

May 24, 2021

Volume 2, Issue 19

CCE

Saratoga County

Cornell Cooperative Extension

NEWSLETTER

EXTENSION NEWS

4-H School Outreach brings smiles to students while they “learn by doing”!

This year, 4-H School Outreach has been very busy during Covid. Although many children are not “in school”, the 4-H School Outreach Program developed a way to allow them all to continue to enjoy the hands-on enrichment programming that 4-H School Outreach is known for.

Teachers sign up for a program and then materials are dropped off at the schools. A schedule is made for a live virtual Meet, one class at a time, with 4-H School Outreach Educator/ Coordinator, Julie Curren. Private, public, “in-school” and virtual classes participated.

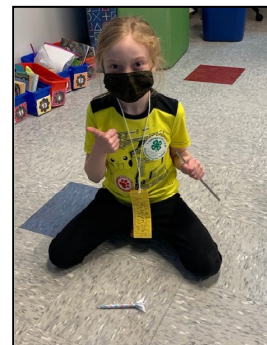
4-H Rockets Away! is patterned after a NASA engineering activity. Children make straw paper rockets and get a chance to safely fire them off at school. There are test flights where different trajectories are tried and data is collected. The program culminates after meeting with Mrs. Curren when the classroom, or grade level, has a contest. The students learn from the data they have collected and use that information to then see whose rocket can go the farthest. 964 children from 57, 3rd-5th grade classrooms have taken part in the fun and learning in the last month.

On May 10, 4-H School Outreach delivered materials and presenter videos to schools who registered for our Virtual Field Day Experiences. 2 different subject matters were offered. All activities and subjects were tailored to meet the NYS Next Gen. Learning Standards for the appropriate grade levels. Teachers will do these video and activity lessons at their own pace, with all being finished by the end of the school year.

Nine hundred and ninety-nine children from 67, 1st -5th grades across 12 elementary schools participated in **4-H Virtual Agriculture Field Day Experience**. This program was offered to 2 different grade levels 1st-2nd, or 3rd-5th. Each of the 2 grade groups got 8 different 10-minute videos, made by local farmers and Ag. Professionals for this program. Topics included goats, sheep, cows, bees, planting, chickens, horses and maple. An age appropriate

activity was created to accompany each of these videos and supplies for the hands-on activities were dropped off at schools.

403 students from 26, 3rd-5th grade classrooms across 10 elementary schools were in on the **4-H Virtual Environmental Field Day Experience**. There were 8, 10-minute videos created by local agency professionals



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OUR MISSION

Cornell Cooperative Extension puts knowledge to work in pursuit of economic vitality, ecological sustainability and social well-being. We bring local experience and research based solutions together, helping New York State families and communities thrive in our rapidly changing world.

School Outreach - continued from front page

with topics relating to our natural environment. Agencies participating included DEC, US Forest Service, LASAR, Saratoga Co. SWCD, Master Gardener, Capitol Region PRISM... Topics that were covered were Soil, 10 Essentials for a Day Hike, Tree Identification, Spotted Lantern Fly Invasive, Native Animal Adaptations and more. These were also accompanied by kits of hands-on materials for activities corresponding with the subject of the videos.

Hopefully next year we will be more back to "normal" with Mrs. Curren visiting classrooms for these enrichment activities. No matter what, we are committed to delivering hands-on fun and learning to our children in Saratoga County Schools and giving them all a reason to smile...with or without a mask.

Not hearing the cicadas?...here's why.

Don't hold your breath awaiting the emergency of billions of cicadas in the Capital Region later this spring. Despite the hype surrounding the mass emergence of Brood X cicadas, they won't be crawling out of the ground in this area or anywhere else in New York because they don't live here.



Lots of people by now have seen or read about Brood X, a variety of cicadas (thumbnail-sized insects) that live and grow underground emerging once every 17 years to breed and lay their eggs before dying after a few weeks.

While hard to spot and harmless, their sound is ubiquitous when and where they do emerge due to their distinctive rattling sound. Most people have heard it, but the Brood X, due to its size, is supposed to be

unusually loud - creating a thrum that can approach 100 decibels, similar to a subway train rushing by.

There have been scattered media reports, along with some web-based maps, suggesting they will be found around the Capital Region. But that is not the case said Jody Gangloff-Kaufmann, an entomologist with Cornell University's Integrated Pest Management program.

In reality, they are expected to emerge in Pennsylvania, Ohio, Indiana and West Virginia.

That doesn't mean there are no cicadas in the region. But Brood X, or the Great Eastern Brood, consists of three species that emerge once every 17 years. They are identifiable by their red eyes.

There may be other misconceptions. Brood X isn't some mystical allusion to X-Files or an unknown factor. It merely signifies the number 10. There is, for example a Brood VI, which emerged in the Hudson Valley in 2012. All in all there are 20 known broods.

The various broods emerge at 11, 13 or 17-year cycles, said Gangloff-Kaufmann.

The periodic appearances is believed to be an evolutionary adaptation. By spending just a few weeks above ground, they limit their exposure to predators such as birds or squirrels.

