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- Office plants reduce employee sick time by 14% and improve work productivity and speed.
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- Stores with landscaped areas have expanded sales resulting from longer shopping occasions and can charge more due to higher perceived quality.

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- There are 4 million miles of US roadways. Street trees preserve paved surfaces.
- Shaded roads save up to 60% of repaving costs. Trees also improve driver safety and result in fewer traffic accidents.
- Trails and greenways increase property values and make adjacent homes sell faster.

Cornell Cooperative Extension
Steuben County
The two following articles, “Maggot Pests” and “Hemp Happenings” are from the VegEdge Newsletter. VegEdge is published 25 times a year, parallel to the production schedule of Western New York growers. Subscribers to the Cornell Vegetable Program receive a complimentary electronic subscription to the newsletter. Print copies are available for an additional fee but you must subscribe to the Cornell Vegetable Program. For further information on how to subscribe, please contact our office at 607-664-2300 or email Ariel Kirk at adk39@cornell.edu

Maggot Pests
Robert Hadad, CCE Cornell Vegetable Program; from VegEdge newsletter, 5/1/19

INTRODUCTION
In late April, throughout May, and sometimes even into June, several types of maggots can attack crops. Adult flies emerge from overwintered pupae in the soil where a host crop was previously. They quickly mate and lay eggs at or near the base of some of our early crops. The flies are tiny and are easy to miss. The eggs hatch out maggots that move down into the soil and attack the young plant roots. These pests are onion maggot, cabbage maggot, and seed corn maggot.

SEED CORN MAGGOT
The seed corn maggot (SCM) can be present earlier than the other maggots. SCM have a wide host range. These include many early planted or seeded spring crops including allium, pea, brassicas, and of course, early seeded sweet corn. SCM prefer cool damp weather so besides spring, they are also active in the fall. SCM can have 3-4 generations per season. The adults are flying just as the weed, Yellow Rocket sends up flower stalks and begins to flower. An image of Yellow Rocket is found just below.

Seed Corn Maggot Management
- Avoid planting in fields where a host crop was present the previous season especially if the crop was harvested in the fall.
- Avoid planting or direct seeding into cold soils. Seeds planted shallower will quickly germinate becoming more established offering a little more resistance to attack.
- Avoid planting or direct seeding where plant residue has not had a chance for thorough degradation.
- Use treated seeds where available. Consult your seed company representative or check seed catalog descriptions for options.

CABBAGE MAGGOT
This pest feeds specifically on brassicas. The emergence of the cabbage maggot (CM) flies from soils where brassicas were grown before is close to the time of seed corn maggot flights but can be a little later. Flies are quite small and
their maggots are tiny resembling a wiggling grain of rice. One indicator when flies should have emerged is when the weed, Yellow Rocket, has started to bud up and bloom.

**Cabbage Maggot Management**
- Previous season’s brassica crop residue should be tilled under. The crop ground should be tilled again to help bury pupae.
- Don’t plant or direct seed into brassica crop land. Rotate out of brassicas.
- Plant later into the spring rather than early spring to miss egg laying.
- When cultivating, set discs to through soil lightly stacked around crop stems.
- Use row cover over seedling or transplants.

**ONION MAGGOT**
As with cabbage maggot, the flight of the onion maggot flies coincides when Yellow Rocket blooms. Onion maggot flies begin their season when cabbage maggot flies are at peak. There are three generations per season. Besides root damage, onion maggots can crawl in between onion plant leaves and move down into the bulblet. Feeding damage weakens plants also allowing for disease to cause rot.

**Onion Maggot Management**
- Clean up onion or Allium crop ground from previous season’s crop. Remove residue or bury deeply.
- Destroy cull piles.
- On new allium ground, exclusion with new row cover or tight weave insect netting can help reduce infestation.
- Soil drench is an option if applied with high volume of water to soak down to the root zone.

**Hemp Happenings**

**Judson Reid**, CCE Cornell Vegetable Program; from VegEdge newsletter, 5/1/19

Hemp, a multi-use crop that has been cultivated for centuries, is increasingly cultivated in New York. ‘Industrial hemp’ is a non-intoxicant version of *Cannabis sativa* with potential use as fiber, grain or processed consumer products. One of the uses of greatest interest is CBD.

Cannabidiol (CBD) is receiving publicity as a supplement for relief of seizures, pain, and anxiety. It is made in trichomes of female flowers as a biochemical alternative to THC, the intoxicant found in marijuana.

