

Green Thumb Prints

Newsletter of the Hancock County
Master Gardener Volunteers

Gardening is our Passion . . . Education is our Purpose

May 2018

Table of Contents

<i>Coordinator's Corner</i>	<i>pg. 1</i>
<i>Hancock County Master Gardeners Meeting Minutes</i>	<i>pg. 2</i>
<i>Calendar of Events</i>	<i>pg. 3</i>
<i>Tips for Reseeding Lawn</i>	<i>pg. 8</i>
<i>Grub Control</i>	<i>pg. 9</i>
<i>Weeping Willow Loosing Leaves</i>	<i>pg. 16</i>
<i>Ants</i>	<i>pg. 17</i>
<i>White Pine Weevil</i>	<i>pg. 19</i>
<i>It's Time to ...</i>	<i>pg. 20</i>
<i>Lone Star Tick Causes Meat Allergy</i>	<i>pg. 21</i>

Coordinator's Corner

This is the season we have been waiting for! The weather has finally begun to warm up and the seeds and plants are anxious for us to give them a new place to live. There is something very invigorating about the beginning of a new growing season and hopefully each of you will find this to be one of your best. John and Linda Leiendecker will soon be needing our help in getting the Community Garden ready for planting. Please consider helping with this project as there is a lot to do now and throughout the season. We will be competing in the Grow Ohio project again this year. Remember that the Hancock County Master Gardeners won first place in our division the last two years by supplying more produce to the needy than the other groups did. Noreen Walters, Rose Morrison, Vaun Wickerham, Lisa Yates, and I are taking turns recording the pollinators in the garden each week for the OSU Bee Lab research project. We are still recording the first bloom and

ending bloom for each of the plants in the Phenology Garden. We added 10 new plants to the garden last year. There are more plants being made available for the garden this year. Our process for recording the pollinators is new this year as we will be working with the national Sunflower Project to include our data with that from many other states. This data will be helpful in following the health of pollinators across the country. Let me know if you want to help with this project.

Thanks to Doris Salis for her nice article on trees in the Courier in April. Marilynn Beltz will have our next article on May 19. If you would like to have your own article in the paper, please talk to Laurie Pressel or me. Judi Clymer has worked hard to organize our “Let’s Go Gardening” event this year on May 12. This is a great time to represent the MGVs to the community and to help garden shoppers with their plant purchases. Be sure to contact Judi if you want to take part in this event.

At our May 10 meeting we will have our annual plant exchange at my home at 11016 Township Road 125, Findlay, OH. Bring some of your own plant divisions or starts to share with others. We will be having Dietsch’s ice cream and cake for refreshments. Let’s plan on meeting at 6:00 PM.

Our hard freezes are probably done for the spring but we may still get some light ones until mid-May. Remind people to wait until the 3rd week of May to plant tender annuals or to be prepared to cover them when the night temperatures may drop below freezing.

Hopefully, each of you are keeping a log of the number of questions you are being asked by your contacts. This helps us to measure our value to the community. Remember to use information from Fact Sheets and research-based sources in providing your answers.

Bill

HANCOCK COUNTY MASTER GARDENER VOLUNTEERS

MEETING MINUTES

April 2018

Because of the Recognition Dinner, there was no business meeting in April. Here is a list of our members who received recognition.

Active Member Special Recognition

“In appreciation of your outstanding service to the Hancock County Master Gardener Volunteer program in 2017. Your leadership and service has contributed significantly to the promotion of our mission to the community. You have served as a role model for all that is good and beneficial as a Master Gardener Volunteer.”

Rose Morrison	Karla Dennis	Linda Laux
Noreen Walters	Lynn Farwig	Linda Leiendecker
Linda Casey	Randy Greeno	John Leiendecker
Barbara Phillips	Doris Salis	Lisa Yates
Judi Clymer	Barbara Sherman	

Recognition for Hours Contributed in 2017:

“In appreciation of your contribution of over 100 hours of volunteer service to the Hancock County Master Gardener Program in 2017. Your service has contributed significantly to our mission of providing horticultural education to the citizens of Hancock County.”

Marilynn Beltz (232)	Linda Leiendecker (169)
Linda Casey (104)	Cheryl Miller (119)
Karl Farwig (225)	Barbara Phillips (104)
Lynn Farwig (154)	Noreen Walters (124)
Bill Jones (243)	Judi Clymer (125)
John Leiendecker (158)	

Recognition of Lifetime Hours Contributed:

“In recognition and appreciation of your _____ hours of service to the Master Gardener Volunteers of Hancock County, Ohio as of December 31, 2017. You have served as a role model for all that is good and beneficial as a Master Gardener Volunteer.”

