

July-August 2017



*Agriculture & Natural Resource news and events for Jefferson County*

**THE DOG DAYS OF SUMMER...**

...are upon us, which means it is fair season! Our office will be at the Jefferson County Fairground August 15-20, so we will not be at our usual Bantam Ridge School location that week. Visit OSU Extension at the fair and bring your insect, plant, and/or livestock questions. We would love to see you there!

Speaking of offices, this is a general reminder that our office will no longer be located at the Bantam Ridge School in Wintersville beginning September 5th (we will be transitioning that week). Our new location will be at 500 Market Street in Steubenville on the 5th floor. Pay our new location a visit!

Ticks have been an item of discussion over the last few months due to an uptick in the number of ticks found this season. Lyme disease and other vector-transmitted diseases carried by ticks are also on the rise. It may be difficult to avoid ticks entirely, especially with the large deer population, but you can take precautions to prevent contracting a tick-borne illness. Use clothing that contain permethrin and use insect repellents that contain 20-30% DEET (lasts several hours). For a list of ticks that are of public health importance, visit <http://www.odh.ohio.gov/ticks>.

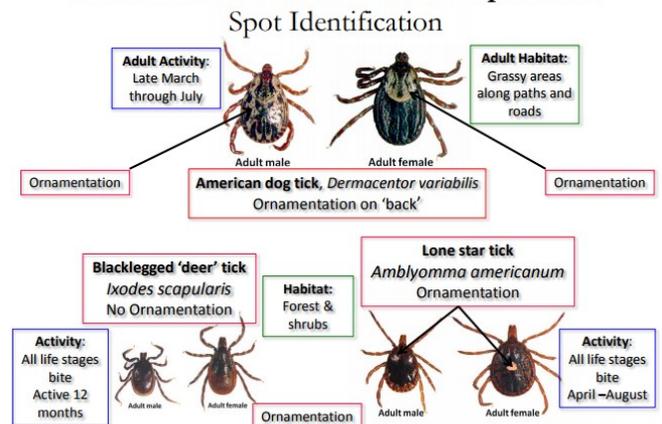
Enjoy the summer season!

Erika Lyon  
Extension Educator, Agriculture & Natural Resources  
Ohio State University Extension

**THIS ISSUE**

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**Three Ticks of Public Health Importance**



### 1ST GENERATION EUROPEAN CORN BORER MANAGEMENT IN NON-BT CORN

Andy Michel, Kelley Tilmon, Entomology Specialists, OSU Extension

European corn borer (ECB) was once our most important corn insect, but its population has decreased over the past 20 years, likely due to Bt-corn that provides excellent protection. For this and other various reasons, many farms have switched to corn that does not contain Bt proteins to control ECB and other caterpillar pests. Keep in mind that ECB is not an extinct species—we can find ECB still flying around. This year, we have seen ECB feeding in conventional corn.

ECB has 2 generations per year. Currently, we are seeing larval feeding on the leaves and in the whorl. Soon, and if not already, these larvae will tunnel through the stalk where they will usually continue to feed and pupate. Adults will emerge in late July-early August.

Growers of conventional corn should inspect their fields for the characteristic shot hole damage. If found, you may see larvae feeding in the whorl—you may need to pull the whorl out of a couple of damaged plants to check. Although challenging, larvae in the whorl that are in the 3rd instar or less (usually no bigger than 1/2 of an inch) are still vulnerable to insecticide application.

If the larvae are not in the whorl, they may have died, or worse, tunneled in the stalk. Look for the appearance of sawdust like frass, which ECB larvae leave on the outside while tunneling. Once they bore into the stalk, then control is difficult, if not impossible.

As a guide, we recommend treatment for 1st generation ECB when 75% -80% of the corn shows shot hole damage, and that larvae can be seen in the whorl (i.e. have not bored into the stalk). There are many chemicals that can control ECB (see our bulletin: <https://agcrops.osu.edu/publications/control-insect-pests-field-crops-bulletin-545>), although granular forms tend to be more effective than liquid.

### SELLING FOOD FROM YOUR FARM OR FARMERS' MARKET

Emily Adams, OSU Extension, Coshocton County

Farmers' Market Season is here! I do hope that you will check out the markets in your area and support your local producers. And if you have ever considered selling agricultural products yourself, here are some answers to some of the most frequently asked questions I receive.

**Can I make food in my home to sell?** In Ohio we have Cottage Food Law that allows individuals to make food in their own home. There is a specific list of the foods that can be made including lots of baked goods (cookies, cakes and pies); jams and jellies; and dried mixes. These foods all have minimal risk of causing foodborne illness and do not require any temperature controls to keep them safe for us to eat. There is no inspection of the home kitchen and no fee required. The foods must be properly labeled and have the declarations "This food is home produced."