The years between the emergence events are delineated in prime numbers, that is they are only divisible by one. One theory for that is that it's another evolutionary tactic to prevent different broods from overlapping with cyclical population swings among predators such as robins or wasps.

"It's a universal biological strategy," said Gangloff-Kaufmann, who explained that even trees do that, as evidenced by how acorns are abundant in some years but not others.

[---continue reading article](#)

Published in Times Union 04-18-21

NEW YORK STATE INVASIVE SPECIES AWARENESS WEEK

Capital Region Partnership for Regional Invasive Species Management

NY ISAW 2021

Week Long Events

Social Media Bingo
Check out our Facebook page for more information on how to participate.

Take the Clean, Drain, Dry pledge with one of our watercraft inspection stewards in the region.

Capital Region PRISM Art Contest winner to be announced!



For more information on
NYISAW and
events hosted throughout
the state, visit:
www.nyisaw.org

NYISAW-CAPITAL REGION



Cornell University
Cooperative Extension
Saratoga County

Sunday, June 6th

ISAW Kick-off Event

1:00-2:00 PM. Hosted by Molly Hasset (DEC) via Zoom.

Monday, June 7th

iMapInvasives Training

6:30-7:30 PM. Hosted by Kris Williams (PRISM) via Zoom.

Tuesday, June 8th

Daketown State Forest Woods Walk

8:30 AM-12:30 PM. Hosted by Kristopher Williams (PRISM) and Rich McDermott (DEC).

Invasive Species in Agriculture

3:30-5:00 PM. Hosted by Nicole Campbell (PRISM) and Thom Allgaier (Ag and Mrkts) via Zoom.

Wednesday, June 9th

Aquatic Invasive Species Floating Classroom

10:00 AM-2:30 PM. Two separate sessions hosted by Lauren Henderson (PRISM) and Saratoga Lake Protection and Improvement District.

Terrestrial Invasive Species

1:00-2:00 PM. Hosted by Nicole Campbell (PRISM) via Zoom.

Invasive Species Woods Walk

6:00-7:30 PM. Hosted by Nicole Campbell at Rowland Hollow Creek Preserve.

Forest Pests Woods Walk at the Wilton Wildlife Preserve

6:30-7:30 PM. Hosted by Kristopher Williams (PRISM).

Thursday, June 10th

Avian Spread of Invasive Species

Video Premier at 12:00 PM on Saratoga Public Library Social Media.

Hudson Crossing Woods Walk

2:00-4:00 PM. Hosted by Nicole Campbell (PRISM) at Hudson Crossing Park.

Invasive Species in our Preserves

6:30-7:30 PM. Hosted by Kristopher Williams (PRISM) and Saratoga PLAN via Zoom

Friday, June 11th

Woodlawn Preserve Naturalist Walk

10:00 AM-12:00 PM. Hosted by Kristopher Williams (PRISM) and Steve Young (State Botanist with the NYNHP).

Saturday, June 12th

Paddle at Round Lake

9:00-11:00 AM. Hosted by Lauren Henderson (PRISM) at Round Lake.

Invasive Species at the Albany Pine Bush

10:30 AM-1:00 PM at the Karner Barrens Trailhead.

Have you spotted the spotted lanternfly?

Imagine New York without any apples, grapes, or hops. No more local breweries or wineries, no more fall apple picking. This idea may seem farfetched, but may be more likely than you think. An invasive insect has breached the border of New York from Pennsylvania and is ready to wreak havoc on New York's agriculture and horticulture economy. The spotted lanternfly (*Lycorma delicatula*), is a sap-sucking insect that feeds on over 70 different plant varieties. The preferential host for this bug is the invasive tree-of-heaven (*Ailanthus altissima*), which is found across New York State.

Spotted lanternfly (SLF) has six life stages: egg, four instars, and adult. Eggs hatch between May and June and begin feeding during the first instar stage. During this stage, spotted lantern fly is about ¼ inch in length and is black with white spots. The spotted lanternfly grows larger, but maintains its black and white coloration throughout the first three instar stages. From July to September, spotted lanternfly morphs into the fourth instar, or late nymph stage, where it develops distinct red markings. The spotted lanternfly then develops two pairs of wings, signifying adulthood. The inner wings are banded, starting with red with black spots closest to the abdomen, followed by white, and black tips. The outer wings are opaque with black spots and a distinct brick-like pattern toward the tips. The adults also have unique short orange antennae that sit below the eyes. Females lay eggs between September and November. The females can lay twice, each time laying up to 60 eggs. The eggs are covered with a grey, putty-like substance that allows them to survive the



4th Instar and Adult SLF.

winter. A few weeks after being laid, the egg mass dries and cracks, resembling mud. The eggs can be laid on any hard, smooth surface, including cars, trailers, shipping crates, etc. which makes them great hitchhikers.