500 Hours: Richard Deerhake, Lynn Farwig, Cheryl Miller

1000 Hours: Noreen Walters

2000 Hours: Marilynn Beltz

4500 Hours: Bill Jones

Calendar of Events

April 2018

DATE	EVENT	TIME	COS T	LOCATION	BRIEF DESCRIPTION	CONTACT
Monday, May 7	Library Presentation by Doris Salis	6:30 PM	N/A	Hancock County Library	Poisonous Plants	Doris Salis
Tuesday, May 8	Phenology Update	9:00 AM	N/A	OARDC, Wooster	Phenology Update	Bill Jones, Rose Morrison
Thursday, May 10	Plant Exchange	6:00 PM	N/A	Bill Jones home	Bring plants to exchange	Bill to provide ice cream Rose M to bring cake
Saturday, May 12	Let's Go Gardening	9-12 & 12-3	N/A	Feasels	Volunteer - answering questions	Judi Clymer
Saturday, May 12	Let's Go Gardening	8-12 & 12-4	N/A	Lowes	Volunteer - answering questions	Judi Clymer
Saturday, May 12	Let's Go Gardening	10-1 & 1-4	N/A	Garden Central	Volunteer - answering questions	Judi Clymer
Saturday, May 12	Let's Go	9-1 & 1-	N/A	Brinkman	Volunteer -	Judi Clymer

	Gardening	5		s	answering questions	
Thursday, May 17	Deeper Dive	10:00 - 3:00	\$12	OSU Extension Medina 120 W. Washington St. Medina	Advanced vegetable garden training. Build skills in the garden	medina.osu.edu
Friday, May 18	Woodland Pollinators	9:00 - 3:00		OSU Mansfield	Pollinator Habitat	614-688-3421 Contact: ohiowoods@osu.edu
Saturday, May 19	Courier Article		N/A	The Courier	Article	Marilynn Beltz
Wednesday, May 23	Trees on Tap	9:00 - 3:00	\$40	OSU Mansfield 1760 University Drive, Mansfield	The marvel of trees and challenges facing trees	woodlandstewards.osu.edu
Thursday, May 31	Diagnostic Workshop			Morgan County		Bill Jones
Thursday, June 14	Brown Bag Presentation	6:00 PM	N/A	OSUE Office	When to pick veggies	Barb Phillips / Cassie Anderson
Thursday, June 14	Refreshments for MGV Meeting		N/A	OSUE Office	Peggy Biolchini, Cheryl Miller, Marilynn Beltz will provide refreshments	Peggy, Cheryl, Marilynn
Thursday, June 14	MGV Monthly Meeting	7:00 PM	N/A	OSUE Office	Monthly Meeting	Bill Jones / Marilynn Beltz
Saturday, June 23	Courier		N/A	The Dwarf	Dwarf	Betsy Defrancesco

	Article			Courier	Conifers	
Monday, July 9	Diagnostic Workshop			Miami County		Bill Jones
Thursday, July 12	MGV Picnic	6:00 AM	N/A	Lyn Maa/Dick Deerhake	Annual Picnic	Lyn Maa/Dick Deerhake
Wednesday, July 18	Diagnostic Workshop			Portage County		Bill Jones
Friday, July 20	Diagnostic Workshop			Putman County		Bill Jones
Saturday, July 21	Courier Article		N/A	The Courier	TBD	Linda Casey
Thursday, August 9	Brown Bag is 6 month review	6:00 PM	N/A	OSUE Office	Review	Everyone
Thursday, August 9	Refreshments for MGV Meeting		N/A	OSUE Office	Ann Woolum & the Leindecker s will provide refreshments	Ann, John, Linda
Thursday, August 9	MGV Monthly Meeting	7:00 PM	N/A	OSUE Office	Monthly Meeting	Bill Jones / Marilynn Beltz
Saturday, August 25	Courier Article		N/A	The Courier	Article	Ann Woolum
Sept.	No MGV Meeting				No meeting due to fair	
Tuesday, Sept. 4	Greater Bluffton Garden Club	6:00 PM?	N/A	Bluffton	Fall Garden Cleanup or Pruning	Marty Davis

Monday, Sept. 17	Library Presentation by Tim Brugeman	6:30 PM	N/A	Hancock County Library	To Be Determined	Tim Brugeman
Saturday, Sept. 22	Courier Article		N/A	The Courier	Article	Cheryl Miller
Sept. 28 - 29	2018 State MGVC Conference	Fri & Sat		Hamilton County Cincinnati	Rooted in Ohio various topics	go.osu.edu/2018StateMGVCConference
Tuesday, Oct. 2	Greater Bluffton Garden Club	6:00 PM?	N/A	Bluffton	Fall Bulbs & Seasonal Color	Tim Brugeman
Thursday, Oct. 11	Brown Bag Presentation	6:00 PM	N/A	OSUE Office	Results of 2018 Phenology Garden	Bill Jones & Rose Morrison
Thursday, Oct. 11	Refreshments for MGVC Meeting		N/A	OSUE Office	Barb Phillips, Barb Sherman, & Linda Laux will provide refreshments	Barb, Barb, Linda
Thurs, Oct. 11	MGV Monthly Meeting	7:00 PM	N/A	OSUE Office	Monthly Meeting	Bill Jones / Marilynn Beltz
Saturday, Oct. 20	Courier Article		N/A	The Courier	TBD	Laurie Pressel
Monday, Oct. 22	Library Presentation by Pat Flinn	6:30 PM	N/A	Hancock County Library	To Be Determined	Pat Flinn
Thursday, Nov. 8	Brown Bag Presentation	6:00 PM	N/A	OSUE Office	Flora of New Zealand	Doris Salis

