The Indoor Winter Farmers' Market is open every Saturday November through March, starting November 4, 11am-3pm. Come visit the Winter Farm Market starting November (no market Nov 25) thru April to enjoy the offerings of our region. Find vegetables, fruits, meats, breads, preserves, honey, syrup, wreaths, and more!

Hours run from 11am - 3pm. Free parking available.

Corning Winter Farm Market
1 West Market St (Inside the Information Center of Corning)
Corning, New York 14830
Robotic Milking Systems – What We’ve Learned So Far (Part 1)
By Timothy X. Terry – Harvest NY

I was recently invited to participate in a robotic farming discussion group. The evening began with a few presentations by a robot manufacturer which, surprisingly, were less about sales and more about start-up and management of the systems and the cows. These proved to be good fodder for a fruitful discussion among the technical service people, dairymen and women, and other industry people in attendance, like yours truly. This discussion meet continued the next day with a tour of three farms currently using robotic milking systems (RMS) – two in the Finger Lakes and one in western NY. Both the discussion and the tour brought to light some interesting concepts regarding robotic milking systems. I managed to glean several pages of notes on these concepts, but I’ll try to distill them down into something more manageable to take home. So here they are in no particular order.

- The three areas where RMS’s can have the greatest influence are: feeding, cows, and labor.
- Feeding – In any group situation some are underfed and some are overfed. In either case this is very inefficient, both economically and energetically. The Partial Mixed Ration (PMR) and the grain through the robot allow you to customize the diet to each cow which can increase feed efficiency. The general rule-of-thumb for formulating the PMR is herd or group production average minus 15 lbs. milk. Balance the remainder of the individual requirements with the grain in the robot. This prevents over- / underfeeding, but still gives the lower producers in the group some incentive to visit the robot. Some newer versions of the robot are allowing for dispensing of multiple feeds in multiple forms – liquid, mash, pellets, or a combination. Some unpublished comparisons of robotic manger sweepers vs. skid loader/tractor have shown a 3% increase in milk yield for the robot sweeper, as well as more consistent dry matter intakes (DMI) – likely a function of feed availability. The robot also produces 75% less CO₂ and uses less than 10% of the energy. (I also wonder about the ancillary benefits of consistent DMI – reduced slug feeding and subacute rumen acidosis, butterfat drops, lameness, DA’s, etc.)
- Cows – The RMS allows her individuality to shine. The boringly consistent process of prepping and milking is just what the cow ordered. She spends far less time standing than in a parlor setup -- when she’s not eating or milking she’s lying down (each hour of rest ≈ 3-5 lbs.) Real-time data is collected on every cow and deviations outside of “normal” are flagged for review. As such, symptoms of illness are detected earlier, and treatment regimens are often shorter and more effective.
- Labor – On average, changing from a parlor to an RMS results in a 40% reduction in labor devoted to milking. This gives you the option of reducing the labor force, reassigning the labor to another enterprise, or increasing the herd size without increasing the labor force. Moreover, you can spend more of your time managing cows and less time on rote labor tasks.
- With the advent of $15/hr. minimum wage, an RMS will have a payback of 5-7 years based on labor costs alone. Furthermore, an
RMS never shows up late, tired, drunk, or not at all. It also does not come with a difficult significant other. Some of the impetus for installing an RMS on the tour farms was because of a transient and unpredictable labor force. On more than one occasion did they deal with a sudden workforce reduction due to an ICE raid in the neighborhood.

- Of the three main milking systems – parlor, pipeline, or RMS – RMS’s tend to have the lowest total cost of ownership. Some of this may be a function of the self-diagnostics in the RMS programming. It will alert you to service issues when it is a nickel or dime fix versus waiting until it becomes a $5 or $10 fix. Add to this any lost production due to delays or poor performance.
- RMS’s in sand bedded herds do require more repairs and maintenance than sawdust or straw bedded herds due to sand’s abrasive nature. However, this only amounts to an average of $250/RMS/year. If the RMS is servicing 55-60 cows and milk is $15/cwt, this only requires a 0.1 lb./cow/day increase to break even. Many herds have seen an 8-10 lb. increase after switching to sand, so is sand worth it? Yeah!
- The better the stalls are maintained and the more comfortable it is the fewer fetch cow you’ll have. We don’t know why this is true, but it is what’s happening out there.

