Farm-City Day
September 23, 2017
10am-3pm
Karr Dairy Farm
1451 Dennis Rd.
Hornell, NY 14843

Fun For the Entire Family!
Tour a Working Dairy Farm
Corn Maze
Sample Farm Products
Hand-milk a Cow
Pet Friendly Farm Animals
Children’s Games
Pick a Pumpkin

www.steubencountyfarmday

Cornell Cooperative Extension
Steuben County
Farm City Day

The popular Farm-City Day is back, and set to welcome the public from 10 a.m. to 3 p.m. Sept. 23 at the Karr Dairy Farms in Hornell.

The free event will feature a closer look at farm life – still a backbone in the Steuben County economy – and enjoy activities such as petting baby calves, picking a pumpkin, and getting lost in a corn maze. Other activities include milking a cow by hand, digging for potatoes and playing in a giant pile of corn. A $5 parking donation is requested to help sustain the event in future years.

A family farm since 1950, the farm began with Joe Jones’ purchase of roughly 174 acres of land and 30 cows. Jones operated with younger members of his family, Robert and Helen Karr, until the Karrs purchased it in 1964. Since then the Karr Farm has grown to approximately 720 total acres and is home to over 750 cows and another 630 young stock. In addition, there are 310 tillable acres with another 830 rented acres allowing the farm to grow 700 acres of corn and 400 acres of hay to feed the herd. Joe Jones’ grandsons, Russ and Rodney Karr, now operate the farm with their families and 15 full time and part time employees.

Farm-City Day has been an attraction in Steuben County for decades. The educational, fun filled day on the farm gives visitors a firsthand, behind-the-scenes look at how a modern dairy farm operates.

In addition to fun activities, local farmers and farm businesses will be on hand to answer questions.

Food will be available for purchase from several community organizations and local growers will have fresh farm products to sample and sell.

The event is sponsored and organized by Cornell Cooperative Extension of Steuben County.

Karr Dairy Farms is located at 1451 Dennis Road, Hornell. Visitors can take the NY-36S exit from I-86. Then, follow NY-21 N to Dennis Road in Fremont.

For more information visit the Farm-City Day website at www.steubencountyfarmday.com.

Strategic Planning Survey

Help CCE Steuben identify the needs and priorities for Steuben County farmers as part of our 5-year Strategic Plan. Every answer will help us continue to improve our programs to serve farmers and the public. What should CCE Steuben prioritize? What needs do we currently meet and what are we missing? This is your opportunity to direct the future of CCE Steuben. The survey should take about 15 minutes, and your answers will be kept confidential and anonymous.

Visit https://cornell.qualtrics.com/jfe/form/SV_bIRiHT942AkbENL to fill it out!
That's a balancing act even researchers harvesting test plots are challenged to meet. Today's combines, however, are so well engineered that they can come darn close to those targets, provided you are willing to invest in the day-to-day diligence needed to evaluate your harvester's performance and to fine-tune its operation to ever-changing field conditions.

Supporting you in that regard is a new generation of advanced electronics. Yield, loss, and capacity monitors wave checkered flags for peak performance. Plus, in-cab adjustments allow on-the-go tweaking, header height and angle corrections are now automatic, and hands-free steering permits you to focus on harvesting like never before.

“All the advanced technology in the world should never replace a talented producer with a keen eye for the performance of the machine during harvest!” states Kelly Kravig of Case IH.

Caleb Schleder of AGCO adds, “Take time to understand all the different jobs a combine performs and how they’re all related to each other.” That knowledge could prevent you making an incorrect adjustment that seemed right at the time.

For example, let's say you see whole cobs with kernels attached riding out over the separator. Without first checking to see what's going on with the entire combine, you automatically increase threshing speed. Now you are getting broken cobs with kernels still attached PLUS damaged grain coming off the chaffer sieve. The cause of nonthreshing, in this case, is a misadjusted corn head feeding slugs of crop into the feeder house and then into the rotor. Those slugs are not getting evenly threshed, which is causing the loss.

This example illustrates the frustration of adjusting a combine without checking out the entire harvest process.

“Adjusting a combine, particularly to tough field conditions, can be complicated,” says Kent Hawk of John Deere. “Understanding the dynamics of a combine and then adjusting – sometimes several times a day – to changing field conditions offers a handsome payoff.”

Those performance dynamics certainly change with the major processing components of a combine that include the head or platform, threshing, separation, the cleaning shoe, and residue-management system.

Yet, it is crucial to remember that the adjustment you make, let’s say to the head, affects threshing, separation, and cleaning. “They are all separate processes but dependent upon each other,” AGCO’s Schleder point outs. To get your combine at peak performance, here are key areas to focus on.

Pre-Season Maintenance Inspection
combine now than 20 years ago. “Inspecting a combine often requires taking a guess on whether specific components will make it through the season or not,” Bollig says. “Is it 25% or 50% worn out? What are the chances of having to replace that part? Answer these questions through a thorough inspection. Run the machine and have somebody sit in the cab from a safety standpoint. Somebody’s got to do a walk-around with that machine running who can help you see, hear, or smell if you have potential maintenance issues.”

Bollig encourages farmers to ask whether their last harvest was a wet, drawn-out affair or quick and dry. “It’s important to look back on the conditions you faced the last time your combine was in the field, since that perspective can help you start on the right foot.”

“With a wet harvest, you’re more likely to pick up more dirt moving between wet fields. Mud can build up in the bottom of an elevator, create more wear on the paddles, and stick to certain parts of the combine. It can fill up the rasp or concave bars in the initial separation and create some grain loss,” Bollig says. “With drier conditions, you have a lot more dirt and dust to clog air filters and you have to watch for the buildup of debris from a fire hazard standpoint. From a temperature standpoint, you’re running in higher ambient temperatures, and you’ve got to make sure you pay close attention to any gearboxes and components that in a cool, wet fall, might be less apt to cause issues.”