Thursday, Nov. 8	Refreshments for MG Meeting		N/A	OSUE Office	Karla Dennis & Lauri Pressel will provide refreshments	Karla, Lauri
Thursday, Nov. 8	MGV Monthly Meeting	7:00 PM	N/A	OSUE Office	Monthly Meeting	Bill Jones / Marilyn Beltz
Wednesday, Nov. 14	Fostoria Garden Club	Noon	N/A	Kaubisch Library, Fostoria	Fall & Spring Seasonal Color	Tim Brugeman
Saturday, Nov. 24	Courier Article		N/A	The Courier	Article	Writer Needed!
Sunday, Nov. 25	Wreath Class	2:00 - 4:00		Hancock County Library	Wreath making class	Marilynn Beltz
Monday, Nov. 26	Wreath Class	6:30 AM		Hancock County Library	Wreath making class	Marilynn Beltz
Tuesday, Nov. 27	Wreath Class	6:30 AM		Hancock County Library	Wreath making class	Marilynn Beltz
Wednesday, Nov. 28	Wreath Class	6:30 AM		Hancock County Library	Wreath making class	Marilynn Beltz
Sunday, Dec. 2	Wreath Class	2:00- 4:00		Hancock County Library	Wreath making class	Marilynn Beltz
Thursday, Dec. 6	Wreath Class	6:30 PM		Upper Church	Wreath making class	Marilynn Beltz
Thursday, Dec. 13	Christmas Potluck	6:00 PM	Bring a		MGV Christmas	Barb Sherman, Marge Miller, Marilyn Beltz

			dish		Party	
Saturday, Dec. 22	Courier Article		N/A	The Courier	Article	Writer Needed!
#####	Fostoria Garden Club (Carol Kinn)	Noon lunch	N/A	Kaubisch Library, Fostoria	Spring Garden Makeovers	Need Volunteer Contact Tim Brugeman

Tips for reseeding lawns in spring

Spots of your lawn may need reseeding this spring.

Posted on **April 20, 2018** by [Kevin Frank](#), Michigan State University Extension, Department of Plant, Soil and Microbial Sciences



Turfgrass damaged from de-icing salts used during winter may need reseeding. Photo credit: Kevin Frank, MSU

Maybe spots of your lawn died last summer; maybe spots were killed from de-icing salt, dog spot or snow mold over the winter. Regardless of the cause of death, as spring finally arrives seeding dead areas in lawns is a common weekend activity.

In the next several weeks as temperatures warm, there might be some areas that are the victim of grub feeding. If you're reseeding following grub damage, [Michigan State University Extension](#) recommends waiting about one to two weeks after applying a grub insecticide before

reseeding. For all reseeding, it is safe to apply fertilizer at the time of seeding. For new establishment, a starter fertilizer is recommended. Starter is a fertilizer that has a nitrogen to phosphorus ratio of 1:1 or 1:1.5. A starter fertilizer application at seeding will prove beneficial in getting the young turf seedlings going. Application rates for a starter fertilizer at seeding are approximately 1 pound nitrogen per 1,000 square feet. Starter fertilizer for new establishment is permitted under Michigan's fertilizer act. Make sure to follow label directions, contain all fertilizer on the area to be seeded and off the driveway, and keep a minimum of 15 feet from any surface water.

Make sure to keep the seeded area moist throughout establishment. Depending on what Mother Nature supplies, a new seeding may require watering several times a day. A good mulch cover will help the area stay moist so the site may be watered less frequently. Water lightly when irrigating; there is no need to see water standing or running off the site.

Avoid applying herbicides this spring, i.e., no fertilizer plus crabgrass preventer or weed-and-feed products. Young seedlings don't tolerate herbicides very well and the guideline is usually to wait three "real" mowings before applying any herbicides or in some cases at least 60 days. Real mowings mean you're actually cutting grass, not just running over the area to trim down any weeds.

Dr. Frank's work is funded in part by [MSU's AgBioResearch](#).

This article was published by [Michigan State University Extension](#). For more information, visit <http://www.msue.msu.edu>. To have a digest of information delivered straight to your email inbox, visit <http://www.msue.msu.edu/newsletters>. To contact an expert in your area, visit <http://expert.msue.msu.edu>, or call 888-MSUE4MI (888-678-3464).

How to choose and when to apply grub control products for your lawn



Not all the grub control products on store shelves will be effective this spring. Here's how to choose and use the right one for your lawn.

Terry Davis, Erica Hotchkiss and Dave Smitley, Michigan State University Extension, Department of Entomology

Damage to turfgrass caused by grubs. All photos by Kevin Frank, MSU.

Lawns started turning green about a week and a half ago and when it does finally warm up, mowing and spring maintenance will commence. As the turf begins to grow, some people will find patches in their lawn where the turf is thin or stunted. The most common causes of a thin lawn with some bare patches are drought stress from the previous summer or a lack of fertilizer. However, sometimes patches of thin or dead turf **may** be due to grubs. One indicator of grubs in your lawn is when a flock of birds, especially starlings, are observed feeding around the dead patches.

Be sure the problem is grubs.

Before doing anything, it is important to make sure the problem is grubs. In the last 10 years, the amount of European chafer damage to home lawns in Southern Michigan has steadily decreased to the point where it is unusual now to find populations high enough to damage turf. However, as European chafers and Japanese beetles have spread northward, lawns and other low maintenance turf areas in much of the Lower Peninsula north of Lansing and in the eastern half of the Upper Peninsula are seeing more damage. The outbreak phase where turf damage is common may last five to 10 years.

