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Cover photo: Our upcoming “Season Extension with High Tunnels” course will teach you about the various factors farmers should consider before you start growing, such as soil testing, site assessment, and growing practices. This course is part of our third block of courses beginning in January, including “Access to Capital,” “Exploring Markets and Profits,” “Getting Started with Pastured Pigs,” “Holistic Financial Planning,” “Introduction to Beekeeping,” “Sheep Production,” “Social Media & Online Marketing,” “Vegetable Production II,” “Woodland Mushroom Production,” and “Writing a Business Plan.” Learn more about our courses at smallfarms.cornell.edu/online-courses.
News from the Cornell Small Farms Program, Winter 2022

From Farm Business Planning to Production Strategies, Learn with Us in the New Year

Our online course season is almost halfway through, and now’s the time to register for our upcoming block three courses which begin in January. This block of courses includes our new offering on access to capital, plus farm business courses and production courses covering beekeeping, mushrooms, sheep, and more.

Our suite of online courses is offered on a user-friendly platform which grants registrants permanent access to their course content. Also, courses have tiered pricing based on household size and income to make access to the courses more affordable and equitable for everyone.

Registration is now open for all courses, with live instruction starting the week of Jan. 10 for our third block of courses:

- **Access to Capital**, Mondays, Jan. 10 - Feb. 14. It can be very difficult to navigate the process of getting grants or loans, especially if you did not come to farming with a background in finance. This new course will cover the various aspects of seeking funding for a farm enterprise.

- **Exploring Markets and Profits**, Thursdays, Jan. 13 - Feb. 17. Have an idea for a farm enterprise but not sure if it’s feasible? This course will help you explore the potential markets and profitability of your ideas, picking up where BF 101: Starting at Square One (not a prerequisite) left off.

- **Getting Started with Pastured Pigs**, Mondays, Jan. 10 - Feb. 14. Pigs can be a profitable stand-alone enterprise or can be integrated into an existing farm structure, as they provide a variety of products and are also ideal for turning agricultural wastes into valuable products. This course will guide you through the production and marketing of pigs raised in pasture settings.

- **Holistic Financial Planning**, Tuesdays, Jan. 11 - Feb. 15. If you’ve been struggling to make your farm operation profitable without driving yourself into the ground, this financial planning course is for you. You will learn how to make financial decisions toward farm and family values and goals.

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Message from the Editor

Dear farmers and friends,

Central to the mission of the Cornell Small Farms Program is that anyone who wants to operate a small farm in New York State has access to appropriate information, resources, and networks to grow their farm and business.

In 2006, we launched our beginning farmer training effort with our CCE colleagues. We provide online courses and in-person learning opportunities, a robust suite of online resources, and connections to CCE educators and other service providers who can help. Since then, we have helped more than 30,000 beginning farmers start turning their dreams into reality. We have built upon this foundation to create Farm Ops, our project to support military veterans interested in agriculture, and our Latinx farmer training offerings.

Now, we are thrilled to announce the Equitable Farm Futures Initiative. We are deeply grateful for the support from Assemblymember Donna Lupardo and Senator Michelle Hinchey, the chairs of the Assembly and Senate Agriculture Committees, and their legislative colleagues, as well as our partners at NYS Department of Agriculture and Markets. With this initiative, we will create and expand specialized training and support for unique communities of small-scale and beginning farmers in NYS. This initiative will:

- Support Spanish-first and bilingual aspiring and active farmers
- Foster new partnerships and collaborations with other NYS service providers to strengthen support for diverse new farmers
- Target education and coaching on farm business and financial management for all small-scale farmers, especially those in their start-up years

Equitable Farm Futures will become the centerpiece of our efforts to increase the diversity of farmers in New York. We will continue to highlight the work and resources of the multitude of amazing organizations throughout NYS and beyond that make farming accessible and viable to anyone who aspires to farm.

In the coming months, we will announce new educational opportunities developed in partnership with CCE and other NYS-based service providers. These opportunities will be open to all NYS farmers.

We welcome your questions and comments, and encourage you to reach out to us with any questions about this exciting initiative.

Stay tuned for opportunities to join us as we work toward a more robust, resilient, and inclusive small farm community here in New York!

Anu Rangarajan
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Editor-in-Chief, Small Farms Quarterly
Director, Cornell Small Farms Program
Getting Turkeys Off to a Good Start

This is the second in a series of articles on how farmers can include pasture raised turkeys in their operation.

By Dave Perozzi

In this installment in our series on turkeys, I’ll cover the brooding phase. Brooding refers to the early period when turkey poult’s (yes, they are called poult’s, not chicks) need extra care and attention. As they grow and mature, turkeys can become quite resilient, but during their juvenile phase they need some mothering. Unless you have hens hatching clutches of eggs, you, the farmer, need to be the surrogate hen.

More so than any other class of domesticated birds, poult’s need an attentive farmer. This means multiple checkups per day, especially during the first days after hatching. I recommend using your five-gallon bucket for more than carrying feed. Set it down and have a seat on it. Turkeys appreciate attention from humans and will gladly gather around to peck at your shoelaces and to stare up at you in beady-eyed wonder.

Spend some time observing the birds, noticing the patterns in their behavior. Where are they spending their time? Where are they drinking? Are there any wet spots in the bedding? Are they comfortable sleeping? Are they piling up for heat? Are they trying to move far from heaters? How does the environment smell?

Setting Up a Brooder

A turkey brooder can take many forms, so I won’t be prescriptive about how to configure yours. If you are already using a brooder for chickens, it will probably also be serviceable for turkeys (at least during the early stages).

If you are planning on brooding turkeys in an area that has been used by other poultry, start with a good cleaning. This is a good standard practice for disease prevention, but turkeys are especially susceptible picking up illnesses early on, so take the time to do a thorough cleaning. If possible, I’d recommend a full power wash of all surfaces, feeders, and waterers. If you have a dirt floor, scrape down to bare dirt. Then apply a generous dusting of barn lime or gypsum powder to the floors and allow that to sit undisturbed for a few days. This will dry out the floor and create a good, pathogen-free foundation.

A brooder will require bedding. The best options in the Northeast are peat moss and kiln-dried wood planer shavings. I recommend avoiding wet shavings, wood chips, or hay, as all of these are prone to clumping and growing mold. If you have access to hulls (oats, rice, etc.) or well-chopped straw, these may also work. On our farm, we now use peat moss exclusively. It is more expensive than wood shavings, but we find that we use less than half as many bales, so the final costs are comparable. It is dusty and dirty, so be prepared for that, but our experience indicates that it prevents many of the early-onset diseases like coccidiosis that can be traced back to manure-soaked bedding.

When planning a turkey brooder, keep in mind that they’ll need to be in there for five or six weeks. We normally bring chicks out of the brooder at 2.5 to 3 weeks of age, but turkeys need the extra time. If you are bringing turkey poult’s out to pasture, if they can be fully protected from rain, and if the weather is staying above 60º at night, you might be able to bring them out of the brooder at four weeks, but this will be risky. Be sure to allow for plenty of space and to plan for frequent applications of additional bedding materials during the final weeks in the brooder.

The Big Concerns

When we think about the needs for poult’s in a brooder, here the important points:

- **Air Quality** – Make sure your brooder is designed so the poult’s are not experiencing any cold drafts, but never seal things up completely. All our brooders are set up with two sets of fans. A smaller 12-inch fan is set on a percentage timer so I can ensure that some of the air in the brooder is exchanged every five minutes. A larger 20-inch fan is set on a thermostat so I can cool the brooder on hot days. Ammonia begins to damage lungs at levels that are still undetectable to the human nose. But if you smell ammonia, you have a ventilation problem, and this will certainly have a long tail of health effects for your turkeys during the remainder of their grow-out. For an example of how we set up our ventilation, see wrongdirectionfarm.com/2019/03/16/command-and-control.
- **Heat** – Poult’s need more heat than chicks. We aim for 95º ambient temperature on day one. We want to have both hot zones and warm zones, allowing the poult’s to soak up some heat when needed, but also some place to go when they are fully warmed. We drop the thermostat by one degree per day until the temperature is at 70º. After that, we set the minimum temperature to 60º for the remainder of the brooding period.
- **Water** – Be sure the poult’s are drinking water soon after arrival. We typically catch poult’s and dip their beaks in water. After introducing 10 or 20 poult’s to water, the others seem to catch on and copy that behavior. If the birds have been stressed by a long transit from the hatchery, hydration is your first priority.
- **Feed** – Source a high-quality turkey starter feed. During the first two days, we cover the brooders with trays full of feed. For the newly hatched poult’s it is critically important that they get a cropful of food, so we want them to be finding food wherever they turn. If you can source fresh-milled feed, you’ll notice a significant benefit compared to bagged feeds. After grain is milled, oxidation and other processes begin to degrade starches, fats, and vitamins.
- **Dry, clean feet** – Keep the bedding managed so your turkeys are standing on dry ground. Dig out and replace bedding that has become soaked due to leaks. Rake or fork bedding to prevent the formation of a manure cap. As needed, top off with fresh material.
- **Pests** – Be vigilant to close up any holes by which predators can gain access to your birds. Rats, skunks, raccoons, foxes, weasels, and, of course, cats and dogs are all common four-legged threats. Owls can also be crafty adversaries if you have any openings accessible from above.

