utilize enterprise cost summary and analysis methods to more accurately calculate costs for their business.

If you would like to discuss using your business' income statement to develop some cost of crop production estimates and, or using enterprise cost summary and analysis to generate costs, please contact me. 585-233-9249 or jjh6@cornell.edu

Cold Weather Calf Care by Margaret Quaassdorff

A calf is born with only 2-4% fat as a percentage of its bodyweight. According to the NRC 2001 guidelines, at temperatures below 50°F, young calves begin to experience cold stress (Scibilia, 1987). Being November, calves have already been subjected to those low temperatures that cause the calf to expend extra energy to stay warm.

Straw is the best choice for bedding calves in the cold winter months, and specifically when the daytime highs or night time lows are below the thermo-neutral zone for a young calf. The amount of straw used matters because we want calves to be able to snuggle down in the straw to insulate themselves from the ground and surrounding cold temperatures. Wood shavings are a great summer bedding, but they do not do much for insulation in the cold. Researchers in Wisconsin looked at three different nesting scores to determine the prevalence of respiratory disease in calves. The idea is that, if a calf can easily maintain body temperature, it is not using valuable energy to stay warm, when it should be using it to maintain its immune system and for growth. When lying down, calves should have their legs completely covered by bedding (Lago et al., 2006); a score of "3" in *Figure 1*. Refer to *Figure 1* to see comparative nesting scores. Remember to add bedding frequently as straw is capable of holding moisture, and can chill a calf.

Deep straw bedding is necessary in both calf barn and hutch housing systems. It is also true that calves should have proper ventilation, which is especially critical in calf barns. It can be tricky to get the proper ventilation setup to avoid respiratory disease or drafts on calves, so make sure to reach out to extension if you would like further consultation or design resources.

Another way to keep calves from burning excess energy to stay warm is to provide preweaned calves with a jacket. A good rule of thumb is to start using jackets when the day time high temperature and the night time low temperatures cease to add up to 100 degrees. As a reminder, calf jackets should only be placed on calves who are completely dry. They should also be replaced when the jacket becomes wet or dirty. A wet blanket, or a dry blanket on a wet calf, traps moisture which will chill the calf and make it susceptible to sickness.

Per usual, make sure that calves always have access to clean water, even if it means having to break the ice, or serve warm water multiple times a day. For extra energy, increasing the volume of milk or milk replacer, or increasing the amount of solids (typically, not higher than 15% to avoid nutritional scours) to each feeding, or adding a third feeding mid-day are other good strategies to implement in the winter months.

In conclusion, using calf jackets, combined with deeply bedded straw, good ventilation and proper nutrition will result in healthier calves and maintained growth rates through the cold season.

