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Cornell Cooperative Extension

Southwest NY Dairy, Livestock and Field Crops Program

swnydlfc.cce.cornell.edu

CROPS COWS & CRITTERS newsletter

A partnership between Cornell University and the CCE Associations of Allegany, Cattaraugus, Chautauqua, Erie and Steuben Counties.

The **Equal Education and Employment Opportunity Statement** is our university commitment to a welcoming and supportive community for students, faculty and staff.

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Photo by Amy Barkley

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Newsletter layout and design by Katelyn Walley-Stoll.

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CROPS COWS & CRITTERS newsletter

For accommodations or accessibility concerns, please contact our specialists at least one week prior to the scheduled event. If you need information provided in a different format, call 585-268-7644 ext. 10.

Events and Funding Opportunities

By Kate McDonald Polakiewicz, Farm Business Management, SWNYDLFC Team

In case you missed them in our emailed newsletters, here are some events and funding opportunities happening during the months of November and December.

Dairy Farm Improvement & Modernization Grant Opens to Northeast Farmers

Dairy farmers across the Northeast can now apply for this grant through the Northeast Dairy Business Innovation Center (NE-DBIC). Awards will range from $15,000 – $100,000 with a 25% in-kind and/or cash match contribution. The grant will support a wide range of projects aimed at improving farm viability, milk quality, worker conditions, economic sustainability, and climate resilience. The application deadline is December 4, 2025 at 2pm.

Northeast SARE Farmer Grant Question and Answer Sessions

Q&A Sessions for the Northeast SARE Farmer Grant program are taking place from 12-1 p.m. EST on November 18 and 25. The grant program is currently calling for proposals for projects up to $30,000 beginning in March 2026 to fund projects that explore innovative concepts in sustainable agriculture conducted through experiments, surveys, prototypes, on-farm demonstrations or other research techniques. Proposals are due December 9, 2025 at 5pm.

https://northeast.sare.org/news/call-for-2026-farmer-grant-proposals-now-open/

Applications Open for Grants from Dairy's Foundation

Dairy associations, nonprofits, and educational organizations are invited to apply for grants of up to $10,000. Dairy's Foundation is accepting applications through December 1, 2025, to support new programs in the dairy industry that raise the next generation of professionals, grow public support for the industry, and build skills of dairy producers.

https://dairyfoundation.org/grant-seekers/

Check out these events and funding opportunities happening during the months of November and December.

CROPS COWS & CRITTERS newsletter

Kate McDonald Polakiewicz is available to point you in the right direction.
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The Tillage Toolbelt: Pest Management

By John Pirrung, Field Technician, SWNYDLFC Team

Rounding out the final article in this series on till vs no-till, we're finally focusing on how your tillage decisions can impact the pest pressures on your farm. Pests, in the broadest sense, include weeds, insects, and diseases; each of these will require different management tactics and will respond differently to your tillage practices. How growers choose to till (or not) can shift the pest risk profile, improving control of one pest while potentially turning another into a bigger challenge. On top of all of this, it's important to consider beneficial organisms like pollinators and how management decisions impact them as well.

WEEDS:

Tillage

Benefits:

- Tillage buries weed seeds deeper, which can reduce germination of shallow-emerging species
- Mechanical disruption kills many existing weeds and exposes weed seed banks to predation or decay

Challenges:

- Tillage can bring buried seed banks closer to the surface, potentially resurfacing species with high seed longevity (ex. Lambsquarters)
- Weeds that reproduce with rhizomes may require several passes of mechanical disruption to be properly controlled (ex. Canada Thistle, Bindweeds, Johnsongrass)

No-till

Benefits:

- Weed seeds remain near the soil surface where decay and predation by insects/rodents can be higher
- Soil surface residue can physically suppress weed emergence and can delay germination by keeping soil cooler for longer

Challenges:

- The species spectrum of weeds can shift, favoring small-seeded weeds and shallow-germinating species
- Reduced disturbance means that some weeds, especially creeping perennials, can be more difficult to control, even with herbicides

Tips for Growers

If switching to no-till, plan to take inventory of your weed seed bank, emphasize early-season weed control (ex. herbicide burndown), and expect a shift in prominent weed species.

INSECTS (& OTHER ARTHROPODS):

Tillage

Benefits:

- Tillage physically disrupts soil-dwelling or residue-inhabiting insect pests by, for example, burying or destroying overwintering stages
- By eliminating a protective residue layer, habitat for organisms such as slugs is reduced, exposing them to predators

Challenges:

- The same disruption and removal of residue can also reduce habitat and refuge areas for beneficial predators and pollinators

No-till

Benefits:

- No-till fields are often accessible sooner after rainfall events, allowing for more timely herbicide application
- A habitat composed of residue and cover crops can enhance insect biodiversity, increasing natural pest suppression

Challenges:

- Some pests may increase or have their emergence periods change because of cooler, wetter soils that favor their survival

Tips for Growers

In a low- or no-till system, plan for thorough insect scouting, pay attention to habitats for both pests and beneficials, and aim to integrate residue management, crop rotation, or cover crops to manage insect populations.

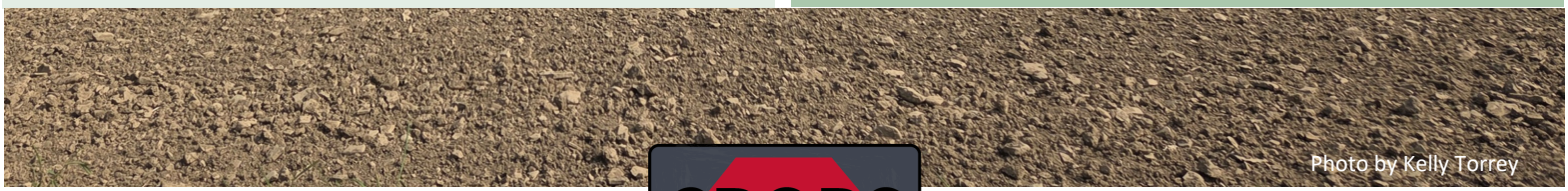


Photo by Kelly Torrey

If switching to no-till, plan to take inventory of your weed seed bank, emphasize early-season weed control (ex. herbicide burndown), and expect a shift in prominent weed species.