If you see a dead patch, use a shovel to dig up a few Frisbee-size samples of turf around the bare spot to a depth of 2 inches and look for 0.75-inch long, C-shaped white grubs. These are most likely the larvae of European chafers if they are found in lawns without an irrigation system. European chafers can devastate a lawn with little warning because the adult beetles fly at dusk when they emerge in June and early July, and can easily be overlooked because their evening flight to mate and lay eggs occurs after sunset. European chafers are generally found in drier turf and their population levels will fluctuate depending upon how wet or dry the weather was the previous summer.

European chafer grubs may be found in all locations in Michigan's Lower Peninsula and in much of the Upper Peninsula. Regionally, European chafers are a much bigger problem than they used to be. In 2002, they were only found in New York, Pennsylvania, Massachusetts, Delaware, New Jersey, Connecticut, New Hampshire, Vermont, Maryland, Southern Michigan, and eastern Ohio. Now it has spread throughout Ohio, Michigan (all of the Lower and half of the Upper Peninsula), northern Indiana and into eastern Illinois. It was also reported in Wisconsin in 2013. In Canada, it is a problem in Ontario and Vancouver, so Washington State is on the lookout for it also.

Japanese beetle grubs also feed on turf roots in home lawns, but they are not usually as much of a problem on home lawns as European chafers can be. Japanese beetles and European chafers lay most of their eggs in July, but Japanese beetles continue laying eggs into August. Japanese beetles

like to lay their eggs on irrigated turf like golf courses, athletic fields and highly maintained lawns. They can be abundant in non-irrigated home lawns if we receive frequent rain in July, but are scarce in lawns that are very dry in July and early August. We don't seem to be getting as many calls about lawns damaged by Japanese beetle grubs in the southern half of the Lower Peninsula, south of Lansing, but we are getting more calls from the northern Lower Peninsula as Japanese beetles continue to spread northward. Wisconsin, Minnesota and Iowa have now joined the club of Midwest states with lots of Japanese beetles, and they have been found in isolated locations as far west as Colorado.



Grubs found in turfgrass.

The eggs of both species hatch about 10 days after they are laid. The grubs feed from the beginning of August until late October. By the end of October, they are fully grown. The larvae of both species look almost identical. They spend the winter as large grubs (0.75 inches long) some 2-6 inches below the soil surface. When the ground warms up in spring, they resume feeding and can cause damage from the time the grass turns green until they pupate in mid-May. Grub damage may appear in home lawns from mid-September to November or from March to early May. However, for low-maintenance lawns, even if the turf is not killed from grub feeding, the thinned and weakened turf may be prone to weeds and drought stress.

Healthy turf with a few grubs may not need an insecticide.

It is important to realize that healthy turf, supported by frequent rain or irrigation, can support a grub population of five or more grubs per square foot with no visible turf damage. A [lawn should be mowed at 3.5 to 4 inches](#) in height and properly fertilized for maximum root growth. However, if the grub population is high or if there is a history of damage in an area, it may be necessary to consider using an insecticide for grub control. Finding one or two grubs does not indicate you need to apply a grub control product.

Check for the active ingredient in a grub product. I went to several of the local lawn and garden

centers in the Lansing, Michigan, area to see what kinds of products are available that specifically claim they will work to control grubs. I found five to nine different products at each store. The profusion of different products can be rather mystifying. The critical issue with any grub control product is the active ingredient. There are many products available, some with the same active ingredients. The active ingredients are usually shown on the bottom right or left of the front of the bag and listed as a percent of composition.

Water the lawn immediately after applying the insecticide. The second major concern is to make sure the insecticide is thoroughly watered into the ground with at least a half-inch of irrigation or rain immediately after the chemical is applied. Research tests over the last 25 years have clearly shown that watering immediately after application helps to obtain good results. This also moves the chemical off the grass and will make the yard safe for children, pets and wildlife after the yard is dry.

Use the right rate/amount of product. A third concern is the rate at which the insecticide is applied. The label lists the legal rate at which the product can be used. There is little benefit to exceeding this rate, and doing so is also illegal. There are also products for sale that list grubs on the label that do **NOT** work for grubs. Insecticides used for grubs can be separated into two groups based on how they work: preventive chemicals and curative chemicals.

1) PREVENTIVE insecticides that will prevent grub damage next fall (2018) and following spring (2019)

These products are used to prevent future grub problems, not to control the grubs present in the lawn in the spring. They will not work on grubs found in the lawn from the middle of October through the middle of May. However, when applied in June or July they provide excellent protection against the next generation of grubs. So, if you need to apply the preventive insecticide **BEFORE** the grubs are there, how do you know if you need to use an insecticide or not? If you confirmed grub damage the previous fall or spring, meaning you found lots of grubs, then you may want to use a preventive insecticide for one or two years to build a more dense turf that will be tolerant of grubs. If you have treated for several years and you do not see evidence of grubs in your lawn or in the neighbor's lawn, it may be time to stop treating. There is an erroneous philosophy being perpetuated that because we have European chafer and Japanese beetles in the area, it is necessary to treat every year or your lawn will be damaged by grubs. **This is not true.**

Preventive products are the most effective. Products containing imidacloprid, thiamethoxam, clothianidin or chlorantraniliprole **will not control grubs in the spring.** They are preventive products that work very well on newly hatched grubs present in July, but do not work well for large grubs found from September to May. There are different recommended timings for application depending on the active ingredient. Although the bag often says apply anytime from May to Aug. 15, it is highly recommended that products containing imidacloprid, thiamethoxam, clothianidin be applied and irrigated into the soil in June or July. If applied in early spring, the pesticide may move through the soil or partially degrade by the time the grubs hatch in late July. If applied too late, preventative products may not be effective as they work best on small grubs.