Robotic Milking Systems – What We’ve Learned So Far (Part 2)
By Timothy X. Terry – Harvest NY

Here are some more of those important tidbits I promised.
- Minimize the obstacles to and from the robot itself. There should be a minimum of 8’ of clearance at the entrance and exit of a single robot, but 14’ between robots in tandem.
- Sort pens are difficult to size. Of the three farms we toured none utilized sort pens. They all felt that it would be empty >80% of the time and that the money would be better invested in several strategically placed gates and manger headlocks.
- Fetch pens (where you gather cows that haven’t visited the robot lately) are best kept small and temporary. When you fetch a cow you want to put her into the robot right away so she gets the idea that it’s important to go to the robot. Generally, you’ll fetch the cows only one or two at a time. Placing her/them in a small pen will encourage them to enter the robot ASAP. Blocking entrance traffic from the rest of the herd until the fetch cows are milked will help speed the process. It’s not unlikely that a cow has to be fetched only because she is a little timid. By blocking other traffic it leaves her more comfortable to enter the robot. The pen should be temporary only in the sense that once the fetch cows are milked the gates can be lifted or swung out of the way so that the entrance is not obstructed. That said, whether sorting or fetching, it’s important to think strategically about placing the gates. By opening and/or closing the right gates, one person should be able to easily sort or fetch a cow.
- RMS barns tend to be much quieter. As such the cow’s behavior becomes more docile and workable, so sorting or fetching is not usually the rodeo it used to be when cows were gathered up 2-3 times per day. In some cases they become obnoxiously friendly, which means servicing a waterer or circulation fan can become a mob scene.
- With few exceptions, a Free Flow strategy works better than Guided Flow. In Free Flow a cow is able to get up and get a drink or bite
to eat and then lay down which maximizes lying time (see previous). In Guided Flow she has to proceed through the robot before or after her meal in order to lie down again. Depending on the traffic at the robot this will increase her standing time and cut into her lying time. It could also contribute to a slug feeding behavior as she may opt for only a few large meals hours apart in order to avoid going through the robot. Moreover, this puts additional, unproductive pressure on the robot because she will have to cycle through the robot and this takes time away from other animals attending the robot.

- Place waterers right outside the exit of the robot. Just like in a parlor, cows will drink the majority of their water immediately following milking. However, this waterer should be at least 10' away (15' better) from the robot exit so as to not hinder cow flow.
- Figure an RMS to service a maximum of 60 cows. More than this and wait times increase and daily visits decrease – you’ll want to aim for that 2.8-2.9 visits/cow/day target. In practice 55-58 cows per RMS is better, especially in higher producing groups or herds. This allows animals to cycle through comfortably, including those peak production animals coming 4-6 times/day, as well as give you some downtime for daily maintenance.
- Start up an RMS at only 80% of capacity (<50 cows/robot). This gives the cows time to learn the robot and vice-versa. Cycle times for each cow will be longer until they get used to the sounds and sensations associated with the system. Don’t limit the visitations during the first few days. If a cow wants to visit 19 times, let her, however, you may want to limit grain feeding after the third or fourth visit. The RMS experience should be as pleasurable as possible.
- Switching to an RMS doesn’t have to be all or nothing. In fact, switching in a group-by-group manner will make the transition easier while also taking some pressure off the existing system. This may get you a few more years out of that aged parlor, and give you a way to milk the older cows who are more likely to refuse the RMS. In smaller herds the group-by-group manner may not be an option. However, starting with a small group of early lactation cows and then adding to the group as cows freshen in may work better.

Robotic Milking Systems – What We’ve Learned So Far (Part 3)
By Timothy X. Terry – Harvest NY

Here are the last of the tidbits including the reasons the tour farms cited in their decision to install an RMS.

