FARM & GARDEN



Cornell University Cooperative Extension Chemung & Tioga Counties

NEWS AND NOTES FOR FARMERS & GARDENERS IN CHEMUNG AND TIOGA COUNTIES

News From CCE

By Barb Neal, CCE Tioga

A strong theme for our work in Chemung and Tioga Counties this year is Agritourism. The combination of agriculture and tourism is a profitable one whether a farm hosts farm stays, holds special events on their farm, have a must-see farm stand or farm experience—the possibilities are limitless.

Our location is perfect for attracting city and suburban dwellers to our beautiful hills and valleys—metropolitan areas from Toronto to NYC mean there are millions of people seeking rural adventures within an easy drive of the Southern Tier.

This year is particularly rich with tourism possibilities as the international association of travel bloggers will be in the Southern Tier in September, and the bloggers will fan out across our counties to experience all that Chemung and Tioga Counties have to offer. If you have been thinking about diving into agritourism or would like to learn more about it, your first step is to attend the conference described below. In addition, contact your county agriculture educator to learn more about the exciting opportunities this year.

Agritourism Conference for Farmers in the Southern Tier

February 23, 2018 in Corning, NY at the Corning Community College Campus. The focus will be on the development and sustainability of agritourism in the southern Finger Lakes region which covers Chemung, Schuyler, Steuben, Tioga, and Yates counties.

The day will begin with a breakfast and networking hour which will be followed by an introduction to the new regional agritourism planning team and a presentation of a new regional agritourism plan. Keynote speaker (Fill in name and title here) will present on (fill in topic here) followed by a Q&A session.

After the keynote presentation, conference attendees will enjoy a farm to table buffet style lunch featuring local ingredients, plus a beverage pairing presentation featuring local farmers and beverage producers! In the afternoon the conference will break into two separate workshops. Attendees may choose one to attend. The first workshop will discuss what it means to be visitor ready and addresses the processes involved, and the second workshop will discuss farm to restaurant (add details to expand upon). Both workshops will be presented by a panel of experts.

The conference will conclude with a closing "Where Do We Go From Here" presentation that will discuss next steps and strategies in the development of new markets and opportunities in agritourism. Following the conference join us for the TasteFLXpo from 5pm – 8pm. <u>https://flxfarmcountry.ticketleap.com/</u> conference/details

February 2018

Inside this issue:

- Agritourism
 - Beetles managing your weedy fields
 - Lambing and kidding in cold weather
- Oyster mushroom workshop
- And more!

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Taste FLXpo is an opportunity to show your farm products and takes place immediately after the conference.

Homesteading Series in Tioga County

Join us to learn how to be more self-sufficient this year! Learn how to grow your own fruits and berries, enjoy farm fresh eggs and meat, and even process your own produce!



Saturday, February 3rd	9 am to 10 am	Growing Small Fruits (Strawberries, Blue berries, Raspberries, etc.)
Saturday, February 3rd	10:30 to 11:30 am	Growing Unusual Fruit
Saturday, February 10th	9 am to 10:15 am	Pressure Canning (you should have familiarity with boiling water canning to attend this class.)
Saturday, February 10th	10:30 to 11:30 am	Composting using Worms (Vermicomposting)
Saturday, February 24th	9 am to 10:30 am	Seed Swap —bring your own seeds and share with other gardeners. No seeds, no problem—we have plenty to share!
Saturday, March 10th	9 am to 11 am	Starting Your Home Apple Orchard
Saturday, March 31th	9 am to 11 am <i>Note—thi</i>	Pruning Young Apple Trees (a hands-on, outdoor workshop) <i>s class is at a new date.</i>



All classes will be held at the CCE Tioga Offices (56 Main Street in Owego). There is a fee of \$5 per class., except for the seed swap, which is free. Bring your kids—the can attend for free.

If you wish, join us at a local Owego restaurant for lunch after the classes wrap up for the day. Buy your lunch, then join us around a table for conversation, sharing and connection. Meet with other homesteaders in the county! Share stories and tips.

Register for the classes at: 607-687-4020

For more information and to see the latest list of classes, visit: <u>http://tioga.cce.cornell.edu/</u>

Workshop: Seed Starting

Starting your own seeds is a cost effective way to grow a greater variety of plants for your garden. Join Cornell Cooperative Extension of Chemung County to learn how to start seeds successfully. The topics we will cover include techniques for starting seeds indoors, proper care, lighting and watering, and how to prepare your seedlings for transplant.

This workshop will be offered three times, on: February 20th, 2018; 2:00 – 3:00 PM February 28th, 2018; 2:00 – 3:00 PM March 9th, 2018; 2:00 – 3:00 PM **Place:** CCE Chemung, Conference Room. 425 Pennsylvania Avenue, Elmira, NY **Workshop fee:** Free, but a \$3 suggested donation helps support our Horticulture program. <u>Registration is required.</u> Please contact Chemung CCE at 607-734-4453, or jy578@cornell.edu, and mention your preferred workshop date. For more specific information about the Chemung County Master Gardener program, please contact Jingjing Yin at 607-734-4453 or jy578@cornell.edu.

For more information about the Tioga County Master Gardener program, please contact Barb Neal at 607-687-4020 or <u>ban1@cornell.edu</u>.

Seed-to-Supper – Teach people how to grow their own food

Are you passionate about growing vegetables? Are you interested in helping beginning gardeners in Tioga County to grow their own food as well?

Cornell Cooperative Extension of Tioga County will train volunteers to become Seed-to-Supper volunteer educators to lead free gardening classes in their own communities. The training program will prepare Seed-to-Supper volunteer facilitators to teach free vegetable gardening classes in their own communities.