Preventive products containing imidacloprid, thiamethoxam or clothianidin will consistently reduce 75-100 percent of the grubs if they are applied in June or July and if they are watered-in with 0.5-1 inch of irrigation immediately after application. Lawn sprinklers can be used if you do not have an irrigation system. Measure how much water you have applied by placing several coffee cups on the lawn and running the sprinklers until they fill a half to 1 inch deep with water.

There is another active ingredient in some insecticides called chlorantraniliprole that will also work in preventing grub problems, but it is less water soluble than the other preventive compounds mentioned above, so it can be applied any time after the grass turns green in the spring.

Chlorantraniliprole can be applied as early as April and up to mid-July. This chemical consistently reduced grub numbers by about 65 percent and research has shown that applications made before June are more efficacious than June or July application.

Some of these products come in a granular formulation that is applied with a fertilizer spreader or some products are designed to be mixed with water and sprayed. Also, in the last two years several products have become available in an attach-to-hose bottle and are automatically mixed with water when applied.

Protecting bees and other pollinators. If you are applying a product containing clothianidin, thiamethoxam or imidacloprid, the lawn should be mowed prior to the application so that no weeds are flowering in the lawn when the insecticide is applied. These active ingredients can be toxic to bees if the bees visit flowers that were recently sprayed. Mowing prior to making the application will avoid this problem by removing the flowers. Weeds that flower again after mowing will not have the chemical directly on the flowers and are much safer for the bees. If there is nothing flowering in the lawn, there is nothing in it that would attract bees. In addition, grub control products that contain the active ingredient chlorantraniliprole are safe for bees, even when weed flowers are sprayed. Finally, avoid spray drift or granular spreader drift to flower beds when applying thiamethoxam, imidacloprid, clothianidin or any insecticide for grubs other than chlorantraniliprole

2) CURATIVE insecticides

There are two chemicals, carbaryl and trichlorfon, that are considered curative treatments. They are short-lived compounds that kill all life stages of grubs. These two insecticides are the only options if high numbers of grubs are found in the fall and in spring before early May. Our research indicates they will kill 20-80 percent of grubs when applied in September or 20-55 percent when applied in late October. They are not as effective as the preventive compounds in reducing grub numbers.

Consider carefully whether it would be best to wait and apply a preventive later. If the need should arise to use a curative compound, make sure to keep the infested lawn watered and fertilized and treat the area again with a preventive application the next summer or the problem will likely reoccur in the fall or the following spring. Current research also shows that watering with 0.5 inches of irrigation immediately after the application is essential to get effective results from these insecticides.

Our research has indicated that carbaryl has been a little more effective on European chafer grubs than trichlorfon. Both compounds work equally well on Japanese beetle grubs. It will take 10-14 days for the grubs to begin dying after the insecticide is applied. One trichlorfon product has “24 Hour Grub Control” in its name and would seem to indicate that it will kill grubs in 24 hours. However, even trichlorfon should not be evaluated for at least five days after application (assuming it rains or irrigation was applied), and carbaryl may need three to four weeks to be effective. Do not apply any curative compounds in the spring after May 15 as grubs stop feeding in late May as they prepare to pupate. As with the preventive products, lawns should be mowed immediately before applying carbaryl or trichlorfon to protect bees.

3) Insecticides that DO NOT work on grubs

Do not use products containing **ONLY** lambda-cyhalothrin, gamma-cyhalothrin, bifenthrin, deltamethrin, cyfluthrin or permethrin for grub control. ***Products containing only these ingredients will not work for grub control*** because the active ingredient binds with organic material and will not move down to where the grubs are feeding. These products work well for above-ground feeding insects that live on the grass leaves or soil surface, but not for insects that feed on the roots. At one garden center a clerk showed us two products, one containing only permethrin and one containing only bifenthrin, when we asked for products to control grubs. Neither of the products listed grubs on the label printed on the bag and neither of the products would have controlled grubs.

There are several products on the market that contain a combination of one of the preventive compounds and one of the above listed insecticides that “do not work on grubs.” The preventive ingredient will make it an effective choice for grub control.

There is a widely sold trade name called Triazicide from Spectrum that lists grubs on the label and states it will control insects above or below ground and has a picture of a grub on the front of the bag. It contains only lambda-cyhalothrin or gamma-cyhalothrin. Triazicide will not control grubs. Carefully check the label for ingredients. There was a product available in years past from Spectrum that contained imidacloprid, but I did not see any in my visits the last two years (2016 and 2017).