**Maintenance Troubleshootspots**

Particular wear points on a combine that often demand attention are any parts experiencing repeated friction, like the roller chains on a corn head. With any chain that has noticeably loosened, stretched, or become “sloppy,” the likelihood that part will last through harvest’s end lessens. And, the failure of a chain-driven component can have big impacts elsewhere on the combine, making it an important area of focus during a preharvest combine inspection.

“When a chain continues to run past its prime, it’s stretching quicker, and if somebody’s not maintaining the proper tension, chains are known to start jumping the teeth on the gear driving them,” Bollig says. “That effect sends a shudder through the whole machine, and you can see it affecting bearings. Anything in the vicinity gets the impact of that shudder.”

When inspecting chains, Bollig also suggests making sure you check the gears and pins driving them. In gauging whether those components will last through this fall’s harvest, consider the conditions in which you harvested corn in previous seasons. “If you have a fall during which you have a lot of tough, wet conditions and the stalks are tough, you could have some potential plugging issues that put extra strain on those rollers,” Bollig adds.

The corn head drive system is another area to inspect carefully, both its chains and the sprockets and gears driving them, Bollig points out. Though premature failure is a concern with the drive system, so too is lost efficiency as the components age. “You’ve got to inspect it for wear and make sure you can make an educated guess whether it’s got enough life left in it to run all season. You know your acres and can base it off that. The more it wears, the less efficient it is over time,” he says. “You’re checking sprockets, too. You can put a new chain on, but maybe the sprocket has a lot of wear on the teeth.”
Even the smallest amount of damage in a concave section or rasp bar (shown at right) can have a considerable influence on your harvest efficiency and potential yield loss. “Down in the threshing and separation area, people will take a close look at their rotor and concave. You’re looking for damage that may be relatively minor. Maybe you have a small rock or something go through, so you need to replace a concave section,” adds Mark Hanna, Iowa State University Extension engineer. “Down in the cleaning shoe area, check the condition of the sieve. If something’s gotten dinged or banged up, it needs attention. You’re looking for general wear.”

Finally, check the flighting on all augers, Hanna urges. Though damage is less likely in this part of the combine, wear can sometimes leave sharp edges on the flighting, leading to grain damage. “It’s probably in good shape, but it does wear over time. It is something that may need to be looked at,” he adds. “If you have some really sharp edges, you can cut some of the grain. If that’s the case, you’re going to degrade your corn quality.”

Recalibrating monitors should be done at the start of every harvest season, possibly even during the season, notes Deere’s Hawk. “You might want to do a check load, for example, to double-check calibration during the season,” he says.

“With so much technology in the combines, we typically have a yearly inspection done by the dealer. That doesn’t mean he has to do all the work, but you want to get a professional eye to look at it. The same goes for diagnostics,” Bollig says. “It starts with taking it to an expert to hook it up to a computer to test those sensors and diagnostic electronics.”

After you have opened up a field but before you get into harvesting that field in earnest, check the ground for field loss, remembering to deduct that loss after finishing the field review behind a combine.

Next, examine the crop to see how easy or hard it is to shell out. Break cobs in half and observe their composition.
“Cobs with white or soft centers will be harder to thresh than those that are firm and pink,” Schleder explains. “Cob composition certainly has an impact on threshing adjustments.”

For soybeans, look for problems with green stems and how easily pods shell out.

Examine heads and platforms to determine if they are causing losses or smoothly delivering crop to the feeder house.

“Heads and platforms are the primary causes for grain loss,” says AGCO’s Schleder.

A recent development involves running the draper header belt speed too fast. “When side belts run too fast, the left and right swaths merge into a single layer. The denser swath requires more effort to thresh and separate. That can pose a threat to grain quality,” says Jeff Gray of Claas of America. “Belt speed should be optimized (often reduced) to allow the left and right swaths to enter side by side, as indicated by a V-pattern going into the feeder house.”

Adjusting Threshing

Like an 800-pound gorilla walking a tightrope, threshing requires a balance between rotor speed and concave clearance.

Concave clearance should be adjusted in steps. Start with the widest setting and narrow the spacing until it’s close enough to just thresh out the grain without causing damage. The primary duty of clearance is to regulate the amount of material flowing through the threshing. Running a concave too wide results in grain not being removed from cobs, and that could result in a ricochet effect that damages the grain. Running the concave too tight can cause cracked kernels and broken cobs.

Setting threshing speed is even more crucial for the damage it can inflict. Misadjusted speed is a common mistake, notes AGCO’s Schleder. Signs of excessive threshing include cracked or damaged grain, cobs that are broken excessively, and too many tailings. The place to start when setting threshing speed is at the top of the rpm recommended in the operating manual.

“For example, with Deere combines, I advise starting at 400 rpm and adjusting from there,” say John Deere’s Hawk. “We are harvesting so much more crop (both yield and residue) today. The slower threshing speeds of the past are not fast enough to consume the crop.”

To determine the need for speed adjustment, operate the combine in the field and check for grain damage. If some damage is caused, then back down the speed until damage disappears.

Another major goal is to have a level and even flow of grain coming off the pan or auger deck on to the cleaning shoe. Threshing misadjustments quickly become evident at these locations. Just changing the concave pinch point makes a difference in how well grain and trash are distributed on the pan or deck.

Tweaking the Cleaning Shoe

When it comes to cleaning shoe adjustments, be mindful that most cleaning takes place with the initial blast of air where the grain comes off the pan.