Volunteer facilitators will gain familiarity with the Seed-to-Supper curriculum and learn hands-on activities that they can use when teaching the classes in their communities.

Seed-to-Supper volunteers will work in small groups to lead the classes, and receive all the materials needed to run the classes. Topics include planning the garden, soil preparation, composting, planting, garden maintenance, pests and diseases, and harvesting.

There is no cost for the training, and the gardening classes held in Tioga County communities will be offered for free as well. For more information, call Barb Neal at 607-687-4020.

Pet Safe Gardening

We know you love your pets and want to keep them safe. Here is some useful information to keep your pet happy, healthy and safe in the garden.

1. Know your toxic plants--there are a number of common garden plants that are toxic to cats and/or dogs. For instance, lilies are quite harmful to cats, and both cats and dogs should avoid daffodils and tulip bulbs. The ASPCA lists the following landscape plants as the most poisonous for your cats and dogs:

- 1. Tulips and Daffodils
- 2. Azaleas and Rhododendrons
- 3. Castor Bean- beans are very toxic
- 4. Yew
- 5. Autumn Crocus
- 6. Chrysanthemum
- 7. English ivy
- 8. Lilies- toxic to cats



If you think your pet has ingested a plant, first check the ASPCA plant registry to see whether the plant is toxic for your pet. Their website is: <u>www.aspca.org</u>. The ASPCA database is easy to use and amazingly complete. If you need more information the ASPCA operates a fee-for-service poison control service. I have personally used the service and found it to be staffed by knowledgeable vets.

If you need help identifying a plant, contact your local Cornell Cooperative Extension office. You can email a picture of the plant for identification. Send a picture of the entire plant, and at least one close up of the leaves and stem.

2. Secure your compost bin -- Secure your compost bin so that your dog or cat cannot feast on the contents.

3. Properly use and store pesticides and fertilizers-store pesticides and fertilizers in secure, labeled containers, and if you apply pesticides, always read the label thoroughly and learn when it is safe for your pets to be out in the garden after an application.

4. Avoid cocoa shell mulch—dogs love to eat the mulch and it is toxic for them.

5. Keep your pets hydrated--If you are out in the garden with your pet for any length of time, be sure they have a source of clean water for them to drink.



Snickers, expert stick-finder

Crickets and ground beetles are effective predators, often found in shelterbelts and outer strips of the field

Reprinted with permission from: The Western Producer, November 301, 2017 and written by Robin Booker.

If farmers hear crickets out in their fields they should consider themselves fortunate because that's the sound of free weedseed control.

"If you hear the crickets, that means the carabids are out. All of the sounds you hear in the evenings, that's weed-seed predation," said Chris Willenborg during his presentation at the Saskatchewan Pulse Growers Pulse and Soybean Agronomy Workshop in Saskatoon.

Willenborg said weed-seed predation is responsible for up to 90 percent of all weed-seed losses.

Weed-seed predators are so effective at managing weed seeds, that some scientists are beginning to re-examine their assumptions on why cover crops are so effective at suppressing weeds.

"There is debate in the weed science world of whether these cover crops are competing with the weeds, or whether that better weed control is a function of increasing habitat for seed predators. That's how effective they are," Willenborg said.

Weed-seed predators include earthworms, carabid beetles, invertebrates, voles, mice, rodents and farmland birds such as sparrows and chickadees.

In Western Canada, the most effective weed-seed predators are crickets and grounds beetles.

"For ground beetles, there is a specific type of ground beetle called a carabid beetle. There are about 900 of these species across Canada, 300 of them call the Prairies home and 30 are present in your fields," Willenborg said.

The amount of seed predation seen on a field depends on the crop.

In corn and soybean fields, there tends to be less seed predation than in smaller grain crops such as wheat or canola. Alfalfa tends to give even better weed-seed predation.

Weed-seed predators can be abundant, but their timing varies based on the time of year.

"Their peak activity is late July through August and declines through early September," Willenborg said.

Carabid beetles are located on field margins that provide habitat. They also tend to be where the actively growing weeds are located, more so than where weed seeds are on the field, Willenborg said.

This is likely because they tend to go where the seeds will be shed, or because they are seeking cover from their predators.

Studies on how to encourage carabid beetles have been conducted through Penn State College of Agricultural Sciences, and they show diverse crop rotations bolster the carabid beetle activity.

Different types of beetles feed at different times of the year, and the timing of peak seed predation also varies depending on the crop.

So "by incorporation of these diverse crop rotations you are essentially, over a three or four year period, maximizing the different niches these seed predators are occupying so you can maximize the amount of seed predation," Willenborg said.

Another way to encourage weed-seed predation by beneficial in-sects is by using a beetle bank.

"This is essentially a trap crop or a trap strip usually permanent in nature, some form of broadleaf or grassy strip in the center of a field that provides habitat. This is be-coming common in Europe," Willenborg said.

These beetle banks, often seeded every 100 meters, allows beneficial to congregate and overwinter. Shelter belts and field margins serve the same purpose, although many of these areas have been removed in Western Canada and it is unknown how their re-moval has affected seed predators, he said.

Cover crops also help promote weed seed predation by sheltering seed predators.

"These cover crops are providing protection for our seed predators because they are on the menu for many of our different predators, especially birds of prey when it comes to rodents, and farmland birds when it comes to insects."

Decreasing tillage helps increase seed predators numbers, and multiple studies show seed predator activity is substantially lower on tilled fields.

Willenborg said seed predators require four things: food, water, overwintering habitat and shelter from adversity, and when soil is tilled three of these four things are removed.

"You bury the seeds usually to a depth so that they can't access them. You remove overwintering habitat because you strip the land bare, there is no shelter."