A summary for successful grub control

- Check the bag or bottle to determine what active ingredient the product contains.
- Do not use products containing ONLY lambda-cyhalothrin, gamma-cyhalothrin, bifenthrin, deltamethrin, cyfluthrin or permethrin for any phase of grub control.
- Do not use preventive compounds such as clothianidin, thiamethoxam or imidacloprid now. Use them in June or July to control grubs that would be damaging turf in the fall. Applying them now will allow some of the chemical to leach through the turf or break down to the point that not enough insecticide will be there in July to control grubs.
- The preventive compound chlorantraniliprole should ideally be applied in April or May to control grubs that would be damaging turf in the fall as it will take longer for the material to move to where the grubs will be feeding in July.
- To kill grubs in the spring or fall, use carbaryl or trichlorfon.
- Always wear rubber gloves and rubber boots when applying insecticides to turfgrass.
- Make sure to irrigate the lawn with at least 0.5 inches of water* and allow the grass to dry before allowing anyone or pets into the treated area. Irrigation is essential for the chemical to be most effective.
- Store insecticide products in a locked cabinet not accessible to children.
- Proper fertilization is important to prevent and allow the lawn to recover from grub damage.
- Mow lawns immediately before applying an insecticide for grubs to remove weed flowers and protect bees.
-

Make a regular practice of mowing your yard with the mower on the highest setting (3.5-4 inches).

***What is 0.5 inches of irrigation?** A half-inch of irrigation is when lawn sprinklers are run until a container like a coffee mug, or several mugs, fills to a level 0.5 inches up from the bottom of the cup.

Available products

Below is a short list of products now being sold for grub control as of April 12, 2016, in stores checked in the Mid-Michigan area. An online search indicates there are other products that will be available at other stores. Check the active ingredients.

Available preventive products

- Scotts Grub-Ex - Granular
chlorantraniliprole 0.08%
Apply between April 1 and May 30 (no later than July 15) for best results.
- Bayer Advanced Season-Long Grub Control and Turf Revitalizer - Granular
imidacloprid 0.25% and a low fertilizer rate (6-0-1)
Apply between June 1 and July 15 for best results.
- (local distributors name) Premium Grub Control (Do not confuse with "Premium Insect Control")
imidacloprid 0.2% - Granular
Apply between June 1 and July 15 for best results.

- Bayer Advanced Complete Insect Killer Liquid attach-to-hose-bottle
cyfluthrin 0.36% and imidacloprid 0.72%

Apply between June 1 and July 15 for best results.

- Bayer Advanced Complete Insect Killer Granules - Granular
cyfluthrin 0.05% and imidacloprid 0.15%

Apply between June 1 and July 15 for best results.

- **Available curative products**

- Sevin Lawn Insect Granules - Granular
carbaryl 2.0%

Apply in spring or fall to active grubs.

- Bayer Advanced 24 hr Grub Killer Plus - Granular
trichlorfon 9.3%

Apply in spring or fall to active grubs.

- **Products that will NOT kill grubs**

- Spectracide Triazicide Insect Killer for Lawns - Granular
gamma-cyhalothrin 0.05%

This product will not kill grubs at any rate. This product was tested by MSU for grub control in 2006 and gave identical results as the untreated plots.

- This material is based upon work supported by the USDA and the National Institute of Food and Agriculture award number(s) 2014-70006-22498.

This article was published by [Michigan State University Extension](#)

Weeping Willow tree losing leaves, will it die?



The Weeping willow is 6 years old and 9" diameter; planted in wet, clay ground and has been thriving. Suddenly, late last summer the owner noticed the leaves were dead and the bark on the trunk was completely loose and falling off. No other trees or shrubs within 50 feet (black walnut, sycamore, maple, Rose of Sharon) were affected. There are no obvious sign of insects, boring, trails, worms, etc.

When a tree starts to lose leaves, especially in the spring when they should be expanding for the new growing season it can be puzzling. Often, this is a sign of troubles which can be caused by biotic or abiotic issues, but not always a major cause for alarm. The dropping leaves can be a symptom of foliar diseases which weakens the tree or it could be the results of an insect pest feeding on the petioles of the leaves. There are many pests which can cause leaf drop.

Another possible cause is the response to abiotic disorders which is typically a complex of issues. Leaf drop can occur on trees that have been exposed to prolonged wetness in heavy, clay soils. Some tree species like wet soils, but not prolonged wetness without drainage. If trees are exposed to continual wetness their roots can become diseased and cause the leaf drop. Additionally, it has been noted that trees which were planted improperly, especially if planted too deep, can result in several physiological issues such as decline and dieback.

If trees reveal symptoms of premature fall color, yellowing of leaves or unusual leaf drop it may be necessary to send in a sample for diagnosis.

Resources

[Hardwood Tree Improvement and Regeneration Center](#) - Paula Pijut, Research Plant Physiologist, Purdue University

[Relationships between advance oak regeneration and biotic and abiotic factors](#) - Songlin Fei, Associate Professor of Measurements and Quantitative Analysis, Purdue University

[Diseases of Landscape Plants: Leaf Diseases](#) - The Education Store, Purdue Extension resource center

[Got Nature?](#) - Purdue University

[Lindsey Purcell](#), Urban Forestry Specialist

Department of Forestry and Natural Resources, Purdue University

Ants

Ants are very common and valuable insects throughout the world. Their tunneling helps aerate soils and many species feed on insects that may become pests. However, ants can also become a problem in the home. Most ants build nests in soil. Those that invade buildings usually nest near foundation walls or under concrete slabs. One species—the carpenter ant— builds its nest in hollow trees, stumps, and sometimes in the timbers of buildings.