- Rule of Three’s
  - 3 Days – The first 72 hours of start-up and the length of time you will go with little to no sleep. It’s also the period of time where you’ll question whether or not you made the right decision.
  - 3 Weeks – Things are starting to fall in place, most of the bugs are worked out of the system, you’ve learned which alarms are important and which are urgent, but you still may not be fully convinced that you made the right decision.
  - 3 Months – You have the system pretty well dialed in. You can take a deep breath now. You can have a date night with your spouse or go to a child’s ballgame/concert/play, just don’t forget your smartphone!
- Cross train your staff on the various parts of the system. No one person should hold all the knowledge of how the RMS works and what to do if it doesn’t. Any good coach will tell you that you need to build depth in your team, so if anyone is on injured reserve or vacation someone else can jump right in.
NASA would call this “system redundancy”. If at all possible avoid making spouses or close family members back-ups of one another. That way if they want to attend a family function – wedding, funeral, reunion – or go on vacation, you won’t have both the primary and the back-up gone from the farm. Obviously, smaller farms are going to have to approach this a little more creatively.

- All of the tour farms had considered a new parlor right along with the RMS. Here are the various reasons or considerations they cited for their decision: (not all reasons on all farms)
  - Reduced labor, especially reliance on foreign-born employees.
  - More milk with less labor. In fact, this farm is at 100+ cows/man and 2.7 million lbs. / FTE. This includes the cropping and maintenance staff.
  - Consistent udder prep.
  - Reduced human error and procedural drift. (consistency)
  - No human emotion. No personality clashes between cows and humans. If a cow does not want to cooperate, the robot will eventually kick her out and in an hour or two she will be more than ready to be milked.
  - Labor is a growing risk or liability
  - Parlors age – RMS components or the entire system may be swapped out.
  - Maximum parlor capacity is fixed. Additional RMS’s can be added as the herd grows.
  - A new parlor requires a new facility. RMS’s can be retrofitted into existing facilities while continuing to milk in the existing parlor.
  - Prefer to manage equipment rather than people
  - Cow comfort – even a robotic rotary parlor doesn’t eliminate the time in a holding area. A holding area is not a cow friendly place. There is no food or water, no place to lay down (even though some do), is usually poorly ventilated, etc. If it wasn’t for the fact that they are driven there they would never go to a holding area of their own accord.
  - Improved hoof health – more lying time, more consistent DMI.
  - Increased eating and resting
  - Less infrastructure required – ¼ of similar capacity parlor
  - Increased longevity of the cows, maybe as much as a full lactation, on average. (Semex study (2002?) 1 additional lactation ≈ 4,000 lbs. RHA)
  - RMS can be dismantled and relocated or sold.
  - Used value? This exact number is unknown, but the current demand is high and the supply low – you do the math.
  - Good resale value = lower risk

- Of the 3,000+ RMS in the US and the 30,000+ worldwide 70% have more than 25,000 hours each, and 50% have more than 70,000 hours. What other piece of equipment on your farm would have this kind of longevity? To put this in perspective, if this was a vehicle travelling an average of 55 mph it would have travelled almost 4 million miles or 8½ trips to the moon and back!

There are several different RMS’s on the market today. Obviously, I can’t endorse any particular brand. However, I would encourage you to do your homework if you’re considering making such an investment. Go to farm shows, ask the dealers for a list of farms near you who are using their RMS, and talk to RMS owners and operators, especially if you can find some who are of a similar herd size. This requires a significant initial investment, so choose wisely.

**Risk of Spotted Lanternfly on Christmas Trees is Alight, Says Extension Educator Amy Duke**

UNIVERSITY PARK, Pa. — There is nothing quite like the splendor of a live Christmas tree to bring the beauty and amazing scents of the outdoors into homes for the holidays.

This year, however, some folks in southeastern Pennsylvania are wondering if their favorite evergreen tree might also bring with it a not-so-festive ornament — a spotted lanternfly egg mass.
Real Christmas tree traditionalists need not worry, according to a Penn State Extension educator, who says that the likelihood of that happening is the same as the Grinch stealing the roast beast. Well, almost.

"Real trees are part of an outdoor ecosystem, and there is always a chance that insects may be brought indoors with a tree, and the spotted lanternfly is no exception," said Tanner Delvalle, a horticulture extension educator based in Berks and Schuylkill counties. "However, the risk is small and should not be a reason for anyone to forego having a live holiday tree."