In a low- or no-till system, plan for thorough insect scouting, pay attention to habitats for both pests and beneficials, and aim to integrate residue management, crop rotation, or cover crops to manage insect populations.

DISEASES:

Tillage

Benefits:

- Incorporating and burying crop residue reduces surface inoculum for some foliar or residue-borne diseases
- Earlier soil warming and drying in tilled fields may make the environment less favorable for pathogens that prefer cool and wet soils

Challenges:

- Intensive tillage can damage soil structure and microbial communities, potentially reducing natural disease suppression capacity over time

No-till

Benefits:

- A more stable soil environment with higher microbial activity may support natural disease suppression through increased microbial abundance and diversity
- Leaving residue can help retain organic matter, supporting more habitat for beneficial microbial populations that can suppress pathogens

Challenges:

- Surface residue can act as a reservoir for certain types of foliar pathogens to survive from one season to the next
- Weeds can serve as alternative hosts for some pathogens; since no-till fields can see stronger pressure from many weeds, these can host more pathogens

Tips for Growers

In planning tillage strategy, consider the crop and disease history of the field, and how crop residues are managed; If using no-till, focus on variety resistance and cover crop management, and note that early planting conditions become more important.

Sources

- https://extension.psu.edu/an-introduction-to-weed-management-for-conservation-tillage-systems
- https://extension.umn.edu/soil-management-and-health/reducing-tillage-intensity
- https://extension.unh.edu/blog/2020/10/low-no-till-gardening
- https://extension.missouri.edu/publications/m164
- https://extension.okstate.edu/fact-sheets/print-publications/e/no-till-cropping-system-in-oklahoma-e-996.pdf
- https://extensionpubs.unl.edu/publication/g1516/2009/pdf/view/g1516-2009.pdf

TAKEAWAYS:

When it comes to pest management, tillage decisions are not a binary; rather, any choice will simply change the pest risk profile and thus the necessary management practices.

- **Conventional tillage** gives you mechanical weed knock-down and residue burial (helping some pests/diseases) but it also disturbs soil/residue habitat (potentially harming beneficials) and may shift weed seed banks or damage soil health over time
- **Reduced or no-till** preserves residue, supports soil structure, moisture retention and beneficial organisms, but also may increase risk of certain pests (slugs, wireworms, residue-borne diseases), and shift weed species toward more shallow-germinating types, calling for different weed/insect/disease strategies

HOW SHOULD YOU PLAN?

1. **Assess field history:** What weeds, pests and diseases keep coming back? What is the residue situation, drainage, soil warming?
2. **Design for beneficials:** If reducing tillage, aim to actively build habitat for beneficial insects/pollinators (flowering strips, cover crops, buffer zones, etc.).
3. **Align tillage choice with integrated pest management (IPM):** Regardless of tillage system, rotation, variety selection, scouting, and timely interventions remain crucial.

Photo by Kelly Torrey

In planning tillage strategy, consider the crop and disease history of the field, and how crop residues are managed.

If using no-till, focus on variety resistance and cover crop management, and note that early planting conditions become more important.

Combine Adjustments to Minimize Corn Harvest Losses

By Ashley Isaacson, Tosh Rung Mazzone, & Zachary Curtis: Penn State Extension

Do you struggle with volunteer corn every year?

Volunteer corn infestations popping up in your crop rotation can reduce crop yield and require additional herbicide considerations. For example, a study conducted in Nebraska found that 1 volunteer corn plant per square meter reduced soybean yield by 22% (Stephens et al, 2024). With widespread planting of stacked herbicide-tolerant corn, additional herbicides are needed to control these undesirables, which may lead to greater costs. Consider adjusting your combine settings to minimize harvest losses and preserve grain yield without sacrificing quality.

To minimize grain loss as much as possible, we must understand where grain losses can occur. Losses can occur both pre-harvest, such as with lodging or lost corn ears on the ground at-harvest, during cutting, threshing, and cleaning. Often, the majority of at-harvest loss occurs at the header, as corn stalks are pulled into the header and transported into the combine. Grain losses are the sum of pre-harvest, or corn on the ground measured before the header, and at-harvest, the kernels left on the ground after passing through the combine.

For information on estimating total grain yield losses, see the University of Nebraska's How to Estimate Harvest Losses in Soybean and Corn Fields. Without checking kernels left on the ground at harvest, it is impossible to know how much grain is lost and if combine adjustments are retaining more grain.

COMBINE ADJUSTMENTS LOSSES AT HEADER

- **Combine Settings** - Adjust the combine to the manufacturer's recommended settings as listed in your user manual. Then, adjust as needed for crop conditions to prevent harvest loss and kernel damage accordingly. Adjust header settings according to the user manual to prevent loss of whole ears.
- **Ground Speed -** The forward speed determines the feed rate of the material into the combine. Operate the combine at a ground speed that matches the crop condition and provides constant flow of material without clogging the threshing mechanism or overloading the combine.
- **Gathering Chain Speed -** Match the gathering chain speed to the ground speed to control the flow of material into the header. This will prevent the displacement of the stalks being pushed forward, pulled backward or sideways, which may result in ear losses. The corn header can also be modified to add brushes, impact pads, or sweeps onto the gathering chain to capture corn kernels. A study by Virginia Tech has found that adding brushes to the gathering chains helped to capture falling corn kernels. They found an additional benefit to the brushes which helped capture large-sized weed seeds, reducing the number of weed seeds from being blown out with the chaff and adding to the weed seedbank.
- **Header and Row Alignment -** Adjust the header to match any variation in the row spacing. Careful planting and auto-steer technologies can help minimize stalk disturbance.
- **Gathering Snouts -** Snouts should be adjusted so that they just touch the ground. If plants are lodged, let snouts float on the ground and reduce ground speed to allow the stalks to be pulled in without losing the ear.
- **Deck Plates -** Ensure deck plates are positioned properly. Common spacing suggested by combine manuals suggests an initial spacing of 1 1/8" at the bottom and 1¼" at the top. Deck plates should be spaced as wide as possible without losing ears or shelling corn off the ear. If kernels are smaller than normal, consider narrowing this spacing to limit shelling losses. If spacing is too wide, butt-shelling may occur where the butt end of the ear contacts the stalk rolls, which results in kernel loss. If adjusting the spacing, be sure to check the adjustment is working as intended.
- **Cross Auger and Feederhouse -** The cross auger delivers the ears to the center of the head, where it enters the feederhouse. Reducing the space from the auger to the feederhouse drum may minimize the buildup of the crop, helping to prevent backfeeding losses.