Willenborg is working with a graduate student who is looking into how the timing of canopy closure can also affect weedseed predator activity. They are examining if the wider row spacing now commonly used affects seed predators.

"What we think is happening, by providing a narrow row spacing or a confined spatial arrangement you change the microhabitat..., things like soil moisture, ambient humidity, relative air temperature. All of these things matter to our weedseed predators," Willenborg said.

Carabid beetles can significantly benefit crop production beyond eating weed seeds. They also consume many common pests.

Carabid beetles can consume up to their body weight daily, and in doing so can significantly de-crease costs associated with pest control.

For more information on carabid beetles in agriculture, visit bit.ly/ 1ZcISUr.



TARGETING SEED BANK GAINING TRACTION IN THE WORLD OF WEED SCIENCE

Some weed seeds can survive for most of a farmer's career once released into the seed bank. This chart shows weed seed production and longevity that have been assessed with a ranking. Growers combating weeds with the highest overall problem ranking (7 and 6) may want to use seed bank management strategies, such as chaff collection and promotion of weed seed predation.

"I think the main message is those on the low to very low side generally you want to prevent seed bank production because they don't have much of a seed bank. Anything that is ranked medium high to high I would argue that you need to prevent seed escapes and definitely try to manage the weed seed bank," said crop researcher Chris Willenborg with the University of Saskatchewan.

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overall		Seed production			Longevity				
ranking	weed species	min.	max.	avg.	rating	min.	max.	range	rating
7	Redroot pigweed	5,000	100,000	10,000	VH	10 yrs	40 yrs	10-20 yrs	VH
7	Stinkweed	2,000	20,000	10,000	VH	8 yrs	30 yrs	10-20 yrs	VH
6	Lamb's quarters	2,000	100,000	7,500	H	6-8 yrs	39 yrs	8-20 yrs	VH
6	Wild mustard	500	5,000	2,000	VH	20 yrs	60 yrs	20-30 yrs	H
6	Curled dock	100	50,000	2,000	📕 VH	10yrs	80 yrs	10-30 yrs	н
5	G. Foxtail	500	12,000	2,500	H	4-5 yrs	30 yrs	5-15 yrs	H
4	Wild buckwheat	100	15,000	500	H	6 yrs	>6yrs	6-10 yrs	м
4	Chickweed	500	2,500	1,000	H	6 yrs	10 yrs	5-10 yrs	м
4	Perennial sowthistle (seed)	1,000	50,000	3,000	M	2 yrs	5 yrs	2-5 yrs	н
3	Volunteer canola	50	3,000	750	М	1 yr	14 yrs	3-5 yrs	M
3	Canada Thistle (seed)	100	5,000	1,000	м	1 yr	21 yrs	2-3 yrs	м
3	Dandelion	1,000	25,000	2,500	L	1 yr	2 yrs	1-2 yrs	H
3	Kochia	1,000	12,000	5,000	μ.	Oyr	2 yrs	0-2 yrs	н
2	Wild Oat	10	500	100	М	3 yrs	7-9 yrs	4-5 yrs	L
2	Cleavers	50	3,000	500	ι [1 yr	5 yrs	1-3 yrs	м
1	Quackgrass (seed)	15	400	50	L	1 yr	4 yrs	1-3 yrs	📕 L 👘
1	Foxtail barley	10	300	100	L	1 yr	7 yrs	1-2 yrs	📕 L
1	Volunteer wheat	10	250	100	L	Oyr	3 yrs	0-2 yrs	L

Source: University of Saskatchewan | MICHELLE HOULDEN GRAPHIC

VH = very high H = high M = medium L = low

When pests graze certain potatoes, yields double

By Krishna Ramanujan, Cornell Chronicle

When some Colombian potato varieties are lightly grazed by a pest, the plants respond by growing larger tubers, at times doubling their yields. Although many types of plants can repair pest damage while maintaining productivity, it's rare to find species that actually overcompensate and increase productivity.

Cornell and the Universidad Nacional de Colombia researchers first discovered this effect in a commercial Colombian potato in 2010. Now, a new study by the research group published Dec. 27, 2017, in the journal Ecology investigates whether certain conditions might allow farmers to exploit this response to reduce insecticides and increase productivity.

"The option of increasing productivity based on the compensatory plant response could open the door to a decrease in insecticide use. It could be a sustainable way to produce food based on a plant's natural response to herbivory," said Katja Poveda, assistant professor of entomology and the paper's lead author.

The sweet spot for when herbivory by pests leads to the highest yields in these varieties occurs when about 10 percent of tubers are eaten, but herbivory can go up to 20 percent without any cost to productivity.

"It would be a benefit to not invest in insecticides up until this point," Poveda said. But once pest damage exceeds 20 and 30 percent, insecticides become necessary, she added.

The researchers also looked at how landscape composition and altitude might affect the overcompensating response. They found higher compensation in areas that are mostly surrounded by agriculture and less natural habitat. This could be because agricultural areas are normally on good soils and "it is known that compensatory plant responses are stronger under better soil conditions," Poveda said. They also found that altitude had a limited effect, where the highest overcompensation effects occurred right in the middle of the study range, in neither low nor high altitude, between 2,700 and 3,000 meters. More research is needed to explain this result, Poveda said.

In the study, the researchers planted an overcompensating potato variety (Pastusa Suprema) on 15 farms across different altitudes and landscapes, with two plots for each farm. Insecticide was applied to one plot (to provide a control of undamaged tubers), while

the other plot had none, on each farm. They measured yields for both and pest damage for the untreated plots, then compared the results.