In NYS permitees to grow hemp are regulated by Ag and Markets under close supervision. Previously NYSDAM set a firm deadline for farmers and processors to apply for CBD permits. Now the Department is accepting applications for:

- CBD growing: rolling basis, no deadline
- Grain and fiber growing: rolling basis, no deadline
- Grain and fiber processing: rolling basis, no deadline

The department is NOT accepting CBD Processing applications at this time.

Please see the NYSDAM website for applications, sample research partner agreements, and an updated guidance document:
There is a non-refundable $500 application fee for all new applications. If you do not have internet access please contact your local CCE office for assistance in printing an application.

The Department is also encouraging agricultural cooperatives to consider partnering in the purchasing, testing, processing, and distributing of farm supplies and farm business services related to industrial hemp. Agricultural cooperatives can share resources and reduce financial risk in the emerging industrial hemp field while growing, processing, producing, and marketing industrial hemp and hemp products. Letters of interest from agricultural cooperatives wishing to participate in the industrial hemp research program must be submitted to the Department at ag.dev@agriculture.ny.gov by June 6, 2019. Letters should provide information demonstrating the feasibility of growing, processing, and producing industrial hemp or hemp products under a farm-owned business structure.

Interested in learning more about growing hemp? Mark your calendar for these upcoming events. More details to come on hemp.cals.cornell.edu/

Summer 2019 Cornell Hemp Events:
- Eastern NY Hemp Conf & Expo – Albany – June 2-4
- Willsboro Farm Field Day – July 10
- Aurora Farm Field Crops Field Day – July 11
- Freeville Organic Farm Field Day – July 31
- Long Island Hort Res Ext Center Plant Science Day – July 31
- Hemp Workshop – Empire Farm Days – Aug 6-8
- Cornell Hemp Field Day – Geneva – Aug 13

How to Establish Crop Production History For Crop Insurance

Fay Benson, Cornell South Central New York Dairy & Field Crop Team

With information from Acceptable Records of Production

As the government moves away from disaster payments and programs, New York farmers are increasing their reliance on crop insurance to take some of the risk out of their cropping enterprises. During the period between 2007 and 2017, liabilities covered by New York farmers increased by 46% according to RMA’s Summary of Business records. In order for farmers to take advantage of crop insurance, certain records are necessary. To determine insurance coverage, all insurance policies have three main components:

1. Number of units protected: Acres, Bushels, Tons, etc.
2. Guaranteed price per unit
3. Actual Production History (APH) for the crop on your farm

Once these are established a “guaranteed” amount of coverage is determined. The most time consuming record required is the APH, because in order to determine the APH database, a farm needs four years of yield records for that crop on their farm. Without the four years of acceptable records farmers can still participate with crop insurance, but they will have to use their county’s average yields for their production history. County average yields are almost always lower than a farmer’s actual
production. For each year the farmer creates an acceptable record of production, they can replace a year of the county average. RMA uses the term T-Yields for county averages. Your county’s T-Yields can be found by using the “Cost Estimator” tool on RMA’s website. https://ewebapp.rma.usda.gov/apps/costestimator/

Acceptable Third-Party Sales and/or Commercial Storage Records:
For all crops, acceptable third-party sales and/or commercial storage records must contain the following: Name and address of the buyer or the commercial storage facility, insured’s name, load or ticket number, crop, gross weight, tare weight, date weighed, and unit and/or field identification from which the production was harvested.

Production Harvested and Stored on the Farm:
The producer/farmer (insured) is responsible for providing separate records of production for each unit that is stored and notifying the insurance company for measurement when production from another unit, crop year, or uninsured acreage is to be added to existing production in a single storage structure.

For weights, acceptable scale types are non-portable on-farm scales, commercial elevator scales, or grain carts. Each ticket must provide at least the insured’s name, crop, the gross weight, tare, date weighed, load number, identification and location of farm-storage structure in which the load(s) from each field are stored. The insured must hand-write any of the required information listed if the scale being used is not capable of printing a ticket or the required information.

To help with this last record keeping option, contact your Cornell Cooperative Extension Office for a free “New York Crop Insurance Education Program” – Crop Production Record Book.

For more information:
To find a crop insurance agent, visit the RMA online locator at: http://cli.re/gzPVWw. For more information on crop insurance options in New York, visit: https://agriskmanagement.cornell.edu.