It is also possible, though, to make cream pies that require refrigeration or other baked foods that are potentially hazardous like cheesecakes or noodles or fry pies. These require a home bakery license from the Ohio Department of Agriculture (ODA). This is only \$10 per year and requires an inspection. You can learn more about these under "Fact Sheets" at [ODA Food Safety](#) .

**Can I sell salsa or sauces that I can in my home?** Since these are processed foods that could be potentially hazardous, they cannot be made in the home and sold. You can make these types of foods in an approved kitchen. This can be any facility outside of your home that has been approved by ODA including another structure on your property, an ODA registered church kitchen, or a shared use facility that co-packs foods.

**What are the rules for selling eggs from my farm?** In Ohio we can sell eggs from our farms without an inspection or license as long as we maintain 500 or fewer birds. You can find more information from ODA at [ODA Egg Producer Fact Sheet](#)

**What are the rules to sell eggs somewhere other than my farm?** If you want to sell eggs at a Farmers' Market or restaurant or retail store, then ODA will inspect your farm. They will make sure that water quality is acceptable for washing eggs, that the refrigerator is in working order, and that egg cartons are labeled properly. The only time that a license is required to sell eggs is when selling off farm at a Farmers' Market. This Mobile Retail Food Establishment (MRFE) license can be obtained from our local County Health Department.

Today I'll leave you with this quote from Mother Teresa, "If you can't feed a hundred people, then feed just one."

## IT'S FAIR TIME...

*Harrison County  
Cadiz, OH*

*July 3-8*

*Carroll County  
Carrollton, OH*

*July 18-23*

*Columbiana County  
Lisbon, OH*

*July 31-August 6*

*Jefferson County  
Smithfield, OH*

*August 15-20*

*\*Bring your agriculture and natural resources questions to the Extension booth at the Jefferson County Fair and look for demonstrations including weed ID and container gardening!*

**\*MARK YOUR CALENDARS: WE ARE MOVING TO 500 MARKET STREET IN STEUBENVILLE FROM OUR CURRENT BANTAM RIDGE LOCATION THE FIRST WEEK OF SEPTEMBER**

## How to Contact the Jefferson County Extension Team:

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Suite C  
Wintersville, OH 43953\***

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***COMING SOON***  
**Program Assistant—  
SNAP-Ed**



## Jefferson/Harrison Master Gardener Volunteers

**Wednesdays  
4:30pm-6:30pm**

*July 12*

*July 26*

*August 9*

*August 23*

### **Topics\***

self watering systems

composting

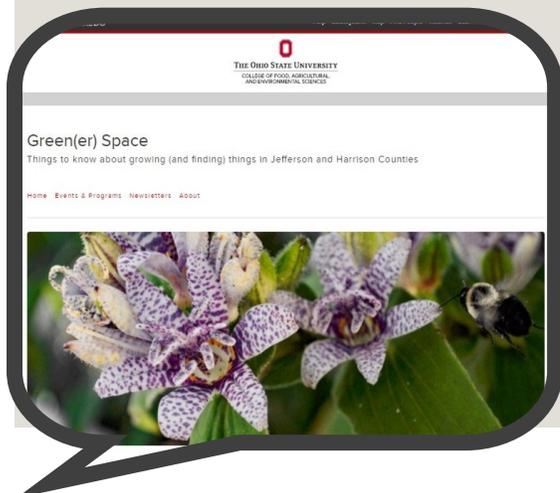
seed swap

*\*Topics tentative and subject*

*to change*

What's on your mind, Jefferson County? Check out the **Green(er) Space** blog at [u.osu.edu/lyon.194](http://u.osu.edu/lyon.194) to see answers to common questions in the area and get the most recent ANR updates across Jefferson (and Harrison) counties.

And don't forget  
[jefferson.osu.edu](http://jefferson.osu.edu) for  
information about upcoming  
programs and registration.





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## DON'T TOUCH THIS WEED!

Joe Boggs, OSU Extension, Hamilton County



Wild parsnip (*Pastinaca sativa*) plants are rising towards their full height and blooms are beginning to appear in southern Ohio. Landscape managers and gardeners should exercise extreme caution around this non-native invasive plant. Severe blistering can occur if chemicals (furanocoumarins (= furocoumarins)) in the plant juices come in contact with skin and the skin is then exposed to sunlight; specifically ultraviolet light. The effect is called phytophotodermatitis (a.k.a. Berloque dermatitis) and the burn-like symptoms as well as skin discoloration may last for several months. Always wear gloves and protective clothing if you find yourself working around this weed!