The first step for farmers to take advantage of overcompensation in these potato varieties will be to develop a reliable way to monitor the pest, which is challenging because the larval stages of the pests, such as the Guatemalan tuber moth and the potato weevil, live in the soil. Pheromone traps or lures for females could be options, Poveda said.

Poveda and colleagues are also working with researchers at the Boyce Thompson Institute to identify the mechanism behind overcompensation. Once that happens, they can investigate whether overcompensation can be induced without the pest and if the effect can be translated or bred into U.S. varieties. Poveda is currently testing whether overcompensation exists in any U.S. varieties.

Maria Diaz and Augusto Ramirez, both researchers at the Universidad Nacional de Colombia in Bogota, are co-authors on the paper.

The study was funded by the Atkinson Center for a Sustainable Future and the German Science Foundation.



Damage caused by the potato tuber moth. Photo by Katja Poveda

<u>Raising Waterfowl</u> March 28, 2018 6 - 8 pm

4-H Building Chemung County Fairgrounds





If you would like to learn more about raising waterfowl please join us on March 28, 2018 from 6-8 pm at the Chemung County Fairground in the 4-H Building. We will be going over the basics of raising waterfowl. Topics to be covered in this workshop include purpose, regulations, breeds, brooding, housing, nutrition, health, predator control, breeding, egg production, meat production, marketing, and more.

Cost to attend is \$5 per person. Preregistration is suggested in order to ensure enough handouts and refreshments. For more information and to register, please contact Shona Ort at 607-734-4453 ext. 227 or sbo6@cornell.edu.



Cornell University Cooperative Extension Chemung County

Building Strong and Vibrant New York Communities

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Improved Meat Marketing for Small Scale and Direct Marketing Farms in the Northeast: PART IV: Pricing for Profit

Matthew LeRoux, Agriculture Marketing Specialist Cornell Cooperative Extension, Ithaca, NY

Factors for Pricing

How do you set prices for the meat you sell? Common answers are to look at pricing at grocery stores and farmers' markets. I have heard from farmers that feel the need to price below observed market prices while others insist on pricing above the market. Agricultural economists advocate for careful record-keeping which accounts for the cost of production and values farm labor; however, for most small farms, cost tracking seems impractical and onerous. In particular, pricing individual meat cuts from a carcass can be confusing since each cut comes in proportion on the carcass and has a level of demand in the market.

Four factors that influence and inform your farm's prices for meat cuts are: 1) the farm's profit goal per head, 2) the costs of production and processing, 3) the yield of and market demand for each cut in the carcass, 4) the amount of labor needed to sell in the channel. These factors can confuse the pricing process and necessitate devising channelspecific pricing.



Think of your farm as multiple businesses, which, realistically, it is. The businesses can be split into two large entities, production and marketing. The production business produces slaughter-ready animals while the marketing busi-

ness buys them, pays for processing, and spends time selling the meat. As you choose to move an animal along the chain from production to marketing you add cost and increase risk. Consider the financial loss of a calf dying versus losing meat from one head due to a freezer breakdown. Logically, in order to justify retaining animals through the chain of increasing costs and risk, the farm must BEAT competing marketing prices at every step. The market can buy feeders and finished animals or supply them if needed. Farms selling meat need to account costs and ensure that the prices they receive in their channels are worth the effort.

Cornell Meat Price and Yield Calculator Cornell Cooperative Extension of Tompkins County has developed an online tool, the Cornell Meat Price and Yield Calculator. The Price Calculator tool simplifies pricing for meat sold by the cut or carcass and helps users ensure that they cover all entered costs and build in a profit. The Price Calculator can be found online at calculator.meatsuite.com. The tool is free and easy to use. In order to get reliable, meaningful results farmers should first collect their own data including:

1. Hot carcass weight (HCW, also called hot hanging weight) of one representative animal from your farm or the average from a group of animals. 2. The weights of every cut you receive back from the butcher. This includes any cut you sell, such as bones, organs, and the traditional cuts. 3. The invoice from your processor. 4. A list of your current pricing for that channel. If developing pricing for the first time, you can skip this part.

Using the Price Calculator is easy. You first enter the species, channel you are pricing for, and whether you are pricing for cuts or the carcass. Carcass pricing applies to whole, half, and quarter carcasses. See our previous article to learn about the importance of setting prices for each marketing channel you use. Next you enter your total cost of production (COP) for one typical animal on your farm. Entering an accurate COP is challenging. It is best to have your own records, but you can find resources online to help, or try calling your local Extension agent for help. Failing any better resource, you can use USDA-reported market prices as a rough guide for cost of production; however this is the least reliable method. A realistic COP is vital for meaningful results when setting prices. Enter an artificial COP which is too low and you will end up with low meat prices and a false sense of profit. As the old ad-





age goes, "garbage in, garbage out."

As you progress through the Price Calculator website you will add additional costs for trucking, processing, and marketing. To the COP and marketing costs you will be able to add a desired profit, either per head or as a percentage of total costs. The COP profit is so that the production side of your farm operates at better than break-even. The marketing profit is to add a profit margin above all marketing and processing costs, again, to avoid operating at a break-even.



Next, you will enter each cut's name and weight from one carcass or the group average. On the last page, a traffic light with red for "stop" and green for "go" indicates if you have covered all costs and reached your profit goals with your pricing. While the light is red, you are short of your goal. You can adjust the pricing of each cut until the light turns green.