**Newly hatched poult’s in the brooder. They are all gathered around Harry, watching mesmerized as he wiggles his fingers over their heads.**

Dave Perozzi / Wrong Direction Farm

**The Maddening Crowd**

Turkeys are gregarious, and while that makes for some entertaining antics, it also puts them at additional risk when young. They are prone to crowding. This can turn deadly, particularly during the early days. Pileups are typically due to temperature problems. A cold draft or an overheated brooder can each send all the turkeys into a corner where they stack up and smother each other. During the first two days we make frequent visits to the brooder and break up any turkey gatherings that look risky. Typically just passing an open palm, you have a ventilation problem, and this will certainly have a long tail of health effects for your turkeys during the remainder of their grow-out. For an example of how we set up our ventilation, see wrongdirectionfarm.com/2019/03/16/command-and-control.

**THINKING SMALL ISN’T ALWAYS A BAD THING!**

By definition, a small farm generates less than $250,000/yr in revenue. Small farms make up 90% of all farms in the US; nearly 2 million!

That’s a BIG market!
Staying Safe Around Beef Cattle

In Part Seven of our “What’s Your Beef?” series on raising cattle on small farms, we discuss how you must be vigilant about safety when working with cattle.

By Rich Taber

This is the seventh article in our “What's Your Beef?” series on beef cattle management and focuses on safety considerations when working with beef cattle. The six previous articles can be accessed in the Small Farm Quarterly archives.

Each year, thousands of people throughout the USA are injured, and a few are killed, when around cattle. Beef cows and bulls can be extremely large, heavy animals sometimes weighing upwards of a ton. After a lifetime of working around dairy cattle, beef cattle, and sheep, I have seen my share of accidents with different classes of livestock. Bulls in particular can be extremely dangerous. They can be territorial and may attack you if you disrupt them when they are breeding.

Several years ago, a former FFA student of mine was killed by a belligerent Jersey bull. That same year, I was attacked by a young Jersey bull that I was using to breed some dairy heifers. The bull had been fine and acted just like any other animal in the herd. Then one day out of the blue he came after me while I was in the back of an old manure wagon feeding hay. I came out of this unscathed; however, the bull soon left the farm. As a rule, beef bulls are not as dangerous as dairy bulls, but still can never be trusted.

Cows with newborn calves can be very aggressive toward humans too and you must never turn your back on them. If you're going out into the pasture to ear tag or check on baby calves, a bawling calf can trigger very hostile reactions from the cow. Be sure to keep your distance because the mother will be very protective. • As mentioned, if a cow has a newborn calf, be sure to keep your distance because the mother will be very protective. Avoid walking between the cow and her calf.

• Often, injuries occur because an animal, such as a cow, appears to be gentle, and the person working with the animal is caught off guard. This is the old “familiarity breeds contempt” concept. I recently read of an animal sanctuary farm taking in a mature bull that for about a year was the hit of the farm, as he let visitors rub his nose and forehead. Then the day came when he maimed and almost killed his handler in a twist of personality.

• Bruises, broken bones, crushed limbs, or even death may occur from falling or getting knocked down or run over by an animal.

• Cattle are unable to see directly behind them, and because of that, they can be easily startled. Speak gently and don’t yell or scream at your cattle.

• As mentioned, if a cow has a newborn calf, be sure to keep your distance because the mother will be very protective. Avoid walking between the cow and her calf.

• It’s critical that you use extreme caution when you are around a bull. I make it a practice of always keeping note of where the bull is when I am out feeding my herd. I have to know his location because a cow will become quite aggressive when she is being disturbed while nursing her new calf.

Before we delve further, I am going to suggest that you investigate the docility of the breed of cattle that you are working with. Some breeds are much more docile — “laid back,” if you will. Artificial insemination studs have docility indexes for different breeds; docility can vary between breeds as well as within breeds. I have a crop of calves this year that “go ballistic” when we try to handle them. I will not be retaining any of them for breeding replacements. I will be looking for a different sire breed next year for my replacement bull. As you get older, dealing with wild, unruly animals gets old quickly! If genetics can help, avail yourself.

I have some information here excerpted from Gempler's Tailgate Training Tip Sheet #98, “Dangers of Bulls and Other Cattle,” and embellished with some of my own experiences.

• This autumn has been very aggravating with endless rain and subsequent mud, muck, and sloppy conditions being the norm. I move my feeders every few days to limit the formation of quagmires which are unsafe to work through. You don’t want to be stuck in a quicksand-like, boot-sucking nightmare that impedes your movements around the cattle.

• Never beat your cattle with clubs, sticks, canes, etc. Keep Staying safe 7
January 10, 2022

Social Media & Online Marketing

Mondays, Jan. 10 - Feb. 14. Are you struggling with questions like how do you get your company’s videos to go viral? Do you need to improve your search engine optimization so that your website shows up higher on Google and Bing? This course covers many of these different options. Explore social media platforms including Facebook, Instagram, and Twitter. Discover search engine optimization (SEO). Learn about online and email marketing and how to market your website. Create and improve your list of online business contacts. There is no one right way. Explore the lively, wide-ranging course. Experience levels will find something for them in this course.

Vegetable Production II

Wednesdays, Jan. 12 - Feb. 16. This course continues where BF 120: Vegetable Production I (not a prerequisite) ends, covering vegetable production from transplanting to harvest, including in-season fertility, integrated pest management, weed control, harvesting, and marketing.

Woodland Mushroom Cultivation

Tuesdays, Jan. 11 - Feb. 15. With a bit of practice, mushrooms can be a great addition to your family’s diet. Participants will learn about high tunnels, covering cost, management, and more.

Sheep Production

Thursdays, Jan. 13 - Feb. 17. Have sheep or thinking about getting a flock? Producers of all experience levels will find something for them in this lively, wide-ranging course. There is one no one right way to raise sheep – this course covers many of these different options.

Social Media & Online Marketing

Thursdays, Jan. 13 - Feb. 17. Are you struggling with questions like what do hashtags do, how to start selling online, are websites still useful, and more? This new, five-week course will give you real-world experiences paired with academic concepts.

Season Extension with High Tunnels

Tuesdays, Jan. 11 - Feb. 15. Adding weeks to your growing season can mean attaining a premium for having products available well before (or long after) other local growers. This course will introduce you to unheated plastic-covered high tunnels, covering cost, management, and more.

Turkeys from 4

Enjoying Turkeys

I wonder sometimes how best to communicate the pleasure of raising turkeys. Inevitably I feel the need to enumerate the cautions for all the things that might go wrong in the brooder, but just listing cautions doesn’t do the experience justice. I’ll circle back to the idea I started with: the attentive farmer. As we spend time with our birds and give them the attention they need, we’ll be able to sort through all the problems that might arise. But in the meantime, we’ll find that raising turkeys is enjoyable. They are great birds to have on the farm.

Next time I’ll begin talking about what to do when the turkeys are ready to get onto the pasture.

Dave Perozzi is a farmer at Wrong Direction Farm in Canajoharie, NY. He and his family raise and sell certified organic, pasture raised chickens and turkeys as well as grass-fed beef. Check out WrongDirectionFarm.com for details about the farm and for a long-running blog on all aspects of farm life.

Join Our Soil Health Sessions at the Empire State Producers Expo

This year’s Empire State Producers Expo is returning to an in-person event Jan. 11 - 13 at the Syracuse OnCenter, following all local and state health and safety guidelines. This annual conference serves NYS vegetable and fruit growers and gathers almost 1,000 attendees over three days, offering educational workshops on a broad range of topics and an expansive trade show featuring ag support and supply businesses.