This Eurasian native can grow to impressive heights topping 8'; however, most mature plants range in size from 4 - 6'. The umbellate flower arrangement looks like an upside-down umbrella; a characteristic shared by all members of the carrot family (Apiaceae (= Umbelliferae)). The umbels on wild parsnip are topped with tiny yellow flowers. Leaves are alternate, pinnately compound, branched, and have saw-toothed edges. Each leaf has 5 -15 ovate to oblong leaflets with variable toothed edges and deep lobes. Mature plants will produce a single, thick, deeply grooved, greenish-yellow stem that sprouts lateral branches topped with hundreds of clusters of the umbellate flowers.

Wild parsnip grows as a biennial in Ohio with a two season life cycle. Plants spend the first year as rosettes with leaves confined to growing from a short stem only a few inches above the ground. While in this stage, the plant produces a long, thick taproot. Flower stalks are produced during the second year.

It is not unusual for wild parsnip to be found growing in close proximity to Poison Hemlock (*Conium maculatum*) in southwest Ohio and these biennials produce flowers at nearly the same time (see BYGL Alert "*Poison Hemlock is Flowering and Towering Over Fields and Landscapes in Southern Ohio*," May 19, 2017). I believe possible close contact with both plants may be responsible for some misconceptions. For example, it is a common misconception that poison hemlock sap will also cause skin rashes and blisters. In fact, poison hemlock sap will not produce dermatitis. The highly toxic piperidine alkaloid compounds found in the sap can induce cardiac arrest in mammals but must be ingested or enter through the eyes, cuts, or other openings.

# What is Your Pasture Score?

Clif Little, OSU Extension Educator, Guernsey County



It is difficult to objectively evaluate what we see every day. We have all heard the old saying “can’t see the forest for the trees”. Important decisions such as livestock feed inventory, forage stand replanting, fertility needs, weed control, etc., all hinge on what we see in the pasture. That is why an objective evaluation of a pasture is a valuable tool. Dennis Cosgrove, Dan Undersander of the University of Wisconsin-Extension and James Cropper with USDA/NRCS have developed a tool known as the, “Guide to Pasture Condition Scoring.” The scorecard can help grazers identify and prioritize management practices that may improve pasture productivity. A well-managed pasture is both productive and sustainable. The score sheet is helpful in prioritizing corrective treatment needs. Some farm managers want more productive pastures and make reactive changes but never really change overall pasture management. The greatest factor influencing pasture productivity is the pasture manager. What we see at any moment in time is influenced by our management system.

Scoring a pasture at the start of the grazing season, at peak forage growth, during forage shortages, during periods of forage stress and at the end of the grazing season can be useful for determining corrective actions. The pasture condition score will help managers identify practices which will most likely improve livestock and pasture performance.

Pasture scoring uses 10 visual evaluation indicators and each is ranked numerically from poor to excellent. The indicators can then be combined into an overall score. Indicators receiving the lowest scores may be considered for corrective management. It is then up to the manager to weigh the identified factors needing attention and determine what can be reasonably done, while providing the biggest bang for the buck. It is easy to become overwhelmed when managing a grazing system and we don’t always see the low hanging fruit right in front of our eyes. Don’t try to make all of the changes at one time but prioritize forage and livestock management changes by setting short and long term goals. Visualize what you expect to see by visiting with accomplished pasture managers. It is important to remember pasture condition varies throughout the year in response to management and climate. Scoring pastures yearly and during the same periods each year can help to identify trends. We are only done improving our pasture management system when we cease to realize opportunities.

It is one thing to be told by a forage or livestock expert you should consider this or that but there is nothing more powerful than realizing yourself that a change is needed. That’s where your pasture score can help.