As such, it’s crucial to have an even feed of grain coming off the pan or deck and onto the chaffer sieve. This allows the air from the cleaning fan to flow evenly through the grain and residue layer. There’s a balancing act occurring between the separator and cleaning system that requires the loss sensors for each to be properly set.
Part of the balancing act here is also to make sure sieve adjustments work in tandem with fan speed.

For example, to counter grain loss off the cleaning shoe, you will often open your upper sieve (chaffer) too wide to try and minimize grain loss by allowing more grain (and chaff) to fall through, Gray has seen.

“This causes more material (including grain) to fall onto the lower sieve. That can overburden the lower sieve resulting in more tailings returning to be rethreshed (whether needed or not) adding stress to the grain traveling within, as well as inconsistent wind flow,” he says.

“To counter the overburden on the lower sieve, farmers will sometimes open the upper sieve, but that could increase foreign matter (FM) in the tank. Increasing the fan speed to penetrate the overburden could generate enough pressure to possibly boost grain loss off the upper sieve, creating a vicious cycle,” Gray notes.

Actually, all that was needed in the first place was optimizing fan speed according to throughput at the given ground speed and adjusting the upper sieve to reduce FM in the sample.

When adjusting fan operation, check that the airflow across the shoe is as uniform as possible. With larger crop flows, however, more air needs to be directed to the front of the chaffer using the adjustable windboard.

If everything is working in unison in the cleaning shoe, tailings in the return auger should be sparse.

Don’t Forget Adjustments To The RMS (Residue Management System).

“How residue is left behind the machine certainly affects next year’s crop, particularly for reduced-till farmers,” says Case IH’s Kravig. RMS adjustments have a huge impact on distribution “especially with today’s wider heads and platforms,” adds John Deere’s Hawk.

Overall Rules to Make Adjustments

Each combine make has an optimal match of settings that captures the most yield with minimal damage in the least amount of time. Discovering that sweet spot starts with abiding by these hard-and-fast adjustment rules.

Live with your owner’s manual. “Everything you need to know, starting with initial settings and then a step-by-step analysis of adjustment, is in the book,” says AGCO’s Schleder. “It should be dog-eared and in the cab.”

A pocket-type setting guide is also a very convenient tool if you need a quick reference when the combine is already configured for the crop to be harvested. “But manuals provide greater detail about how and when to change configurations for different crops and conditions
and the effect those configurations may have on settings," says Claas’ Gray.

Adjust operating speed to keep threshing fully charged at all times. Doing so not only boosts harvest speed but also minimizes grain damage, says Deere’s Hawk. “This requires you to consistently monitor engine loading in response to crop conditions since yields can vary a great deal across a field,” he says.

Other general rules to adjusting in the field include:

- Check the combine’s performance frequently and particularly when field conditions (such as grain moisture content) or varieties (especially with corn) change. Case IH’s Kravig knows operators who save settings to employ in the morning (when crop moisture is the highest), in the afternoon (when the crop is drier), and again late in the day when moisture starts to creep back into the crop.

- Stop the combine at least once a day in an area representative of the field. Manually disable its residue management system. Operate the combine at acceptable speeds, filling the separator with crop. Shut the combine down, get out of the cab, and starting ahead of the head or platform to determine preharvest loss, examine every major step of the processing. End this process by examining the field, looking for grain loss and even residue distribution.

- Know why you’re making an adjustment before making that change.

- Make only one adjustment at a time and in small increments.

- Evaluate the results of the last adjustment before making another change.

- “Look, see, and feel how the combine is operating when in the cab,” says AGCO’s Schleder. “You can feel when a combine is operating smoothly. Take time to pay attention to that.”

U. S. Corn Crop’s Maturity Issues Continue, USDA Says

Soybean Condition Rating Remains Unchanged

Mike McGinnis
9/5/2017

DES MOINES, Iowa -- On Monday, the USDA kept its U.S. soybean crop rating unchanged, while dropping its corn maturity level.

CORN

As of Sunday, 61% of the U.S. corn crop had been rated good/excellent, below 62% a week ago, according to the USDA Crop Progress Report Monday.
USDA pegged the amount of the U.S. corn in the dough-growth period at 92%, compared with an 94% five-year average.

For corn, 60% of the crop has reached the dented growth stage vs. a 68% five-year average.

Also, 12% of the corn crop has matured vs. a 18% five-year average.

**Soybeans**
For soybeans, 97% of the nation’s crop is setting pods vs. a 96% five-year average. The U.S. soybean crop good/excellent rating is at 61%, equal to last week’s 61% rating.

The USDA pegged soybean leaf-dropping at 11% vs. a 12% five-year average.
Growing Black Locust as a Timber Cash Crop

Join us for a special 1-day conference to explore the potential and methods for cultivating Black Locust (*Robinia pseudoacacia*) profitably and successfully.

**Date & location:**

- USDA NRCS Big Flats Plant Materials Center
  3266 State Route 352, Big Flats, NY 14814
- Friday, October 20th, 2017 from 10:00 am to 4:30 pm. Registration starting at 9:30 am.

For full agenda and to register by Monday, October 16th please visit: [https://goo.gl/forms/vAc030HqL3FH6tzw1](https://goo.gl/forms/vAc030HqL3FH6tzw1)

Cost is $20 (pay at the door) and includes a hot lunch and a Black Locust seedling grown from an improved seed orchard.

Please dress for the weather for an afternoon tour.