New this year, programming on Thursday, Jan. 13 will be focused on workshops of interest to small-scale and beginning farmers and produce farms using organic and ecologically based management. Production-centered sessions will cover pests and disease, high tunnels, organic apples, cut flowers, organic alliums, agroforestry, cover crops for weed management, and biocontrol for managing insects.

The Cornell Small Farms Program has organized soil health sessions, including “Strategies for Small Farms,” which features mulching, tarping, and cover cropping, and “No-Till in Rolled Cover Crops,” which covers both vegetable transplants and soybeans and dry beans.

First, in “Strategies for Small Farms,” Bob Tuori (Nook & Cranny Farm, Brooktondale, NY) will discuss the use of permanent beds, hay mulch, cover crops, and tarps as soil and weed management tools for diversified, small-scale organic vegetable production. Natalie Lounsbury (University of New Hampshire) will then share her research and experience working with farmers using tarps to terminate overwintering cover crops and enhance weed suppression in no-till.

Then we’ll scale up and talk “No-Till in Rolled Cover Crops” with Jean-Paul Courtens (Philia Farm, Johnstown, NY) and Sarah Pethybridge (Cornell University). Courtens will discuss his experimentation with different cereal-legume mixtures, roller crimping, transplant adjustments, and the potential of this system to suppress weeds and supply nitrogen to summer transplanted crops. Pethybridge will share lessons from research using high residue cover crops as a method to reduce white mold infection in organic soybean and dry bean production.

Come get ideas on how you can keep more of your soil covered, reduce your inputs, and improve productivity with less tillage on your farm. See the full conference schedule and register at nyvega.org/expo/information.

Agroforestry Team Re-
Staying safe from cattle Running into trouble.

Know that cattle have a "flight zone." This is the animal's personal space. When you come within that zone, the animal will move.

Never mistreat cattle! If you see a co-worker beating or hurting an animal take remedial action.

Bulls can be dangerous and are never to be trusted!

IF the cows get out and people unfamiliar with cattle handling techniques come to help round them up, instruct them NOT to chase, yell, or run after cattle. I have had better success in rounding up cattle with one or two experienced handlers rather than a bunch of people running around stirring up or beating or hurting an animal take remedial action.

Never mistreat cattle! If you see a co-worker beating or hurting an animal take remedial action.

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Bulls can be dangerous and are never to be trusted!
Building an Alternative Supply Chain for Shiitake Mushroom Growers

The Logs to NYC project connects city-based mushroom growers with rural landowners and surplus lumber hoping to blaze a trail to lower-carbon living.

By Doug Bierend

On a sunny Saturday afternoon, power tools whirred and wood shavings flew outside the Hudson River Maritime Museum in Kingston, NY. In the shadow of Mathilda, a hefty 19th-century tugboat propped up on stilts alongside Rondout Creek, visitors busily bored holes into freshly cut red oak logs laid out upon sawhorses. Participants in this hands-on shiitake mushroom cultivation workshop each took home one log from a stack of about 300 that altogether weighed some 12,000 pounds. Later that afternoon, the group passed along the remaining logs, bucket brigade-style, into the hold of a graceful sailing schooner, the Apollo尼亚, docked just steps away, beginning a week-long journey some 100 miles down the Hudson River to Brooklyn.

This unlikely combination of elements – mushrooms, a huge pile of logs, a sailboat bound for the big city – was the culmination of a multifaceted experiment that asked “Is it possible to deliver resources from a region where they’re plentiful to one where they are scarce, while prioritizing sustainability and supporting a local economy?”

The Global Business of Domestic Mushrooms

Many mushroom eaters may not realize the extent to which the industry – especially shiitakes and the logs used to grow them – has become dominated by overseas imports. Shiitake have been cultivated for thousands of years, particularly in China, Korea, and Japan. The traditional method starts with a hardwood log like white oak, beech, or sugar maple, usually no more than 10 inches in diameter, and no more than a few weeks old, always with the bark still intact. After drilling holes around the log in a diamond pattern, a kind of mechanical turkey baster is used to fill them with “spawn,” the starting mix of sawdust and fuzzy fungal mycelium that spreads throughout the wood, allowing the fungi to grow. Woodworkers use wooden furniture dowels to start their logs.

Inoculation spots are brushed over with melted wax to keep competing microorganisms out and moisture in. The logs are then stacked in a shady outdoor spot for six to 18 months. Once shot through with mycelium, an overnight soak in cold water and a strike with a rock or sledgehammer (seriously) helps induce the fungus inside the log to start producing pounds after pound of mushrooms. They will often produce “flushes” for several years in a row.

In 1972, the USDA lifted a ban on importing live shiitake cultures, which kicked off the U.S. industry; between 1986 and 2008, annual domestic shiitake production jumped from fewer than 1 million pounds to more than 10 million, and the price dropped from $5.40 to $2.81 per pound. This sea change took place in large part as a result of a broad shift to synthetic logs, or blocks, made with compressed sawdust, sealed and shipped in polypropylene. These pre-inoculated blocks are much cheaper, can be cultivated indoors year-round, and work much faster because the shredded substrate is easier for the fungus to consume (though many note a distinct difference in the flavor of the mushrooms they produce).

American mushroom companies typically manufactured their own spawn and sawdust blocks, until around five years ago, when the market quickly became flooded with cheaper imported blocks, mostly from China. These blocks sell for a fraction of the price of anything made domestically, despite the thousands of extra miles involved in transportation. Since they also save the buyer the need to produce spawn, source sawdust, and go through the inoculation process, the choice became clear.

“Block producers review their options and they say, ‘I don’t have the huge overhead, I just need a fruited room and a good sales attitude for getting rid of fresh mushrooms,’” said Eric Lomen of North Spore Mushrooms in Maine, who also works with companies like Top Hat Mushrooms in Oregon are among the very few that have continued producing their own blocks. Otherwise, imports have effectively replaced domestic production. The kicker: since mushrooms sprout from the imported blocks shortly after arriving, they can be labeled “product of the USA.”

Unlike the imported logs, the ones along the Rondout came from just a few miles north. Instead of a flatbed truck, they sailed to the city by the power of wind, then traveled by bicycle for the final delivery. By piecing each element of a supply chain together from scratch, as well as connecting a number of communities aligned by values of non-extractive practices and local exchange, the Logs to NYC Project seeks to meet a need while demonstrating a more sustainable approach to the distribution of resources.

“The abundance of material outside of the city is not showing up downstream,” said Steve Gabriel, Extension specialist at the Cornell Small Farms Program, the masterminds behind the Logs to NYC Project, who worked with the Mushroom Shed and other local organizations.

“I was teaching classes and talking to people in the city who would say, ‘Boy, I’d love to get my hands on some logs.’ It seems so impossible to them, but where I live upstate, I’m tripping over wood. It’s kind of a waste product here in more rural areas. So it struck me that there’s an opportunity to connect those two things.”

Following stops in a handful of other towns along the Hudson River, the Apollo尼亚’s run ended at Red Hook Community Farms (RHCF), There, a volunteer team of Community Mushroom Educators (CMEs), volunteers trained as part of Cornell’s Extension program, inoculated the remaining logs and took them to local community gardens and farms around the city. All told, the full shipment of logs is expected to produce about 1,000 pounds of mushrooms, which will go into CSA boxes and pantry donations, and get sold to restaurants and farm stand customers. For the city’s community gardens and farms, however, it’s not just about production.

“It can also be looked at as a way that we’re expanding our curriculum and educational opportunities,” said Ciara Sidell, urban farm manager at the Randall Island Park Alliance, which took 15 of the logs.

“(Shiitake logs have) been a hotly requested thing by a lot of our community members, and it really fits in with farm production and the labor needs of farming.”
MAY BE PLANS NOW TO EXHIBIT OR ATTEND!

EMPIRE STATE PRODUCERS EXPO

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Java Farm Supply • 711, 810
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Futuro Financiero – Winter 2022 Dates: Thursdays, Feb. 3, Feb. 17, and March 3 from 9 a.m. - 4 p.m., with Graduation Celebration on Saturday, March 5 from 4 - 7 p.m.

Location: Western New York Lake Ontario Region (Orleans, Monroe, or Wayne County). Note: Final location will be determined in collaboration with attending students to best fit their schedule.

Eligibility: Spanish-speak-
ing, bilingual, and other farm owners and employees currently working within multi-lingual agricultural environments in the Western NY-Lake Ontario region. Students should be interested in gaining managerial skills while improving English language communication.