To further quell concerns, Delvalle said that Christmas tree growers follow integrated pest management practices to minimize such threats. And, in the case of the spotted lanternfly, growers in the quarantine zone of Berks, Bucks, Carbon, Chester, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Philadelphia and Schuylkill counties work with the Pennsylvania Department of Agriculture to meet the spotted lanternfly quarantine requirements prior to the sale of Christmas trees.

Still, consumers can take a proactive role by inspecting a tree for spotted lanternfly egg masses prior to purchase. Egg masses, which resemble gray mud splatters, easily can be scraped from tree bark. Delvalle recommends destroying removed egg masses by placing them in a container filled with rubbing alcohol or hand sanitizer. While this is the most effective way to kill the eggs, he pointed out that they also can be smashed or burned.

And, if by small chance, an egg mass is present on a tree and hatches indoors, the nymphs pose no threat to humans or animals and will die quickly, Delvalle noted.

After the holidays are over, he advises, those living in the quarantine zone should take their trees to recycling programs where they will be chipped and composted or burned and not transported out of the quarantine zone.

"Overall, the benefits of having a live tree outweigh any risks associated with pests," said Delvalle, who pointed out that Pennsylvania is the fourth largest Christmas tree-producing state, with annual sales of more than $22 million.

"Purchasing real Christmas trees benefits local growers and the local economy," Delvalle said.

He added that live trees also are an environmentally friendly choice, as they are a renewable resource and can be recycled easily, unlike artificial trees.

Tips on how to choose and care for a Christmas tree can be found on the Penn State Extension website at [https://extension.psu.edu/master-gardener-tips-for-christmas-trees](https://extension.psu.edu/master-gardener-tips-for-christmas-trees). Current and comprehensive information on spotted lanternfly and management options are available at [extension.psu.edu/spotted-lanternfly](https://extension.psu.edu/spotted-lanternfly) or by calling 1-888-4BADFLY.

### ProDairy Manure Alert-

**Wet fall conditions are making manure storage management challenges for AFOs and CAFOs**

**Cornell CALS PRODAIRY, NYS Department of Agriculture and Markets, NYS Department of Environmental Conservation, and USDA-Natural Resources Conservation Service**

The extended wet fall continues to frustrate field crop harvest and is starting to generate some concern for manure storage capacity. It is a violation of NYS law for any farm to cause a water quality violation. Manure runoff from farm fields can result in such a violation.

Whether your farm is a CAFO or not, it is important to take stock of manure storage capacity: at current fill rates, know how long before the storage will reach maximum fill level, and have a plan in place to avoid a situation of
overtopping. CAFO farms should reach out to their planner to review emergency and winter/wet weather spreading plans. Farms who are concerned about storage levels but do not have a CAFO planner should reach out to Soil and Water Conservation or Natural Resources Conservation Service staff to get help with identifying lower risk fields and other practices to reduce risk of runoff when having to spread to avoid overtopping.

Although the goal is always to avoid spreading when conditions are poor, it’s important to be prepared in case your back is against the wall with extended wet field conditions and a storage that is at risk of overtopping.

For CAFO’s, emergency spreading to avoid an overflow must be communicated to DEC either through a written incident report or in the Annual Compliance Report. If, during emergency spreading, maximum application rates identified in the permit are exceeded, DEC must be notified within 24 hours followed by a written incident report in 5 business days. Additionally, storages that overflow MUST be evaluated for structural integrity and re-certified by a Professional Engineer (PE). A PE evaluation after an overflow is a smart safety practice for all other farms. For making field application decisions, farmer knowledge of safe fields is critical.

During winter weather conditions, defined as more than 4” of snow or 4” of frost in the soil, CAFO farms must follow the Winter and Wet Weather Manure Application Guidelines, and it is recommended that CAFOs follow these same guidelines during wet conditions. The document provides useful guidance for non-CAFO’s as well.

**Cornell Small Farms Program, Online Courses**

Did you know Cornell Small Farms Program has released the latest batch of online courses scheduled for the new year? There is a great range of educational opportunities offered this year, and all done from the comfort of home. Check out the course homepage (http://smallfarms.cornell.edu/online-courses/) to find the courses that best fit your needs. The wide range of topics suit everyone from the aspiring or beginning farmer through the advanced and seasoned producer interested in fine-tuning production.