Pasture Condition Score Sheet					
Indicator	1	2	3	4	5
Percent desirable plants	Desirable species < 20% of stand. Annual weeds and/or woody species dominant.	Desirable species 20-40% of stand. Mostly woody annuals and/or woody species present and expanding. Shade a factor.	Desirable species 40-60% of stand. Unpalatable broad-leaf weeds and annual weeds present. Some woody.	Desirable species 60-80% of plant community. Stunted non-desirables present.	Desirable species exceed 80% of plant community. Stunted non-desirables.
Plant cover (Live-stem and green leaf cover of all desirable and intermediate species.)	Canopy < 50% Bald area < 10% Photosynthetic area very low. Very little plant cover to slow or stop runoff.	Canopy 50-70% Bald area 15-20% Photosynthetic area low. Vegetal retardance to intercept sunlight. Moderate runoff low.	Canopy 70-90% Bald area 25-30% Most forages ground cover, little leaf area to intercept sunlight. Moderate vegetal retardance.	Canopy 90-100% Bald area 35-40% Spot ground low Most forages ground cover, little leaf area to intercept sunlight. Vegetal retardance still high.	Canopy 95-100% Bald area < 50% Forage maintained in dry conditions for photosynthetic activity. Very thick stand, slow or no runoff flows.
Plant diversity	One dominant (> 70% of DM wt.) forage species. Or, over 5 forage species (all < 20%) from one dominant functional group, not evenly grazed & poorly distributed.	Two to five forage species from one dominant functional group. At least one avoided by livestock permitting presence of mature seed heads. Species in patches.	Three to four forage species (each > 20% of DM wt.) from one functional group. None avoided. Or, one forage species each from two functional groups, both equally > 20% of DM wt.	Three to four forage species (each > 20% of DM wt.) with at least one being a legume. Well interspersed, comparable growth habit, and comparable palatability.	Four to five forage species representing three functional groups (each > 20% of DM wt.) with at least one being a legume. Interspersed well, comparable growth habit, and comparable palatability.
Plant residue (Rate ground cover and standing dead forage separately and average score.)	Ground cover: No identifiable residue present on soil surface. Or, heavy thatch evident (> 1 inch). Standing dead forage: > 20% of air dry weight.	Ground cover: 1-10% covered with dead leaves or stems. Or, thatch 0.5 inch to 1 inch thick. Standing dead forage: > 20% of air dry weight.	Ground cover: 10-20% covered with dead residue. Or, slight thatch buildup but < 0.5 inch. Standing dead forage: 5-10% of air dry weight.	Ground cover: 20-30% covered with dead residue. No thatch present. Standing dead forage: none, but < 0.5% of air dry weight.	Ground cover: 20-30% covered with dead residue, but no thatch buildup. Standing dead forage: none available to graze animal.
Plant vigor (If plant vigor rating is less than 4, determine cause by rating & guess the cause listed on page 5.)	No recovery after grazing or pale yellow or brown, or permanent wilting, or plant loss due to insects or disease, excessive forage loss. Or, lodged, dark green overly lush forage. Often avoided by grazers.	Recovery after grazing takes 2 or more weeks longer than normal, or yellowish green leaves, or insect or disease yield loss, or plants wilted most of day. Productivity very low.	Recovery after grazing takes 1 week longer than normal, or yellowish green plants in contrast to rest of stand, or insect or disease yield loss. Yields regrettably below site potential.	Recovery after grazing takes 1 to 2 days longer than normal, or light green plants among ground cover. No insect or disease damage. No plant vigor loss.	Rapid recovery after grazing. Healthy green color. No signs of insect or disease damage. No leaf wilting. Yields at site potential for the species adapted to the site's soil and climate.
Percent legume (Live-stem stands. See footnote 3 of score sheet for warm season)	< 10% by wt. Or, greater than 10% of floating legumes.	10-10% legumes. Or, greater than 10% of floating legume.	20-20% legumes.	30-30% legumes.	40-10% legumes. No grass-legume grass may be increasing.
Uniformity of use	Little-grazed patches cover over 90% of the pasture. Most are from desirable species.	Little-grazed patches cover 25-50% of the pasture either in or out of use.	Little-grazed patches cover 10-20% of the pasture.	Little-grazed patches cover 10-20% of the pasture.	Regretted areas only minor species where isolated forage present.

The score sheet is available at: [https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_007667.pdf](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_007667.pdf)



Grazing Lands Technology Institute

May 2001

## Pasture Condition Score Sheet

### Purposes

- Evaluate current pasture productivity and the stability of its plant community, soil, and water resources.
- Determine what treatment needs, if any, are required to improve a pasture's productivity and protect soil, water, and air quality.

Step 4—When scoring plant vigor, enter a score based on the general criteria given on page 2 using the most limiting trait listed. Use this number to determine the overall pasture score. If the plant vigor score is less than 4, refer to the plant vigor causative factors' criteria on page 6 to identify the plant stress(es) causing reduced vigor. Rate each causative factor independently on the score sheet provided on page 5. Do not average to adjust the original vigor score.



## IN THE GARDEN

## ALL BUGS AREN'T BAD BUGS... By Joe Boggs, OSU Extension, Hamilton County



Jon Yuschock, Bugwood.org

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Insects belonging to the Hemipteran family Reduviidae are collectively known as "Assassin Bugs." The family includes over 160 species in North America and all are meat eaters. The common name for the family clearly describes how these stealthy hunters make a living.

Family members sport two features important to their predatory behavior: raptorial front legs and piercing-sucking mouthparts. The front legs of assassin bug are designed for grabbing and holding prey. Their mouthparts, called a "beak," then swing into action to inject paralyzing and pre-digestive enzymes into their prey. They then suck the essence-of-insect from their hapless victims.