Cornell University delivers crop insurance education in New York State in partnership with the USDA, Risk Management Agency. This material is funded in partnership by USDA, Risk Management Agency, under award number RM18RMETS524C018.

Diversity and Inclusion are a part of Cornell University’s heritage. We are an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.


Cornell Researchers Win Major Awards From Cider Industry
By Erin Flynn

Chris Gerling, extension associate in the food science department, and Greg Peck, assistant professor in the horticulture section of the School of Integrative Plant Science, both recently received major awards from the cider industry. Above, Peck working at Cornell Orchards. Photo by Sasha Israel

Hard cider is a fast-growing segment in the U.S. fermented beverage industry, and New York’s position as a leader in craft beverage production and expertise is paving the way for cider producers to succeed.

“The burgeoning craft beverage industry in New York state has helped create a lot of applicable resources and expertise for cider makers,” said
Ian Merwin, M.S. ’88, Ph.D. ’90, owner of Black Diamond Cider and Cornell professor emeritus of plant science. “We can get bottles and equipment from well-established companies in the area. We have the legislative support we need and Cornell experts like Chris Gerling and Greg Peck to help us every step of the way.”

Merwin notes that the benefit of cider makers working with both Gerling, extension associate in the Department of Food Science, and Peck, assistant professor in the horticulture section of the School of Integrative Plant Science, is that they can gain expertise on both ends of the spectrum—when growing the cider apples and when making the cider itself.

“Chris has distinguished himself as being fully invested in improving the quality and profitability of cider made in New York and beyond,” said Jenn Smith, NYCA executive director. “He is as curious as he is knowledgeable, and in particular has been central in NYCA’s work to tackle the challenges of measuring and communicating the tricky concept of dryness to drinkers. We are grateful and lucky to have him as a partner in our work of developing a sustainable, excellent cider industry in our region.”

Greg Peck’s research explores ways to increase the quantity and quality of New York–grown cider apples, including best practices for fertilizer, crop load and harvest management. Peck also helps cider makers select varieties that will work best for high-quality and flavorful cider.

Michelle McGrath, executive director of the USACM, said the organization’s members overwhelmingly voted for Peck to receive the Grower Advocate of the Year award.

“His advocacy for cider at Cornell and his research collaborations with the industry are important for expanding our knowledge of growing cider apples. We know so little about propagating cider-specific varieties in the U.S., and Greg is such a valuable resource for cider makers looking to use specific apple varieties.”

While hard cider makers have many valuable resources in New York, the recent awards for Gerling and Peck underscore the fact that producers value experts who can help them piece together the many components that equate to a high-quality end product.

To learn more about Cornell’s hard cider research and outreach efforts, visit: https://hardcider.cals.cornell.edu
Produce Safety Alliance Aims To Demystify Complex Agriculture Water Rules
By Blaine Friedlander

To ensure the safety of fresh fruits and vegetables for consumers, Cornell’s Produce Safety Alliance helps to explain complex federal food safety rules and assess agricultural water use. Above, sprays of water irrigate leafy greens overhead on a Long Island farm in Brookhaven, New York. Photo by Sam Nolan

In an effort to ensure the safety of fresh fruits and vegetables for consumers, Cornell’s Produce Safety Alliance is helping to explain complex federal food safety rules and develop new ways to assess agricultural water use.

“Water used during the production of fresh fruits and vegetables represents a potential pathway for contamination with human pathogens,” said Gretchen Wall, Cornell’s Produce Safety Alliance coordinator and lead author of “Key Outcomes From a Collaborative Summit on Agricultural Water Standards for Fresh Produce,” released in February in Comprehensive Reviews in Food Science and Food Safety, a journal published by the Institute of Food Technologists.

The work resulted from a two-day national meeting last year of growers, scientists, produce industry members and regulators on how to improve the Produce Safety Rule, specifically the agricultural water provisions, an important component of the Food Safety Modernization Act (FSMA).

In the Produce Safety Rule, Wall said, microbial quality standards and testing requirements were established so that when agricultural water makes contact with produce – whether in the growing, packing or holding phases of production – the risks associated with water are reduced. But some of the provisions in the regulation were difficult to understand and challenging to implement on farms, making it hard for farms to comply.

“The United States is a big place with many different water sources and systems,” said Betsy Bihn, senior extension associate and director of the Produce Safety Alliance, a collaboration between Cornell, the U.S. Food and Drug Administration, and the U.S. Department of Agriculture.