Continued on page 11 ...

Volunteer corn infestations popping up in your crop rotation can reduce crop yield and require additional herbicide considerations.

You can estimate total potential grain yield losses using a tool that uses your combine settings and seed drop rates.

About Labor Roadshow IX

IN PERSON SESSIONS

In person events will run from 8:30 AM - 4:00 PM.

GREENWICH
DECEMBER 9
Elks Lodge

WATERTOWN
DECEMBER 10
Hilton Garden Inn

GENEVA
DECEMBER 17
Cornell AgriTech

BATAVIA
DECEMBER 18
Genesee Community College

ONLINE SESSIONS

DECEMBER 1 & 22 from 12-2 PM
Zoom webinar platform - access to both webinars is included with one onsite registration!

REGISTRATION INFORMATION

$75/person
Cash, check, and advance online payments will be accepted. Each registration includes onsite programming for one event date, access to two webinars, coffee, refreshments, and lunch provided.

Questions?
About program: cu-agworkforce@cornell.edu
About registration/payment: office@nedpa.org

Event Highlights

AWDC's Labor Roadshow IX will dig deep into pressing issues that every farm employer needs to understand. Dynamic speakers will present and take questions on topics such as the following:

- Immigration and Farm/Family Preparedness
- Compliance Updates
- Unionization
- Employee Engagement and Improving Culture
- Employee Housing Operational Costs
- Pest Management in Employee Housing
- Legality of Employee Monitoring
- How to Interact with Regulators and the Public about Labor Issues

Visit our website for registration information:
agworkforce.cals.cornell.edu/labor-roadshow/

REGISTER NOW!

AWDC
Agricultural Workforce Development Council of New York State

The Labor Roadshow is for farm owners, managers, and ag service providers to get essential updates on labor law, regulations, and workforce best practices.

Attend the in-person session that's closest to you.

It's Always the Nutritionist's Fault!

By Casey Havekes, Betsy Hicks, and Margaret Quaassdorff
Cornell Cooperative Extension Regional Dairy Specialists

The role your nutritionist plays in the success of your dairy goes beyond the diet they put together. Ensuring good communication, having a basic understanding of your diet, and knowing what additives are incorporated and why they are added, can improve performance on your dairy. It is equally important to recognize that herd management also plays a critical role in success as nutrition alone will only take your herd so far.

UNDERSTANDING DIETS

It can be overwhelming when first presented with a diet summary. The nutrient acronyms, dry matter versus as-fed numbers, and the amount of information packed on the sheet can get the best of many dairy producers. Breaking down a diet summary into its main parts is the first step to understanding what the nutritionist has formulated to be put in front of your cows.

On the diet summary, one of the main areas to be spelled out is the description of the cow that the diet is formulated for. Breed, weight, body condition score, days in milk, milk production and milk components are all important factors that go into determining the requirements for that cow's diet. If some of these descriptors are incorrect, having a discussion with your nutritionist to better depict that cow can help you both to dial in to her requirements, which impact the nutrients the nutritionist will want to target.

After requirements are established, the diet summary should list those nutrient parameters, as well as as-fed and dry matter weights for forages and concentrates used in the diet. The main nutrient parameters that dairy producers can look at may vary between nutritionists and software used, but in general the list can include total Dry Matter of the diet (DM%), percent forage in the diet (% Forage), Crude protein (%CP), Rumen Degradable Protein (%RDP), Starch, Sugar, Digestible Fiber (%NDFDom), Fat (%fat or %EE), and mineral and vitamin levels. It is not important for the producer to know how to formulate a diet. Instead, it is important for the producer to understand how the main nutrient numbers may change when there is a diet change, or when comparing two diets for price or performance. Often in lactating diets, changes to the diet should keep certain nutrient parameters static through the diet change, if at all possible. These might include keeping percent fat in the diet the same, rumen degradable protein unchanged, or the addition of starch, sugar and digestible fiber the same even though those three nutrients themselves may differ from the previous diet. Each nutritionist may have a different thought process for moving through a diet change. Talking to him or her about their methods will help you both understand what is most important for each diet in your herd.

Overall, because nutritionists formulate on nutrients and not necessarily ingredients, the total diet nutrient balances for Metabolizable Energy (ME) and Metabolizable Protein (MP) can also be examined. A well balanced diet will show ME and MP levels about level and not over- or under-meeting requirements. Imbalanced levels of ME and MP mean a diet is either limiting response or wasting money. It is important to note that some companies may not tell you the exact ingredient formulation of their grain mix. However, they should be able to give you a diet summary and tell you main diet nutrient numbers, targeted requirements and dry matter intake, as well as any additives that are in the mix.

Lastly, the diet summary should have a portion that describes the cost of the diet alongside the total pounds of dry matter intake. Questions a producer should ask include: Does diet Dry Matter Intake (DMI) match actual Dry Matter Intake average of the group of cows? Does this diet cost include the cost of forages? If so, what are costs included at? Without knowing these numbers, it's almost impossible to accurately compare two diets side-by-side. If the numbers describing intake are incorrect, it's an opportunity to further work with your nutritionist to again dial in to a diet that describes what your cows are eating. If they are correct, you can work towards understanding your total Income Over Feed Costs (IOFC), a number that can be used to help compare the performance of two diets or when making a diet change.

ADDITIVES IN THE DIET

Feed additives function to correct a ration imbalance, magnify a productive or health response, as well as help mitigate underperforming management. Feed additives can play a variety of roles when incorporated into the diet including energy balance, calcium balance, immune function, rumen enhancement, reproduction efficiency, foot health, protein efficiency, and mycotoxin inhibition. Deciding which feed additives are worth incorporating into the diet is typically a decision guided by your nutritionist.

Regardless, it is important to understand what makes each additive a good choice. We can use "The Four 'R' Concept" from Mike Hutjens, Professor Emeritus at the University of Illinois, to help evaluate each additive. The first "R" is response; where you can identify the expected performance changes when the additive is included. Is it supposed to increase milk yield or components? Does it have a positive effect

Evaluate additives using the Four 'R' Concept: Response, Return, Research, Records.