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El curso Futuro Financiero (Anteriormente Master Class Program) es un curso de desarrollo profesional para propietarios de fincas o negocios agrícolas, gerentes, o mandos medios, supervisores, y empleados, bilingües (Inglés y Español) o solamente español o Inglés que buscan aumentar la comunicación en la finca y el compromiso con los empleados. Las clases integran el Aprendizaje del Idioma Inglés (ELL por sus siglas en inglés) dentro del plan de estudio para ofrecer a los estudiantes la oportunidad de ganar confianza mientras trabajan y se comunican en inglés.

Futuro Financiero – Invierno 2022 Fechas: Jueves, 3 de febrero, 17 de febrero, y 3 de marzo, de 9 a.m. - 4 p.m. Celebración de la graduación: Sábado, 5 de marzo, de 4 - 7 p.m.

Lugar: En el Oeste de la Región del Lago Ontario (Orleans, Monroe, o Wayne County). Nota: El lugar definitivo se determinará en colaboración con los estudiantes que recibirán el curso para poder adaptarse lo mejor posible a sus horarios.

Elegibilidad: Personas que hablan español, bilingües, y también propietarios de fincas o negocios agrícolas, y empleados que actualmente se desempeñan en un contexto de trabajo agrícola multilingüe en la Región del Lago Ontario del Oeste del Estado de Nueva York. Los estudiantes deben estar interesados en aprender habilidades de liderazgo y de gestión, al mismo tiempo que mejorar la comunicación en el idioma Inglés.

Temas Cubiertos: Trabajo en equipo, comunicación en la finca, liderazgo, junto con un enfoque especial e introducción a la gestión financiera de la finca.

Regístrese ahora para el Curso de Invierno 2022 en smallfarms.cornell.edu/projects/labor-ready/talleres-y-programas.
Growing Sweet Potato from Slips

A trial led by CCE at the Hudson Valley Farm Hub examined the viability of producing sweet potato slips locally from certified rootstocks.

By Amy Wu

This past growing season the Farm Hub hosted a research trial focused on sweet potato slip production. Sweet potato plants are grown using “slips” – or stem cuttings – grown off of a sweet potato root. The trial examined the viability of producing sweet potato slips locally from certified rootstocks. The rootstocks came from North Carolina, where the majority of potato slips planted in the Northeast are currently sourced.

The trial, led by Cornell Cooperative Extension’s Eastern New York Commercial Horticulture Program, attempted to address the challenges of relying on out-of-state sourcing by asking the following questions:

1. What effect do locally produced slips have on yield?
2. Is it economically viable to produce slips in the Hudson Valley region particularly when considering the cooler weather (when compared to North Carolina), and production costs include the price of the slips and shipping?

Sweet potatoes are a popular crop amongst Hudson Valley vegetable growers and eaters. Success in this only did the bulk purchase open a channel for the logs, but their arrival created the opportunity to provide all the means necessary to inoculate them, a kind of community toolshed approach. “Now that we know all these logs have come in, we can uniformly see how they do, and track their progress throughout the city. It also creates access to space and equipment to inoculate,” said Gonzalez. “Not everyone will have access to drills, angle grinders, drill bits, sawhorses, and pallets.”

Then, of course, there’s the boat. The *Apollonia* is part of what has been dubbed the sail freight movement, which seeks to reclaim the tradition of waterborne trade that once sustained the world economy without the need for fossil fuels. The Hudson River is an ideal venue, with its own rich tradition of maritime trade, the infrastructure for which is still present (albeit largely neglected).

Originally, the Logs to NYC project planned to rent a truck, but when the word went out that thousands of pounds of mushroom logs needed to get to the city, the *Apollonia* took notice. Though the boat's crew couldn't match the delivery timeline of a diesel truck, they offered an approach that was consistent with the project’s spirit of doing things right, rather than fast.

“In the past, when a schooner came to town, that’s how you got the news, that’s how you got the weather, that’s how you got a cool trinket from another town, that’s how you sent a message to your brother – that stuff is what it should be all about,” said Sam Merritt, captain of the *Apollonia*, which also hauled maple syrup and coffee beans as part of this run, along with a personal parcel as part of its “sail mail” program. “Efficiency comes at a cost sometimes, this isn’t likely to lead to any kind of mushroom gold rush. But maybe its success suggests that, for chains of supply to meet everyone’s material needs, they should be motivated by a broader and less extractive concept of value.

Whatever the price per log or pounds of mushrooms produced, this experiment has connected people along a new type of supply chain that is, in some ways, quite old and familiar. And it’s a chain that can be reactivated next year, or the year after that, to ship more logs, or some other resource entirely.

“I think the connections that are going to come out of this are massive,” said Brendan Parker of RHCF. “What other resources are out there, that are [treated as] waste and are readily available, and how can we connect those dots?”

This article originally appeared in *Civil Eats*: civileats.com/2021/08/11/building-an-alternative-supply-chain-for-shiitake-mushroom-growers

Doug Bierend is a freelance writer based in the Hudson Valley. He is the author of “In Search of Mycotopia: Citizen Science, Fungi Fanatics, and the Untapped Potential of Mushrooms.”

Growing Sweet Potato from Slips

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Electric Sheep: Grazing in Arrays Supports Economy and Climate

Sunlight is a precious resource in Central New York and a new collaboration between farmers and Cornell is looking at ways to harness it using technology that truly puts the soft in software: sheep.

By Krisy Gashler

As industrial-sized solar installations pop up throughout New York State, residents fear the loss of agricultural land. Lexie Hain ‘99 has a simple solution: sheep.

“Solar companies don’t want to have to deal with 1,000 separate farmers, and most farmers don’t want to deal with the legal documents and logistics involved in working with these companies,” Hain said.

Schmit believes this problem could be solved by helping farmers create a producer-owned business cooperative that could negotiate contracts and share transportation equipment. Beyond grazing, the project also will explore potential benefits of a business cooperative or producer-owned organization that could provide coordination and logistical services for farmers grazing under solar arrays. Todd Schmit, associate professor in the Charles H. Dyson School of Applied Economics and Management and faculty director of Cornell’s Cooperative Enterprise Program, is leading a three-year, $500,000 project, funded equally by Cornell and the USDA.

“This idea complements the goals of reducing fossil fuel use in New York State and throughout the Northeast,” Schmit said. “There are literally thousands of acres going under new solar production, and I think increasing renewable energy production is a great thing, but it’s a little ironic if we’re using fossil fuels to promote renewable energy production and then, because of the heavy rains and overcast days throughout the summer did not have a significant impact on yield.

“I’d say yields were off just trial could indicate that farmers could have roots shipped in and then grow their own slips in the greenhouse, thus having greater control over their own sweet potato production, said Chuck Bornt, the trial’s lead researcher from Cornell.

In October the potatoes were harvested and in early December they were graded. Bornt noted that the heavy rains and overcast days in early next year and replicating the trial at the Farm Hub over the next two years.

For more information about Cornell Cooperative Extension’s sweet potato variety trials, see enych.cce.cornell.edu/crop.php?id=35.

This article originally appeared on CALS News.

Krisy Gashler is a writer for the College of Agriculture and Life Sciences.

A herd of sheep graze under an industrial-scale solar array in Newfield, NY. Lindsay France / Cornell University

Sweet potato from 10

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Celebrating the Success of NYS Latinx Agriculture Leaders and Entrepreneurs

As winter sets in, we are sharing information on existing and upcoming programs and we welcome the opportunity for collaboration and adaptation to all NYS growers, producers, and service providers.

By Nicole Waters, Alejandro Calixto, and Mario Miranda Sazo

What Mario Miranda Sazo began in 2015 as a small gathering of Spanish-speaking orchardists and farmers has grown into an annual tradition in Western New York’s Lake Ontario Fruit (LOF) region. As an educator, the Spanish Summer Fruit Tour is one of those events that you look forward to every year long. This annual event invigorates you and reminds you that your work matters. The hunger for knowledge among the attendees is contagious every year. The 2021 Summer Fruit Tour showcased an even more engaging mix of technical skill building, cultural practice demonstrations, and opportunities for ag management development. This year’s tour was coordinated and led by Mario Miranda Sazo (CCE LOF Program), Alejandro Calixto (NYS IPM), and Nicole Waters (Cornell Small Farms) and hosted by Sergio and Silvia Rosario (Rosario Brothers’ Farm LLC) on a warm and sunny Saturday afternoon (Aug 28) in Western New York.