DISTINGUISHING ANTS FROM TERMITES

Sometime during the year, all ant colonies produce winged individuals, which homeowners often mistake for termites. Here is how to tell them apart:

An ant has a narrow “waist” like a wasp, while a termite has a straighter body and no waist. Ants have four wings of unequal length (front pair longer than the hind pair) that are clear like those of a house fly. Termites also have four wings, twice as long as the body, milk-colored, and of equal length. Ants swarm during the spring, summer, or fall, but termites usually swarm only in the spring.

PREVENTION AND CONTROL IN BUILDINGS

The best way to prevent ants from invading a house is to locate and destroy their nest. Look in the soil around the building’s foundation; control as you would for ants in the lawn (see directions at the end of this guide).

However, if ants still get into the house, apply insecticides where the ants gain entry or hide—at foundation walls, doorways, windowsills, baseboards, behind built-in cabinets and furniture, beneath refrigerators, and other heavy appliances. A number of effective, ready-to-use household sprays are available as spot treatments for ant control. Look for household sprays labelled for “crawling insects” or “roach and ant” control. Ant baits are also available, but you may have to try more than one bait to find one that is effective for your ant problem, and they may require 10 days or more to produce the desired effects.

Houses built on concrete slabs often have serious ant problems. The insects nest under the slabs and enter through cracks, heating ducts, and utility openings. Professional pest control may be needed in this situation, and for carpenter ants.

Carpenter Ants: These are large, black ants, either winged or wingless, measuring up to 1/2 inch long. They construct their nests in hollow trees, logs, telephone poles, posts, porch pillars, and other timber used in homes. Their trademark is a small pile of coarse sawdust beneath their nesting site. These nests usually are found in wood with a “higher than normal” moisture condition. Carpenter ants differ from termites because they do not consume wood, but simply hollow it out to form nests. While usually not as serious as termites, they can weaken building structures. The secret to control is direct treatment of the nests. Look for the piles of sawdust to locate the entries, then treat the “galleries” by injecting spray or dust.

To prevent carpenter ant invasion, spray foundation walls and adjacent soil with a formulation labeled for this use. Exclude ants by sealing cracks and openings on the exterior of buildings, and by keeping overhanging branches trimmed away from the roof line.

CAUTION: All insecticides are potentially hazardous. Therefore, do not apply on or near food or on surfaces where food comes into direct contact. Wipe-up any excess spray. Be sure to read, understand, and follow all label directions.

Ants in the Lawn

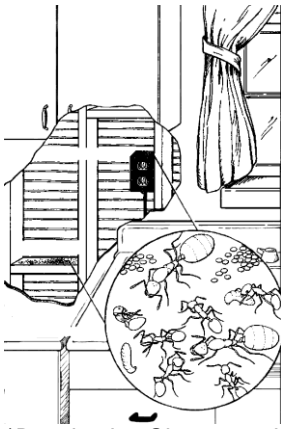
Recent research indicates that ants serve a valuable role in turfgrass. Many potential insect pests, including grubs and cutworms, are controlled by natural ant populations. Because of this, it is rarely advisable to treat lawns for ants. Where ant mounds occur, however, they can be unsightly and may interfere with mowing. To destroy mound-building ants, lightly soak the mounds with a labeled liquid insecticide. A number of insecticides are available for this use, including emulsifiable concentrates, sprayable powders and granules. Use only formulations labeled for ant control in lawns, and follow label directions. If a hose-attached sprayer is used, agitation must be maintained while spraying. Water and roll or hand rake the mounds to ground level after treatment.



Photo of a single carpenter ant. (Photo courtesy: John Obermeyer)



While ants are typically found foraging in kitchens or other areas where open water (moisture) and food sources are available, their nests may or may not be close to these resources.



(Drawing by: Shuster and Provonsha)

Gary W. Bennett and Timothy J. Gibb, *Extension Entomologists*

Control white pine weevil in early spring

If you need to control white pine weevil, your best opportunity is early in spring.

Dave Smitley, Michigan State University, Department of Entomology



White pine weevil adults. Photo by Dan Herms.

White pine weevil larvae kill the terminal leader and the top two to four years of growth on many varieties of spruce, as well as white and Scots pine trees. Damage from white pine weevil can be distinguished from other types of injury by the somewhat curled shape of the leader, sometimes referred to as a “shepherd’s crook” (see photo). The curling effect is caused by more weevil larvae feeding on one side of the leader. If you had weevil damage last year and need to control the weevils, do it early this spring.

The adult weevils overwinter on the ground, protected and insulated by the litter (fallen needles). Once they warm up, the weevils move up to the tops of the trees in late afternoon or early evening and feed on the terminal leader. Each time a female weevil makes a feeding wound on the terminal, she lays one to four eggs in the wound. Those eggs will hatch within a few weeks and the larvae

chew their way through the bark. They will feed in the phloem under the bark for several weeks, pupate and then emerge as new adults around mid-summer.