For more information or any special accommodations, please contact Brett Chedzoy at Cornell Cooperative Extension of Schuyler County by phone: (607) 535-7161 or email: bjc226@cornell.edu

Black Locust (*Robinia pseudoacacia*) is an Appalachian native with many positive attributes that merit consideration for any tree planting project. Black Locust has very strong, highly decay-resistant lumber that is an excellent alternative to pressure treated lumber and posts. It is a nitrogen-fixing legume and the fragrant, attractive flowers, that appear in early June, are excellent bee fodder. One of the best reasons for considering Black Locust, is that it can be grown as a profitable timber cash crop throughout much of the Northeast! It will be an invaluable networking and learning opportunity for those interested in growing Black Locust successfully and profitably.

Hosted by the USDA NRCS Big Flats Plant Materials Center with support from Cornell Cooperative Extension and the Cornell Small Farms Program ([http://smallfarms.cornell.edu](http://smallfarms.cornell.edu)).
2017 CORNELL AGRIBUSINESS

Strategic Marketing Conference

Getting Started in Agri-tourism:
Exploring Market Strategies, and Creating an Implementation Plan to Increase Sales

September 20-21, 2017

Featuring:
- Tips on Starting an Agri-tourism Business
- Marketing Your Enterprise - A Farmers Perspective
- Speakers from variety of business owners covering: Farm Stays & Wedding Venues, Farm to Table Restaurants and You-Pick Operations.

Registration and Conference Information

Cost: $60 for 2 full days. Farmer Scholarships are available reducing rate to $20 for two full days.
Cost includes: Materials, Breakfast, Lunch, and Dinner on Sept 20th and Bus tour on Sept 21st - lunch is on own Sept 21st.

Time: Sept 20: Registrations from 8:30am-9:00am. Sept 21: Depart Hampton by Hilton at 8:30am arrive back from bus tour by 1:30pm.

Hotel Accommodations: Conference attendees are responsible for their own hotel reservations. A block of rooms has been reserved at Hampton by Hilton Lockport - Buffalo, 6082 Transit Road, Lockport, New York 14094. When making your reservations, refer to group code CCE, to get the negotiated rate of $119.99 + tax. State and local taxes can be waived upon receipt of a valid NYS Tax Exemption certificate.

All members of the agriculture community are encouraged to attend.

Producers, agribusiness, agri-service providers, industry educators and development specialists – there’s something for everyone!

Funded by: Stanley W. Warren Teaching Endowment & Charles H. Dyson School of Applied Economics and Management at Cornell University
Sponsored by: CoBank and Farm Credit East
Additional support provided by Cornell Cooperative Extension

Cornell Cooperative Extension provides equal program and employment opportunity. Accommodations for persons with special needs may be requested by contacting Megan Burley at msb347@cornell.edu or 716-652-5400 ext. 138 by Sept 15, 2017.
Low Weed Densities in Conventional and Organic Soybean in 2017

August 31, 2017

Bill Cox and Eric Sandsted
Soil and Crop Sciences Section, School of Integrative Plant Science, Cornell University

We initiated a 3-year study at the Aurora Research Farm in 2015 to compare different sequences of the corn, soybean, and wheat/red clover rotation in conventional and organic cropping systems under recommended and high input management during the 3-year transition period (2015-2017) from conventional to an organic cropping system. We provided a detailed discussion of the various treatments and objectives of the study in a previous soybean article

(http://blogs.cornell.edu/whatscroppingup/2015/09/16/emergence-early-v2-stage-plant-populations-and-weed-densities-r4-in-soybeans-under-conventional-and-organic-cropping-systems/). This article will focus on weed densities in soybean at the R3-R4 stage in 2017.

Corn preceded soybean in the rotation in this study. The fields were plowed on May 17 and then culimulched on the morning of May 18, the day of planting. We used a White Air Seeder to plant the treated (insecticide/fungicide) GMO soybean variety, P22T41R2, and the non-treated non-GMO variety, 92Y21, at two seeding rates, ~150,000
This is an opportunity for maple producers to acquire hands-on experience to increase their production, profitability and efficiency. Maple Camp features focused and hands-on learning in a research and production setting. Participants will learn all aspects of production, processing and marketing. In the sugarbush, participants will learn how to measure and select trees, how to evaluate, plan and install a tubing system, and how to evaluate vacuum systems for efficiency. In the sugar house, participants will learn about sap storage, reverse osmosis, evaporator operations, and syrup filtering, storage and grading. Further, participants learn to understand the principles of marketing syrup and value added products, making value-added products, and evaluating and managing their business enterprise. This training will position maple producers, especially intermediate and beginners, to learn the details that would otherwise require years. The Cornell Maple Camp is designed for anyone who wants to become a producer or who has a few years of experience, but is seeking to expand production, products, markets or profitability.

State to Hold Pesticide & Chemical "Clean Sweep NY" Program in DEC's Region 8 PROMOTING A TOXIC FREE FUTURE FOR NYS

A ‘Fall 2017’ collection event targeting the following NYSDEC Region 8 counties will take place during the week of October 2nd: Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne and Yates counties. The collection dates and locations are:
- Tuesday, October 3rd Watkins Glen
- Wednesday, October 4th Hornell
- Thursday, October 5th Lakeville
- Friday, October 6th Waterloo

Pre-registration is required and registration packets can be requested by calling 877-793-3769 or e-mailing info@cleansweepny.org. Visit www.cleansweepny.org/ for info. Clean Sweep NY is an Environmental Benefit Project for the removal of cancelled, unwanted, unusable, or otherwise obsolete pesticide chemicals from agricultural or non-agricultural entities such as farmers and commercial pesticide applicators who cannot otherwise participate in residential Household Hazardous Waste (HHW) collection events. CleanSweepNY is not available to homeowners. Each participant is responsible for transporting their materials to the collection site. The collections are scheduled and organized by NYSDEC with the collaboration of NYSDOT who generously provide sites for the collection of these unwanted chemicals. CleanSweepNY is supported by Cornell Cooperative Extension, the Agricultural Container Recycling Council,
Soil & Water Conservation Districts, New York Farm Bureau, and other related grower associations. Please do not contact NYSDOT for CleanSweepNY information.