New Educational Programs Bring Knowledge to LOF Region Orchardists & Employees

The recent addition of Calixto made this year’s Spanish Summer Fruit Tour even more exciting and effective. He shared an engaging integrated pest management (IPM) basics presentation on tick prevention and identification of the invasive spotted lanternfly, with many participants expressing great interest and surprise in learning about ticks for the very first time.

After the event, Calixto expressed the need for more Spanish-language programs and events like the Spanish Summer Fruit tour. “From the NYS IPM perspective, we need to make a significant investment connecting our Hispanic communities to build a stronger apple industry in the state, by creating respectful and trustworthy relationships.” These [Spanish-speaking orchardists and employees] are valued allies that can be foundational for effective and sustainable IPM practices in apple orchards. They are often at the forefront of many pest problems and deserve adequate training that would allow them to be better prepared and develop their own orchards.” Work is currently underway to create inclusive Spanish-language educational resources and programs, in collaboration with the NYS IPM, CCE LOF, and Cornell Small Farms programs.

Tour Stop #1 – Rosario Brothers’ Farm, Medina, NY. Not surprisingly, Miranda Sazo brought an energy and enthusiasm for better understanding practical fruit production systems to the tour, which lasted throughout the day. During tour stop one, he, along with five local farm managers and graduates of the Cornell Small Farms Master Class program (see additional details below), discussed the importance of professional development for agricultural employees — specifically communication and leadership education for Spanish-speaking employees with managerial responsibilities, along the way in which these skills lead to improved on-farm efficiency, work crew productivity, and overall farm business success.

Looking Forward to Future Programs and a Strong NYS Agricultural Industry

Tour Stop #2 – Rosario Brothers’ New Planting at Kendrick Rd., Waterport, NY. This is the location of the new Rosario Brothers 50-acre, high density planting, established in 2019. This stop included an in-depth discussion on orchard management systems, including irrigation, fertigation, and soil nutrient management. In addition, Miranda Sazo and Waters launched recruitment activity for the Winter 2022 Cornell Small Farms Futuro Financiero course.

The Futuro Financiero course (formerly piloted as the Master Class program, 2018 – 2020) is a five-week professional development course for bilingual and Spanish-speaking farm owners, managers, and employees looking to grow their management skill sets within an English Language Learning (ELL) environment. Throughout the piloting period, this in-depth course has proven to increase on-farm communication and employee engagement within the complex multi-cultural, multilingual agricultural workplace.

The winter 2022 offering of Futuro Financiero will feature additional course content aimed at expanding basic financial literacy while building confidence in both team leadership and English-language communication. The Cornell Small Farms Program is actively seeking students in the Western New York region to enroll in the 2022 course (at smallfarms.cornell.edu/projects/labor-ready/futuro-course-request-for-more-info). Eligible students include bilingual or Spanish-speakers currently employed in agriculture (no commodity restrictions). This course offers an opportunity for farm business owners and employers to enhance their businesses while demonstrating appreciation and value for their workforce through thoughtfully tailored professional development opportunities.

Celebrating the Entrepreneurial Spirit and Success of the Rosarios

The true stars of the 2021 Spanish Summer Fruit Tour were Silvia and Sergio Rosario, owners of the Rosario Brothers’ fruit farm and hosts of both tour stops. The Rosarios provide custom services for winter/spring pruning, spring grafting, and summer budding in the LOF region. They are dedicated, dynamic, and savvy farm business professionals who crossed paths with the Cornell Small Farms Program during the 2019 Master Class Program (Futuro Financiero) and quickly evolved into important collaborators and inspiring mentors to both Spanish- and English-speaking agricultural entrepreneurs alike. As mentioned above, the Rosarios proudly expanded their orchard operation in 2019 to include 50 acres of Gala, Honeycrisp, Fuji, NY1, and Evercrisp varieties. During their expansion operation, the Rosarios partnered with the Cornell Small Farms Program through the Smart Farming Team initiative, gaining access to consulting and farm financial expertise. A 2020 video series titled “In the Orchard I am Free” was produced, telling their story and sharing their experience in the program (view the English version at tinyurl.com/m7e7w7 and Spanish version at tinyurl.com/bffdv59c).

The Rosarios, and every attendee of the Spanish Summer Fruit Tour, represent an essential segment of the NYS agricultural workforce and farmer identity. The fruit tour event, the Futuro Financiero Course, and the collaboration between NYS IPM, CCE LOF, and the Cornell Small Farms Program aim to further efforts of recognition and celebration of an important group of NYS farmers while simultaneously creating language-appropriate educational materials and defined pathways to successful farming careers. If you are interested...
Celebrando el Espíritu Emprendedor y el Éxito de los Líderes Agrícolas Latinx del Estado de Nueva York

A medida que se acerca la temporada de invierno, nos gustaría compartir información sobre los programas existentes y los que están por venir disponibles para los productores de frutas. Damos la bienvenida a la oportunidad de colaboración y adaptación a los productores de hortalizas y a los proveedores de servicios del Estado de Nueva York.

Autores: Nicole Water, Alejandro Calixto, y Mario Miranda

Lo que Mario Miranda Sazo comenzó en 2015 como una pequeña reunión de agricultores de habla hispana se ha convertido en una tradición anual en la región de Lake Ontario Fruit (LOF) del oeste de Nueva York. Como educador, la gira en español de frutas es uno de esos eventos que se espera con ansias durante todo el año. Este evento anual lo vigoriza y le recuerda que su trabajo es importante. El hambre de conocimiento entre los asistentes es contagiosa todos los años; y, sin embargo, la gira de frutas del verano 2021 contó con una combinación aún más atractiva de desarrollo de habilidades técnicas, demostraciones de prácticas culturales y oportunidades para el desarrollo gerencial agrícola. La gira de este año fue coordinada y dirigida por Mario Miranda Sazo (CCE Lake Ontario Fruit Program), Alejandro Calixto (NYS Integrated Pest Management) y Nicole Waters (Cornell Small Farms) y organizada por Sergio y Silvia Rosario (Rosario Brothers Farm LLC), en una cálida y soleada tarde de sábado (28 de agosto) en el oeste de Nueva York.

Nuevos programas educativos aportan conocimientos a los agricultores y empleados de la región frutal del lago Ontario

La reciente incorporación de Alejandro Calixto, Director NYS IPM, hizo que la gira en español de frutas fuera aún más emocionante y efectiva. Alejandro compartió una atractiva presentación básica sobre el Manejo Integrado de Plagas (MIP) sobre la prevención de garrapatas y la identificación de la mosca linterna moteada invasora, y muchos participantes expresaron gran interés y sorpresa al aprender sobre las garrapatas por primera vez.

Después del evento, Alejandro expresó la necesidad de más programas y eventos en español como esta gira de frutas del verano 2021 contó con una combinación aún más atractiva de desarrollo de habilidades técnicas, demostraciones de prácticas culturales y oportunidades para el desarrollo gerencial agrícola. La gira de este año fue coordinada y dirigida por Mario Miranda Sazo (CCE Lake Ontario Fruit Program), Alejandro Calixto (NYS Integrated Pest Management) y Nicole Waters (Cornell Small Farms) y organizada por Sergio y Silvia Rosario (Rosario Brothers Farm LLC), en una cálida y soleada tarde de sábado (28 de agosto) en el oeste de Nueva York.

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Después del evento, Alejandro expresó la necesidad de más programas y eventos en español como esta gira de frutas. “Desde la perspectiva del IPM del estado de Nueva York, necesitamos hacer una inversión significativa conectándonos con nuestras comunidades hispanas para construir una industria de la manzana más fuerte en el Estado, al crear relaciones respetuosas y de confianza, ellos (los fruticultores y empleados de habla hispana) son aliados valiosos que pueden ser fundamentales para prácticas de MIP efectivas y sostenibles en las plantaciones de manzanas. A menudo se encuentran en la primera línea de muchos problemas de plagas y merecen una capacitación adecuada que les permita estar mejor preparados si deciden cultivar sus propios huertos.” Actualmente se está trabajando para co-crear recursos y programas educativos inclusivos y de apoyo, basados en la justicia del lenguaje, a través de la colaboración de los programas NYS IPM, CCE LOF y Cornell Small Farms.