The spotted lanternfly feeds from the moment they hatch until death. Specialized mouths help them feed from any part of the plant and take sap directly from the phloem. In addition to the damage caused by feeding, adults secrete honey dew which attracts other pests and pathogens that can further harm the host plant. Although there is no evidence of spotted lanternfly killing its hosts, large infestations can cause significant losses to yield of important crops and ecologically significant plants in New York State. If this species is not detected early, it could result in multi-billion-dollar losses to the agriculture business in New York. One of the best tools for stopping the spread of spotted lanternfly is reporting. Reports can be sent directly to the NYS Department of Agriculture and Markets, your local Partnership for Regional Invasive Species Management, or input on iMapInvasives. Once a sighting is reported, natural resource professionals can confirm the identification and plan for eradication. Another helpful way to stop the spread of spotted lanternfly is to scrape off any egg masses you may see on trees or other hard surfaces. The eggs can be killed by placing them in a bag or container of alcohol or detergent, burning, or smashing. Quarantines, sticky traps, and vehicle inspections have all been deployed to monitor the spread from Pennsylvania and New Jersey into New York. This coming spring, be on the lookout for eggs and nymphs and report any suspected sightings.

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Reporting Tools and Important Links:

For reporting and additional information, please visit the NYS Department of Agriculture and Markets SLF page: <https://agriculture.ny.gov/spottedlanternfly>

For tips on reporting and in-depth trainings, visit: www.nyimainvasives.org/slf

For additional information on SLF, visit: <https://nysipm.cornell.edu/environment/invasive-species-exotic-pests/spotted-lanternfly/spotted-lanternfly-ipm/>



SLF covered egg mass from Ithaca, NY.

Throughout the winter, the egg masses dry down and become very difficult to see, especially if laid on a tree like this one.



Tree of Heaven, SLF's preferred host. Look for tree with cantaloupe-like bark and large compound leaves. When crushed, the leaves smell of rotten peanut butter. There is also a distinct node at the base of each leaf, as pointed out by the red arrow in the photo.



SLF Adult with open wings. Adults can fly on average between 3-4 miles from where they hatched as nymphs. [This Photo](#) by Unknown Author is licensed under [CC BY](#)

Tick Talk

Ticks and tick-borne diseases have become a significant public health issue in New York, with numerous tick species and diseases currently present and spreading within the state and region. More ticks in more places also increases your risk of tick encounters and the disease-causing pathogens they inject during their blood meal.

Tick-borne diseases in New York include:

[Lyme disease](#)
[Anaplasmosis](#)
[Babesiosis](#)
[Borrelia miyamotoi](#)
[Powassan virus](#)
[Ehrlichiosis](#)
[Tularemia](#)
[Rocky Mountain Spotted Fever](#)



Different species of ticks can transmit different pathogens, so [identifying the tick species](#) is important. After identification, the next question is whether the tick should be tested. We follow the [CDC recommendation](#) of **not** having the tick tested for diagnostic purposes. The reasons include:

- Positive results showing that the tick contains a disease-causing organism do not necessarily mean

that you have been infected.

- Negative results can lead to false assurance. You may have been unknowingly bitten by a different tick that was infected.
- If you have been infected, you will probably develop symptoms before results of the tick test are available. If you do become ill, you should not wait for tick testing results before beginning appropriate treatment.

There IS a community-science benefit to having a tick tested. The [Thangamani Lab in the SUNY Upstate Medical University](#) is investigating the geographic expansion of ticks and tick-borne diseases in New York. When funding allows, they are conducting **FREE tick testing** for research purposes.

Tick saliva can also impact people, including [alpha-gal allergy](#) caused by lone star tick bites and [tick paralysis](#), mostly attributed to female American dog ticks.

But, overall, prevention is best. Avoiding tick-borne diseases and impacts means avoiding a tick bite. Use the resources and links on the left and right sidebars of this webpage for the resources you will need to avoid tick bites, manage ticks in the landscape, what to do if you are bitten, and protect yourself from tick bites and tick-borne diseases.

Grazing 101 & Record Keeping online courses

National Grazing Lands Coalition launches two online courses for beginning graziers

The National Grazing Lands Coalition has just launched two online courses for beginning graziers. Read on to learn more, and feel free to SHARE this information!

Grazing 101 & Record Keeping Online Courses

Learn Grazing and Recordkeeping Basics

FREE online courses that lead students through understanding and thinking about grazing and/or record keeping for their farm or ranch. These courses are designed to speak to you regardless of where you live or what animals you graze. They are divided up into short units. Don't worry there isn't much "homework." All assignments are completed within your grazing and land context so you can directly apply what you learn and do in the course. By the end of the courses, you should be well on your way to having a grazing management plan and/or a record-keeping plan mapped out.

Grazing 101

New to grazing? Want to improve your grazing management?

It all starts with the "why" behind the fundamentals of grazing management. Understanding the "why" empowers you to make grazing management decisions specific to your land and objectives. You can make choices to minimize the negative impacts of grazing on the land, and choices to leverage the benefits of grazing to improve the land. You will do this by learning: why and how animals graze, the ecology of grazing, guiding principles of grazing management, how to calculate carrying capacity and stocking rates, and design a grazing plan. A well-thought-out plan based on the "why" is valuable, but even more so when things don't quite go as planned and one needs to adjust.