Bihn said farmers and producers draw their water from municipal sources, ponds, rivers, wells or other sources such as springs. Because their water can come from a variety of sources, the costs of testing and inspecting distribution systems and maintaining microbial quality standards can be expensive. Growers want to know that the money and time they are investing in water monitoring and testing is helping them make water management decisions that reduce produce safety risks, the report said.

Betsy Bihn, director of the Cornell’s Produce Safety Alliance, obtains a water sample. Photo by Robyn Wishna

Nationwide, the FDA estimates that water testing may cost producers about $37 million annually. For individual small farms, that could mean spending about $1,000 each year for testing, but it could substantially reduce the use of contaminated agricultural water and the risk of foodborne illness.

To keep testing costs reasonable, for example, stakeholders suggested allowing multiple farms
that draw water from the same canal or river to share representative samples. In addition, stakeholders suggested better coordination and access to water quality data from irrigation districts, state or municipal agencies, and the Environmental Protection Agency.

Climate and geography are emerging as important components in agricultural water and food safety. “The impact of climate was one of the most frequently discussed priorities,” said Wall.

“Growers must now contend with more-frequent weather events, natural disasters and changing seasonal weather patterns that can impact precipitation volume and frequency, as well as pest pressure and disease prevalence,” Bihn said.

While the agricultural water segment of the Produce Safety Rule was approved in 2015, the FDA issued a statement on March 15 that will extend dates for agricultural water compliance on a national scale for large farms to January 2022, small farms to January 2023 and very small farms to January 2024.

“The FDA needs to take into consideration all of the regions of the country and how the agricultural water is used, and determine how risks may vary between regions. That’s why this new paper is relevant,” Wall said. “Those stakeholders who were at the summit have proposed some solutions for these complex problems. The FDA is still trying to sort this out, but water quality should remain a critical priority for all farms, despite the extension of compliance dates.”

In the interim, Bihn and her team continue to provide science-based educational materials and training for produce growers to raise awareness of agricultural water safety, and encourage action in managing food safety risks through testing water sources and conducting annual assessments of water systems.

In addition to Bihn and Wall, the paper’s co-authors are Cornell regional extension associates Donna Clements, Connie Fisk, Donald Stoeckel and Kristin Woods. This work was supported by the FDA, the Association of Food and Drug Officials, CompWALK.farm, the Produce Marketing Association and the United Fresh Produce Association.

### Study To Help Heat-Stressed Dairy Cows Weather Increasing Temperatures
**By Matt Hayes**

A Cornell project aims to identify a nutrition-based solution that improves dairy cows' ability to adapt to extreme heat. Above, Joseph McFadden, left, inspects dairy cows at a Cornell research farm. Photo by Justin James Muir/Cornell University

A warming world represents a growing threat to the dairy industry. With climate change pushing global temperatures higher, finding scientific solutions that protect the well-being and productivity of dairy cows is critical. A Cornell researcher has won a grant to do just that.

“Climate change and extreme heat represent key barriers for the sustainable production of milk that meets consumer expectations for quality as well as the rising global demand for dairy foods,” said Joseph McFadden, assistant professor of animal science in the College of Agriculture and Life Sciences (CALS).

“We must act now to develop innovative solutions that revolutionize how we feed heat-stressed cows to ensure optimum animal health and welfare while achieving gains in efficient milk production,” said McFadden, the Northeast Agribusiness and Feed Alliance Partners Sesquicentennial Fellow in Dairy Cattle Biology.

McFadden is principal investigator on a nearly $1.5 million grant from the Foundation for Food and Agriculture Research (FFAR) and industry sponsors, announced April 11. The $736,392 FFAR grant is matched with funding from AB Vista, Adisseo, Balchem Corporation, Berg + Schmidt, Elanco, Phibro Animal Health, and Vetagro S.p.A. The study will explore the relationship between dairy cattle’s gut health, intestinal permeability, liver health, immunity and milk production; it will also seek ways to improve dairy cows’ ability to withstand extreme heat.
Dairy cows struggle to produce milk efficiently when their body temperatures rise above normal, a condition known as hyperthermia-induced heat stress. Along with curtailing milk production, heat-stressed dairy cows can also become infertile, develop infectious and metabolic diseases, and may succumb to premature death.