Parada #1 de la gira – Finca de los Hermanos Rosario, Medina, NY. Como era de esperar, Mario Miranda Sazo aportó energía y entusiasmo por comprender mejor los sistemas prácticos de producción de frutas a la gira, que se prolongó durante todo el día. Durante la parada número uno, Mario, junto con cinco supervisores agrícolas locales y graduados del programa Cornell Small Farms Master Class (ver detalles adicionales a continuación), discutieron la importancia del desarrollo profesional para los empleados agrícolas. Específicamente, educación en comunicación y liderazgo para empleados de habla hispana con responsabilidades gerenciales, junto con las formas en que estas habilidades conducen a una mejora en la eficiencia, la productividad del equipo de trabajo y el éxito general de su negocio agrícola.

Mirando hacia a los programas futuros y hacia una industria agrícola sólida en el estado de Nueva York

Parada #2 de la gira – Nueva plantación de los hermanos Rosario en Kendrick Rd., Waterport, NY. Ubicación de la nueva plantación de alta densidad de 50 acres de los hermanos Rosario, establecida en 2019. Esta parada se prolongó durante todo el día. Durante la parada número uno, Mario, junto con cinco supervisores agrícolas locales y graduados del programa Cornell Small Farms Master Class (ver detalles adicionales a continuación), discutieron la importancia del desarrollo profesional para los empleados agrícolas. Específicamente, educación en comunicación y liderazgo para empleados de habla hispana con responsabilidades gerenciales, junto con las formas en que estas habilidades conducen a una mejora en la eficiencia, la productividad del equipo de trabajo y el éxito general de su negocio agrícola.

En el futuro, la gira de frutas cuenta con la participación de Mario Miranda Sazo (CCE LOF), especialista en extensión de frutas, análisis del crecimiento máximo de árboles y prácticas de producción del sistema de huerta con Silvia (izquierda) y Sergio (centro) Rosario, Propietarios de la finca de los Hermanos Rosario en Medina, NY. Mario Miranda Sazo (CCE LOF), especialista en extensión de frutas, analiza el crecimiento máximo de árboles y prácticas de producción del sistema de huerta con Silvia (izquierda) y Sergio (centro) Rosario, Propietarios de la finca de los Hermanos Rosario en Medina, NY.

Foto: Nicole Waters
Raising Prices on Meat: A Pep Talk
When raising prices, there are many factors to consider including local market, population, economic conditions, and seasonality in demand.

By Matthew LeRoux, with Todd Schmitt and John Rogers

Over the summer, we observed prices from six Ithaca grocery stores and 17 farms around New York. Farm prices are from farmers’ markets and farm-owned farm stores in Ithaca as well as other parts of the state. I found the results (below) to be quite surprising. Overall, grocery stores had higher prices for beef and lamb. Grocery store pork that was differentiated by the feeding or handling was also more expensive than farm price averages.

In this discussion, differentiated meats are those that are market-ed for attributes to set them apart from conventionally produced meats. Differentiation can come from breed, feed, handling, certifica-tions, and geography. For our comparison, we looked at convention- al meats as well as two groups of steaks differentiated by default, locally raised meat marketed by the farm is differentiated, if for no other reason than it is locally raised, supporting local agriculture and the economy.

Any individual New York farm likely has higher costs than the system that supplies grocery stores. In addition to production costs, farms selling their own meat have higher trucking, processing, and marketing costs relative to grocery stores. Thus, it is unlikely that any New York farm can profitably bring meat to market at prices lower than stores. This makes me think that many New York farms need to revisit their pricing and account for their costs, especially their time. Raising prices is intimidating, no doubt. We all have affordability on our minds and the need to raise prices on our customers. Thus, what follows is a pep talk about prices.

1. Consumers are already paying “high” prices for meat. Based on the prices observed at Ithaca stores and farms this summer, most farms could raise prices WITHOUT charging significantly more than the stores. For example, a consumer walking into an Ithaca grocery store seeking a ribeye steak is going to pay $15.85 on average (see Table 2), regardless of whether they seek a differentiated product or not! If customers are paying that price for an “ordinary” steak, certainly shoppers seeking differentiated steaks are willing to pay more. Customers who shop at farmers markets and farm stores are not necessarily price-driven shoppers. It is more likely that such shoppers are seeking products differentiated by breed, feed, handling, or simply location. These consumers are likely more willing to pay premium prices (above conventional product prices).

2. Your target customers already value what you produce. Many farmers worry about customer reactions and the possibility of losing customers over price increases. Indeed, certain customers may leave and not return upon seeing a price increase; however, those customers are not your target customer. For local, farm-raised meat sold by the cut at farm stores and farmers markets, the target customer is one who already values what you produce. Customers who seek only the lowest price are not compatible with these channels or products; perhaps you can sell them a quarter or half instead.

3. Fewer units sold is not the same as less money earned. Losing customers or product sales volume due to increased prices is possible, but it does not necessarily mean losing dollars in sales. For example, the farm average price for one pound of ground beef (not grass-finished) is $6.29 (Table 2). The grocery store average price for grain-finished, no antibiotics, no added hormones, 80/20 ground beef was $7.85/lb. (Table 2). If a farm were to raise their price from $6.29 to $7.85 they could observe a reduction in sales from 80 to 64 pounds and still gross nearly the same amount (see Table 1). Moreover, they will have another 16 pounds of ground beef to sell! Jumping a price straight from $6.29 to $7.85 may be a bit abrupt, but steady and gradual increases planned over time can ease the shock regular customers might experience.

When discussing the impact of price changes on sales, time must be considered. In the example in Table 1, we assume that the drop in sales from 80 to 64 units occurs over a given a period, perhaps pounds sold per month. The point is that while the units sold in a given time period might fall, gross sales are approximately equal. Once all 80 pounds of ground beef are sold, the farm has realized an extra $125 in ground beef sales. Since most farms sell frozen meat, we can think of the product as having low perishability. The perishability of meat, or rather its preservation in the freezer, allows the seller to store the product and sell at the price needed for profit.

4. Prices can be used to aid inventory management. Farms selling meat wrestle with the need to sell every cut on the carcass. Consumers love to buy premium steaks and bacon, but for each pound of popular cuts, there are also several more pounds of less desirable meat to sell. Pricing can be used to manage the rate at which cuts sell (over time). Higher prices on popular cuts will “slow down” sales and give the seller an opportunity to direct customers to other cuts. Customers seeking a ribeye steak may be surprised by the farm’s high price but that doesn’t mean they need to leave empty-handed. Rather, there is an opportunity to move the customer “down carcass” to cuts with lower prices that the farm needs to sell. In fact, the new Cornell Meat Price Calculator (to be launched in 2022) allows farms to experiment with different pricing scenarios while ensuring they reach their targeted profit goal. Increasing prices on cuts that tend to sell out quickly may allow the lowering of prices on other cuts that tend to sell slowly. In this way, farms can develop pricing scenarios that more closely match the pounds/carcass of cuts to the pounds sold in time, effectively managing inventory to avoid selling out or stockpiling cuts.

5. Price elasticity. Consumers encounter price changes regularly and they are used to them. How they react to price changes can be summarized in a term called the price elasticity of demand. It is a measure of how much demand changes to a change in price. In the case of inelastic responses, the percentage change in demand will be less than percentage change in price; i.e., the elasticity will be less than one. With aggregate level data, price elasticities of demand for meat products are commonly found to be inelastic – a recent study using aggregate data found own-price elasticities for “all” beef, pork, and poultry in the U.S. to be around -0.2, -0.3, and -0.1, respectively.

### Meat Prices

| Price increases that result in selling fewer units do not necessarily result in reduced sales ($) |
|-----------------------------------|-----|-----|-----|
| Ground Beef Price/LB (P) | LBS Sold (Q) | Total Sales (P×Q) |
| $6.29 | 80  | $503.20 |
| $7.85 | 64  | $502.40 |
| $7.85 | 80  | $628.00 |

Table 1

Celebrating from 12

in learning more about our programs, have questions, or would like to enroll (yourself or an employee) in the Futuro Financiero course, contact Nicole Waters at nw42@cornell.edu or Mario Miranda Sazo (en Español) at mrm67@cornell.edu, or simply complete the information request form at smallfarms.cornell.edu/projects/labor-ready/futuro-course-request-for-more-info. Together we inspire, educate, and support successful farmers. Together we will improve and innovate NYS Agriculture.

Nicole Waters is the Beginning Farmer Project coordinator for the Cornell Small Farms Program. Her work focuses on the human side of farming, with the day-to-day operations of the Labor Ready Project as her main priority. Trained in organizational communication, leadership, and English as a Second Language (ESL), Nicole’s work aims to foster healthy and positive working environments through professional development programs.