CleanSweepNY also collects school laboratory chemicals, elemental mercury and mercury containing devices such as thermometers and manometers, and also triple rinsed rigid plastic pesticide containers (HDPE #2) for recycling.

2017 NYS Women in Agriculture Conference
Conference will focus on Personal & Business Growth Skills & Tools for Women

The NY Women for Agriculture team is excited to be hosting the first annual NY Women in Agriculture conference, Friday November 3rd, in Syracuse, NY. This conference will focus both personal and business growth skills and tools for women involved as either primary or partner operator for their agriculture operation. The theme of this year’s conference is “Communication and Building Connections. Our keynote speaker is Amanda Freund. Amanda grew up on the family farm and participated in 4-H and FFA. Today, Amanda is actively involved with the Agri-Mark Young Cooperators (their dairy cooperative) and the CT Farm Bureau Young Farmers Committee. The one day conference will be held at the Doubletree, Carrier Circle in Syracuse. The address is 6301 NY-298, East Syracuse, NY 13057. The cost to attend the conference is $100 per person. For more information, contact Bonnie Collins. Bonnie’s email address is bsc33@cornell.edu. Her phone number is (315) 736-3394 Ext. 104.

Managing Corn & Soybeans in a Difficult Year
Ev Thomas - ethomas@oakpointny.com

Editor's Note: Weather - Crop conditions were much worse in the North Country this year than in our area which weren’t all that good. We do have some late planted crops with fields appearing too far to harvest. Information on managing these crops from Miner Institute may be useful to some local farmers.

MOTHER SAID THERE’D BE DAYS LIKE THIS... ...but she didn’t say anything about entire growing seasons when things go off the tracks early and never quite get back on track. That about summarizes the 2017 crop year to date, and the date is getting late. According to Cornell University forage agronomist Jerry Cherney, “Growth this year for both alfalfa and grass would qualify as weird.” Over 50% of corn in the region was planted in June, and this doesn’t include that which wasn’t planted at all. I’m not worried about fullseason hybrids planted in late May, and only slightly concerned about corn a week or so earlier in Relative Maturity

Southern Tier Stocker Initiative Short Course

Interested in learning about stocker cattle? This course is designed for farmers of all experience levels to learn about managing stocker cattle (calves purchased in the spring, then sold to a finisher after adding weight using relatively inexpensive, excess pasture). The course will help you discover your competitive advantage, markets, economic projections, pasture management, business planning. The course is set in two series. The first series begins on Saturday, September 30th followed by October 28th and two evening sessions in November and December (to be determined). The second will be scheduled starting in late January/February. The first series is classroom based; second incorporates more field study. In-person sessions will be held at the Cornell Cooperative Extension office of Allegany County in Belmont. It will also be streamed to remote sites in Chautauqua, Cayuga, Jefferson and Delaware Counties. Additional remote sites may be added. Cost per series is $100/person and $50/person from same family. Fee includes lunch and all materials. To register contact Barb Jones, bjj6@cornell.edu, 607-255-7712. For more information contact Audia Denton, Stocker Short Course Coordinator, ad982@cornell.edu or Mike Baker, Cornell Beef Specialist, mjb28@cornell.edu, 607-255-5923.
that was planted up to mid-June. But some farmers probably didn’t heed our suggestion (imagine that!) to switch to earlier-maturity hybrids when the calendar page flipped from May to June so are now stuck with longseason hybrids in a shortseason year. Unless a killing frost holds off well into October I’m afraid there will be a lot of “corn slush” ensiled this fall.

A common recommendation in a season like this one is that farmers should wait for frost to remove some moisture from immature corn. This is OK to a point, but the ears on immature (milk stage through early dent) corn are tightly wrapped by their husks. The combination of highly available sugars in milk-stage kernels and a tight husk cover is a recipe for mold formation soon after frost. If possible don’t let frost kill more corn than you can get chopped in a week. The leaves on a corn plant at the recommended stage of maturity (33-35% DM) are typically about 14% of total dry matter and only a few % points higher at the milk stage. Therefore don’t expect freeze-dried leaves to significantly increase plant dry matter %. Frost will have no impact on the dry matter content of the ear or the bottom 80% or so of the stalk. Frost should increase whole plant DM% by a couple of points, but don’t expect miracles.

This weird growing season has done nothing to alter the “silk to silage in seven weeks” rule of thumb. Look carefully at your corn fields and note the calendar date when they begin to silk. You may not like what you find and there’s always the chance of a warm late summer/early fall and delayed killing frost, but it’s wise to be prepared. Even if your corn crop is in trouble you should still plan on using a silage inoculant, for two reasons: First, by the time you harvest this fall, frost and even periods of cold weather will probably have depleted the natural population of fermentation bacteria on the plants. Using a researchproven silage inoculant will ensure a sufficient population of “good” fermentation bacteria. Second, the fermentation of immature corn silage can become dominated by “wild” acetic acid-forming bacteria, assuming they’ve survived fall frosts. A little acetic acid is good — it’s what gives silage that “tang” and tickles the hairs in your nostrils — but a lot of acetic acid can result in adverse fermentation and the resulting high spoilage losses.

LATE-PLANTED SOYBEANS Corn wasn’t the only field crop planted later than desired this year; much more of the soybean crop was planted in June than normal, and with the tremendous increase in soybean acreage in N.Y. and the North Country, there are a lot of very late soybeans out there. Soybeans also love sun and heat, something that was notably missing even into July.