Working with industry, McFadden’s team will determine whether heat-stressed dairy cows can recover through diet. The project aims to identify a nutrition-based solution that improves dairy cows’ ability to adapt to extreme heat.

The demand for dairy products and milk globally is expected to increase 57 percent by 2050, while rising temperatures are expected to stress the dairy industry, according to FFAR. In 2017 in New York state, milk production reached its highest levels ever, according to the New York State Department of Agriculture and Markets. On average, a dairy cow in New York produced 23,936 pounds of milk in 2017.

Average annual temperatures are projected to increase across New York state in the coming decades. Temperatures could increase by 10 degrees Fahrenheit by the 2080s, according to a 2014 report from Art DeGaetano, professor of climatology and director of the Northeast Regional Climate Center at Cornell, and other collaborators for the New York State Energy Research and Development Authority.

“Heat stress is an urgent animal health and welfare concern, and it also creates additional pressures for the nation’s dairy farmers,” said Sally Rockey, FFAR’s executive director. “FFAR is optimistic that Cornell’s research can improve the health of dairy cows, increase efficient milk production and help American dairy farmers protect their livestock.”

According to FFAR, McFadden and his team will partner with industry collaborators to reduce the use of limited natural resources and drive down dairy production costs in support of a more sustainable and economically viable American dairy industry. McFadden will work with the grant sponsors and the Cornell PRO-DAIRY program to disseminate new knowledge in an annual editorial series called “Beat the Heat: Dairy Nutrition Strategies for Optimum Cow Health,” which will be shared with thousands of American dairy farmers.

“This translational research program in collaboration with industry has the potential to revolutionize dairy cattle nutrition to ensure that our American dairy farmers will continue to produce a high-quality food,” McFadden said. “Global population growth and climate change are real challenges and we aim to develop real solutions.”

Kathryn J. Boor ’80, the Ronald P. Lynch Dean of CALS, is a board member at FFAR.
On Thursday September 26, 2019 from 6 to 8 pm, Cornell Cooperative Extension of Chemung County (CCE Chemung) will be having their annual Taste of Chemung. This event will take place at the Community Arts of Elmira (413 Lake St, Elmira, NY 14901). The Culinary Program at GST BOCES Bush Campus will once again be preparing a full meal of appetizers, buffet and desserts for attendees from locally and regionally sourced products. Local businesses and farms will also be on hand to provide tastings of their alcoholic and nonalcoholic beverages. Proceeds from this event will go to support the Agriculture, Horticulture, EastSide Market, Energy, Recycling, Natural Resources, Nutrition, 4-H Youth Development, and Poverty Reduction Programs at CCE Chemung. So, come out and support the cause by attending this dinner with live music!

Ticket cost prior to Thursday September 26, 2019 will be $35 per person or $30 if 4 or more tickets are purchased together. All tickets purchased the day of the event will be $40 per person. The tickets will go on sale this summer. Please contact Shona Ort at 607-734-4453 ext 227 or sbo6@cornell.edu to receive the announcement of when tickets go on sale.

For more information on how to be a sponsor for this event, please contact Andy Fagan, Executive Director at CCE Chemung, via 607-734-4453 ext 231 or agf1@cornell.edu.

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Beef Cattle Management

Packing plant report has been released and can be found at: https://blogs.cornell.edu/beefcattle/

The next Feeder Special will be held Wednesday, May 22, 2019

Insects, Pollinators, and Grassland Birds

Wednesday, May 29, 2019, 6:30 pm to 9:30 pm. Insects, Pollinators and Grassland Birds. Free seminar to be held at Finger Lakes National Forest, Hector Ranger Station, 5218 State Rt. 414, Hector, NY 14841. Event sponsored by The American Wildlife Conservation Foundation. Three presentations: Stressors associated with world-wide insect declines; Importance, status and conservation of NY’s wild bees; Importance, status and management of grassland birds in NY State. For more info contact Gary Goff grg3@cornell.edu

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Using the safest, most updated information available, participants will:

- Learn the science of food preservation including food safety
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  - Boiling water bath canning, pressure canning, jellied products, quick pickling
- Observe demonstrations of freezing and drying, plus fermentation

This 3-day intensive course includes a comprehensive food preservation notebook. Nightly study is suggested for the post-test. A score of 85 is required, as well as experience with all food preservation methods and teaching others, to become a Cornell Cooperative Extension certified Master Food Preserver. No prior experience in food preservation is required.