Assassin bugs pass through three developmental stages: eggs, nymphs, and adults. This is known as "incomplete metamorphosis." Unlike other incomplete metamorphic insects such as grasshoppers with the nymphs resembling miniature adults, assassin bug nymphs look nothing like the adults.

In fact, the nymphs of our native Wheel Bug (*Arilus cristatus*) are often mistaken for spiders. Of course, insects have six legs and spiders have eight legs. These are one of the most common assassin bug nymphs currently patrolling trees and shrubs in Ohio. The nymphs have long, spindly spider-like legs and they parade around with their reddish-orange abdomens held upright.

Adult wheel bugs are so-named because of a peculiar morphological feature that rises from the top of the bug's thorax. The structure looks like half of a cogwheel, with the gear teeth clearly visible. Wheel bugs are big, measuring over 1 1/4" long, and their color varies from light gray to bluish-gray to grayish-brown. They will appear on the tree scene later this season in Ohio.

Although caterpillars and sawfly larvae are favored table fare of these voracious predators, they will not turn their beaks up at other arthropod meat morsels. Indeed, they will even nail the probing fingers of uniformed gardeners! While these are beneficial insects, they should not be handled. All members of the family are capable of delivering a painful bite to people. The pain of a bug bite has been described as being equal to or more powerful than a hornet sting, and the wounds may take over a week to heal. It is best to appreciate these beneficial insects from afar.



Johnny N. Dell, Bugwood.org

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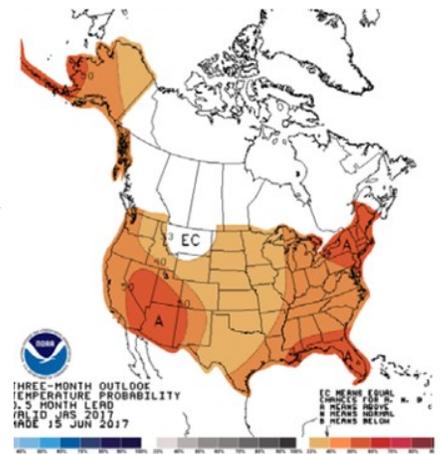
Jim Baker, North Carolina State University, Bugwood.org

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## SUMMER OUTLOOK (From the Spring Climate Summary)

Dr. Aaron Wilson, Research Associate, Ohio State University Extension

The Climate Prediction Center (CPC) depicts a greater than 40% probability of above normal temperatures across Ohio for July-September (JAS). With the lack of a strong climate signal (e.g., El Niño), temperature projections are based on model guidance and decadal trends. CPC depicts equal chances of above, below, or near normal precipitation for JAS. This is a typical summertime projection for Ohio without strong climate signals as weather steering currents are weaker than in winter. Visit [u.osu.edu/lyon.194](http://u.osu.edu/lyon.194) for the complete spring climate report.



## CHESTNUT BLIGHT AND THE DECLINE OF THE GREAT AMERICAN CHESTNUT...

OUT IN NATURE

By Bill Owens, Jefferson/Harrison Master Gardener Volunteer, OSU Extension

The American chestnut (*Castanea dentata*) was the ideal tree species because of its fast growth and straight trunk, free from branches up to 50 feet in height. This species was considered the finest chestnut tree in the world by many. These mighty giants were an essential part of the U. S. forest ecosystem. It is estimated that in some places, such as the Appalachian Mountains, one in every four hardwoods was an American chestnut. Mature trees often grew to 100 feet tall with a trunk diameter of 14 feet at a few feet above ground level. The tree dominated 200 million acres of Appalachian forests.

The flowers on Chestnut trees appear in the spring and summer and are arranged in long catkins. Each tree develops both male and female flowers, making it a monoecious plant. The fragrant flowers attract insects that transfer pollen from one tree to another.

Chestnut wood was used in home construction, railroad ties, telephone poles, barns, log cabins, flooring, fences, and shingles. Light and strong the wood was prized by craftsman and woodworkers for making fine furniture and musical instruments. George Hepting, a scientist and pioneer in plant pathology, wrote "Not only was the baby's crib likely made from chestnut, but chances were, so was the old man's coffin."

A 20 million pound annual nut crop was used to fatten hogs, and boxcars of chestnuts were shipped to places like Philadelphia, New York and Boston during the winter season. The tree was not affected by seasonal frosts. The nuts were also a source of food for a wide variety of wildlife such as bears, wild turkeys, boars, birds, squirrels and deer since they were rich in vitamins B and C, potassium, iron and magnesium. . Dried chestnuts were also ground into flour.