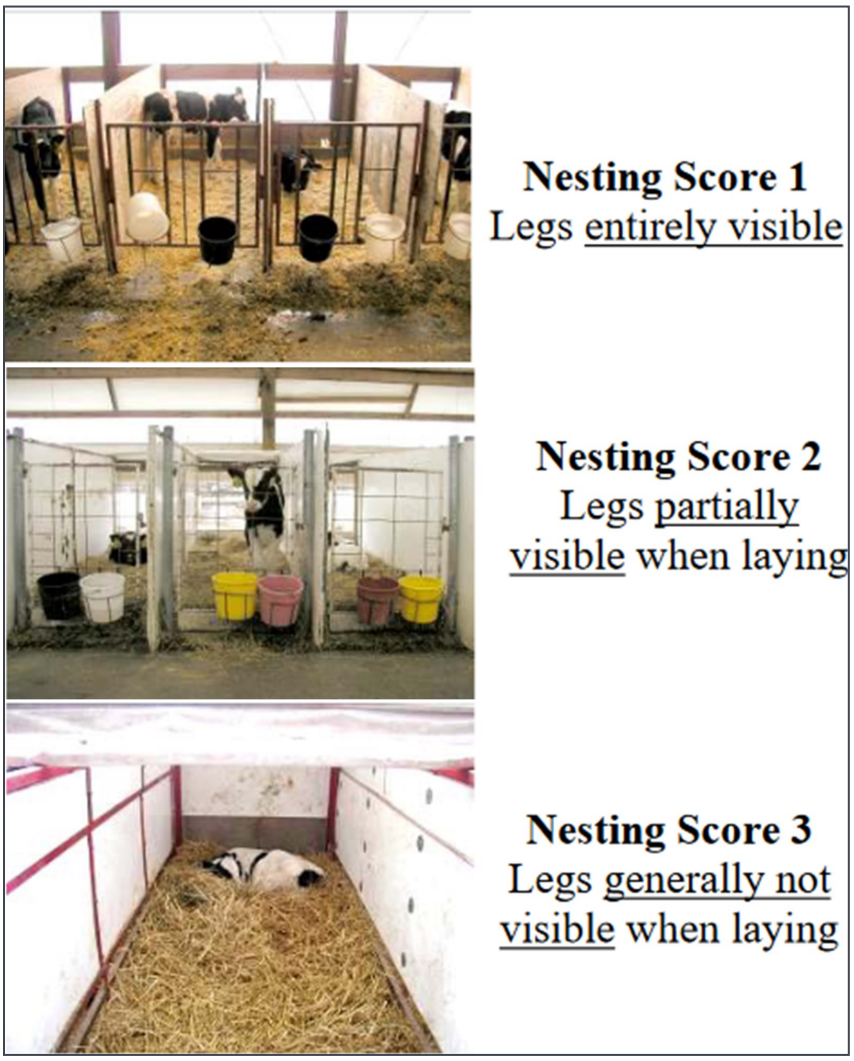


Figure 1. From Lago et al., 2006. Providing calves with deep enough bedding to fully nest in, helps to maintain core body temperature, and to use energy to grow and fight disease.

Seed Corn Maggot, Stand Losses and the Need for Insecticide Seed Treatments

by Elson J. Shields, Entomology, Cornell University, Ithaca, NY

Seed corn maggot, *Delia platura,* (SCM) is the primary NY pest attacking large-seeded crops during germination. These crops include corn, soybean and edible beans. One of the difficulties in managing this pest is the unpredictability of the infestations, the lack of an insecticide rescue option and the lack of flexibility to compensate for crop stand losses.

SCM adult flies, looking similar to small house flies, are attracted to fields with high organic matter within the plant zone, and lay their eggs close to germinating crop seeds. The newly hatched larvae attack and feed on the germinating seeds and young emerging plants. In NY, the frequent use of animal manures and cover crops known as green manure crops increases the attractiveness of the fields to SCM. The short and cool NY growing season encourages growers to plant their crops as early as possible to be able to harvest profitable yields. This early planting of seeds into cold soils results in slow and delayed emergence which increases the window of vulnerability to SCM damage. In these situations, stand losses can exceed 50% due to the attractiveness of the organic matter, resulting in a high level of eggs being laid around the germinating seeds.

Under NY growing conditions, measurable yield losses in corn start to occur between 10-20% stand losses. The magnitude of the yield loss is dependent on the corn variety, degree-day maturity requirements and the subsequent growing conditions which influence the ability of the undamaged plants to compensate for the damaged plants. Due to the short growing season in NY, the decision to replant the field is seldom an option due to the additional expense of replanting (ca. $130/ac) and the yield reductions associated with shorter season corn variety required to be planted for maturity to be completed before killing temperatures in the fall. Typically, if the surviving corn stand has less than a 40% stand loss, the resulting yield loss is less costly than the combined cost of replanting and yield decline associated with late planting.

2021 Field Study in Aurora, NY

A study was initiated to examine the impact of SCM and the necessity of insecticide seed treatments on corn grown under continuous corn culture with minimal organic matter and corn following a green manure cover crop with high organic matter.