The relationship between the producer and the nutritionist can make or break the herd's productivity.

on dry matter intake, or more efficient rumen function or growth rates? What about overall animal health? The next "R" is return. The additive should have a clear and high benefit-to-cost ratio (>2:1). Some common additives with high benefit-to-cost ratios are anionic salts and similar products (10:1) that are used in DCAD diets to prevent milk fever; biotin (5:1) that promotes hoof integrity; monensin or rumensin (5:1) which improves feed efficiency; yeast culture and yeast (4:1) which has multiple rumen and immune benefits; and rumen protected choline (2:1) to minimize fatty liver in transition cows. In addition, are there other paybacks that are not easily monetized, but have a large proven positive effect (better herd health)? Speaking of proven effects, the third "R" stands for research. For best results only choose feed additives that have unbiased scientific research studies that back up their claims. Your nutritionist should be able to help you find information on this. The final "R" is results from your farms records. Do you see improvements in herd health, pregnancies, fresh cow performance, growth rates, or production performance? If not, check your records and start keeping track of the numbers so that you can make the best decision.

In addition to Hutjens', I would also add my own "R", right timing. Think about if an additive makes sense given the amount of cows it is going to, which groups it will benefit, and the time of year. Some additives, like those that aid in starch digestion may be best reserved for times when corn silage is freshly fermented. Certain mineral additives may show the most benefit when heat stress is challenging your cows. Overall, gather info about the product, and ask your nutritionist if you can have the research studies behind it. Work on a partial budget to see what you would have to do for the additive to make sense in the diet, identify the parameters you need to measure to know that it is working...and keep track.

MANAGEMENT & NUTRITION

There is a popular saying in the dairy nutrition industry and it goes "there are 4 types of diets on the farm: the one the nutritionist formulates, the one that is mixed, the one that is delivered, and the one that the cows actually eat". Of course, there will be day-to-day variation in which the diet that is prepared, mixed, and fed deviates from the prepared batch sheet that your nutritionist sent you - and that is okay! If, however, the prepared diet deviates largely from your formulated diet some consideration is warranted. Particularly, it is important to ask yourself why you are deviating so much. Perhaps you are out of a certain feed ingredient, or you switched grass cuttings or bunks. Maybe you noticed a change in dry matter, or you noticed a change in the cow's manure, or that butterfat is down. Whatever the reason may be, and however simple the reason may be, it is important that your nutritionist is aware of the change so that they can make record of it and make any necessary changes.

Additionally, there are several management points that should be regularly communicated with your nutritionist. Some of these include: mixing issues, grain flow issues, odd cow behaviors, abnormal refusal rates (very high or no refusals), undesired feeding behaviors (sorting), cow/pen numbers, manure consistency, and metabolic issues. It is important to remember that your nutritionist wants to make the best and most affordable ration for you and your cows, but nutrition can only take the herd so far and there is a very large role that management plays in the herd's success.

RELATIONSHIP BETWEEN NUTRITIONIST & PRODUCER

The relationship between the producer and the nutritionist can make or break the herds productivity. One strategy to maximize success of this working relationship is to make sure that both parties are on the same page, and to make sure that goals are measurable and achievable. Undoubtably, it can be frustrating to ask for or suggest a change, only to revisit the topic a couple of weeks or months down the road and find that nothing has changed. If you find this is a regular occurrence, it may be worthwhile for you to evaluate the reason behind it. Perhaps your goals and your nutritionist's goals aren't lining up, or the goal is unrealistic. Having these conversations, albeit uncomfortable, are crucial for maximizing success. One tip when setting goals is to set a timeline, and track progress. Improvements take time, and may require management and nutrition changes, so be sure to be patient and allow your timeline to reflect this. The second thing you should do is monitor progress. Keep reports of significant management and nutrition related changes so that you can go back several months down the road and pick up any trends in cow performance.

Another important piece of the puzzle is to create solutions together. A video created by Daniel Scothorn recently highlighted the fact that as a producer, you are the one around your cows every day thus your perception of any issues or challenges is extremely valuable. If you are experiencing production or metabolic issues that you feel may be related to nutrition, it is important that you communicate not only that you are seeing an issue, but also what you are seeing (i.e. sorting, loose manure, loss of body condition etc.,). Just remember, your nutritionist is not there every single day and even when they are there, they very likely aren't seeing everything you see day-to-day. Investing in your own part of your herd's nutrition is a critical component of success - both the cow's success, and the success of your relationship with your nutritionist!

If you want to take your herd performance to the next level, start by ensuring your goals align with those of your nutritionist, including seeking out a better understanding of your diet and the role of any included additives.

Herd management and the way the diet is fed will have a direct impact on performance, which highlights the importance of your role in your farm's success.

Selecting Replacement Heifers: Building a Productive Cowherd for the Future

By Parker A. Henley and Mark Z. Johnson, Oklahoma State University Extension Beef Cattle Specialists

As we all consider current cow herd dynamics and market trends, producers are evaluating options to rebuild or expand, making this a timely moment to revisit selection priorities. Thoughtful replacement heifer selection is essential to shaping the future of a cowherd. Heifers that fit the production environment, breed early, calve unassisted, and remain productive for years contribute significantly to long-term profitability. This article outlines key traits and tools to consider when making those selections.

GROWTH RATE TO ACHIEVE EARLY PUBERTY AND REPRODUCTIVE READINESS

Heifers that reach puberty early are more likely to conceive during their first breeding season and calve by 24 months of age. Early puberty is moderately to highly heritable and positively correlated with lifetime reproductive success. To support this, heifers should demonstrate consistent growth and reach target weights that promote reproductive readiness. Ideally, they should weigh approximately 65% of their projected mature weight at the start of the breeding season (typically between 13 and 15 months of age). For example, a heifer expected to mature at 1,400 pounds should weigh around 910 pounds at breeding. Reproductive tract scoring, conducted 4 to 6 weeks prior to the breeding season, is a valuable tool for assessing reproductive maturity. Selecting heifers that exhibit early reproductive development lays the foundation for a more fertile, efficient, and productive cowherd.

FERTILITY AND LONGEVITY

Although fertility has low heritability, it is one of the most economically important traits in beef production. Aim for a 60% first-service pregnancy rate and 90% pregnancy rate within a 60-day breeding season. Early pregnancy diagnosis allows for timely culling of open heifers, which can be marketed as yearlings. Over time, this strategy enhances herd fertility and longevity, as early-calving heifers tend to remain in the herd longer and wean more pounds of calf over their lifetime. Maintaining a buffer of 5–10% more heifers than needed allows producers to cull sub-fertile individuals without compromising replacement numbers.