- **Tuesday, May 21, 2019, 8:30 AM - 4:30 PM**
- **Wednesday, May 22, 2019, 8:30 AM - 4:30 PM**
- **Thursday, May 23, 2019, 8:30 AM - 4:30 PM**

Fee-$275 before 4/30, $325 after 4/30

Learn More
https://pub.cce.cornell.edu/event_registration/main/events_action.cfm

Contact
Lisa Shrout 4-H Program Educator
Lr79@cornell.edu

Location
Hidden Valley 4-H Camp
2860 Hidden Valley Camp Rd
Watkins Glen, NY 14891

Roadmap Points Way To Better Soil Health In New York
By Kitty Gifford

There is a revolution of sorts going on in farming today, triggered by discoveries in plant and soil ecology, and a recognition that we will need to restore the health of our soils to feed an expanding population.

New York has been a leader in this soil health revolution, but where do we go from here? This is the focus of the recently released [New York Soil Health Roadmap](https://newyorksoilhealth.org/roadmap), a collaborative effort of the New York Soil Health (NYSH) initiative coordinated by Cornell.

The roadmap identifies key policy, research and education efforts to overcome barriers to adoption of soil health practices by farmers. It also identifies strategies for integrating soil health goals with state priorities focused on environmental issues such as climate change and water quality.

Roadmap contributors developed four goals for advancing soil health. The goals include overcoming barriers to wider adoption of soil health practices, and the integration of climate change adaptation and mitigation in all aspects of soil health programming.

As a resource for policymakers, researchers, farmers and those concerned about healthy food and a healthy environment, the roadmap comprises input from many individuals, organizations and government agencies in New York and nationally. It is intended to help expand soil health policy, research and outreach efforts to reach New York’s underserved.

“This roadmap highlights the linkages between soil, water and air quality,” said David Wolfe, Cornell professor of plant and soil ecology and leader of the project. “It was impressive to see how such a diverse group of stakeholders was able to find consensus on a few key goals that address some of our most urgent environmental
challenges while supporting the long term success of our farms.”

It is ultimately farmers and other land managers who must make adjustments – which could be costly and/or risky – in order to rebuild healthy soils, according to Wolfe. The roadmap discusses the results of a 2018 New York farmer survey focused on economic issues, and found that while some benefits can take years to be fully realized, others – such as avoiding soil-erosion losses with cover crops, and reducing fuel and labor costs by reducing tillage – can pay off in the near term for the farmer.

“We need to get in front of soil health or we’ll fall behind, and we’re not going to like the dust that gets kicked up,” said Donn Branton, who farms 1,500 acres of grain crops and vegetables in Stafford, New York. Branton gave up traditional tillage on his farm in 1988, and incorporates other conservation practices, including cover crops and nutrient and drainage management.

Farmers in New York are facing uncertainty about the climate and extreme weather events. Increasing soil organic matter – a key to soil health – improves resilience to both drought and flooding, and stores carbon in the soil that would otherwise be in the air as carbon dioxide, a greenhouse gas.

Healthy soils are also less prone to soil erosion and nutrient runoff during heavy rainfall, reducing an economic loss for farmers while protecting the water quality of streams and lakes.

New York Soil Health’s vision is to strengthen the state’s leading role in soil health research, outreach and policy with effective partnerships. In 2018, NYSH hosted a soil health summit in Albany to gather input from stakeholders. The summit brought together experts from 35 organizations to discuss shared agricultural and environmental interests and form solutions.

Attendees considered the unique features of New York agriculture, which is dominated by mixed animal-crop dairy farms as well as economically important fruit and vegetable crops. New York ranks among the biggest producers in the nation for many of these crops.

“After working on this roadmap for over a year, I’m more optimistic than ever about the sustainability of New York’s diverse agriculture,” said Wolfe, a faculty fellow at Cornell’s Atkinson Center for a Sustainable Future. “We not only have innovative farmers rebuilding their soils, but also a wide range of allies, from consumers to policymakers, who are ready to support them.”