Recordkeeping

Don't know what vegetation and land records to keep or how to collect the data?

It can be challenging to manage grazing properly and be a good land steward without gathering the right information the right way about your land. Without infor-



(Jerry, Flickr/Creative Commons)

mation and understanding what it means, how can you make good decisions for the land and the livestock? You will learn what grazing-related and land records to keep and why you should keep them in this course. You will learn how to collect and analyze forage production data that you can use to determine the carrying capacity and stocking rates of your pastures. What you learn in this course will help you manage grazing on your land as well as the overall health of your land.

30-Day

Best of both courses in daily digestible doses!

We get that you are short on time and super busy. Yet, you need to build knowledge about grazing and land management. We have combined the best of Grazing 101 and Recordkeeping into a single 30-day course that requires on average less than an hour of your time a day.

How to get started?

Access and signing up for the course is very simple:

1. Go to this link: <https://natglc-courses.thinkific.com/>
2. Register using your email address
3. Fill out a short survey
4. Pick a course and begin

Grazing 101 Companion eBook!

On Pasture guru, Kathy Voth, has created a companion eBook for Grazing 101. [You can access it, also for FREE, here:](#)

Sweet feed, pelleted feed, oats, corn, ration balancer, oh my! In a perfect, less complicated world, all horses, from pasture



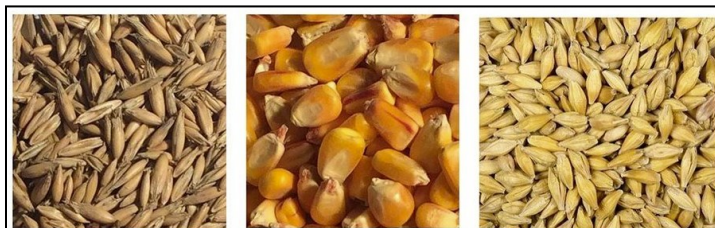
pets to growing yearlings to horses in heavy work, could all be fed the same feed. In reality, our horses' changing nutritional needs throughout various life stages make this concept impossible and require specific diets for each horse.

There are a variety of types and forms of feed that can be fed to horses. The sheer number of choices in the feed store can be overwhelming! Many horses are fed a combination of forage (typically hay or pasture) with a grain mix. Our choices are guided by our horses' requirements, availability of forages, and cost of feed. Some horses look great on a simple diet of mainly forage, while for other horses finding the right diet to keep them healthy can be difficult. For example, the horse may have a hard time gaining or losing weight. It is important to learn how to feed your horse so that they get all the nutrients they need. Factors that influence a horse's nutrition requirements include breed, weight, body condition, age, growth stage, breeding status (for both stallions and mares), and performance and training levels. The foundation of any horse's diet should be forage.

Concentrates

Concentrates include feed such as sweet feed, grains, and pellets, and they are typically added to a horse's diet to compensate for any nutrient insufficiencies in forages. Working, growing, and pregnant/lactating horses typically need more energy or protein than hay or pasture can offer alone. It may be necessary to provide these types of horses with concentrates. Many "easy keeper" horses do not need grain at all if they are on high-quality forage and many simply require a vitamin/mineral supplement or ration balancer. Horses should be fed concentrates as a supplement to their forage-based

diet; remember that horses should be given ~2% of their BW as feed daily, and at a minimum, at least 50% of that feed should be forage.



Grains

There are a number of different grains that are commonly fed to horses. Grains, referred to as 'cereals' or 'cereal grains' are the edible seeds of specific grasses. The most common are oats, corn, and barley. Milo (sorghum) and wheat are other grains that are fed to horses as well. Grains such as oats, barley, and corn can be fed whole, though many are typically processed to increase digestibility. Examples of how cereal grains may be processed include steam flaking, crimp rolling, extruding, and cracking. Grains are in general low in fiber and high in energy (particularly if processed), but there are differences in the relative amount of different nutrients in each cereal grain. For example, corn is higher in energy than oats or barley. Oats, one of the most popular grains to feed horses, are higher in fiber than corn and barley. Again, processing these grains will improve digestibility; in other words, processing grains will increase the amount of nutrients that the horse can get from the grain. These days, grain is rarely fed by itself as a concentrate; instead, it is often incorporated into pellets or mixed with pellets to make sweet feed.

Commercial Grain & Pellet Mixes

Commercial grain and pellet mixes are another feed option for your horse. They contain a mix of concentrates which provide energy, protein, vitamins, and minerals that are specific and balanced based on a horse's nutrient needs. Commercial mixes eliminate the guesswork of providing the appropriate amounts of minerals and vitamins in balanced quantities. Adding additional grains to commercial mixes will interfere with the nutritional balance of the feed.

---[continue reading article by PennState Extension](#)

Farmers' Market Recipe

Emily Hall - Dietetic Intern, CCE Saratoga

This is the beginning of the growing season, so different types of greens are available, plus scallions which can be used in the following recipe.