MILKING ABILITY AND MAMMARY DEVELOPMENT

Optimal milk production is closely tied to forage availability and overall nutritional management. While milking ability is low in heritability, selecting sires with appropriate Milk EPDs can help target the right level of production. Avoid selecting heifers that were overly fat at weaning, as excessive fat can impair mammary development and future milk yield. When possible, evaluate the udder and teat structure of the dam to anticipate future performance.

BODY TYPE, DISPOSITION, AND STRUCTURAL SOUNDNESS

Phenotypic evaluation remains a cornerstone of replacement heifer selection. Avoid extremes in size, as both overly large and small heifers may present challenges in feed efficiency, calving ease, and longevity. Body type and fleshing ability are also important indicators of future productivity. Heifers with adequate rib shape, depth of body, and muscling tend to maintain body condition more effectively, especially under variable nutritional conditions. Disposition is moderately to highly heritable and plays a significant role in herd management. Calm, manageable heifers improve safety, reduce stress during handling, and often show improved reproductive performance. Culling heifers with poor temperament enhances the working environment and herd efficiency. Structural soundness, particularly in feet, legs, and eyes, is vital for long-term productivity. Heifers should be evaluated for mobility, hoof integrity, and leg structure to ensure they can thrive in various terrain and withstand the physical demands of breeding, calving, and raising a calf.

CALVING EASE AND PELVIC MEASUREMENTS

Pelvic area (PA) measurements can help predict calving ease. A general rule of thumb is dividing PA by 2.1 to estimate the maximum calf weight a heifer can deliver unassisted. For example, a PA of 175 cm^2 suggests a heifer can calve an 83 lb calf. Additionally, consider Calving Ease Maternal (CEM) EPDs when selecting sires for virgin heifers. Bulls with higher CEM values produce daughters more likely to calve unassisted. Selecting bulls with low Birth Weight (BW) and high Calving Ease Direct EPDs is also critical.

GENOMICS IN HEIFER SELECTION

Advancements in DNA testing have added a powerful layer to heifer selection. Genomic-enhanced EPDs combine pedigree, performance, and DNA data to improve prediction accuracy, especially for traits like fertility, longevity, and maternal ability. Genomic tools are especially useful in commercial herds where data may be limited. Several companies offer affordable DNA testing services that help rank heifers based on genetic potential. These tests provide deep insight at a relatively low cost, helping producers increase confidence in selection decisions, identify heifers with superior genetics, and avoid investing in underperforming animals. Incorporating genomics into your selection strategy supports long-term herd productivity and profitability.

Making the decision to keep the most reproductively mature heifer calves for their age will improve herd success.

Being strict in culling decision criteria develops the herd faster towards the genetic profile you're looking for.

FINAL THOUGHTS

Selecting the oldest heifers, those born early in the calving season, remains a reliable strategy for identifying replacements with strong maternal backgrounds. Heifers should reach 65% of their mature weight by breeding and be culled if open after the first season. Investing in sound selection practices, including genomic tools, sets the stage for a more productive and profitable cowherd.

References:

- https://www.iowabeefcenter.org/bch/ReplacementHeiferSelection.pdf
- https://www.angus.org/Nce/SireEvaluation
- https://jasbsci.biomedcentral.com/articles

*… continued from page 6...**Combine Adjustments to Minimize Corn Harvest Losses***

LOSSES AT THRESHING

Threshing losses are typically very low but can occur from a variety of factors. Losses occur when kernels fail to break free of the cob as it passes between the cylinder or rotor and the concave.

- **Rotor/Cylinder** - Increasing the rotor or cylinder speed can decrease threshing losses but may also increase damage to the kernels. Follow what the manufacturer recommends and use the lowest possible setting to achieve the best total threshing, then make small changes as needed. Excessive cylinder or rotor speed can lead to grain damage and an increased amount of foreign material in the grain.
- **Concave clearance** - Adjust the clearance so cobs fracture into halves or thirds. Avoid breaking the cobs into many pieces to minimize threshing losses and damaged kernels.

CLEANING LOSSES

Cleaning system losses should also be very small and are hard to distinguish from separation losses.

- **Fan Speed** - Adjust fan speed to the appropriate level. If set too low, foreign material will remain with the grain and result in a dockage for poor quality. If set too high, kernels may be lost and thrown out the back of the combine. One exception would be when harvesting corn suspected of high mycotoxin load; increasing fan speed to expel diseased kernels generally results in lower vomitoxin content.
- **Sieve Openings** - Check the operator's manual for the recommended sieve openings. Set sieve to the widest recommended setting and adjust as needed to allow the grain to filter down and the chaff to float off. Adjust as needed for crop conditions.

Now is the time to prepare for harvest by calibrating your equipment to minimize harvest losses. Consider making adjustments now and adapting these settings once a few acres have been harvested and a grain loss check off the combine has been done. Continue to monitor and adjust settings as you move between fields with different hybrids. Adjusting your combine settings appropriately will preserve your grain yield, maintain grain quality and result in less kernels on the ground to rear their ugly head next year in the following crop.

Reference:

Stephens, T., Kumar, V., Rees, J., & Jhala, A. J. (2024). Harvest loss in corn and implication for volunteerism. Weed Technology, 38, e48.

Selecting based on these criteria allows you to make genetic improvement, even without knowing EPDs.

CROPS COWS & CRITTERS newsletter

Adjusting your combine settings appropriately will preserve your grain yield, maintain grain quality and result in fewer kernels on the ground.

Looking Past the Bin Door

By Katelyn Miller, Field Crop & Forage Specialist, SWNYDLFC Team

Recently, I have been having conversations around commodity marketing, which has brought to light different marketing strategies. One conversation might dive deep into price targets, futures, or options, while the next might include deciding what to do with grain still in the bin from the previous year.

Grain marketing can feel overwhelming; between futures, options, basis, and much more, there's a lot to keep straight. Every time I sit in on one of these conversations, I'm reminded of how complex it can be to know when and how to sell. But no matter how different the approach is, one thing stays the same: **understanding your cost of production is the foundation of every sound management decision.** Did you really expect me to say anything different?