At the beginning of the 20<sup>th</sup> century, the fungal pathogen (*Cryphonectria parasitica*), commonly known as the Chestnut blight, was accidentally imported into the Bronx Zoological Park in New York City from Japanese and Chinese chestnut trees. Herman W. Merkel, a forester at the zoo, noticed a disease becoming prevalent in American Chestnuts in the area. In 1905, American mycologist William Murrill discovered the fungus responsible (which he named *Diaporthe parasitica*). By 1940, most mature American chestnut trees had been wiped out by the fungus.

*Cryphonectria parasitica* enters the tree through an injury in the bark on susceptible trees and grows in and beneath the bark, eventually killing the cambium tissue all the way round the twig, branch or trunk. The first symptom of the infection is a small orange-brown area on the tree bark. A sunken canker then forms as the mycelial fan spreads under the bark. This produces several toxic compounds, the most notable of which is oxalic acid. This acid lowers the pH of the infected tissue from around the normal 5.5 to approximately 2.8, resulting in cell death. The canker eventually girdles the tree. The fungus spreads by rain and wildlife.

Japanese and some Chinese chestnut trees have shown resistance to infection. Within 40 years the nearly four-billion-strong American chestnut population in North America was devastated. Only a few clumps of trees remained in California, Michigan, Wisconsin and the Pacific Northwest. The chestnut blight has been called the greatest ecological disaster to strike the world's forest in all of history.

Efforts started in the 1930s and are still ongoing, in Massachusetts and many other places in the United States, to repopulate the country with these trees. A small stand of surviving American chestnuts was found in F. D. Roosevelt State Park near Warm Springs, Georgia in 2006. There are approximately 2,500 chestnut trees growing on 60 acres near West Salem, Wisconsin, which is the world's largest remaining stand of American chestnut. These trees are the descendants of those planted by Martin Hicks, an early settler in the area, who, in the late 1800s, planted less than a dozen chestnuts. Since these trees were planted outside of the natural range of these species, these trees escaped the initial wave of infection by chestnut blight. However, in 1987, blight was eventually found in this stand.

**(CHESTNUT CONTINUED)** Current efforts are under way by the Forest Health Initiative to use modern breeding techniques and genetic engineering to create resistant trees. One of the most successful methods of breeding is back crossing resistant species (such as one from China or Japan) with American chestnut. The newly bred hybrid chestnut trees can reach the same heights as the original American chestnut. Many of these 15/16 American chestnut hybrids have been planted along the East Coast. Hybrid survival remains a challenge; therefore, not all restoration areas have been successful.

Chemical control with fungicides have been tried but are either too expensive or not feasible for the trees in the wild. An integrated control system is critically needed to stem the course of the blight fungus and seek to recover the American chestnut. Most efforts have had minimal success and it will be decades if ever that this beautiful tree resumes its place in the forest.

Read more at <http://www.nature.com/news/plant-science-the-chestnut-resurrection-1.11504>

## THINKING OF GETTING INTO FARMING? TAKE TIME TO GET TO KNOW YOUR (POTENTIAL) FARM...

So many exciting opportunities exist in agriculture, whether you are into raising corn, hops, goats, organic produce, etc., and it can be tempting to get started right away. Many prefer to learn by trial and error, but why not learn from those who have already gone through the trial and error process before and save some time, money, a lot of energy, and a little sanity?

Gather aerial photos and satellite imagery of your (potential) farm (this is easy now with the available tools online) and walk the property to get an idea of what the topography is like. What does the soil survey say you have for soil types? What are the drainage patterns? Are there areas of poor drainage (standing water)? Sandy or clay soils? A soil test is a great way to identify what nutrients are already available on the property and to save money and time on fertilizer applications. Adjustments to pH rather than the addition of more of these nutrients can free up what is already available under your feet. If adding lime, plan ahead...lime can take awhile to change the soil pH depending on the ability of the soil to buffer those changes.

Once familiar with the details of the land, get to know your crop. What hardiness zone (related to climate) does, for example, the eggplant grow best in? We are currently in zone 6, but err on the side of caution...plan for zone 5. Know the variety or cultivar. Some cultivars of the same crop have differences in temperature tolerances, susceptibility to disease, etc. Try to experiment with a few varieties on a small area of your farm and see which do better.

With livestock, you will want to get to know the nutritional needs of each species you plan to raise. Goats and sheep will eat about anything, but cattle and equine are more finicky about what they eat (and some plants are toxic for these species). Make sure you have plenty of space—20 head of cattle on 2 acres of land is not enough space to meet nutritional needs (or for much else). Scout ahead of time for potential problems like noxious weeds, potential insect pests, and diseases. Check water availability and access. Do you need to develop a spring? How will you get water to where you need it?