Mixed Greens & Mandarin Orange with Asian Vinaigrette

½ pound or 6 cups Mesclun*, or other salad mix
½ cup chopped scallions*
1 small can Mandarin Oranges
1 tablespoon toasted sesame seeds

Vinaigrette:

1 tablespoon spicy mustard
1 tablespoon balsamic vinegar
1 tablespoon soy sauce
1 teaspoon honey*
½ cup olive oil
¼ cup canola or vegetable oil

In a salad bowl toss together Mesclun Mix, scallions, cheese, oranges, and sesame seeds. In a separate container whisk together vinaigrette ingredients. Drizzle vinaigrette over salad.

Serves 4 - 6

*Ingredients with an * can be found at the Farmers' Market.*



Photo credit: Pixabay

Farmers' Markets

Spa City Farmers' Market

"All participating vendors are premium local brands and the best of the best including a bounty of the State's most sought after farmers and producers – to ensure the integrity of the market all vendors MUST be legitimate producers and open to facility inspection."



When: Sundays

Time: 10 AM - 2 PM

Where: Lincoln Baths, 65 South Broadway
Saratoga Springs

Link: <http://www.spacityfarmersmarket.com/>

Saratoga Farmers' Market

"A producers-only farmers' market with local products in Saratoga Springs, NY. A source of great food, plants, crafts, and live music. Our members practice and support sustainable agriculture and slow food practices."



When: Saturdays 9:30 AM - 1:30 PM

Where: Wilton Mall Parking Lot
(area of BJ's Wholesale Club and Former Bon-Ton)

When: Wednesdays 3:00 PM - 6:00 PM

Where: High Rock Park

Link: <https://www.saratogafarmersmarket.org/>

How to Grill Safely

Food poisoning peaks in the summer months when warmer temperatures cause foodborne germs to flourish. **Follow these steps for a safe and enjoyable grilling season.**

Separate

When shopping, pick up meat, poultry, and seafood last, right before checkout. Separate them from other food in your shopping cart and grocery bags. To guard against cross-contamination, put packages of raw meat and poultry into individual plastic bags.

Chill

Keep meat, poultry, and seafood refrigerated until ready to grill. When transporting, keep below 40°F in an insulated cooler.

Clean

Wash your hands with soap before and after handling raw meat, poultry, and seafood. Wash work surfaces, utensils, and the grill before and after cooking.

Check your grill and tools

Use a moist cloth or paper towel to clean the grill surface before cooking. If you use a wire bristle brush, thoroughly inspect the grill's surface before cooking. Wire bristles from grill cleaning brushes may dislodge and stick into food on the grill.

Don't cross-contaminate

Throw out marinades and sauces that have touched raw meat juices, which can spread germs to cooked foods. Use clean utensils and a clean plate to remove cooked meat from the grill.

Cook

Use a food thermometer to ensure meat is cooked hot enough to kill harmful germs. When smoking, keep temperatures inside the smoker at 225°F to 300°F to keep meat at a safe temperature while it cooks.

- 145°F – whole cuts of beef, pork, lamb, and veal (stand-time of 3 minutes at this temperature)
- 145°F – fish
- 160°F – hamburgers and other ground beef
- 165°F – all poultry and pre-cooked meats, like hot dogs

After Grilling:

140°F or warmer – until it's served

Refrigerate

Divide leftovers into small portions and place in covered, shallow containers. Put in freezer or refrigerator within two hours of cooking (one hour if above 90°F outside).

Source: CDC, Food Safety, <https://www.cdc.gov/foodsafety/communication/bbq-ig.html>, accessed 5-19-21.



Grilling Recipes

Marinade for Grilled Vegetables

2/3 cup oil
½ cup balsamic vinegar
¼ cup minced onion
1 teaspoon minced garlic
½ teaspoon salt
¼ teaspoons pepper

Combine all ingredients and mix well. Marinate vegetables for 3-4 hours before grilling, or brush marinade on vegetables as you grill.



Photo Credit: naples34102

Cornell's Famous Chicken BBQ Sauce

It's that time of year again for Cornell's Famous Chicken BBQ Sauce, but first a little history behind the famous sauce.

In 1950, Dr. Robert Baker published "[Barbecued Chicken and Other Meats](#)," a bulletin that included recipes to make broiler chickens (also called meat chickens) ideal for the barbecue. The idea of cooking chicken was fairly new at the time, being that people mostly ate beef and pork. Dr. Baker saw the publication as a way to not only educate home cooks, but also to help out poultry farmers.

The bulletin also featured instructions on how to build an outdoor cooking fireplace using cinder blocks. Dr. Baker's original recipe used a barbecue pit in which the chicken was cooked on racks, several feet away from the coals so that the chicken cooked relatively slowly.

In the 1950s, Dr. Baker opened a stand called "Baker's Chicken Coop" at the New York State Fair where he cooked up over a million chickens. He also contributed to the invention of the chicken nugget, as well as chicken hot dogs and turkey ham.