“Will my soybeans make it?” With typical May planting dates it usually takes about two months for soybeans to progress from full bloom (R2) to full maturity (R8). But according to Cornell’s Bill Cox, soybeans planted in June might mature in slightly less than two months. With a May planting date soybeans have a solely thermal response, but at later planting dates crop development is driven both by temperature and a photoperiodic response. So while there are no guarantees, if your soybeans were in full bloom by August 1st there’s a reasonable chance that they’ll mature for grain before the first killing frost.

If your soybeans didn’t reach full bloom by early August then waiting until a killing frost is risky. If frost kills an immature crop the leaves will soon fall from the plants and you’ll be left with a very poor yield of low quality soybean stems and green pods. And at that point I’m not sure what you could do with this crop: It might be too high in dry matter to ensile (not that you should want to!), and yield may be so low so as to make harvest not worth the effort. Confronting a postfrost field of immature soybeans may be like the dog after finally catching that car he was chasing: Now that you have it, what do you do with it?

Soybeans that won’t mature for grain harvest can be harvested for silage if you mow them before frost and before the leaves senesce (turn yellow) and drop from the plant. Most of the nutrition in soybean silage is in the leaves. I’m not a big fan of the stuff, which tests much like full-bloom alfalfa (18% protein, 45% NDF) but probably isn’t as palatable. However, with the
forage quality and quantity challenges many dairy farmers are facing this year this crop could be put to good use. If possible harvest at the full pod stage when the leaves are still green since as noted they contain much of the feed value. However, there's a wide range of acceptable harvest stages—the key is to get the crop harvested before frost. Obviously yield will vary, but a decent field of soybeans harvested at the full pod stage will yield about 2 tons of dry matter per acre or 5-6 tons of 35% DM silage. Some fields I've been looking at will almost certainly yield less than this. On-the-stem dry matter will probably be less than 30% so you'll need to windrow the crop and let it dry to about 35% DM. With a September harvest this could take at least two days, so use wide windrows.

*Note: There are several popular soybean herbicides that have label restrictions preventing their use for forage or silage. READ THE LABEL before making any decision on harvesting soybeans for silage.*

**Pre-Conditioned Feeder-Calf & Replacement Heifer Sale**

On Saturday, October 21st at 10AM,

**Empire Livestock** in Bath, NY will co-host a pre-conditioned feeder-calf and replacement heifer sale with **Region 4 - NY Beef Producers Association & Cornell Cooperative Extension Allegany and Steuben Counties**. The sale will be run alongside of Empire Livestock’s regular feed sale the same day. The pre-conditioned sale will be held first and people can **preview** the cattle from **8AM-10AM** before the sale starts. Producer guidelines include that **producers must provide documentation of vaccination and other treatments**. All procedures will be announced before the sale of the animal. **Third party verification provided for Organic, All Natural or Grass-fed. Cattle not meeting protocol will be separated and sold as non-conforming cattle.** Cattle for the pre-conditioned feeder and replacement heifer sale must **arrive on October 20th from 8AM-6PM**. Pre-conditioned cattle will be penned separately from other cattle and must be **weaned a minimum of 30 days** before the sale. Empire Livestock is located at **7418 Route 415N, Bath, NY**. For Sale Guidelines and consignment information visit the Allegany extension website at [allegany.cce.cornell.edu](http://allegany.cce.cornell.edu). Or contact **Lynn Bliven** at (716) 244-0290

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**Learn How Solar Helps Small Farms and Homesteads**

At **Painted Bar Stables**

September 20th from 7pm-8:30pm.

This event will be looking at how solar energy helps small farms and homesteads save money, become more efficient and reduce their carbon footprint. The [Painted Bar Stables](http://www.paintedbarstables.com) in Burdett will be hosting an introduction to solar event supported by [Solar Schuyler](http://solarschuyler.com), the [New York Farm Bureau](http://nyfb.org), and Cornell Cooperative Extension Schuyler County. The event will take place following the mixer social for the [Watkins Glen Area Chamber of Commerce](http://watkinsglenchamber.org). There will be solar industry volunteers, educators and installers at the event giving presentations and answering your questions. You do not have to be a Schuyler County resident to attend as all of these installers work in other counties as well! Please contact Roger Ort with any questions 607-535-7161 or email rlo28@cornell.edu
Cost of Rearing Heifers
Source: https://www.farmingmagazine.com/author/tscully/

“There are many ways to get you to successful reproduction,” Dr. Julio Giordano, DVM, Assistant Professor, Cornell University Dairy Cattle Biology & Management said. Giordano presented the latest data from his recent study on dairy cow reproduction and its impact on reducing replacement heifer rearing costs.

His research involved three New York farms, and studied three different approaches to managing heifer breeding. The least intensive method involved prostaglandin injections, followed by estrus detection (ED) and artificial insemination (AI); the mid-intensity program involved Presynch protocols (to synchronize ovulation) followed by EDAI plus 5d-Cosynch; and the most intensive used a 100 percent TAI protocol. All farms had heifers enrolled in all three programs.

Giordano’s studies did not stop after the first breeding attempt. Open heifers were rebred via EDAI and 5d-Cosynch in all protocols. Any open at 31 days were bred with the same timed AI program used for the 100 percent TAI group. As expected, the most aggressive 100 percent TAI approach resulted in 100 percent of heifers bred within one day, on all farms.

The other approaches varied in success rates depending on how well the farm staff detected heat. For farms with high heat detection rates, the least intensive method resulted in only one percent of the cows open at 31 days. On the farm with very poor heat detection rates, this least aggressive method resulted in 47 percent of the heifers being open at 31 days. The mid-range intensity synchronization program resulted in more cows requiring TAI on all farms, with 19 percent of cows open at 31 days.