Are you a beginning farmer exploring various market channels? One of the initial classes, Exploring Markets and Profits, may be the right option for you. Exploring high tunnel opportunities? Achieve season extension with advice and technical assistance through Course 220 listed under the Intermediate and Advanced level courses. Ever thought about mushroom cultivation? Then Course 151 on shiitake mushroom cultivation is for you. In total, we have 20 courses to choose from in the 2018-2019 course calendar. Please note that individual registration dates are listed under each course description page. Please register early as courses fill up!
Cornell Small Farms Program-
The Cultivating Change Grant has $85,000 available in grants. In addition to a panel of industry experts reviewing the grants, the general public is able to vote on their favorites. Applications can be submitted through December 15; review and voting will conclude on January 31. Grant winners will be announced on February 4, 2019. To view eligibility requirements or to submit your own vote, please visit: https://cultivatingchange.org/

Cornell Research Boosts New York’s Surging Hard Cider Industry
Jennifer Savran Kelly
College of Agriculture and Life Sciences.

Four generations of DeFishers have nurtured apples, pears and cherries on their 450-acre family orchard on the Lake Ontario shore in western New York. For 75 years, apples have been their mainstay.

But in 2012, Dave DeFisher of DeFisher Fruit Farms in Wayne County – the state’s largest apple-producing county, and the fourth largest in the U.S. – took notice of a shift in the apple market: an emerging interest in hard cider. Around the world, consumers were rediscovering a craft beverage combining the flavor depth of wine with the drinkability of beer.

With his son, Luke DeFisher ’13, Dave put their apples to use, fermenting the farm’s first batches of craft cider. Five years later, Rootstock Ciderworks is selling more than 50,000 gallons in more than 10 different hard cider styles and generating vital new sources of revenue.

New York state is the second-largest apple producer in the US. The state also produces more than 5 million gallons of hard cider annually. Cornell researchers are helping apple growers and hard cider producers, including Cornell alumni, meet the demands of a rapidly growing market.

“A Cornell course on cider-making techniques first got us started,” Dave DeFishser says. Experts in the College of Agriculture and Life Sciences (CALS) helped him launch his brand and provided key technical insights. In recent years, the DeFishers have been aided by Greg Peck, assistant professor of horticulture, who joined CALS in 2015 and has established himself as a global leader in hard cider production and research.

“Greg has supported our own growth and is an invaluable resource answering the tough questions we face. His goal of long-term economic viability for New York state orchards provides big relief for growers who are venturing into new territory,” Dave DeFisher says.

NY well positioned for cider’s comeback
Hard cider was once a favorite drink in North America – from colonial times through Prohibition. To say that hard cider has been making a comeback is an understatement. In the U.S. alone, the hard cider market over the past decade has grown more than 10 times in size, with sales exceeding $1.3 billion in 2017. Taking advantage of this upward trend, Peck has been tapping cider’s full potential to grow New York state’s apple market.

“The industry has been booming because cider producers are innovative,” Peck says. “Consumers want to experience something different in their food and drinks. Cider has a rich depth of flavor and range of products that appeal to a large and growing consumer base.”

Of the more than 800 cider producers in the U.S., nearly 100 are in New York, more than any other state. That growth is no fluke: The state has an excellent climate and soils for growing flavorful cider apples. As consumption has risen, business opportunities have bloomed for the state’s apple growers, cider producers and people in the agritourism industry. But they have lacked the necessary research-based knowledge to adapt to such fast-growing demand, so Peck has been developing field- and lab-based research that will provide much-needed guidance.
At LynOaken Farms, a bustling orchard between Buffalo and Rochester near the Lake Ontario shoreline, cider apple trees were planted in 2004 with the goal of using them for cider production at the farm’s sister winery. But the family farm owners couldn’t find much information on how to grow them.

Ian Merwin, M.S. ’88, Ph.D. ’90, of Black Diamond Cider (who also is a Cornell professor emeritus of plant science), harvests apples at his Trumansburg orchard.