Cornell Chicken BBQ Basting Sauce

This recipe makes enough sauce for 2.5-3 # chicken

2 cups cider vinegar
1 cup vegetable oil
1 large egg
3 tablespoons salt
½ teaspoon black pepper
1 tablespoon poultry seasoning

Put all ingredients in a blender and blend until emulsified. Place chicken in large zip top plastic bag and add ½ cup of the sauce, coating chicken with sauce. Refrigerate and marinate for 2 hours. Remove chicken from the marinade, using a paper towel wipe off extra sauce from the chicken. Discard marinade in bag. Grill over charcoal, turning often and liberally basting with the remaining sauce every 10 minutes, for about 1 hour, or until cooked through reaching an internal temperature of 165°F.



HOMESTEADING & SELF-SUFFICIENCY

CCE Saratoga educators have created an [educational webpage](#) where people can learn all aspects of becoming self-sufficient and what it means to have a homestead. The informational platform brings together agriculture (Livestock & Animal Husbandry, Food Preservation & Preparation, Hunting & Gathering, and Planting & Growing recourses.

If you missed the 8-week video series for Homesteading and Self-sufficiency [you can find it here](#).



Introduction to Vegetable Gardening

Introduction to Vegetable Gardening

Choose a site that is:

- Sunny. Receives at least 6 hours of direct sun daily.
- Well-drained. No standing water after heavy rains.
- Relatively level. Or build beds or terraces that run across the slope.
- Away from trees. They can shade and compete with crops for water and nutrients.
- Protected from high winds. Good air circulation, however, helps prevent disease. You may want to avoid low-lying frost pockets.
- Close to a water source. You'll need water, and it's too heavy to haul.

Plan ahead:

- Prepare your soil in the fall in anticipation of planting next spring. Consider growing vegetables in 3 to 4-foot-wide beds with paths in between instead of just creating one large area for your garden. Contact your local Extension office for information about testing your soil's pH and nutrient levels.
- Think about what you and your family really like to eat before planning your garden. Vegetables will go to waste if what you grow doesn't match what you eat.
- Start small. There is nothing more discouraging than planting more than you can take care of. Each year, plant more of what you didn't have enough of, and less of what was in surplus.
- Make a map of your garden plan to help you visualize what it will look like and to make the best use of space. Avoid planting tall crops where they'll shade



If you start improving your soil the season before you establish your garden, you can have rich, plant-friendly earth in time for planting.

out shorter ones.

- Group perennial crops -- ones that come back every year such as rhubarb and asparagus -- together along one side of the garden so they will be out of the way.
- Order seeds early. Studying seed catalogs during winter is a good way to get acquainted with the possibilities. If you forget something, you can always purchase seed later locally.

Plants and Planting:

Annual vegetables can be divided into two general categories:

Cool-season crops

These include lettuce, peas, and most of the cabbage and onion families. They grow best when the weather is cool -- in spring and fall -- and most can take at least a light frost. In much of New York, you usually plant them through the spring for early summer harvests, then again in midsummer for fall harvests. The plants are usually compact, their root systems are relatively small, and they are more sensitive to nutrient deficiencies.

Warm-season crops

These include tomatoes, peppers, eggplant, beans, corn, and the family of vine crops that includes squash, cucumbers, melons, and pumpkins. Many are tropical plants, and they grow best when the weather is warm. They are often large, sprawling plants with extensive root systems. Those grown from seed need to be planted into warm soil, usually after the last frost date. Those transplanted into the garden (such as tomatoes, peppers, and eggplant) should not be transplanted until after the last frost.

With tomatoes, peppers, and other warm-season crops that need to be started inside, consider purchasing plants

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from a local garden center or other outlet -- especially if you are relatively new to gardening. Starting your own seed inside and growing vigorous transplants can be a challenge. Plants often fail to thrive inside due to lack of light (even in "sunny" windows) or improper humidity or temperature.

Whether homegrown or purchased, you need to gradually acclimate transplants to the rigors of outdoor life. Move them outside for a few hours each day as transplanting time approaches. Gradually increase their time outside, and decrease their water. When conditions are right for transplanting, remember that calm, overcast days are best for the plant. Transplant late in the day if possible. Immediately water thoroughly, and don't let the soil dry out while the transplants adjust.

Planting often

If you plant a lot of beans all at once, you'll harvest a lot of beans all at once -- probably more than you or your family can use at the time. To avoid harvest-time surplus and waste, spread out plantings of certain vegetables. If you plant a little bit every week or so, you can harvest crops over an extended period. With some salad crops, such as leaf lettuce, you can harvest in what's called "cut and come again" fashion. Simply cut the leaves off an inch or two above the ground. The plant will regrow (if conditions are right) and provide you with another harvest a few weeks later. See the Vegetable Growing Guides for more information about which plants you should seed in successive plantings.

When the weather gets too warm for cool-season crops, many of them (such as lettuce) "bolt" -- their leaves turn bitter and the plants elongate and start sending up flower stems. Others (such as peas) simply stop flowering and die. When you remove these plants from the garden, you may still be able to plant a warm-season crop (such as beans) in their place, or start another cool-season crop for fall harvest.

Preventing Problems:

See the factsheets on [Managing Home Vegetable Garden Pests](#) and [Minimizing Vegetable Diseases](#) for specific ways to prevent these problems. Some things to keep in mind:

Water right.