Pricing is a tool which can be used to help manage the rate at which cuts sell. To a point, pricing can be used to manage the rate of individual cut sales to more closely match the proportions in which they come on a carcass. In other words, pricing can be used to slow down sales of highdemand, low-yield cuts, such as ribeye steaks and tenderloins on beef. Likewise, pricing can help speed up the sale of relatively low-demand, high-yield cuts such as those from the chuck and round. The Price Calculator makes this easier by indicating "stop" or "go" as you experiment with pricing. Once the traffic light has turned green, you can continue to adjust prices of cuts in order to aid inventory management. As long as the light stays green, you continue to meet or exceed profit goals.

So, what does it mean if you use the Price Calculator and you determine that your customers "would never pay these prices?" If you have entered accurate costs, then it means that you may be in the wrong marketing channel. In this way, the Price Calculator is useful not only for setting prices, but also to test the viability and profitability of marketing channels.

The Cornell Price Calculator was designed to simplify cost accounting, value the farmer's time, and make pricing for each channel easier, all while ensuring the desired profit per head. The Price Calculator is also useful for calculating the carcass-to-retail yield for your animals and balancing consumer demand for each cut. Finally, the Price Calculator can be used to "test" marketing channels and even as a means to explain pricing to your customers.

This article is part 4 of a 4-part series. This material is based upon work supported by USDA/NIFA under Award Number 2015-49200-24225.

Matt LeRoux works for Cornell Cooperative Extension in Tompkins County, NY as the Agriculture Marketing Specialist. In 2008 Matt developed the Marketing Channel Assessment Tool to assist producer decision making and improve marketing performance. In 2012, Matt started the Finger Lakes Meat Project including MeatSuite.com, two community Meat Lockers, and the Cornell Meat Price & Yield Calculator.

"Smart Marketing" is a marketing newsletter for extension publication in local newsletters and for placement in local media. It reviews elements critical to successful marketing in the food and agricultural industry. Please cite or acknowledge when using this material. Past articles are available at http://dyson.cornell.edu/outreach/smartmarketing-newsletter.

Looking for compost to buy from a local producer?

Check out this map from the Cornell Waste Management Institute. In addition to compost facilities, this map includes compost education and demonstration sites as well as transfer stations and places that are diverting organics to centralized facilities. Any effort to divert organics from the landfill is a positive effort.

Click here to see the map: <u>http://compost.css.cornell.edu/</u> maps.html New York Certified Organic Sets 2018 Winter Program Series:

Crop Rotations, Quality Forage Harvest, Pastured Hogs, Farm Startup on Agenda

Feb 13 and March 13. New York Certified Organic (NYCO) has announced its 2018 series of Winter Meetings with a January 9 session on crop rotations with a presentation on Ag-Analytics.org, February 13 focus on harvesting quality forage, and a March 13 spotlight on adding pastured hogs to a diversified dairy or crop business and general farm start-up opportunities. The free-to-attend NYCO meetings begin at 10 AM in Jordan Hall at the New York State Agricultural Experiment Station, 630 West North Street, in Geneva, NY, and provide organic crop growers and dairy farmers together with the opportunity to learn from speakers and network. There is no need to register for meetings. Participants are asked to bring a dish to pass at the potluck lunch. For more information, contact Fay Benson at 607-391-2669 or afb3@cornell.edu. Information on previous NYCO meetings is posted at http:// blogs.cornell.edu/organicdairyinitiative/.

2018 Peter Levatich Memorial Seminar for Rural Landowners

February 17th 9:30 am to Noon. Spencer-Van Etten High School State Route 34, Spencer. Enjoying Your Woods for More Than the Trees. The Southern Finger Lakes Chapter of the NY Forest Owners Association (www.nyfoa.org) invite you to their popular annual seminar. Cornell's State Maple Specialist, Steve Childs, will discuss how to assess the potential for maple production in your woods, as well as tips for getting started in sugar making. Wildlife expert and author, Linda Spielman, will talk about identifying wildlife signs in the winter woods based on her new book: A Field Guide to Tracking Mammals in the Northeast. Attendance is free and open to the public! Light refreshments and door prizes! Pre-registration is NOT required, but questions can be referred to Brett Chedzoy at Schuyler CCE: bjc226@cornell.edu, or by phone: 607-535-7161. In the case of cancellation due to extreme weather, notification will be posted by 9:00 p.m. on Friday, Feb. 10st at CCE's forestry forum: www.cornellforestconnect.ning.com

Beginning Teamster Workshop: Working With Draft Horses

With the Cornell Small Farms Program, Equicenter of Rochester, and Draft Animal Power Network

February 17th 9:00AM - 4:00PM. Oxley Equestrian Center, Cornell University, Ithaca NY Cost: \$40 for Veterans, Immigrants and Refugees, \$80 for the general public *Please bring a bag lunch!* In this workshop we aim to give participants a full day of experiencing what is like to work with draft animals. We will focus on what keeps us safe, what we gain from work with drafts, and how we can make them fit into profitable farms and businesses. We want folks to get their hands on the animals, the harnesses, and the lines and see what it is like. Depending on interest and demand we are considering future programs on using draft in Agriculture and logging. Schedule, Scholarship Info and Registration Here

Schuyler Equine Conference

Feb 18th 9am- 5:30pm. An event jam packed with information to educate equestrians on a variety of important horse ownership topics that are essential knowledge. No matter how experienced you are, everyone can learn. The Schuyler Equine Conference provides a jam packed day with information for equestrians of all levels in the community. Speakers are still formulating their presentations but we have a great line up already on the docket including a mix of trainers, veterinarians, farriers and farm development experts and more! All tickets include entrance to the conference, breakfast, lunch, conference booklet and printouts of presentation materials. Register early and get the good price; price increases at the door the day of the event. Ticket prices at the door are \$75 per adult, \$35 per youth and an increase of \$35 per group. Click the picture for registration.