Seed corn maggot. Photo by: M. Stanyard/CCE NWNY Team

Experimental design:

The continuous corn site had been planted to corn for 7 years prior to the 2021 growing season. Previous corn crops had been harvested as grain and soil tillage was restricted to spring chisel plowing. Crop residue was minimal and planting in 2021 was achieved using a 4-row no-till planter. The cover crop site was planted to red clover in 2020 and the clover crop was retained as a green manure crop. Prior to planting the cover crop site to corn, the clover was mowed, liquid dairy manure was applied to the surface and the soil was chisel plowed to prepare the seed bed for planting. Planting in 2021 utilized a 4-row no-till planter. Each area was planted on a weekly basis yielding 6 different sequential planting dates. Each row of the 4-row planter contained a different treatment and the plots for each planting date were comprised of a single planter pass in the continuous corn and two planter passes in the cover crop site. The following treatments were planted as single rows within each planter pass. 1) conventional corn (non-Bt-RW) with no seed applied insecticide, 2) conventional corn (non-Bt-RW) with seed applied insecticide, 3) Bt-RW corn with no seed applied insecticide and 4) Bt-RW corn with seed applied insecticide. Each planting date was replicated four times at each location. Data collected included stand counts after the plants were V3-4 growth stage and excavation of the missing plants to document the reason for the missing plant.

(Continued on page 12)

Seed Corn Maggot, Stand Losses and the Need for Insecticide Seed Treatments

(Continued from page 11)

Results:

Continuous corn site:

At the continuous corn site, the experimental design allowed 24 planting pairs (corn type x presence/absence of seed applied insecticide) for comparison and analysis. Fourteen of the 24 planting pairs (58%) suffered stand losses in the untreated seed row from seed corn maggot ranging from 2% to 66% stand loss. If the 10% stand loss/yield loss threshold is used, then nine of the 24 planting pairs (38%) indicated economic yield losses in the non-seed applied insecticide treatments. If 14% stand loss/yield loss threshold is used, then eight of the 24 pairs (33%) indicated economic yield losses in the non-seed applied insecticide treatments. If the 20% stand loss threshold is used, then six of 24 (25%) planting pairs indicate economic losses in the non-seed applied insecticide treatments. Four of the planting pairs had greater than 40% stand losses in the non-seed applied insecticide treatments.

Corn following cover crop site:

In the corn following cover crop site, the experimental design allowed 24 planting pairs (corn type x presence/absence of seed applied insecticide) for comparison and analysis. Sixteen of the 24 planting pairs (66%) suffered stand losses in the untreated seed row from seed corn maggot ranging from 2% to 62% stand loss. If the 10% stand loss/yield loss threshold is used, then 13 of the 24 planting pairs (54%) indicated economic yield losses in the non-seed applied insecticide treatments. If 14% stand loss/yield loss threshold is used, then nine of the 24 pairs (38%) indicated economic yield losses in the non-seed applied insecticide treatments. If the 20% stand loss threshold is used, then seven of 24 (29%) planting pairs indicate economic losses in the non-seed applied insecticide treatments. Five of the planting pairs had greater than 40% stand losses in the non-seed applied insecticide treatments.

Discussion:

The following values were estimated for 2021 from three different regions of NY. These values were estimated by regional experts.

Region	Silage value	Representative Yield	Value/ac
NNY	$40/ton	17 tons/ac	$680
CNY	$38/ton	20 tons/ac	$760
WNY	$47/ton	20 tons/ac	$940

In all three regions, a one-ton silage loss per acre in yield equals eight-times the cost of the insecticide seed treatment. A one-ton reduction in silage is approximately 5% loss in yield which equals a $40 loss per acre. If we use the estimate that 1%-5% yield losses began at a 10% stand loss ($8-$40 in lost silage), then it is economically beneficial for the farmer to utilize an insecticide seed treatment costing $5 per acre to prevent the loss.

Continuous Corn:

Research data collected in controlled studies during 2021 at the Cornell Musgrave Farm located in Aurora, NY shows that in continuous corn production, seed corn maggot economically damaged 38% of the non-insecticide seed treated plots ranging from 10% to 66% stand losses. If we estimate a 10% stand loss equals a 1-5% yield loss, then the value loss to the farmer is $8-$40/acre.