During most of the growing season, your plants need about 1 inch of water per week. If you don't get that much rain, your plants will benefit from a thorough watering to make up the difference. If you use a sprinkler, water early in the day so that the plants dry quickly. This reduces the spread of disease. Plants benefit more from one deep watering than several light waterings that barely soak in. Soaker hoses or drip or trickle irrigation are better than sprinklers because they deliver water directly to the soil without wetting the foliage. Adding organic matter to the soil can help increase its ability to hold water for plants, especially in sandy soils. Mulch the soil to help it retain moisture.

Rotate crops.

Don't grow the same crop (or members of the same crop family) in the same place year after year. This can lead to a build up of pests and diseases. Plant winter cover crops such as rye in fall to protect and build soil overwinter. If you harvest an early crop and don't plant another one in its place, keep the soil covered with a summer cover crop, such as buckwheat.

Stay out of the garden when it's wet.

Weeds are easier to pull when the soil is moist, but let it dry out a bit after a rain before you work in the garden. Walking on wet soil can compact it. You can also inadvertently spread some diseases from plant to plant when they are wet.



Planting in wide rows separated by permanent paths is a good way to reduce soil compaction in the garden.

Prepared by: Cornell University, 2006, Explore Cornell – Home Gardening – Vegetable Growing Basics (Updated 2016 - skb)



Last Seeding and Transplanting Dates for Vegetables in New York

P.A. Minges, Dept. of Veg. Crops, Cornell University

Questions often arise on how late a vegetable can be planted in the garden in New York State and still reach maturity or useable size before a frost or cold weather stops growth. The last dates listed below for each crop are for Central and Northern New York State. Most years the crop will reach the harvestable stage if planted by the date indicated, but yields of crops requiring multiple harvesting (tomatoes, peppers, cucumbers, etc.) likely will be rather light unless the fall weather is warmer than normal, and first frosts are unusually late.

June 1-7

Beans, lima
Edible cowpeas*
Herbs, most
Muskmelons*
Okra
Popcorn
Edible Soybeans
Tomatoes (late)*
Watermelon*

June 20-27

Beans, pole, snap
Brussels sprouts
Cabbage (late)*
Celeriac
Celery
Eggplant*
Leeks
Peppers
Sweet corn (medium)
Tomatoes (early) *

July 5-8

Beans, snap
Cabbage (medium)
Carrots
Cauliflower (late)*
Chinese cabbage
Cucumbers
Lettuce, head
Lettuce, romaine
Onions, green
Parsley
Parsnip
Rutabagas
Squash, summer
Sweet corn (early)

July 21-24

Beets
Broccoli (late)*
Cabbage (early)*
Collards
Endive
Kale
Kohlrabi
Lettuce, bibb
Mustard
Radishes, Chinese
Swiss Chard

August 1-3

Broccoli (early)*
Cauliflower (early)*
Lettuce, leaf
Spinach
Turnip

September 1-7

Radishes

September 1-30

Overwintered spinach

October 1-30

Overwintered garlic



**Indicates the crop normally is transplanted and the date is for setting transplants in the garden.*

NOTES:

1. Success at these last dates will vary for the location and the year.
2. Onions should be seeded by April 30 or transplanted by May 15.
3. Many crops normally transplanted can be seeded directly in the garden. These include broccoli, cabbage, cauliflower, muskmelons and tomatoes. The last safe seeding is 2-3 weeks earlier than the transplant date shown above.
4. The early, medium, late in parenthesis, refer to the variety. Early maturing varieties can be seeded later than slower growing late varieties.

By Wendy McConkey, Records Management Officer

A lot has changed in 4-H over the years, the members and leaders, the projects, the experiences, the location of the Extension Office, but the one thing that stays the same is 4-H's "Learn by Doing" approach.

The "learn-by-doing" approach allows youth to experience something with minimal guidance from an adult. Rather than being told "the answers," they are presented with a question, problem, situation, or activity which they must figure out for themselves. Learning by doing is called "experiential learning" because it is based on learning from experiences.

The following article was published in the Ballston Journal December 10, 1975.

Four area youth attend Honor Award Trip

Four Saratoga County 4-H members are attending the annual New York City Honor Award Trip, December 2-5, along with nearly 100 delegates from other counties. The award trip is held annually to recognize achievement in Agricultural projects and excellence in overall 4-H work.

This year's delegates are Karen Reber, Ballston Lake; Tona Roy, Ballston Lake, Peter Shaw, Ballston Spa and Michael Arnold, Stillwater. Charles Cleveland, 4-H Leader from Jonesville, chaperoned the group which left for New York on Tuesday, December 2.

The award trip is a career oriented, educational trip for 4-H'ers attending from all over New York State. The four-day event includes a full schedule of tours and lectures. From their headquarters at the Taft Hotel, the 4-H youth will visit Rockefeller Center and Radio City Music Hall, United Nations, Young and Rubicon Advertising Agency, Hayden Planetarium, Lincoln Center, Empire State Building, Museum of Natural History and other places of interest.