“Greg wants to see the cider industry advance,” says Chris Oakes, production manager at the family farm, which grows 250 acres of apples in addition to other fruits. “He does research right on our farm and shares his data, allowing us to apply it right away. We’re predicting 15 to 20 percent growth per year in cider apple volume over the next four to five years. We’ve been holding steady at 5 to 10 percent growth, so we’re on the cusp of something big.”

Cornell dedicated to cider’s expansion
Cornell research and outreach is making a difference in orchards across the state. A multidisciplinary team of apple, fermentation and business development specialists in CALS and Cornell Cooperative Extension assist growers and hard cider makers across every element of the production chain. With funding from the New York Apple Research Development Program, Craig Kahlke of the Cornell Cooperative Extension Lake Ontario Fruit Program has been partnering with Peck to study crop load, flower development and harvest maturity of eight hard cider cultivars located at LynOaken Farms.

Peck and Kahlke are members of the Hard Cider Program Work Team, a group of Cornell researchers, instructors, extension educators and industry stakeholders dedicated to expanding the hard cider industry.

Chris Gerling, extension associate in CALS’ Department of Food Science and manager of the Vinification and Brewing Laboratory at Cornell AgriTech, has expanded his work with wine and spirits producers to create educational content for fermented cider producers in New York. In March 2018, agricultural business development and marketing specialist Lindsey Pashow and her colleagues at Harvest NY released the first assessment of New York’s hard cider supply chain and projected growth.

At DeFisher Fruit Farms, Dave and Luke DeFisher are no strangers to growing apples, which account for about half of their crop acreage. But when they decided to move into hard cider production, they faced a steep learning curve.

“Greg has been researching different varieties of hard cider apples and how to grow them in New York,” says Dave DeFisher. “A lot of these varieties have never been grown here, so it was questionable to us: Are they going to work? Will they ripen, or fall off the tree and rot? The fact that he’s done so much work gave us the confidence to try something new.”

Peck continues to experiment. This year, with support from the Cornell University Agricultural Experiment Station in Ithaca, he and his team planted a new one-acre test orchard. Moving some of their research from cooperator farms to campus will allow them to take necessary risks — for instance, developing machines for harvesting cider apples without damaging crops on commercial farms.

Region puts its own stamp on cider business
Cider makers are continually innovating with products that move in bold directions. Melissa Madden ’05 and Garrett Miller, owners of the Finger Lakes Cider House and makers of Kite & String Cider, began with 69 acres of corn, wheat and soy fields they bought in 2008 in Interlaken, New York, in the heart of the Finger Lakes.

As the partners grew their organic Good Life Farm into a sustainable business, they developed a vertically integrated model that incorporates value-added products. Among the ecologically diverse fruits and vegetables produced on the farm, hard cider offered a promising opportunity to craft distinct drinks from ingredients grown in their new orchards.
“Moving to cider worked really well with our plan to have a low-input organic orchard,” says Madden, who in 2013 first started selling hard cider brewed at their farm-based orchard. “It’s still about the agriculture for us: When you use really good fruit and make cider in a high-quality way, it helps people understand agriculture a lot better.”

At their tasting room, they serve locally sourced meals complimented with a robust cider menu. Those ciders – up to 15 ciders from Kite & String, plus a guest cidery from elsewhere in New York – express the unique terroir, or flavor, of the region, says Madden. “Cider has a complex range of sweetness and flavor profiles. We serve ciders that range from a bone dry to exceptionally sweet. You can make varieties to pair with almost any food; there are seemingly infinite possibilities.

“It’s an adventure crafting cider,” she adds. “There’s a really huge opportunity in creating food-friendly drinks made from locally grown ingredients.”

Apples for hard cider may contain up to 10 times more tannins than their culinary counterparts. Tannins, a subset of the naturally produced polyphenols in apples, add to cider’s mouthfeel, creating a more robust and interesting drinking experience. Peck’s lab uses molecular markers to identify the preharvest factors that increase polyphenol development.

“Our research is narrowing down the list of optimal cider apple varieties for New York,” Peck says. “We share what we learn directly with our growers to help them select varieties that will work best for high-quality and flavorful cider.”

Recognizing the value of the research and its economic impact for the state, both public and private entities have contributed funding for hard cider science. The New York State Department of Agriculture and Markets is supporting Cornell research on the role of genetics in producing sought-after flavor qualities and mechanical harvesting, as well as studies on postharvest management for cider apples.