The tour group at Rosario Brothers’ Marshall Road Farm after a cultural practices demo by Mario Miranda Sazo, along with a discussion of the importance of obtaining ag managerial skill sets with five Master Class graduates (Ruben Gomar ’18, Jose Vallejo ’18, Silvia Rosario ’19, Sergio Rosario ’19, and Flor Iniguez ’19).
Carrie Wasser of Willow Pond Sheep Farm sells lamb at the Rhinebeck Farmers Market. Matthew LeRoux / Cornell Cooperative Extension

Summary: Raising prices can feel like a challenging task. There are many factors to consider including local market, population, economic conditions, and seasonality in demand. Ultimately, pricing must originate with the farm’s costs and profit goals. Observing prices at grocery stores can be surprising and may challenge our assumptions about store versus farm prices. Store prices may also give the farm confidence to make changes, knowing that consumers are already paying these prices for non-differentiated products.

Table Terminology
Natural: Products with label claims of “no antibiotics” and/or “no added hormones.”
Conventional: Products without claims that refer to handling/feeding and those referring to “natural” on the label where it is defined as “minimally processed.”
Pasture-raised, Grass-fed and/or Organic: Products with primary label claims including pasture-raised, grass-fed and/or USDA Certified Organic.

Ground Beef, 80/20+: Ground beef products with a lean/fat claim of 80/20 or 85/15.
Ground Beef, 90/10+: Ground beef products with a lean/fat claim of 90/10, 93/7, 95/5, or 96/4.

Legends
- USDA Approved
- First and only mastitis vaccine
- USDA approved for use in dairy and meat goats!
- Fewer clinical & subclinical mastitis cases
- Fewer severely affected udders
- Fewer bacteria in milk = less discarded milk from high somatic cell counts

Matt LeRoux, Extension associate, is conducting research on meat pricing and sales. Farms interested in participating can contact him. He has 2 years’ experience serving Iarms through &ooperatiVe (I)nterests, nonprofits, and consulting. Specializing in market strategy, Matt works with a diverse mix of produce and livestock farmers and food businesses. Contact Matt at mnl28@cornell.edu.

Celebrando el Espíritu Emprendedor y el éxito de los Rosario

Las verdaderas estrellas de la gira en español de frutas del verano 2021 fueron Silvia y Sergio Rosario, propietarios de la plantación de frutas Hermanos Rosario, y anfitriones de ambas paradas de la Gira. Los hermanos Rosario ofrecen servicios personalizados de poda de invierno/verano, injertos de primavera y brotes de verano en la región frutícola del Lago Ontario de Nueva York. Ellos son profesionales dedicados a dinámicos y experimentados en negocios agrícolas, quienes se cruzaron con el Programa Celebrando 13

Gira en grupo en la finca de Los Hermanos Rosario en Marshall Road después de una demostración de prácticas culturales por parte de Mario Miranda Sazo, junto con un análisis sobre la importancia de obtener habilidades de gestión agrícola con cinco graduados de la Master Class (Rubén Gomar ’18, José Vallejo ’18, Silvia Rosario ’19, Sergio Rosario ’19, y Flor Iniquez ’19).

Foto: Alejandro Calixto / NYS IPM
Cornell-Led Grow-NY Contest Boosts NYS Food, Ag Startups

Grow-NY is a unique business competition on a mission to bring jobs and dollars to the agrifood ecosystem.

By Grace Collins

The mood was celebratory and “We Are the Champions” played over the speakers in the Syracuse Oncenter as Every Body Eat took home $1 million in the third annual Grow-NY Food and Agriculture Competition, led by Cornell. The Chicago-based startup, which produces food free of the 14 most common allergens, is working to create food that people can enjoy together, regardless of dietary restrictions or preferences.

Grow-NY, funded by Empire State Development, is a unique business competition on a mission to bring jobs and dollars to the agrifood ecosystem in the Grow-NY Region – Central New York, the Finger Lakes, and the Southern Tier. Three hundred and thirty food and ag startups from around the globe applied to compete, and the best of the best were selected to receive individualized mentorship and introductions to resources and potential partners in Upstate New York, all managed by Cornell’s Grow-NY program leaders.

More than 1,200 people registered to attend the Grow-NY Food & Ag Summit, held virtually and in person Nov. 16 and 17, where the 20 startup finalists pitched to a panel of judges and competed for a total of $3 million in prize money. In addition to the pitches, attendees engaged with a series of panels and fireside chats covering the most pressing topics facing the food and agriculture industry.

“We are absolutely honored to be selected – from such an incredible pool of food and agriculture startups – as this year’s $1 million top prize winner at Grow-NY,” said Nichole Wilson of Every Body Eat. “We look forward to leveraging this award and all of the connections we have made in the region to take Every Body Eat to the next level, expand our market, and hire more talent. We’re excited to further our mission of bringing people together over food.”

In addition to Every Body Eat, six other food and agtech startups were awarded six-figure prizes. The two second place $500,000 prizes went to Ascribe Bioscience, a biostatellite solution business fighting crop loss in Ithaca; and Neupeak Robotics, a robotic fruit and vegetable harvester being created in Vancouver, BC. Four $250,000 prizes were awarded to DraughtLab (Rochester, NY); EmGenisys (Houston, Texas); Nordetect (Copenhagen, Denmark); and WeRadiate (Buffalo).

As a condition of receiving prize money, these seven startups must leverage and embrace the unique startup resources and opportunities in the Grow-NY region to make a positive economic impact. This can be anything from establishing headquarters in the Grow-NY region and hiring local employees to conducting primary research and development work and manufacturing in the area.

The competition also included a $10,000 Audience Choice Award, sponsored by Wegmans. Attendees, both in person and virtual, were encouraged to go online and vote for their favorite startup. More than 1,300 votes rolled in, and Agri-Trak, a startup creating a farm management application suite for the apple industry, took the lead for this year’s prize.

Three of this year’s winners have deep roots in the Cornell community:
- Agri-Trak is founded by Jamie Sonneville ’04, M.P.S. ’06, and advises Alison DeMarree of Cornell Cooperative Extension
- Ascribe Bioscience is founded by researchers at Cornell’s Boyce Thompson Institute (BTI), Jay Farmer, Ph.D. ’98, and Murli Manohar. Their technology was developed in the labs of Cornell/BTI professors Frank Schroeder (College of Arts and Sciences) and Daniel Kissig (College of Agriculture and Life Sciences), and they’re currently incubating at the McGovern Center.
- WeRadiate is a graduate of various Rev: Ithaca Startup Works’ programs, including the Hardware Scaleup Accelerator

“By creating new jobs and sharing new ideas, the winners of the first two rounds of the Grow-NY food and ag competition have made an important difference in our region’s food and ag ecosystem in less than two years,” said Jenn Smith, program director of Grow-NY. “We’re confident that this year’s winners will continue that positive growth. The quality of the startups vying for awards this year was incredible – congratulations to all the winners.”

This story first appeared in the Cornell Chronicle.

Grace Collins is a writer for the Center for Regional Economic Advancement.
Docking Sheep Tails

Is docking sheep tails always necessary?

By Ulf Kintzel

Docking a sheep's tail is the common practice of shortening the length of the tail. For practical reasons it is done to avoid flystrike and to reduce fecal soiling. Flystrike occurs when blow flies lay their eggs in soiled and wet wool, mostly around a soiled and moist rear end of a sheep. The emerging larvae (maggots) can cause health problems, including death.

There is another reason to shorten a lamb's tail or even take the tail off entirely, which is to have the appearance of a larger and meatier rump. That practice is very common in the show ring, although some states have regulated tail docking and require some remainder of the tail left intact.

The most common way of docking tails is by using an elastic and expandable latex ring. The rubber ring is expanded with an estrillator and put over the tail, where it is released. The ring will then cut off the blood supply to the tail and it will fall off after a number of days.

The importance of docking tails in wool sheep can be high, depending on breed and geographical location. Fine-wooled sheep are at higher risk of flystrike. It is a very common occurrence in Australia, where death because of maggots is a high risk. In some areas the risk is not as high since not all maggots of blow flies – of which there are more than 1,200 species – attack healthy fleece. Some feed off decomposing matter only and cause more discomfort rather than health problems. Sheep with less wool and with coarser wool tend to dry out easier and offer less of a breeding ground for fly larvae. Yet, they can still just as easily get soiled, especially during springtime when the pasture lacks fiber and the sheep's feces turn very soft or even liquid.