The cost to the farmer to protect his yield loss with insecticide seed treatment is $5/acre and therefore it is economically viable to spend $5 per acre to protect yield losses ranging from $8 to $400 per acre on 38% of a farm's acreage. If we estimate a 20% stand loss results in a greater than 5% yield loss, then 25% of the fields will suffer losses greater than $40 per acre. These losses would be economically devastating to a farmer, where the farm loses yield on 38% of their acreage ranging from $40/ac to $400/ac. Since predicting which fields will be attacked by seed corn maggot prior to planting is difficult and imprecise, the prevention of yield losses ranging from $40-$400/ac on 25% of the acreage easily compensates and is economically justified for the cost of the insecticide seed treatment for all acres.

Corn following a Cover Crop:

Research data collected in controlled studies during 2021 at the Cornell Musgrave Farm located in Aurora, NY

(Continued on page 13)

Seed Corn Maggot, Stand Losses and the Need for Insecticide Seed Treatments

shows that in corn production following a cover crop, seed corn maggot economically damaged 54% of the non-insecticide seed treated plots ranging from 11% to 62% stand losses.

If we estimate a 10% stand loss equals a 1-5% yield loss, then the value loss to the farmer is $8-$40/acre. The cost to the farmer to protect his yield loss with insecticide seed treatment is $5/acre and therefore it is economically viable to spend $5 per acre to protect yield losses ranging from $8 to $400 per acre on 54% of a farm's acreage. If we estimate a 20% stand loss results in a greater than 5% yield loss, then 33% of the fields will suffer losses greater than $40 per acre. These losses would be economically devastating to a farmer, where the farm loses yield on 54% of their acreage ranging from $40/ac to $400/ac. Since predicting which fields will be attacked by seed corn maggot prior to planting is difficult and imprecise, the prevention of yield losses ranging from $40-$400/ac on 33% of the acreage easily compensates and is economically justified for the $5 per acre cost of the insecticide seed treatment for all acres.

Conclusions:

This 2021 research data indicates the level of potential economic losses by NY corn farmers if seed applied insecticide is not available for use. In NY, replanting after stand losses from SCM is not a viable economic option in most situations due to the short NY growing season. The farmer is required to suffer yield losses due to reduced stand because replanting is seldom a viable economic option.

These data document the increased risk of economic stand losses from SCM when the farmer plants corn after a cover crop/green manure crop, which is utilized in soil building and nutrient retention over the winter months. These data also indicate why the attempts to have farmers adopt cover crops in the 1990's, were not successful due to SCM related stand losses in the corn crop planted following the cover crop. Adoption of cover crops to build soil health and nutrient retention was not successful until corn seed was treated with a seed-applied insecticide to prevent stand losses in cropping situations where SCM pressure was increased. Given that conservation practices such as reduced tillage and planting cover crops to reduce erosion and runoff are not only encouraged but also incentivized in NY State, it is important to understand that in the absence of these seed protectants, farmers may revert to planting fewer cover crops to avoid losses to SCM.

We thank NY Farm Viability Institute, Cornell CALS and Cornell Agricultural Experiment Station for their research support for this ongoing study focused on identifying alternative management strategies for SCM.

Cornell Cooperative Extension

FARMER TAX $CHOOL

An educational series from Cornell Cooperative Extension Farm Business Management Specialists offering courses designed to inform and empower farm managers to better understand their tax obligations, management strategies, and improve farm profitability.

Register online by visiting: tinyurl.com/ccetaxschool

Farm Financial Records for Decision Making & Tax Management

Thursday, December 2nd
7:00pm - 9:00pm
$10 per farm

A primer for beginning farmers, or a tune-up for those already in production, on recording income and annual expenses, capital expenditures and depreciation with additional information covering loans & credit card or revolving loan payments, sales of business assets, and deducting losses.

Tax Management for Beginning and Small Farm Businesses

Tuesday, January 18th
7:00pm - 9:00pm
$10 per farm

A one-night virtual meeting for beginning and part-time farmers that provides useful tax information enabling participants to be make better tax decisions for their business. Federal and state income taxes will be covered. Tax regulations specific to NYS will be covered as well.