Angry Orchard, based in the Hudson Valley and the largest cider producer in the United States, wants a reliable supply of New York-grown cider apples. The company joined with the New York Farm Viability Institute to fund a two-year research project led by Peck to identify cider apple cultivars and how to manage their maturity to ensure a consistent, high-quality product for cider producers. The project looks to lay the foundation for mechanization in cider apple orchards and will support the establishment of test orchards for future research projects.

Jenn Smith, executive director of the New York Cider Association (NYCA), whose mission includes developing the hard cider market and ensuring industry viability, said the state’s apple growers are in a desirable position thanks to the strong partnership with researchers and extension educators at Cornell.

“While Greg’s horticultural work provides us with essential, sound information, he’s also very collaborative and a synthetic thinker with extraordinary peripheral vision,” Smith says, adding that Peck’s ongoing investment in NYCA-member farms has given growers the confidence to expand into new markets.” Greg is always making connections between various points along the cider supply chain, whether the issues he sees are related to his research or not. He has been a linchpin for our industry.”
**2018 Processing Snap Bean Advisory Meeting**  
**December 4, 2018**

Discuss the 2018 snap bean growing season and management concerns. Reports and discussion of the 2018 Snap Bean Research Projects funded by the Association. Review priorities and the role of the advisory group in applications for state and federal grants. Give your input on the format of future advisory meetings and future educational programs.

10:00 AM Welcome, Introductions, and Announcements -- Julie Kikkert, CCE Cornell Vegetable Program and Steve Reiners, Cornell

Roundtable Discussion of Grower and Processor Concerns About the 2018 Growing Season

Review of 2018 Snap Bean Research Projects Funded by the Association

- NYS processing snap bean variety evaluations -- Jim Ballerstein, Cornell
- Snap bean herbicide trial -- Liz Maloney, Cornell
- Towards a site-specific risk model for white mold in processing snap bean in New York -- Sarah Pethybridge, Cornell

Report on Other Projects

- Continued assessment of Cucumber Mosaic Virus and aphids in snap bean OMRI-listed product trial for control of potato leaf hopper (supported by Federal Capacity Funds) -- B. Nault, Cornell

Special Presentation: Update on the USDA NIFA CARE Funded Project - Progress in the Application of Remote Sensing to White Mold Management in Snap Beans -- Ethan Hughes and Jan van Aardt, Rochester Institute of Technology, Rochester, NY

Establish Industry Priorities for 2019 Research

12:25 PM ADJOURN and distribute DEC Certificates

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**Southern Tier Maple School**  
**Saturday, December 15, 2018, 9:30 AM - 12:00 PM**

**Tyrone Fire Department; 3600 State Route 226; Tyrone New York 14887**

Cornell Cooperative Extension’s State Maple Specialist, Steve Childs, will lead this annual refresher to help maple producers of all levels improve the productivity, efficiency and profitability of their operations. This workshop will also qualify for certification for the new “NYS Grown and Certified Maple”. Light refreshments provided. $5 donation at the door. For general information on maple syrup production, please visit: [www.cornellmaple.com](http://www.cornellmaple.com) For additional questions, contact Brett Chedzoy of Schuyler CCE at 607-535-7161, or by email at: bjc226@cornell.edu
Seeking conservation minded individual with interests in permaculture to rent 3-4 acre, gentle grade, southern exposure field for agricultural production in Steuben County, NY. Acceptable practices include organic vegetable production, small scale poultry, and organic greenhouse or high tunnel production. Other considerations will be determined by owner. Improved, uncultivated ground will require proper preparation for success. Currently no housing available on the property, but can be discussed with owner in the future. Contact CCE Steuben at 607-664-2574 for further information.

Attention Christmas Tree Farmers I have 40-60 acres to lease at a reasonable rate. The property is located in Steuben County between Bath and Hornell. Contact Merwyn Crane at 1-315-591-8104.

Attention Cattle Farmers: I have pasture/farmland for rent, 40-50 acres, reasonable rate. Located in Steuben County on State Rt. 63. Contact Marian Crawford at 585-728-5303.