Making & Using Biochar in Your Garden

Wednesday, February 21, 6:30 -8:30pm @ CCE-Tompkins Education Center, 615 Willow Avenue, Ithaca, NY. What is biochar and how does it improve garden soil? Sean Dembrosky from Edible Acres will lead this workshop on the benefits of biochar and show how to make it yourself. We'll discuss easy ways to make biochar in the wood stove, in simple outdoor pits, in mobile containers, and more. We'll also explore how biochar can provide amazing boosts to your soil and discuss appropriate ways of incorporating it. Pre-registration is required. Register and pay online at ccetompkins.org/biocharclass or call CCE-Tompkins at 272-2292 and we will register you online with your input. Cost is \$7-\$10/person sliding scale, pay what you can afford. Questions? Contact Chrys Gardener, cab69@cornell.edu or at Cornell Cooperative Extension of

Tompkins County (607) 272-2292 (Voicemail #241)

Introduction to Maple Syrup Production and Sugarhouse Tour

February 10, 2018 - 9am to 12pm



Have you ever wanted to learn more about producing your own maples syrup or just what is all involved in the process? If so, we would like to invite you to join us for this workshop. Jeff Benjamin and Denise Hardisky of Hill Top Maple Farm will be going over the basics of maple syrup production followed afterwards by a tour of their woodlot and sugarhouse.

Part 1: Introduction to Maple Syrup Production

Time: 9 - 10:30am

Location: 4-H Building Chemung Co. Fairgrounds (171 Fairview Rd, Horseheads, NY 14845)

Topics: Tree Identification, when to tap, and what causes sap flow, equipment needed for tapping, processing sap, when syrup is finished, filtering/bottling, and questions.

Note: Light refreshments will be provided.

Part 2: Woodlot and Sugarhouse Tour

Time: 11am - 12pm

Location: Hill Top Maple Farm (433 Parrott Rd, Cayuta, NY 14824)

Topics: Trees and system to collection tank, how incoming sap is processed, review of reverse osmosis machine, evaporator operation and considerations, finishing syrup/filtering options, bottling of final product, and possibly value added products.

Note: Please dress appropriately for tour! Thermal layers, jackets, hats, gloves, and boots are recommended.

Cost to attend this workshop is \$5 per person. Pre-registration is suggested in order to ensure enough handouts and refreshments. For more information and to register, please contact Shona Ort at 607-734-4453 ext. 227 or sbo6@cornell.edu.



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Dealing with Frostbite on Newborn Lambs and Kids

tatiana Stanton, Cornell Univ. Small Ruminant Extension Specialist



Does or ewes with cropped ears due to frostbite damage at birth are not an uncommon sight on Northeast goat and sheep farms. Although the condition is not life threatening it leads to in-

teresting explanations in the show ring as to why your Alpine looks like a LaMancha. However in severe winters, frost bite can be far more serious affecting even the feet and tails on newborns as well as the teats on milkers.

Under normal conditions, blood carries oxygen throughout an animal's body to keep all the tissue healthy. However, if the animal's body temperature suddenly starts to drop, its blood vessels constrict to keep the animal alive by diverting blood (and oxygen) away from its extremities and to its vital organs. The lack of blood and oxygen begins to damage the tissue cells in the deprived extremities and ice crystals form. Blood clots may also form further reducing circulation to the damaged tissue. If the condition persists long enough, dry gangrene can occur, leading to the tissue damage and amputations that we associate with frost bite.

Extreme body heat loss (hypothermia) is hastened by wind chill and wet animals while excess body fat can help slow heat loss. Thus newborn kids and lambs are particularly vulnerable to hypothermia. Rigorously rubbing and applying direct heat to the body of a chilled lamb or kid can help save its life.

However, the same treatment is not advisable for frost bite damage to its extremities. Instead the recommendation is to rapidly thaw the extremities in warm water at about 101 to $<105^{\circ}$ F. This is a little warmer than the inside of your wrist, or about the temperature you warm a bottle of colostrum to when feeding an orphaned newborn. It is then very important to dry the affected extremities before they can freeze again. However, you need to avoid rubbing them or applying direct heat $>105^{\circ}$ F as this may damage the tissue more.

Air drying the extremities is easy if you have rushed the newborn to a warm house prior to thawing it out. However in a frigid barn, it is more challenging. Wrapping the extremities in a warm towel (straight out of the dryer) or using a well-padded heating pad are two options. Otherwise, if your only choices are a hair dryer or heat lamp, keep the blowing temperature low, the heat lamp well anchored and keep them a good distance from the affected tissue. Keep in mind that frost bitten areas are very susceptible to sun burn

or heat lamp burn. Basically you want to warm the air rather than the tissue itself. Do not bandage the area as this can interfere with circulation. Ears, especially long ears, are most commonly affected. However, in severe subzero temperatures, newborns in a drafty barn can suffer frostbite to tails and legs. If you suspect that frost bite may be more extensive than just an ear or two, be sure to thoroughly thaw and dry legs using the above procedure. Keep in mind that hind legs are more susceptible than front legs as most newborn kids and lambs keep their front legs warm by naturally tucking them under their bodies shortly after birth.

Frost bitten areas are very vulnerable to re-freezing. Therefore if frostbite damage to the legs is suspected, try to house the newborn at temperatures above freezing for the next few days avoiding any rigorous exercise. Recommendations include continuing to warm the affected area in 101 to $<105^{\circ}$ F water twice daily for the next 2 to 3 days. Lanolin, zinc oxide ointment or aloe vera may be gently applied. After a few days, the hair on affected areas may start to shed. The tips of ears may shrivel or swell and eventually all or part of the ear may slough off. If the legs are affected they will swell after a few days and hair and tissue will begin to fall off.