Farm Specific Tax Code Benefits

Tuesday, January 25th
7:00pm - 8:30pm
$5 per farm

For farm businesses of all shapes and sizes, tune in to learn more about the tax advantages available for farms. This workshop will include information for the current tax season.

COVID-19 - Herd Immunity - Vaccination - Delta Variant - It's All So Confusing by Joan Sinclair Petzen

Our world and our families have been on a new journey for eighteen months now. COVID 19 was something few of us had any awareness of before March of 2020. In the time since then, the pandemic raged across the world and in our hometowns making people sick, stressing health care systems, and taking lives.

Early on we began to hear about herd immunity and how that was important to prevent mutations that would continue the spread of this ravaging disease. One of the keys to herd immunity would be vaccination. Now, the new Delta variant infects new populations of both the young and the old. We are hearing about breakthrough infections. So, what is the best choice for me, my loved ones, employees, and our community?

Let's first define herd immunity. According to an August 27, 2021, article from the American Medical Association, "Herd immunity occurs when a significant portion of a population becomes immune to an infectious disease, limiting further disease spread. For those who are not immune, they are indirectly protected because the ongoing disease spread is small." One virologist, Peter Hortez, MD, PhD at Balor College of Medicine and Texas Children's Hospital has stopped using the term. Rather Dr. Hortez, "started saying that these are the levels of vaccination we need to get to in order to start slowing or even halting virus transmission."

With the Delta variant having higher transmission rates than the earlier COVID, it means the percentage of people infected and recovered—and therefore are partially immune—or vaccinated to achieve community protection will need to be higher. Dr. Hortez suggests that level now needs to be 85% of the population or all adults and adolescents, because younger children are not eligible to receive the vaccine yet.

Breakthrough infections, those occurring in people who have already been vaccinated are on the rise. However, Yale News reported, based upon Centers for Disease Control (CDC) data through August 30th less than 0.008% of fully vaccinated individuals in the United States have been hospitalized or died from a severe case of COVID-19. "Studies so far show that vaccinated people are 8 times less likely to be infected and 25 times less likely to experience hospitalization or death. Vaccines remain effective in protecting most people from COVID-19 infection and its complications," according to the CDC.

Local county health departments and pharmacies continue to offer vaccination clinics at their offices. For information on upcoming clinics or to register for a clinic visit reach out to your local county health department or pharmacy either on-line or with a phone call to learn how one can register to receive a vaccination or for some a booster. Many Cornell Cooperative Extension offices continue to have limited supplies of cloth masks and NY Safe Hand Sanitizer available for distribution. Please contact your local office to arrange to pick up supplies if needed.

References:

Berg, S. What doctors wish patients knew about COVID-19 herd immunity. American Medical Association. August 27, 2021. Accessed September 22, 2021. https://www.ama-assn.org/delivering-care/public-health/what-doctors-wish-patients-knew-about-covid-19-herd-immunity.

Locklear, M. Study examines severe breakthrough cases of COVID-19. Yale News. September 7, 2021. Accessed September 22, 2021. https://news.yale.edu/2021/09/07/study-examines-severe-breakthrough-cases-covid-19.

The Possibility of COVID-19 After Vaccination: Breakthrough Infections. The Center for Disease Control and Prevention – COVID-19. September 7, 2021. Accessed September 22, 2021. https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html.

$$$$$ WE BUY MACK, FREIGHTLINER, PETE, KENWORTH, Etc. TRUCKS and CAT, KOMATSU, CASE, HYUNDAI, IR, Etc. CONSTRUCTION EQUIPMENT