Kitty Gifford is a consultant for New York Soil Health.
EPA Takes Next Step in Review Process for Herbicide Glyphosate, Reaffirms No Risk to Public Health

Today, the U.S. Environmental Protection Agency (EPA) is taking an important step in the agency’s review of glyphosate. As part of this action, EPA continues to find that there are no risks to public health when glyphosate is used in accordance with its current label and that glyphosate is not a carcinogen. The agency’s scientific findings on human health risk are consistent with the conclusions of science reviews by many other countries and other federal agencies. While the agency did not identify public health risks in the 2017 human health risk assessment, the 2017 ecological assessment did identify ecological risks. To address these risks, EPA is proposing management measures to help farmers target pesticide sprays on the intended pest, protect pollinators, and reduce the problem of weeds becoming resistant to glyphosate.

“EPA has found no risks to public health from the current registered uses of glyphosate,” said EPA Administrator Andrew Wheeler. “Today’s proposed action includes new management measures that will help farmers use glyphosate in the most effective and efficient way possible, including pollinator protections. We look forward to input from farmers and other stakeholders to ensure that the draft management measures are workable, realistic, and effective.”

“If we are going to feed 10 billion people by 2050, we are going to need all the tools at our disposal, which includes the use the glyphosate,” U.S. Secretary of Agriculture Sonny Perdue said. “USDA applauds EPA’s proposed registration decision as it is science-based and consistent with the findings of other regulatory authorities that glyphosate does not pose a carcinogenic hazard to humans.”

Glyphosate is the most widely used herbicide in U.S. agriculture and has been studied for decades. Glyphosate is used on more than 100 food crops, including glyphosate-resistant corn, soybean, cotton, canola and sugar beet. Non-agricultural uses include residential areas, aquatic areas, forests, rights of way, ornamentals and turf.

Once the Federal Register notice publishes, the public will be able to submit comments on EPA’s proposed decision at www.regulations.gov in docket # EPA-HQ-OPP-2009-0361. Public comments will be due 60 days after the date of publication in Federal Register. EPA’s responses to the comments received on the draft ecological and human health risk assessments and the benefits assessment will be in the docket.

Find more information about glyphosate, including today’s proposed interim decision and supporting documents.

See the glyphosate draft risk assessments and supporting documents.
**DAIRY MARKET WATCH**

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<td>Oct 18</td>
<td>$2.56</td>
<td>$1.72</td>
</tr>
<tr>
<td>Nov 18</td>
<td>$2.53</td>
<td>$1.34</td>
</tr>
<tr>
<td>Dec 18</td>
<td>$2.50</td>
<td>$1.14</td>
</tr>
<tr>
<td>Jan 19</td>
<td>$2.50</td>
<td>$1.19</td>
</tr>
<tr>
<td>Feb 19</td>
<td>$2.53</td>
<td>$1.78</td>
</tr>
<tr>
<td>Mar 19</td>
<td>$2.55</td>
<td>$1.63</td>
</tr>
</tbody>
</table>

**March Utilization (Northeast): Class I = 31%; Class II = 24%; Class III = 27%; Class IV = 18.**

**Class I** = fluid milk; **Class II** = soft products, cream, and yogurt; **Class III** = cheese (American, Italian), evaporated and condensed products; **Class IV** = butter and milk powder.

**Cheese:** Northeast and Midwest cheese demand reports were stable to improved this week, while Western cheese outfits suggested sales were mixed. Curd and specialty cheese producers are seeing some seasonal ordering pushes. Curd producers have suggested end of April and May orders are particularly healthy this year. Milk is available to fulfill cheesemaking needs nationwide, although Midwestern cheese producers suggest it is not as accessible this year when compared to recent years.

**Dry Products:** Prices for low/medium heat nonfat dry milk are higher across all regions. Robust demand is pushing the rise, while dryers are active. High heat nonfat dry milk prices are higher. Production and inventories are slight as much of the focus is on making low heat. Dry buttermilk prices increased. Buyer demands are picking up, but inventories are tight. Dry whole milk prices are mixed as some trades based on specific brands pushed up the bottom price on the range. Dry whey prices are a mixed bag. Prices increased at the bottom of the central and west ranges, but are lower on the top of the west and northeastern ranges. Trade issues, the African swine fever and ample supplies are creating an unsettled market tone for dry whey. Prices for whey protein concentrate 34% are unchanged. Low prices in spot markets within Asia and Mexico are putting extreme price pressures on some processors, while other manufacturers have been able to maintain strong price points.