When potential leg damage is suspected, talk to your veterinarian to see if he/she wants to prescribe fluids to deal with dehydration to the limbs and/or medicines such as Flunixin meglumine (Banamine[©]), etc. to manage pain, block the release of inflammatory mediators, or help in-

crease blood circulation. If tissue does start to slough, ask your veterinarian if spraying a liquid bandage onto the affected areas will help protect the sensitive skin and whether antibiotics to prevent secondary infections are indicated. Immediate amputation of the limb is not advised as the hope is that there is only severe tissue dam-



age and no actual gangrene, and the fear is that the gangrene if present may extend farther up the leg than initially anticipated.

It can take up to 3 to 6 weeks for a distinct line of demarcation between viable and necrotic tissue to appear. There appears to be very little pain when the distal limb eventually falls off. If the break is below the cannon bone, the animal may develop calluses and get around fairly well on its naked "foot". Depending on where the break is and your farm situation, you and your veterinarian will need to decide whether to euthanize the animal, grow it out to slaugh-



ter weight, or keep it as a pet.

Dr. Pamela Karner VMD from Starland Veterinary Services emphasizes that "by the time frost bite has been identified in an animal, it is too late to do much. Prevention is the key, wet and cold combined are deadly."

When kidding or lambing in winter, make sure your barns are suitable for likely weather conditions. If temperatures and wind chill result in subzero outside temperatures, increase the frequency of your birthing checks to ensure that newborns are dried off rapidly after birth, especially on extremities. A few cropped ears are inevitable when sheep and goat farming in the Northeast but let's try to keep frostbite from causing more serious damage.

Thank you to Mariah Gentry, Class of 2016, Cornell University College of Veterinary Medicine, Ambulatory and Production Medicine for her excellent information about frostbite. Thank you to Dr. Mary Smith, DVM, Professor of Ambulatory and Production Medicine, College of Veterinary Medicine, Cornell University, Ithaca, New York for her photos and additional insights.

New Fruit and Vegetable Conference comes to Albany!

February 20th- 21st 2018: The Eastern New York Commercial Horticulture Program (ENYCHP), a regional program of Cornell Cooperative Extension, is excited to announce its first ever Eastern New York Fruit and Vegetable Conference! Two days of programing will focus on tree fruit, vegetable, and berry production, as well as agricultural business management.

Commercial growers will find topics relevant to the most important issues impacting the industry in Eastern New York:

> Some of the highlights for Apple Growers will include disease management updates, presentations on Fire Blight management, current rootstock technologies and a look at new varieties from the Cornell Apple Breeding Program.

> Talks for berry growers include, integrating low tunnels into Day Neutral strawberry production, Spotted Wing Drosophila control, and soil management.

> Highlights of the vegetable session will include new tools for bird control, utilizing bio-controls, managing sweet corn pests, and precision water and nutrient systems.

Those attending the Business Management Session will learn about resources available to farmers with a Latino workforce, media relations on the farm, and CSAs in Eastern New York.

These are just a sampling of the topics to be covered over the two days of this conference! A large industry trade show will also take place throughout the event. All commercial growers are invited to attend- beginning farmers, farming veterans, organic, and commercial growers are welcome! DEC credits will be available.

For the full agenda and registration information please visit the ENYCHP website: <u>https://enych.cce.cornell.edu/</u>event.php?id=881

Pre- Register by February 13th for a discounted rate. We hope you will join us for the Eastern New York Fruit and Vegetable Conference on Tuesday February 20th- Wednes-day February 21st at the Desmond Conference Center in Albany, NY!

News, Notes and Workshops for Tioga and Chemung County Farmers and Gardeners

The **Cornell Small Farms Program** offers over twenty courses to help farmers improve their technical and business skills. Students connect with other farmers, work on farm plans, and gain practical tips without leaving their home. Course content can be accessed anywhere with a high-speed internet connection. Most courses are six weeks long. Each week features an evening webinar and followup readings, videos, and activities. Students and their instructors connect through online forums and live chat. If you aren't able to attend the webinars in real-time, they are always recorded for later viewing.

Develop a marketing plan and marketing channels

Agriculture: Enroll in the Residential Ag. Electric Bill Discount (by Mary Wrege)

It is time to enroll or re-enroll in the Residential Agricultural Discount program offered through National Grid, NYSEG and RG&E. This monthly discount on the electric bill is possible thanks to funding from the New York Power Authority's (NYPA) ReCharge NY program. You're eligible to receive the discount if you meet the two conditions. The first is that you have an active residential electric service account with National Grid, NYSEG or RG&E billed under the following service classifications: National Grid: Rates beginning with Electric SC1 or Electric SC1C; refer to page 2 of your bill. NYSEG: 12001, 12008, or 12012 noted after Electricity Rate on page 3 of your bill. RG&E: PSC 19 SC1 or SC 4 noted after Electricity Service on page 3 of your bill.

The second condition is if you have submitted one of the following forms (supporting documentation) with your most recent federal tax return: IRS Schedule F (associated with Form 1040) - Profit or Loss From Farming or IRS Form 1120, 1120S or 1065 with an eligible Business Activity code.

The discount amount will vary each month and will be based on how many people participate, the amount of electricity used by each participant and available funds from NYPA. The discount amount is multiplied by your monthly billed kilowatt-hours and your discount will appear as a credit in a separate line item, "Res agricultural discount," on your utility bill.