CALEDONIA DIESEL, LLC

2905 Simpson Road • Caledonia, NY 14423

585-538-4395 www.caledoniadiesel.com

OVER 325 TRUCKS AND OVER 150 PIECES OF CONSTRUCTION EQUIPMENT

2013 PETERBILT 348 VACUUM TRUCK; Paccar PX8 350 HP; 10-Spd. Manual; Clean, Double Frame w/2,940 Gallon Tank; Air-Trac Suspension; 20K Front Axle; 46K Full Locking Rears; 4.30 Ratio; 256" WB; Vacuum System Can Be Removed. 2016" Frame Behind Cab; 186" CT; 97,334 Miles; Stk. # 6325 - **$46,900**

2009 WESTERN STAR 4900; Detroit Diesel 430 HP; Jakes; Allison 4500 Auto. Trans. w/PTO; Double Frame Cab & Chassis; 20K F/A; 69K Triple Locking Rears; Neway Air Ride; 312" WB; 368" Bridge measurement; 31' Frame Behind Cab; 61,745 Miles; Stk. # 6353 - **$59,900**

2013 KENWORTH T800; Cummins ISX 600 HP; 18-Spd. Manual; Double Frame; 244" WB; 20K Front Axle; 46K Full Locking Rears on Hendrickson Air Ride Suspension; 3.73 Ratio; 2-Spd. Auxiliary Transmission; 164" CT; 176" Frame Behind Cab; 545,546 Miles; Stk. # 6321 - **$54,900**

2011 PETERBILT 37 TANK TRUCK; CAT 475 HP; 18-Spd. Manual; 20K F/A; 46K R/A; 19K Steerable Tag; 265" WB; 175" CT; 4,200 Gal. Tank w/Fruitland Pump; WILL SELL JUST CHASSIS; 326K Miles; Stk. #5963 - **$61,900**

2007 PETERBILT 357 CRANE TRUCK; 430 HP CAT C13; 8LL Manual Trans.; Double Frame; Terex BT4792 23.5 Ton/ 92' Reach Crane w/4-Outriggers; 36" Bunk; 18' Steel Deck; 20K Front; 40K R/A; Steerable Lift Axle; 216" WB; 105,127 Miles; Stk. #6298 - **$71,900**

2012 MACK GU813; Mack MP7 395 HP; 13-Spd.; Double Frame Flatbed w/Hab 288SP Hi Pro Knuckleboom Crane w/Remote; 24' Steel Deck; 20K Front Axle; 44K Rears on Camelback Susp.; 20K Rear Mounted Lift Axle; 246" WB; Crane Can Be Removed; 28' Frame Behind Cab; 200" CT; 387,637 Miles; Stk. # 6388 - CALL

2011 KENWORTH T800 WATER TANKER TRUCK; Cummins 425 HP; w/9,226 Gallon Advance Steel Tank and Pump; 250" WB; 16K Front Axle; 46K Full Locking Rears on Hendrickson Air Ride; 4.30 Ratio; We Will Separate the Tank from the Chassis; 21' Frame Behind Cab; 172" CT; 48,978 Miles; Stk. # 6354 - **$58,000**

2007 PETERBILT 357; 475 HP CAT C15; 18-Spd Manual; Clean Daycab w/Tulsa Winch; 20K F/A; 46K Full Locking Rears; Chalmers Susp.; 224" WB; 496,503 Miles; Stk. #6241 - **$39,900**

2003 KENWORTH T800; 475 HP CAT C15 6NZ Turbo; 8LL Manual Trans.; Clean Daycab w/12,800# Front Axle; 46K Rears On KW 8-Bag Air Ride; 4.11 Ratio; 186" WB; Wetline; 447,898 Miles; Stk. #5925 - **$49,900**

2004 & 2003 PETERBILT 378 TRI-AXLE DUMP TRUCKS; 475 HP CAT C15 Single Turbo; 18-Spd. Manual; 20K F/A; 44K R/A; Air Trac Susp.; Double Frame; 21' Aluminum Box; Airlift Tag; 540,000 Miles; Stk. #6345/6346 - CALL FOR PRICE

1999 MACK RD688S DUMP TRUCK; 400 HP Mack E7; Engine Brake; 8LL Trans.; Rubber Block Susp.; Tri-Axle; 19' Steel Body; 20,000# F/A; 46,000# R/A; 22.5 Tires; 248" WB; Spoke Wheels; EXPORT PRICED!!!!; 777,148 Miles; Stk. #5902 - **$19,500**