Without clarity, it's easy to get stuck in the mindset of waiting for the "perfect conditions". There is a lot of uncertainty in today's markets - weather, global demand shifts, and rising input costs all play a part. Outlooks currently hint at stability, but as we know in this industry, it's never guaranteed. Knowing the cost of production allows you to figure out what price you need to, at minimum, break-even (but ideally make $$$), and will give you confidence to make timely marketing decisions.

MARKETING OPTIONS

Before we jump into marketing options, let's review what some general terms mean in commodity marketing.

Basis: Basis is the difference between the current cash price and futures price with the nearest expiration date. The difference between cash and futures prices are often a negative value and based on conditions locally (transportation, storage, interest).

Basis = Futures Price – Cash Price

Futures Price: The price agreed upon in a futures contract is a futures price, which can be thought of as the world price. It is set by the world supply and demand.

Cash Price: Local price is referred to as the cash price, which is the value agreed upon for immediate delivery, or for accepting the current price for grain delivered earlier but not sold.

Cash Price = Futures Price + Basis

Pricing decision tools can help mitigate the risks of unfavorable prices. Utilizing multiple tools may help provide the best protection against risk.

Storing Unpriced Grain: While not classified as a tool, it's a decision often made to store grain until a later date. Often, this decision comes with an expectation of market prices becoming more favorable in the coming months. It also provides an opportunity to capitalize on cash market prices but provides no protection against the risk of futures prices dropping or basis weakening.

Contracts: Contracts can be broken down into forward, futures, minimum price, basis and hedge-to-arrive contracts.

Forward contracts establish a set cash market price for your grain at a future date. It's an agreement to deliver a specific quantity of the grain for a specific price. It has room for negotiation on contract size, as there is no standardized amount that needs to be delivered. It locks in both futures and basis simultaneously to establish the cash price. This can be a good tool for those with limited on-farm storage or for those who wish to lock in cash prices ahead of harvest.

Futures contracts provide the opportunity to sell or deliver a standardized amount of grain during a particular month for a specified price. This contract is traded on the futures exchange market, typically the Chicago Mercantile Exchange (CME). For corn, soybean, and wheat, the number of bushels to be sold or delivered is 5,000 bushels per contract. An initial margin is the amount that needs to be deposited to establish the contract. A maintenance margin is the minimum amount of money that needs to remain available to cover any losses if prices fall, to ensure the contract can be fulfilled. A margin call is when the value of the account falls below the maintenance margin level. This contract requires upfront cash to maintain margin levels.

Minimum price contracts establish a minimum sale price. You are guaranteed either the current cash price or the minimum sale price, whichever is greater. This contract establishes a price floor.

Basis contracts are when the basis price is locked in instead of the futures price. At a later date, the futures price will be established, but the risk is run that the price may not improve.

A Hedge-To-Arrive contract is a cash contract that allows you to lock in the futures price for the delivered quantity. Basis is set at a later date, and it can be helpful with a volatile market. With this contract, you as the farmer do not have to handle the margin call.

Understanding your cost of production is the key to every sound management decision.

CROPS COWS & CRITTERS newsletter

There is a lot of uncertainty in today's markets - weather, global demand shifts, and rising input costs all play a part.

Put or Call Options: Options provide the right, but not the obligation to buy or sell a futures contract. A put option provides the opportunity to sell on the futures market; a call option provides the opportunity to buy a futures contract. When buying or selling, there's predetermined price levels called strike prices, which are the entry point into the futures market regardless of current futures prices.

Hedging: Hedging is taking equal but opposite positions regarding cash and future markets. It helps to offset the risk that exists in the opposite market. You start out already having taken a position in the cash market by producing your crop, with the opposite position being to sell on the futures market.

COSTS

One of the strategies I mentioned previously is to store grain in your bin unpriced. While that decision is up to you, it's important to remember that keeping grain in your bins still has associated costs, and requires you considering your ROI, just as you do for seed and fertilizer. Maximum storage income results from selective rather than continuous use of storage. Let's break down the costs of storing grain.

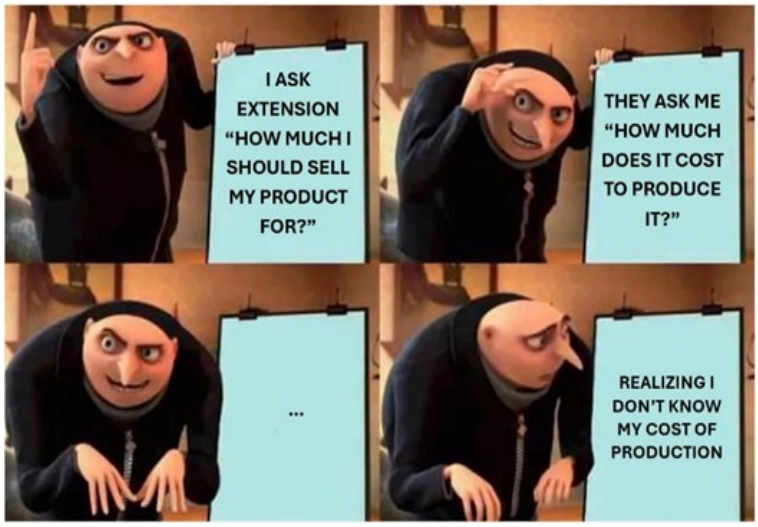
Storage Facility Cost: The ownership costs (depreciation, ROI, maintenance, insurance, etc.) of on-farm storage facilities may not play directly into the decision to store year-to-year, as those costs will be accrued regardless. BUT, if you are in a situation where you are storing grain on farm, while also renting out additional space because of unsold grain, consider those costs. Compare what it costs you to maintain your storage, and also what renting it elsewhere costs.

Interest: If you have a loan, it can be repaid with proceeds from the sale of grain. If it's stored, and the loan not repaid, that's an expense that's accruing. Even if no money is borrowed, there is an interest cost, as the proceeds could be invested into the business to earn an interest return.

Handling: Consider extra drying, shrinkage, quality deterioration, and aeration costs that are associated with storage. There are fuel and power costs associated with drying grain down to a level that allows for long-term storage. Every time we store anything for a period, we have to assume some loss will occur because of shrinkage or quality issues.

Opportunity Cost: What could you do with the money that the grain in the bin represents? Is that a tradeoff your willing to accept?