The study found little statistical cost difference between the low and mid-intensity programs. On average, the high-intensity TAI added $40.00 – $60.00 per cow to rearing costs,

Giordano said. The heifers in the study, on average, did not make more money than it cost to rear them, after accounting for feed costs, fixed costs, shots, pregnancy checks, and the value of the calves born, and all other various expenses.

Supplementing Calcium
Source: https://www.farmingmagazine.com/author/tscully/

New York dairy farms have also been participating in a large-scale study to help determine what, if any, benefits are associated with supplementing fresh cows with oral calcium. In the study, 1,000 cows – both first lactation and older cows – were randomly given Quadrical boluses, and reproduction and milk production were studied.

Results show that some cows with normal calcium levels, but who received supplementation, had some negative health effects, including higher levels of mastitis in first lactation animals, or metritis in older animals. Some animal groups did demonstrate slight positive effects from calcium supplementation. Fat heifers had slightly better reproduction rates and small gains in milk production were seen in those with prolonged gestation.

The national average rate of milk fever, due to low calcium levels, is about five percent. But forty-seven percent of cows on their second or subsequent lactations have subclinical calcium levels, according to Dr. Robert Lynch, DVM, Dairy Herd Health and Management Specialist.

“Downer cows need serious intervention,” Lynch said. However, “we’re supplementing everything and maybe need to decrease this tendency.”

Source: https://www.farmingmagazine.com/author/tscully/
**Dairy Market Watch**

<table>
<thead>
<tr>
<th>Milk Component Prices</th>
<th>Milk Class Prices</th>
<th>Statistical Uniform Price &amp; PPD</th>
<th>MPP</th>
<th>Milk Margin Minus Feed Costs ($/cwt)*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Month</strong></td>
<td>Butterfat</td>
<td>Protein</td>
<td>I (Boston)</td>
<td>II</td>
</tr>
<tr>
<td>July 16</td>
<td>$2.59</td>
<td>$1.91</td>
<td>$16.95</td>
<td>$15.16</td>
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<tr>
<td>Aug 16</td>
<td>$2.48</td>
<td>$2.57</td>
<td>$18.32</td>
<td>$15.21</td>
</tr>
<tr>
<td>Sep 16</td>
<td>$2.31</td>
<td>$2.56</td>
<td>$19.81</td>
<td>$14.66</td>
</tr>
<tr>
<td>Oct 16</td>
<td>$2.04</td>
<td>$2.29</td>
<td>$19.85</td>
<td>$14.09</td>
</tr>
<tr>
<td>Nov 16</td>
<td>$2.10</td>
<td>$2.80</td>
<td>$18.03</td>
<td>$14.60</td>
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<tr>
<td>Dec 16</td>
<td>$2.34</td>
<td>$2.69</td>
<td>$20.13</td>
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</tr>
<tr>
<td>Jan 17</td>
<td>$2.53</td>
<td>$2.18</td>
<td>$20.70</td>
<td>$16.36</td>
</tr>
<tr>
<td>Feb 17</td>
<td>$2.42</td>
<td>$2.23</td>
<td>$19.98</td>
<td>$16.52</td>
</tr>
<tr>
<td>Mar 17</td>
<td>$2.42</td>
<td>$1.82</td>
<td>$20.15</td>
<td>$16.21</td>
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<tr>
<td>Apr 17</td>
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<td>$1.77</td>
<td>$18.45</td>
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<tr>
<td>June 17</td>
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<td>$18.56</td>
<td>$16.15</td>
</tr>
<tr>
<td>July 17</td>
<td>$2.95</td>
<td>$1.22</td>
<td>$19.84</td>
<td>$17.48</td>
</tr>
</tbody>
</table>

**Cheese:** Milk availability into cheese vats is experiencing a seasonal decline across the nation. Spot milk prices ranged from $1 under to $1 over Class III. Eastern food service and retail cheese demand is fair to good. Late last week and early this week, barrel prices caught up and briefly surpassed block prices on the CME. However, prices have since dropped for both types. Many market participants expected a correction from Monday’s peak and remain cautiously optimistic about the market tone.

**Butter:** The United States butter demand is steady to strong as sales into educational and retail channels are active. Spot sales activity is mixed. A number of manufacturers report sales are good and growing. However, some market participants report seeing minimal sales as buyers and end users are waiting to see near term price direction. Throughout the regions, cream supplies are available for contractual needs. In the Northeast, cream availability outside of commitments is slim as the demand for cream is high. Butter production is mixed as butter makers are working hard to find the right economic balance for their production.

**Fluid Milk:** Cows’ milk production is mixed across the country depending on varying climatic conditions in each region. However, farm milk intakes are expected to seasonally improve throughout the fall season. Bottled milk requests from schools are strong as most educational institutions are reopening. Compared to the past few weeks, condensed skim volumes are less available while demands from NDM/SMP and ice cream processors are fair to good. In the same way, cream sales to ice cream manufacturers are active, but are less intense compared to the previous month. Cream is relatively available for butter churning.

**Dry Products:** Low/medium heat nonfat dry milk (NDM) prices are steady on the range and mostly price series in the Central and East, while the range and the mostly price series in the West were mixed. Low/medium heat NDM demand was light and the spot market was fairly quiet. Low/medium heat NDM production is mixed from region to region, while inventories are adequate to long.