2009 KENWORTH T800 FLATBED; CAT 335 HP; 10-Spd. Manual; Clean Double Frame Flatbed Truck w/Palfinger PK11001 Rear Mounted Knuckleboom; 42" Forks; 20K Front Axle; 44K Full Locking Rears on Neway Air Ride; 23' x 96" Aluminum Deck; 4.63 Ratio; 270" WB; 192" CT and 24' Frame Behind Cab; Flatbed & Knuckleboom Can Be Removed; 278,458 Miles; Stk. # 6308 - **$48,900**

2005 PETERBILT 357 6x6; Clean Double Frame 240" Flatbed Truck; CAT 350 HP; 8LL Trans.; 23K F/A; 46K Full Locking Rears; 425/65R22.5 Tires; Hendrickson Haulmaax Susp.; 5.65 Ratio; 288" WB; 210" CT; 30" Frame Behind Cab; Will Separate Bed From Chassis; 174,108 Miles; Stk. #5701 - **$49,900**

2005 KENWORTH T800 FLATBED; CAT 335 HP; Double Frame Flatbed Truck; 20K F/A; 44K Full Locking Rears; 21'6" x 96" Steel Deck; 5.29 ratio; 244" WB; Hendrickson Susp.; Flatbed Can Be Removed; 19' Frame Behind Cab; 162" CT; 12,584 Hours; 137,760 Miles; Stk. # 6323 - **$49,500**

2005 PETERBILT 357 CAB & CHASSIS; Cummins 370 HP; Engine Brakes; 8LL Manual Trans.; Quad-Axle w/Double Frame; 18K F/A; 44K Full Locking Rears; (2) 11K Steerable Lift Axles; Air Trac Susp.; 22' Frame Behind Cab; 212" CT; 302,500 Miles; Stk. #5831 - **$43,500**

2008 PETERBILT 367; Cummins ISX 485HP; Allison Auto. Trans.; Clean Single Frame Dump Truck w/15' Steel Body w/3' Sides and 1' Sideboards; Tarp; 14,300# F/A; 46K Locking Rears on Air Trac Susp.; 204" WB; Plumbed for Pup Trailer; Engine Had Complete Rebuild (Paperwork Included); 383,992 Miles; Stk. #6264 - **$52,900**

2008 PETERBILT 340 DUMP TRUCK; Paccar PX8 330 HP; 13-Spd. Manual; Double Frame; 19' Heated Steel Body; 20K Front Axle; 20K Lift; 46K Full Locking Rears; 246" WB; Tarp; 5.25 Ratio; Air-Trac Suspension; Hitch and Plumbed for Pup Trailer; 214,987 Miles; Stk. # 6342 - **$49,900**

2007 MACK CTP713; 370 HP Mack MP7; Clean, Low Hour Double Framed Feed Mixer Truck w/Supreme Int'l, Inc. 1400T Feed Mixer; Digi-Star EZ3400 Scale System; Allison Auto. Trans.; 20K F/A; 46,400# R/A; Camelback Susp.; 264" WB; 198" CT; 24'6" Frame; 79,280 Miles; Stk. #6363 - **$104,900**

2010 WESTERN STAR 4900FA; Detroit Diesel Series 60 14.0L 495 HP; 18-Spd. Manual; Clean Fuel Tanker Truck w/3,550 Gal. Hannis Steel Tank & Pump; 245" WB; 14,700# Front Axle; 44K Full Locking Rears on AirLiner Susp.; 3.90 Ratio; We Will Separate Tank from the Chassis; 20' Frame Behind Muffler; 158" CT; 223,505 Miles; Stk. # 6384 - **$53,900**

2007 MACK CTP713; Mack MP7 370 HP; 10-Spd.; Clean Cab & Chassis; 18K Front Axle; 46K Locking Rears; Air Ride Susp.; 270" WB; 172" CT; 21' Frame Behind Cab; 118,186 Miles; Stk. # 6369 - **$47,250**