The 4-H delegates from Saratoga County were chosen on the basis of their tenure as a 4-H member, achievements in agricultural related projects, leadership and participa-



NEW YORK CITY—4-H Honor Award Trip Delegate relax a moment from their busy schedules at their headquarters at Hotel Taft. From left are: Peter Shaw of Ballston Spa; Tona Roy of Ballston Lake; Karen Reber of Ballston Lake; Charles Cleveland of Elhora (Chaperone and 4-H leader) , and Michael Arnold of Stillwater. The delegates were selected for their achievements in 4-H agricultural projects and activities and tenure in 4-H . About 100 attended from New York State. The delegates from Saratoga County were sponsored by the Ballston Spa Agway, Wheeler Townley Funeral Home, Tri County Banker Association, Van Voast and Leonard Insurance Agency and the 4-H Leader's' Association.

tion in education activities. Representatives from various project areas are selected each year.

Karen Reber, daughter of Mr. and Mrs. E J Reber, Charlton, is 16 and has been a 4-H member for six years in the Boots and Saddle 4-H Club. She has held several offices and committee assignments in addition to being junior leader. She is also active in 4-H Teen Council, serving as news reporter this year and is a 4-H Teen Ambassador helping to promote 4-H by speaking to civic groups.

Karen's project accomplishments have been primarily in saddle horse but she has completed many other projects.

.....Continued on next page

Honor Award Trip—continued from previous page

They include food, clothing, woodworking, dog care and obedience training, indoor gardening, junior leadership, incubation and embryology, pet care, crafts, potatoes, photography and others.

"Over the past six years in 4-H, I've grown a lot. New opportunities are being opened for me", stated Karen in her 1975 project report. She says, "I hope to major in animal science and minor in communication in college. 4-H has helped in these fields. 4-H has given me a lot of hopes and ambitions for the future."

Michael Arnold, 17, is the son of Mr. and Mrs. Daniel Arnold of Stillwater. He has been a member of the Farm Builders 4-H Club for nine years. Major projects completed include Build It Yourself, electricity, foods, dog care and obedience training, outdoor cookery and also weather, woodworking, vegetable gardening, junior leadership, career exploration, teens entertain and others. He has held various offices in the club and served as junior leader for four years. Participation in 4-H activities include public presentations and exhibiting at County Fair.

In his project and activity summary for the year, Mike states, "In the past, I have greatly benefited from 4-H. One gets to go places and, in a club, one has a lot of fun."

Tona Roy, 17, has been a member in the Boots and Saddle 4-H Club for eight years and is the daughter of Mr. and Mrs. William Roy, Ballston Lake.

Throughout her 4-H membership, Tona has completed the saddle horse project each year and participated in many horse shows. Other projects completed include foods, clothing, ornamental horticulture, disease and insect control of vegetables, woodworking, gardening, junior leadership, crafts and home improvement. She has held several offices and committee assignments in her 4-H club and has given public presentations. She was vice-president of the club in 1975.

As Tona approaches the termination of 4-H membership, she makes this statement in her summary of projects and activities for 1975: "The end of my 4-H years is too quickly gaining on me. I hope in my last two years, I can give a little more to 4-H, just to return a little

of what it has given me. Every year, I learn or do something different and I get an awful lot out of it."

Peter Shaw, son of Mr. and Mrs. William Shaw, Ballston Spa, is 17, and has been in 4-H for eight years. Formerly a member of the Malta Ridge Go Getters, he is now in the Ridge Runners 4-H Club. His participation in the club has been as an officer and active committee member. He is the newly elected president of the 4-H Teen Council, a countywide group. He has been active in the public presentation program and is a 4-H Teen Ambassador for the county, giving talks about 4-H to various civic groups.

His projects during the eight years have included potatoes, gardening, ornamental horticulture, rabbits, foods, outdoor cookery, home improvement, junior leadership, tractor care and safety and automotive care and safety.

Peter sums up his experiences in 4-H in the 1975 project and activity report by saying, "This year, 4-H has helped my growth through my many experiences with people from different parts of our state. It was a fun year and I'm looking forward to a better year next year."

Sponsorship for the Award Trip as received to date is from the Ballston Spa Agway Store, Tri-County Bankers Associates and the Wheeler-Townley Funeral Home in Ballston Spa. Other sponsorships are pending and will be announced. Each of the delegates also pay a portion of their expenses.

The group will return on Friday, December 5. There will be opportunities for them to report their experiences to local 4-H clubs and interested groups. Contacts for such presentations should be made through the 4-H office at the Cooperative Extension Center, 87 Church St, Saratoga Springs. (Phone 584-6520 or 885-4302)

Saratoga County 4-H Alumni Facebook Group



If you were a prior 4-H'er in Saratoga County, we invite you to join our Facebook group Saratoga County 4-H Alumni. We hope this group will help our 4-H Alumni connect with their fellow 4-H'ers!

**SARATOGA COUNTY
4-H ALUMNI**



Website and Social Media

Click the photos to be navigated to each of our Facebook accounts:



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4-H



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