If you need to control white pine weevil, your best opportunity is early in spring. Insecticide should be applied to the terminal leader once it begins to warm up, somewhere around 25 to 65 growing degree-days base 50. This is happening now around Lansing, Michigan, and will probably not happen until the end of April around Cadillac, Michigan.

If you can direct your spray to the leader (uppermost branch pushing upwards), and avoid spraying the rest of the tree, you will conserve beneficial species like predatory mites. It's better to be a bit early than to be late with this application. Use a persistent product because the adult weevils don't all warm up at the same rate. Weevil adults could feed on the terminals for three weeks or perhaps longer.

Damage from white pine weevil can be prevented by spraying the upper trunk and terminals of spruce and pine in early to mid-April and again two weeks later with products that contain bifenthrin, permethrin or cyfluthrin. Apply these products at rates given on the label for bark beetles or borers. An alternative treatment is basal application of imidacloprid (Bayer Tree and Shrub Insect Control) at the rate given for borers. To be most effective, apply applications in October, March or early April to allow time for tree roots to absorb the insecticide and move it up into the tree. A basal soil drench with imidacloprid at this time may be too late to protect against white pine weevil this year.

This article was published by [Michigan State University Extension](#)

IT'S TIME TO.....

HOME (Indoor plants and activities)

- Start seeds of warm-season plants (including tomatoes, peppers, eggplant, marigolds, zinnias, and petunias) indoors for transplanting later to the garden.
- Harden off transplants started earlier in spring before planting outdoors - gradually expose the young plants to outdoor conditions of wind, brighter sunlight, and lower moisture.
- Apply fertilizer to houseplants according to label directions as days grow brighter and longer and new growth begins. Foliage plants require relatively high-nitrogen fertilizer, while blooming plants thrive on formulations that are higher in phosphorus.
- Keep Easter lily in a bright, cool location, out of direct sunlight. Water as soil begins to dry. You can remove the yellow, pollen-bearing anthers inside the flower by pinching to prevent staining the petals.

YARD (Lawns, woody ornamentals and fruits)

- Plant a tree in celebration of Arbor Day. You should plant bare-root stock before new top growth begins. You can plant balled and-burlapped and containerized stock later in spring.
- Complete pruning chores - remove dead and injured branches first.
- Apply a pre-bloom, multipurpose orchard spray to fruit trees.
- Remove winter coverings from roses, but keep mulch nearby to protect them from late freezes. Prune and fertilize as needed.
- Apply pre-emergent herbicide to control crabgrass in lawns. Approximate application dates are late March to mid-April in southern Indiana and mid-April to early May in northern Indiana.

Exact timing varies each year with weather conditions. For more precise application timing based on Growing Degree Days (GDD), visit Michigan State University's [GDD Tracker](#). Enter your zip code and select "Crabgrass Pre." The target GDD window for crabgrass prevention is 250-500.

GARDEN (Flowers, vegetables and small fruits)

- Plant seeds of cool-season crops directly in the garden as soon as the soil dries enough to be worked. When squeezed, soil should crumble instead of forming a ball. Cool-season crops that can be direct-seeded include peas, lettuce, spinach, carrots, beets, turnips, parsnips and Swiss chard.
- Plant transplants of cool-season crops, such as broccoli, cauliflower, cabbage, Brussels sprouts, kohlrabi and onions.
- Plant or transplant asparagus and rhubarb crowns. For best plant establishment, do not harvest until the third year after planting.
- Plant sections of certified, disease-free potato "seed" tubers.
- Allow the foliage of spring-flowering bulbs to remain in place after blooms fade. Leaves manufacture the food reserves, which are then stored in the bulb for a repeat showing next year.
- Plant hardy perennials, such as daylilies and delphiniums.
- Start tuberous begonias and caladiums indoors for transplanting to garden later.
- Remove winter mulch from strawberries, but keep mulch handy in case late frosts are predicted and to help keep weeds under control.
- Plant or transplant strawberries, raspberries, and other small fruit.
- Prune grape vines to remove dead or weakened limbs and to thin as needed.
- Repair support trellises as needed.

Tick that causes meat allergy is spreading

[Susannah Elliott Kistler](#), OSU Wexner Medical Center

October 26, 2017



Warmer winters in recent years mean that tick seasons have been longer, allowing tick populations to multiply and spread in the United States.

That includes the lone star tick – named for the white, star-shaped spot on the backs of females – whose bite could give you not just an infectious disease, but also an allergy to red meat.

“It’s a really mysterious type of delayed allergy to mammalian meats,” says Princess Ogbogu, MD, director of the allergy and immunology program at The Ohio State University Wexner Medical Center.

“It’s a newer allergy to the medical community, but we’re starting to get more patients at Ohio State with this issue.”

When a lone star tick bites a human, it can trigger the immune system to make allergic antibodies against alpha-gal, a carbohydrate found in mammalian meats.

The alpha-gal allergy causes an allergic reaction a couple of hours after eating beef, goat, lamb or pork. Like most food allergies, reactions range from mild to life-threatening.

Though Ogbogu says the allergy is still relatively rare in central Ohio, she and other Ohio State allergists could continue to see more cases as lone star ticks multiply in the Midwest.

Glen Needham, PhD, an associate professor emeritus of entomology at Ohio State University, says the tick’s population is “definitely expanding nationally and in Ohio.”