2012 KENWORTH T400 FEED MIXER; 330 HP Paccar PX-8; Allison Auto. Trans.; Clean Double Frame Feed Mixer Truck w/Kuhn Knight Profeed 7011D Feed Mixer; Digi-Star EZ3600 Scale System; 18K F/A; 46K Locking Rears; Hendrickson HN Susp.; 244" WB; 176" CT; 23'3" Frame; 7.17 Ratio; 59,926 Miles; Stk. # 6364 - **$79,900**

2006 WESTERN STAR 4900 TANDEM TRI-DRIVE CRANE; 550 HP CAT C15; Double Frame; Tri-Drive, Twin Steer Truck w/Tires; Stinger TM7571 Crane w/House; 37.5 Ton Capacity; 71' Reach; 36" Bunk; (4) Stabilizers; 36K F/A; 57K Triple Locking Rears; Fifth Wheel; 408" Bridge Measurement; 456 Ratio; 32.5 Ton Lift Block; 221,495 Miles; Stk. #6361 - **$72,900**

2004 KENWORTH W900; 335 HP CAT C10 Engine; 8LL Trans.; Cab & Chassis; 20K F/A; 46K Full Locking Rears; 252" WB; 21' Frame Behind Cab; 150" CT; 4.89 Ratio; Haulmaax Susp.; 118,703 Miles; Stk. #6075 - **$29,900**

2001 INTERNATIONAL 5600i 6x6 CRANE; 435 HP Cummins N14; 10-Spd. Manual; Double Frame; Pitman Hydra-Lift HL1580 7-Ton/ 65' Crane; 4-Outriggers; 20'x8'6" Flatbed; 20K F/A; 46K R/A; Hendrickson HN Susp.; 244" WB; 184" CT; 25'3" Frame Behind Cab; 158,174 Miles; Stk. #6299 - **$49,900**

$$$$$ WE BUY MACK, FREIGHTLINER, PETE, KENWORTH, Etc. TRUCKS and CAT, KOMATSU, CASE, HYUNDAI, IR, Etc. CONSTRUCTION EQUIPMENT for $$$$$

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

Nonprofit Org.
U.S. POSTAGE
PAID
Permit No. 298
Rochester, NY

Postmaster:
Dated Material
Please Expedite

>> UPCOMING EVENTS <<

December 2021

African Swine Fever - What Does it Mean for You? - December 1, 2021 from 7:00pm - 8:00pm virtual meeting. Join us for a virtual discussion on the status of and risks facing New York pig farms from African Swine Fever (ASF). Eireann Collins, DVM, NYS Department of Agriculture and Markets will be covering the symptoms of ASF and what would happen if the disease reached the US. This will be a short presentation with ample time for questions and answers.

Register online, https://bit.ly/3DRwrrP. For more information contact Nancy Glazier at 585-315-7746 or nig3@cornell.edu.

This educational meeting is supported by NYS Department of Agriculture and Markets, Cornell Cooperative Extension Livestock Program Work Team and New York Pork Producers Cooperative.

Farm Financial Records for Decision Making and Tax Management - December 2, 2021 from 7:00pm - 9:00pm online via Zoom. $10/farm. A primer for beginning farmers, or a tune-up for those already in production. See page 13 for more information or visit www.tinyurl.com/ccetaxschool.

January 2022

Save the Date: 2022 Corn Congress - January 5 & 6, 2022. More information coming soon!

Tax Management for Beginning and Small Farm Businesses - January 18, 2022 from 7:00pm - 9:00pm online via Zoom. $10/farm. See page 13 for more information or visit www.tinyurl.com/ccetaxschool.

Farm Specific Tax Code Benefits - January 25, 2022 from 7:00pm - 8:30pm online via Zoom. $5/farm. See page 13 for more information or visit www.tinyurl.com/ccetaxschool.

February 2022

Save the Date: 2022 Soybean & Small Grains Congress - February 9 & 10, 2022. More information coming soon!