**Fluid Milk:** Through much of the country, fluid milk output is increasing. However, in California, Arizona, the Pacific Northwest and Central regions, industry contacts suggest the spring milk levels are not as high as they may typically be at this time of year. Cow culling has been heavy in the Upper Midwest, Mid-East and Eastern regions, and many farmers are calling it quits. Bottling demand is mixed across the country. Some areas are seeing a ripple of activity before the spring holidays, while others have lower sales. Some butter makers expect cream supplies to tighten and affordable cream to become less accessible as ice cream makers ramp up in the next few weeks.

**Butter:** Industry contacts across the nation relay that production levels are transitioning from active to stagnant as large cream volumes continue clearing into Class II manufacturing. Producers have noted a dip in cream supplies to tight and affordable cream to become less accessible as ice cream makers ramp up in the next few weeks.

<table>
<thead>
<tr>
<th>Date</th>
<th>Friday CME Cash Prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dates</td>
<td>3/22</td>
</tr>
<tr>
<td>Butter</td>
<td>$2.27</td>
</tr>
<tr>
<td>Cheese (40# Blocks)</td>
<td>$1.57</td>
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</table>
Milk production in March fell 0.4% below a year ago. This follows a 0.9% more milk than a year ago in January and just 0.1% more milk for February. Milk cow numbers which have been declining since June of last year, declined by 10,000 February to March and were 86,000 head or 0.9% lower than a year ago. This decline in cow numbers reflects cow slaughter running about 6% higher than a year ago and continued exiting of dairy producers. Milk per cow was also just 0.5% higher than a year.March milk production compared to a year ago for the top five dairy states which produced 52% of the milk last year was: California +0.7%, Wisconsin +0.4%, Idaho +1.4%, New York +2.3% and Texas 5.8%. Milk cow numbers were down by 9,000 in California, and 4,000 in Wisconsin, but up 9,000 in Idaho, 2,000 in New York and 27,000 in Texas.

Fluid (beverage) milk sales declined 2% last year and sales were down another 1.2% January through February this year. Reports are that butter and cheese sales show only modest growth. Compared to February a year ago nonfat dry milk/skim milk powder, whey products and lactose exports were down 17%, 29% and 19% respectively. Lower nonfat dry milk/skim milk powder exports were due primarily to China down 78%, South East Asia down 11% and Middle East/North Africa down 85%. Whey exports were down 58% to China, the lowest since February 2011. On a total milk solids basis, February exports were equivalent to 14.3% of U.S. milk production.

With lower milk production dairy product production is also lower. Compared to a year ago February butter production was 2.9% lower, cheddar cheese 4.3% lower and total cheese production up just 0.5%.

Milk production lower than a year ago, lower dairy product production, strong cheese and butter exports and improved stock levels all point to higher milk prices. While fluid (beverage) milk sales continue to decline butter and cheese sales are expected to continue modest growth. The level of dairy exports will be an important factor in how much milk prices improve. While dry whey prices have been in the $0.33 to $0.35 per pound range cheese prices have strengthen to increase the Class III price. The Class III price was below $14 for both January and February, improved to $15.04 in March and will be near $15.95 for April. Cheese prices should continue to improve pushing the Class III price in the $16’s as early as May with a good possibility of reaching $17 by October. Class III futures have improved, but currently are not quite this optimistic with a high in the $16.60’s by October. Butter has held around $2.25 per pound, but should show strength by fall. Nonfat dry milk prices may hold in the high $0.90’s per pound. As a result the Class IV price which was $15.48 in January continues to improve with March at $15.71 and April will be near $15.80. The Class IV price should in the $16’s by May and for the remainder of the year. Class IV futures is even more optimistic with a price in the $17’s August through November. In summary milk prices are shaping up to be much improved over the low milk prices in 2018.
**COMING EVENTS**

**May 29-Insects, Pollinators and Grassland Birds-6:30pm-9:30pm,** Finger Lakes National Forest, Hector Ranger Station, 5218 State Route 414, Hector, NY. See article in this issue for more information.

**May 21-23-Master Food Preservers Workshop-8:30am-4:30pm,** Hidden Valley 4-H Camp, 2860 Hidden Valley Camp Road, Watkins Glen, NY. See article in this issue for more information.

**September 26-Taste of Chemung-6:00pm-8:00pm,** Community Arts Center of Elmira. See article in this issue for more information.

**FOR LEASE/RENT**

Available For Rent: Steuben County SWCD has an Esch 10’ No-Till Drill for rent. Rates are $12-$25/acre based on number of acres planted. Delivery/pickup available. Please call (607)776-7398 ext.3 for more information.

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 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.