Get to know the finances behind your farm. You can find some great farm management tools, including enterprise budgets, machinery rental rates and costs, and farmland value information from the OSU Farm Management website: <http://go.osu.edu/By2s> . (Some of these tools are based on data from western Ohio and may not be applicable to Jefferson County). Penn State has a great fact sheet on getting started with budgets: <http://go.osu.edu/By2v>. Oregon State (the other OSU) has a great farm management planning book available to those who are considering getting started: <http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/23645/em9043.pdf>

Starting a farm, large or small, can be a big undertaking. Have an idea of what your farm's limits are as well as your own. A small amount of planning in the beginning can be well worth the effort in the long run.



## MID-LATE SUMMER CALENDAR

### Outdoor Photo Tips:

#### RULE OF THIRDS (AND BREAKING THE RULE)

The rule of thirds is one of the most well-known rules when thinking about composition in photographs, but aren't rules meant to be broken?

Before you click the shutter button on your camera, try imagining gridlines over your photo (or some cameras allow you to cheat and have gridlines already added in the viewfinder or in live view). Two gridlines each occur (roughly) every 1/3 of the image both vertically and horizontally (think tic-tac-toe or see below). You can line up your horizon on one of the horizontal lines or place a subject where the gridlines intersect. This is using the rule of thirds.

You do not always have to line up every third—some say that as long as the subject is off to one side a photo will draw the viewer's attention into the photo's composition and give the photo a narrative. I've said it before and will say it many times—experiment. Try taking photos with subjects centered and off-centered, and compare the images. Which do you prefer?



### JULY

- 7/3-7/8 Harrison County Fair in Cadiz
- 7/12 Master Gardeners' Table—self water drip system @ Gateway Farmers' Market, Steubenville, 4:30pm-6:30pm
- 7/15 Ohio Sheep Day @ OARDC Sheep Research Unit, 5743 Fredericksburg Road, Wooster, 8am-4pm ([visit ohiosheep.org](http://visit.ohiosheep.org) for more information)
- 7/20 Eastern Ohio Grazing Council ([visit carrollswcd.org/eastern-ohio-grazing-council.html](http://visit.carrollswcd.org/eastern-ohio-grazing-council.html) for event details)
- 7/25 Vegetable Production Field Walk @ 39050 West Captina Highway, Barneville, 2pm-5pm
- 7/26 Ohio State Fair
- 7/26 Master Gardeners' Table—composting @ Gateway Farmers' Market, Steubenville, 4:30pm-6:30pm
- 7/27 Landscape Design 101 @ 500 Market Street, Steubenville, 9am-3pm
- 7/29 Lake and Land Festival @ Atwood Lake ([visit carrollswcd.org/lake-and-land-festival.html](http://visit.carrollswcd.org/lake-and-land-festival.html) for event details)

### AUGUST

- 8/3 Orchard Sprayer Technology Field Day @ 161 Rittman Avenue, Rittman, 2:30pm-7:30pm (cost \$5/person; contact Wayne Co. Extension at 330.264.8722 for more information or to register by July 27)
- 8/9 Master Gardeners' Table @ Gateway Farmers' Market, Steubenville, 4:30pm-6:30pm
- 8/15-20 Jefferson County Fair in Smithfield
- 8/22 Last Call: Fertilizer Certification @ the Commercial Bldg, Harrison County Fairgrounds, 6pm-9pm
- 8/23 MGV Table @ Gateway Farmers' Market, Steubenville, 4:30pm-6:30pm
- 8/24 Eastern Ohio Grazing Council ([visit carrollswcd.org/eastern-ohio-grazing-council.html](http://visit.carrollswcd.org/eastern-ohio-grazing-council.html) for event details)
- 8/26 Sustainable Living Field Day @ 86724 Keyser Road, Cadiz, 9am-2pm

## EXTENSION'S MOST WANTED...

This time of year is a good time to start looking for cucurbit downy mildew. Caused by the fungal-like pathogen, *Pseudoperonospora cubensis*, this disease can cause extensive yield loss in cucurbit crops, including cucumber, melon, squash, pumpkin, and watermelon. If you suspect you may have downy mildew, bring your specimen on over to the Extension office!

Photo by Gerald Holmes, California Polytechnic State University at San Luis Obispo, Bugwood.org



# Pesticide Applicator Testing Location

Tuesday

October 17th, 2017

9 a.m.

500 Market Street—Conference Room  
Steubenville, OH 43952

To sign up, new applicators will need to complete an application, pay a \$30 license fee, and register with the Ohio Department of Agriculture online at <http://www.agri.ohio.gov/apps/odaprs/pestfert-prs-ols.aspx?ols=rg>. Study materials may be purchased at your local extension office or found online at ODA or [pested.osu.edu](http://pested.osu.edu). Contact the Jefferson County Extension Office with questions.