**Organic Dairy Market News:** During July 2017, organic whole milk utilization totaled 14.1 million pounds, up from 12.3 million pounds one year earlier. The July, 2017 butterfat content was 3.28 percent, down from 3.29 percent in 2016. Organic reduced fat milk utilization for July this year, 18.4 million pounds, was down from 18.5

### Friday CME Cash Prices

<table>
<thead>
<tr>
<th>Dates</th>
<th>Butter</th>
<th>Cheese (40# Blocks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/28</td>
<td>$2.72</td>
<td>$1.75</td>
</tr>
<tr>
<td>8/4</td>
<td>$2.73</td>
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<td>8/18</td>
<td>$2.65</td>
<td>$1.76</td>
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<tr>
<td>8/25</td>
<td>$2.63</td>
<td>$1.65</td>
</tr>
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</table>
After taking a dip down in July milk prices will increase again in August. The July Class III price fell $0.99 from June to July to $15.45, but may increase about a dollar in August to near $16.45. The Class IV price did increase $0.52 from June to July to $16.60, but may be unchanged for August. Slower growth in milk production, good domestic sales of butter and cheese and higher dairy exports strengthen dairy product prices which pushed milk prices higher in August.

USDA estimated July milk production to be 1.8% higher than a year ago. This marks the third straight month the increase has been less than 2% which is supportive of higher milk prices. U.S. dairy exports in the first half of the year were the most in three years due to record exports of nonfat dry milk/skim milk powder and whey products and a 24 percent year-to-date increase in cheese exports.

Butter prices have held due to lower production, good sales and higher exports. In June butter production was 4.8% lower than a year ago and 1.7% lower year-to-date. As a result, stocks of butter declined May to June and were 5.5% lower than a year ago. But, cheese production has been higher than a year ago. June production of cheddar cheese was 2.8% higher with year-to-date 6.0% higher. Total cheese production for June was 3.2% higher and 2.7% higher year-to-date. With good cheese sales and higher exports stocks of cheese declined May to June, but were still 7.0% higher than a year ago for American cheese and 5.3% higher for total cheese. Relatively strong production in June compared to a year ago for nonfat dry milk at 11.6% and dry whey at 9.8% resulted in relatively higher June stocks putting pressure on prices. Compared to a year ago nonfat dry milk stocks were 28.9% higher and dry whey stocks 12.2% higher.

Seasonal improvement in butter and cheese sales along with expected continued improvement in exports should add further strength to the Class III price for September and October reaching into the $17’s. Higher butter prices should keep the Class IV price in the $16’s. These higher milk prices will be supportive if the growth in milk production remains below 2%. The1.8% increase in July milk production was the result of 0.8% more cows and just a 1.0 % increase in milk per cow. Unlike last year a lower increase in milk per cow is slowing the increase in milk production. Compared to a year ago, the increase in milk production is considerably lower in the Northeast and Midwest with mixed changes in the West. Compared to July a year ago, Northeast milk production was slightly lower in New York, Pennsylvania and Ohio with Michigan up just 2.9%.

USDA has lowered their forecast for 2017 milk production for each of the past five monthly forecasts due to an expected lower increase in milk per cow reducing the impact of more cows. USDA is forecasting an average of 0.8% more cows, but just a 0.7% increase in milk per cow resulting in 2017 milk production 1.6% higher than last year. Wet weather in both the Northeast and Midwest, with the exception of South Dakota which has experienced a drought, harvesting quality hay has been hampered which could impact milk per cow in these two major milk producing regions. Looking further down the road we could see the Class III price falling back to the mid $16’s first quarter of next year. But, there remains a lot of uncertainty as to final prices. Prices will depend upon the actual level of milk production, domestic sales and exporters.
COMING EVENTS:

September 13 – 5:00 PM-8:00 PM-Growing American Ginseng in WNY, For more information see article in this issue or call Lynn Bliven at 585-268-7644, ext. 18 or email lao3@cornell.edu.

September 13-16 – Cornell Maple Camp, Cornell University’s Arnot Teaching & Research Forest, 611 County Road 13, Van Etten (Cayuta), NY. For more information see article in this issue.

September 20 – 7:00 PM-8:30P PM-Learn How Solar Helps Small Farms and Homesteads, At Painted Bar Stables, Burdett, NY. For further information see article in this issue.

September 20-21 – Strategic Marketing Conference, Getting Started in Agri-Tourism, Becker Farms, 3724 Quaker Road, Gasport, NY 14067. For more information, please see the full page ad in this issue.

September 23 – 10:00 AM-2:00 PM-Farm City Day, Karr Dairy Farm, 1451 Dennis Road, Hornell, NY. On Saturday September 23rd from 10am – 3pm, the public can come pet baby calves, pick a pumpkin, get lost in a corn maze, milk a cow by hand, dig for potatoes, and play in a giant pile of corn. Families can participate in many more farm friendly games and activities at the upcoming Farm-City Day. Local farmers and farm businesses will be on hand to answer questions. Local growers will have fresh farm products to sample and sell.

Farm-City Day is an educational, fun filled day on the farm where visitors can get a firsthand, behind the scenes look at how a modern dairy farm operates. Food& ice cream will be available from several community organizations. For more information, go to our website at: www.putknowledgetowork.org

October 2 – “Clean Sweep NY” Program, For more information, see article in this issue or call 877-793-3769 or email info@cleansweepny.org

October 20 – 10:00 AM-4:30 PM-Growing Black Locust as a Timber Cash Crop, USDA NRCS Big Flats Plant Materials Center, 3266 State Route 352, Big Flats, NY 14814. For more information, please see the full page ad in this issue.

October 21 – Pre-Conditioned Feeder-Calf & Replacement Heifer Sale, Empire Livestock, Bath, NY. For more information, see article in this issue.

November 3 – 2017 NYS Women In Agriculture Conference, Doubletree, 6301 NY-298, East Syracuse, NY. For more information, please see article in this issue.