I have practiced tail docking for about 30 years. I always left the tails long enough to still have the full function of a tail. The tails always covered what need to be protected from sunburn and frostbite (the anus and vagina) and they were left long enough to move flies away from that area by wigging the tail. I highly recommend leaving such tail length in sheep or areas where tail docking is prudent to do. Also, tail docking causes a certain amount of pain to a lamb. For that reason, I docked tails during the first day or two of a lamb's life when it causes the least amount of pain. Lastly, tail docking has been linked to an increased risk of anal prolapse (see avma.org/resources-tools/literature-reviews/welfare-implications-tail-docking-lambs).

In 2005 I started upgrading my Texel flock with White Dorper rams. Several years later I had a flock of purebred White Dorper sheep since it takes only four generations to get to a purebred flock of a new breed. I had heard from other sheep farmers, who have various kinds of hair sheep, that they did not dock tails. I was both skeptical and curious how that would work. In 2014 I started to forego docking the tails on my replacement ewe lambs, which I had already practiced for many years with my market lambs. A year later in the spring, these sheep, now yearlings, did not have more soiled spots than the ones that were docked. The wool or hair was just too short for feces to accumulate to a degree that it would have become a health problem. In addition, once the sheep started shedding sometime in May, all soiled hair and wool was shed with it, including that on the tails.

I concluded that tail docking is not necessary in my flock of White Dorper sheep, and I don’t dock tails on any lambs anymore. There are few exceptions. For instance, a young ewe may go overboard at times when it cleans her lambs right after giving birth to them and may nibble parts of the tail away. To avoid an infection, I dock such a tail.

A more recent picture of my ewes, almost all with long tails. Because I no longer need to dock tails, I save some money (although the latex rubber rings are quite cheap and not much money is being saved), spare myself the work, and spare my lambs some pain. It does trigger the occasional question by someone who has not seen sheep with long tails yet. However, I have not experienced a downside to foregoing this old practice.

Ulf Kintzel owns and operates White Clover Sheep Farm and breeds and raises grass-fed White Dorper sheep without any grain feeding and offers breeding stock suitable for grazing. He is a native of Germany and has lived in the U.S. since 1995. He farms in the Finger Lakes area in upstate New York. His website is whitecloversheepfarm.com. He can be reached by email at ulf@whitecloversheepfarm.com or by phone during “calling hour” indicated on the answering machine at 585.554.3313.
New Book Helps Farmers Outsmart Their Weeds

The guide identifies the best tactics and timing for how to outsmart 63 particularly pernicious weed species while reducing labor and ensuring weed competition doesn’t reduce yields.

By Craig Cramer

Cornell and USDA scientists have produced the definitive guide to understanding agricultural weeds and how to manage them efficiently, effectively and ecologically. The 416-page book, “Manage Weeds on Your Farm: A Guide to Ecological Strategies,” was published by the USDA’s Sustainable Agriculture Research and Education (SARE) Program.

“It’s an amazing resource, exactly the kind of publication growers are looking for,” said Chris Smart, director of the School of Integrative Plant Science (SIPS) in Cornell’s College of Agriculture and Life Sciences. “It is both thorough and user-friendly. And who isn’t looking for better strategies to control weeds on their farm?”

The lead author, Charles “Chuck” Mohler, Ph.D. ’79, was a senior research associate in SIPS’s Soil and Crop Sciences Section, who died unexpectedly April 1, 2021. He worked closely with co-author Antonio DiTommaso, the section’s chair and head of Cornell’s Weed Ecology and Management Lab. Retired USDA-ARS weed scientist John Teasdale helped complete the volume.

“Chuck was a brilliant scientist and a key weed science innovator who brought ecological knowledge, scientific rigor and elegant experimental design to weed studies,” said DiTommaso. “But his true talent was his ability to translate this often highly technical research into practical and useful information and advice for growers.”

Based on that strong research foundation, the guide identifies the best tactics and timing for how to outsmart 63 particularly pernicious weed species while reducing labor and ensuring weed competition doesn’t reduce yields. As new scientific findings on these species become available, DiTommaso will provide updates on his website, weedecology.css.cornell.edu.

“This book has the best information on weed management that is available today,” said pioneering organic farmer Klaas Martens of Lakeview Organic Grain in Penn Yan, NY. “Our understanding of weed control is still growing rapidly, and this book will certainly become an invaluable tool for every farmer who wants to control their weeds sustainably.”

“Manage Weeds on Your Farm” is available as a free download from the SARE website at sare.org/resources/manage-weeds-on-your-farm. The print version will be available in February 2022.

Seed to Supper Sows Confidence While Addressing Food Insecurity

A program from Cornell Garden Based Learning, administered through local Cornell Cooperative Extension Associations, Seed to Supper is focused on growing food for home use.

By Melissa Jo Hill

Over 2.9 million New Yorkers across the state—a third of whom are children—rely on food assistance programs. Even temporary food insecurity can be discouraging and disempowering for families—a hard lesson many learned during the height of the COVID-19 pandemic. But a program from Cornell Garden Based Learning, administered through local Cornell Cooperative Extension Associations, is teaching New Yorkers how a little bit of space, a handful of seeds, and the right knowledge make it possible to grow a portion of your own food—even on a budget.

Seed to Supper is similar to Master Gardener Volunteers in many ways—both programs rely on Cornell research and best practices to optimize garden growth. But while the scope of the Master Gardener Volunteer program is broad, addressing gardens and lawns of various sizes and purposes, Seed to Supper is focused on growing food for home use.

Cornell Garden-Based Learning trains Seed to Supper volunteer educators to make a big impact and empowers them with knowledge and access to community partnerships. The volunteer educators impart both information and resources to help novice gardeners achieve early success.

The structure of the program means that as gardeners grow in confidence, they also find a greater community to tap into, be part of, and perhaps later serve as garden mentors themselves.

Seed to Supper programs are currently available in Cattaraugus, Chautauqua, Chemung, Delaware, Erie, Madison, Monroe, Schenectady, St. Lawrence, Suffolk, Tompkins and Yates counties. To learn more about Seed to Supper or gardening education opportunities in your county, reach out to your local association.

Melissa Jo Hill is a new media specialist and writer for Cornell Cooperative Extension.
It’s more than a literature and water resources. and economy, transportation health and safety, society ecosystems, energy, human tors: agriculture, buildings, in each of the eight sectors,” the impact of climate change summarize and assess the cur DeGaetano will also serve and guidance to NYSERDA. 15-member steering commit Grant and CCE Wayne County, will serve as a technical workgroup members. Water resources work- group: Stephen Shaw 00, M.S. 05, Ph.D. 08, associ robot Russell, the recently retired executive director of CCE Tompkins County, and Mary Auster- man, Great Lakes coastal community development specialist at New York Sea

Climate from 16
15-member steering commit- tee, which provides expertise and guidance to NYSERDA. DeGaetano will also serve on the project’s five-member Assessment Design Adviso- ry Group.

“This entire project will sum- marize and assess the cur- rent state of knowledge on the impact of climate change in each of the eight sectors,” DeGaetano said. The sec- tors: agriculture, buildings, ecosystems, energy, human health and safety, society and economy, transportation and water resources. “It’s more than a literature review,” DeGaetano said. “This is the state-of-science in eight subject areas and the group will determine how it will impact New York State.”

Agriculture workgroup: Deborah Aller, an agricultural stewardship specialist at CCE Suffolk County, and Allison Chatrchyan, a senior research associate in the departments of Earth and Atmospheric Sciences and Global Development, will serve as co-chairs.

The technical workgroup members include Alejandro Calixto, director of Cornell’s NYS Integrated Pest Management Program; Ariel Ortiz-Boab, associate pro- fessor of applied econom- ics and policy in the Dyson School; and Gregory Peck, associate professor in the School of Integrative Plant Science Horticulture Sec- tion.

Ecosystems workgroup: Garrett Boudinot, research associate in the Department of Ecology and Evolutionary Biology; Carrie Brown-Lima, director of Cornell’s NY Inva- sive Species Research Insti- tute and a senior Extension associate in the Department of Natural Resources and the Environment; and Rebeccas Shuford ‘94, director of the New York Sea Grant program, a cooperative pro- gram between Cornell and Stony Brook University, will serve as a technical work- group members.

Society and economy workgroup: Luis Aguirre-Torres, director of sus- tainability for the City of Ithaca, will serve as co-chair. Kenneth Schlather, the recently retired executive director of CCE Tompkins County, and Mary Auster- man, Great Lakes coastal community development specialist at New York Sea

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