## LANDSCAPE DESIGN 101

Thursday,

July 27th, 2017

9AM—2PM



### TOPICS COVERED

#### Matching the Right Plant to the Right Place

*Erika Lyon, Ag & Natural Resources Educator, OSU Extension*

#### Basics of Landscape Design

*Tom DeHaas, Horticulture Educator, OSU Extension*

#### Landscaping for Wildlife

*Marne Titchenell, Wildlife Specialist, OSU Extension*



Bring photos and aerial imagery of your landscape if you would like to redesign your backyard

### LOCATION

500 Market Street  
Conference Room  
Steubenville, OH

Have a backyard and don't know what to do with it? This event will address site selection of ornamentals, what to consider when planning your landscape, and how to bring in the wildlife you want and keep out the critters you don't want.

**PRE-REGISTRATION IS REQUIRED, AND SPACE IS LIMITED.** Cost of the program is \$25 per person (\$15 for Master Gardener Volunteers). Lunch will be provided. Registration deadline is Friday, July 21st, 2017. You may call to pre-register at 740-264-2212 or send an email to [lyon.194@osu.edu](mailto:lyon.194@osu.edu) and mail in payment. Make checks payable to OSU Extension. For questions regarding this event, contact Erika Lyon, OSU Extension at 740-264-2212 ext. 203.



# SUSTAINABLE LIVING FIELD DAY

Learn about sustainable gardening, beekeeping, solar energy, and more!

Saturday,  
August 26<sup>th</sup>, 2017  
9 AM – 2 PM

## LOCATION

Bob & Mary Hooker Home  
86724 Keyser Road  
Cadiz, OH

**PRE-REGISTRATION IS REQUIRED, AND SPACE IS LIMITED.** Cost of the program is \$5 per person, and lunch will be provided. Registration deadline is Friday, August 18<sup>th</sup>, 2017. You may call to pre-register at 740-264-2212 or send an email to [lyon.194@osu.edu](mailto:lyon.194@osu.edu) and mail in payment. Make checks payable to OSU Extension. Jefferson or Harrison County Farm Bureau members qualify for a \$5 rebate—provide your Farm Bureau member ID at registration. For questions regarding this event, contact Erika Lyon, OSU Extension at 740-264-2212 ext. 203.



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THE OHIO STATE UNIVERSITY  
COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

## Vegetable Production Field Walk

### Talk with the Specialists

PhD Celeste Welty-Specialist Entomology  
PhD Matt Kleinhenz-Specialist Hort & Crop Science  
PhD Doug Doohan-Specialist Hort & Crop Science  
PhD Sally Miller-Specialist Plant Pathology  
James Jasinski- Integrated Pest Management Coordinator  
Brad Bergefurd- County Educator & Vegetable Specialist

Tuesday, July 25, 2017  
2:00 – 5:00 p.m.

Meet at the Captina Produce Auction  
39050 West Captina Highway (St. Rt. 148)  
Barnesville, OH 43713

Topics for discussion: Insect ID & control options,  
Weed ID & control options, Growing season extension,  
Grafted vegetable plants, Disease ID & control options,  
and Integrated Pest Management

**For more information, contact  
the Monroe County or Belmont  
County Extension office.**

**740-472-0810 or 740-965-1455**

# LAST CALL: Fertilizer Certification

Fertilizer certification is required if you apply fertilizer (other than manure) to more than 50 acres of agricultural production grown primarily for sale. If you have the co-op or other custom applicator make your fertilizer applications, you do not need the certification.

**Deadline to get certified is September 30th, 2017.**



TUESDAY

August 22<sup>nd</sup>, 2017

REGISTRATION 5:30PM  
PROGRAM 6:00-9:00PM

**PRE-REGISTRATION.** There is no cost for this program, however pre-registration is required due to limited space. Registration deadline is Friday, August 18<sup>th</sup>, 2017. You may call to pre-register at 740-264-2212. Send questions to Erika Lyon, OSU Extension Jefferson County, 587 Bantam Ridge

## Commercial Building, Harrison County Fairgrounds

550 Grant St, Cadiz, OH 43907



Ohio State University Extension Jefferson County greatly appreciates the support of the Jefferson County Commissioners: Dr. Thomas Graham, Dave Maple, Jr., and Thomas Gentile.

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Roger Rennekamp, Associate Vice President for Agricultural Administration; Associate Dean, College of Food, Agricultural, and Environmental Sciences; Director, Ohio State University Extension; and Gist Chair in Extension Education and Leadership.

**Get your newsletter in color and help us save a tree! Sign up for electronic newsletters by sending an email to [lyon.194@osu.edu](mailto:lyon.194@osu.edu)**