To apply or re-enroll, just complete a Residential Agricultural Discount application and submit it to your utility company along with your supporting documentation. For more information and the application, contact your utility company. Links are provided below:

 National Grid: <u>https://www1.nationalgridus.com/</u> <u>AgriculturalDiscount-NY-RES?utm_source=PSC%</u>
 20article&utm_medium=PSC% 20article&utm_campaign=Residential%20Agricultural% 20Discount

· NYSEG: <u>http://www.nyseg.com/</u> <u>ResAgriculturalDiscount/</u>

· RG&E: <u>http://www.rge.com/</u> <u>ResAgriculturalDiscount/</u>

Groundswell Center workshops:

Beginning Teamster Workshop: Working With Draft Horses

With the Cornell Small Farms Program, Equicenter of Rochester, and Draft Animal Power Network

February 17th 9:00AM - 4:00PM

Oxley Equestrian Center, Cornell University, Ithaca NY

Farming for Justice: A Discussion/Action Group for Food Producers

Wednesday, February 21st 10AM - 11:30AM

Groundswell Center, 225 South Fulton Street, Ithaca NY, Free!

Next Topic: Strategies for Equitable Employment on Small Farms

For more information on the Teamster Workshop or Farming for Justice, check out the Groundswell website: www.groundswellcenter.org

NYFOA offers "Learn More, Earn More" Seminars for Private Landowners

February 22, 2018, 10:30 AM - 4:00 PM, February 23, 2018, 9:30 AM - 4:00 PM, February 24, 2018, 10:30 AM - 4:00 PM. FREE programs at the NY FARM SHOW February 22-23-24, 2018 State Fairgrounds. Free Programs to help land-owners get more benefits from their woodlots will be presented each day during the 2018 Farm Show in Syracuse by the New York Forest Owners Association. Please visit <u>http://</u>cceonondaga.org/events/2018/02/22/nyfoa-offers-learn-more-earn-more-seminars-for-private-landowners for more information and registration.

GAPS Training

Have you heard about GAPs but aren't sure what it means? Does the Food Safety Modernization Act scare you? Are you interested in selling to schools, hospitals or grocery stores who are asking for GAPs but you aren't sure they know what they are talking about?

Join Cornell Cooperative Extension of Broome County and the Produce Safety Alliance for a Produce Grower Food Safety Training on Monday March 5th & Tuesday March 6th 9am-5pm (Monday); 9am-2pm (Tuesday).

Are you a fruit or vegetable grower interested in learning about produce safety, the Food Safety Modernization Act (FSMA) Produce Safety Rule, Good Agricultural Practices (GAPs), and co-management of natural resources and food safety? Do you have buyers who are requesting a third party food safety audit but you don't know the first place to start? The PSA Grower Training Course being offered by Cornell Cooperative Extension of Broome County is one way to satisfy the FSMA Produce Safety Rule training requirement and get a great start on your on-farm food safety plan!

Over the course of the two day training, certified Produce Safety Alliance trainers will spend approximately seven hours of instruction time covering content contained in these seven modules:

- Introduction to Produce Safety
- Worker Health, Hygiene, and Training
- Soil Amendments
- Wildlife, Domesticated Animals, and Land Use
- Agricultural Water (Part I: Production Water; Part II: Postharvest Water)
- Postharvest Handling and Sanitation
- How to Develop a Farm Food Safety Plan

In addition to learning about produce safety best practices, key parts of the FSMA Produce Safety Rule requirements are outlined within each module. There will be time for questions and discussion, so participants should come prepared to share their experiences and produce safety questions.

Attendees will be provided with a foundation of Good Agricultural Practices (GAPs) and co-management information, FSMA Produce Safety Rule requirements, and details on how to develop a farm food safety plan. Individuals who participate in this course are expected to gain a basic understanding of:

- Microorganisms relevant to produce safety and where they may be found on the farm

- How to identify microbial risks, practices that reduce risks, and how to begin implementing produce safety practices on the farm

- Parts of a farm food safety plan and how to begin writing one

- Requirements in the FSMA Produce Safety Rule and how to meet them.

After attending the entire course, participants will be eligible to receive a certificate from the Association of Food and Drug Officials (AFDO) that verifies they have completed

the training course. To receive an AFDO certificate, a participant must be present for the entire training and submit the appropriate paperwork to their trainer at the end of the course.

The cost to attend this training is starts at \$100/farm and includes all food, materials and resources to bring home and implement on the farm. Attendees will also receive a PSA Grower Training Manual (valued at \$50) and a Certificate of Course Attendance from AFDO (\$35) if required. There may be scholarships available to offset costs for veterans.

To register and pay with credit card click here: <u>https://</u> <u>reg.cce.cornell.edu/2018psatraining_203</u>. You can also register by phone at (607) 584-9966. For more information, contact Laura Biasillo at CCE-Broome: (607) 584-5007 or <u>lw257@cornell.edu</u>.





Growing Oyster Mushrooms

Friday March 16, 2018 5:30 to 8:30 pm Chemung County Fairgrounds

 Would you like to learn how to grow your own oyster mushrooms? If so, join us on March 16, 2018 from 5:30 to 8:30 pm at Chemung County Fairgrounds in the 4-H Building. In this hands-on class Ken Mudge, Agroforestry Expert from Cornell University, will be walking us through the basics of growing oyster mushrooms in straw. He will also be doing demonstrations on how to cultivate them through log inoculation and totems. Each participant will take home their own mushroom spawn inoculated bag of straw. Cost to attend is \$20 per person. Class size is limited. <u>Pre-registration with payment is required by 3/9/18</u>. For more information and to register, please contact Shona Ort of CCE Chemung at 607-734-4453 ext. 227 or sbo6@cornell.edu.



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Building Strong and Vibrant New York Communities Cornell Cooperative Extension in Tioga County provides equal program and employment opportunities. Accommodations for persons with special needs may be requested by calling 607-687-4020.