All this information, and yet we've only covered storage costs. Now to the fun part, cost of production! Calculating your cost of production requires strong record keeping, but it will pay dividends. Without understanding this value, you are guessing at what price you need to make money. What are all the things you need to produce a grain crop? Off the top of my head, I can list out: fuel, fertilizer, pesticides, seed, equipment (and its associated costs of payments, depreciation, maintenance), labor, and land ownership (rent, taxes, etc.). Calculate out what your fixed and variable costs are to grow your crops and break them down over your general yield data to gain an understanding of your break-even price.



There's relief in seeing the grain tucked safely in the bin, but the work isn't finished. Grain management doesn't end at harvest, as those bushels represent months of planning, inputs, and risk. Marketing should be included in this process, and not something that waits until the grain is in storage. Thinking ahead about your costs, storage, and sales strategy throughout the season keeps those bushels working for you. Once the grain is in the bin, it's easy to close the door and move on, but looking past the bin door is where good marketing, and profit, begin.

There's no single right way to market grain. Every farm has different goals, cash flow needs, and comfortability with risk. The best plan is the one that fits your operation and helps make decisions with confidence. It's worth remembering that waiting for the "perfect price" can leave good opportunities on the table.

Resources:

"Introduction to Grain Marketing" https://www.extension.iastate.edu/agdm/crops/html/a2-33.html "Cost of Storing Grain" https://www.canr.msu.edu/farm_management/uploads/files/E3416_Intro_Grain_Mkt_AA.pdf

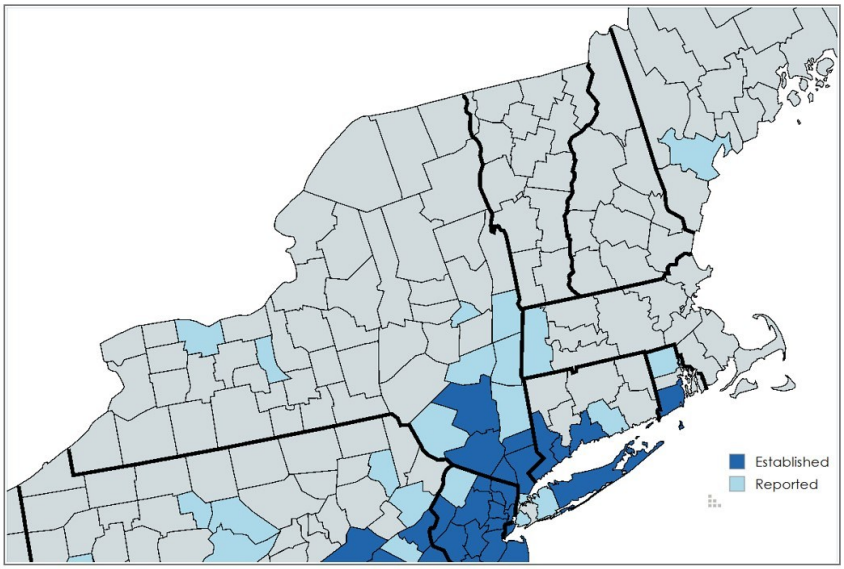
There's relief in seeing the grain tucked safely in the bin, but the work isn't finished.

There's no single right way to market grain. Every farm has different goals, cash flow needs, and comfort with risk.

Expansion of the Asian Longhorned Tick Within New York

By Joellen Lampman, Tick and School IPM Coordinator,
with a local perspective by Amy Barkley, Livestock Specialist, SWNYDLFC.

The Asian longhorned tick, now known as the Longhorned Tick (LHT), is an invasive tick now reported in 18 counties within New York, with 7 counties having known established populations. It is suspected that migratory birds spread the ticks found in western NY.



Map based on one developed from the USDA, last updated April 22, 2025

Single ticks found in reported counties can lead to an established population in one generation because of how LHT reproduce. In the United States, females are laying viable eggs with no assist from a male. A single female can produce 2,000 more females, which have the potential of producing 2,000 more females… each.

LHT is a major threat to livestock. There are cases of LHT vectoring bovine theileriosis, a cattle disease, in NY with at least one fatality. In addition to disease, there have been reports of cattle deaths from extremely high tick numbers. It is still being determined whether these deaths were caused by severe blood loss due to the sheer number of feeding ticks or toxicosis caused by a reaction to something within LHT saliva. Or a combination of the two.

In order to help track the expansion of this tick, please help Cornell IPM with our surveillance efforts. We are asking those who own livestock, from producers to 4H club members, to report any suspected LHT on their farms at go.nysipm.org/report-lht. The form includes a few questions and allows you to upload a photograph of the tick. Cornell Integrated Pest Management staff will follow up with you within a few days.

If you have any questions, contact Joellen Lampman, Tick and School IPM Coordinator, at jkz6@cornell.edu.

THE LOCAL PERSPECTIVE

For SWNY farmers, the LHT is not a significant concern… yet. Research shows that ticks are not killed by our winters but merely go into a dormant state and will emerge when conditions permit. More severe winters slow the migration and population growth of ticks, though.

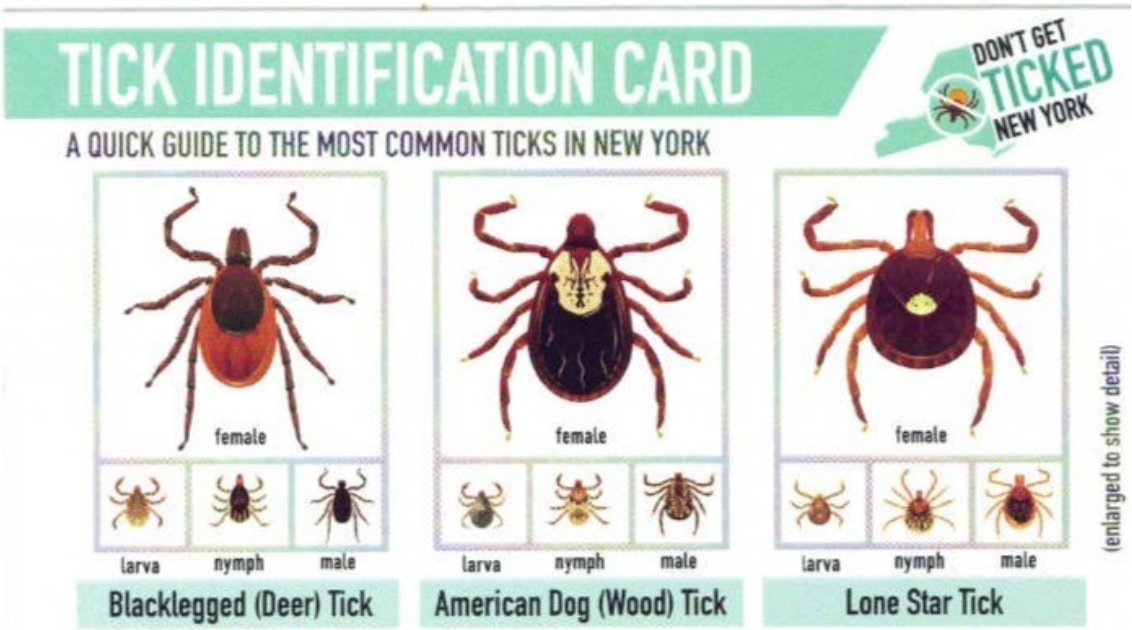
The reported findings of the Longhorned tick indicate areas where the public has correctly identified and reported the tick. There are likely more individual cases out there. Over time, the tick can establish populations, considering they don't need a male to reproduce. So, keep a look out! The graphics on the next page show the three common ticks in NY as well as the two invasive ticks that we're keeping an eye on (the Longhorned Tick and the Gulf Coast Tick). If you see one of the two invasive ticks, please collect them in a container marked with the date you found them and make a report at go.nysipm.org/report-lht

There have been increased reports of tick bites this fall on both animals and people. I was just at the Cornell Sheep and Goat Symposium over Halloween weekend and heard from 5 individuals who either had or knew someone who had alpha-gal syndrome resulting from a tick bite. This is a potentially life-threatening condition where the person in question cannot eat, or in some cases inhale particles of, mammalian meat, milk, and by-products (like collagen and gelatin). Removing ticks as soon as they're identified can limit the salivary transmission of the molecule causing the condition. The Lonestar tick is most often associated with transmission of the disease but Blacklegged (deer) ticks show evidence of transmission as well.

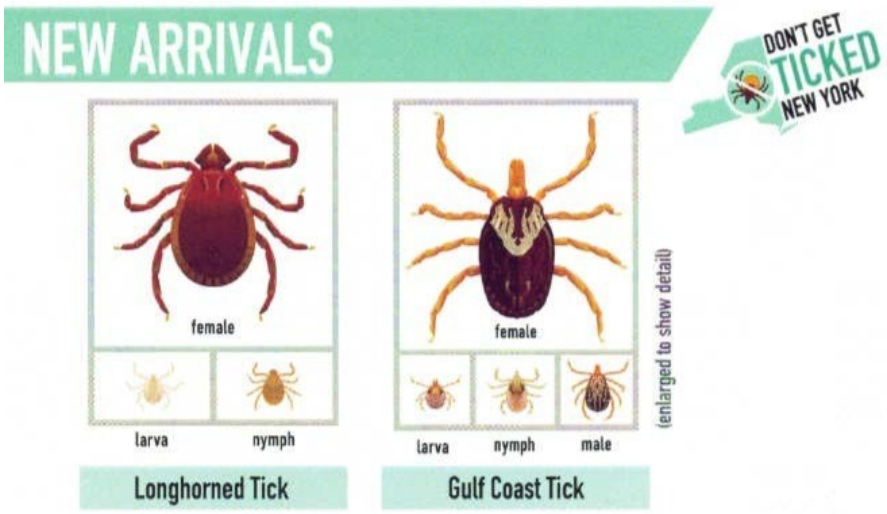
The infographic on the next page shows how to properly remove a tick. To reduce the chance of keeping the head embedded, remove with fine tweezers as close to the skin as possible. Squeezing the tick's body can cause a backflow of tick gut contents into the host.

If you need help reporting a LHT, reach out to Joellen Lampman at Cornell IPM at 518-441-1303 or jkz6@cornell.edu.

Take a few minutes each day to check yourself for ticks and carefully remove them.

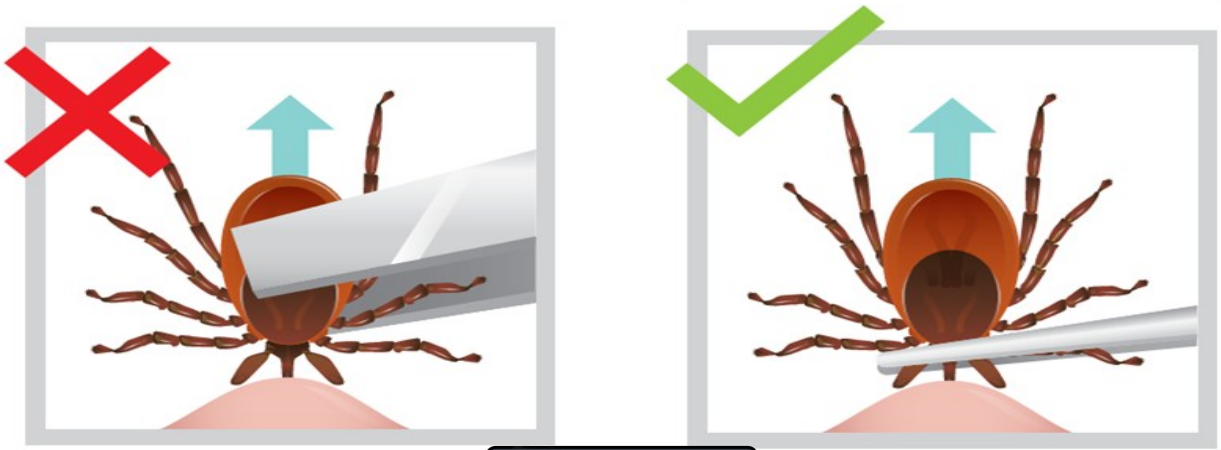


These three ticks have established populations in NYS, including WNY.



These are the two invasive ticks that we recommend reporting to NYS IPM program so that we can keep track of the population spread.

Proper Tick Removal Procedure



Lyme disease and alpha-gal syndrome are two of many possible diseases that humans can get from ticks.

With populations of LHT rising, reporting sitings will allow Cornell IPM to better understand the movement and risks this pest poses.

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