

Green Thumb Prints

Newsletter of the Hancock County
Master Gardener Volunteers

Gardening is our Passion . . . Education is our Purpose

February 2019

Next Meeting: Thursday, February 14, 2019 6:00 PM

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Coordinator's Corner

Due to Karl's travel to Australia, there is no Coordinator's Corner this month.

Rose's Flower

A letter from our president.

I was thrilled with the January meeting, which was informative and productive. The willingness of all the volunteers to participate was exciting for our organization. Thank you to Bill Jones for continuing to lead the Phenology Garden. Bill's knowledge and experience is invaluable.

Peggy Biolchini volunteered to do the February Brown Bag as the signup sheet from November cannot be found. At the February meeting, we will have a new brown bag signup sheet.

Doris Salis and Judi Clymer volunteered for February's refreshments as the signup sheet from November was also not found. Barb Sherman will have a signup sheet for 2019 refreshments at the February meeting.

With the New Master Gardener Class starting February 6 at 9:00 am, Tim Brugeman presented the Mentor program. I am very excited by his program as I know it will personalize the class for each participant to have an experienced Mentor to help the process. There were 14 new MGVS students at the orientation, which was held on Jan. 16. You will hear from Tim soon to match you with your new student. Thank you to all who volunteered for each class for set-up, take down and refreshments. These sheets will be available at the next meet as well. Thanks to Barb Phillips, Barb Sherman, Karla Dennis, and Betsy DeFrancesco for refreshment Feb. 6 and to Laurie Pressel, Judi Clymer and Betsy DeFrancesco for refreshments Feb. 13.

Our next MGVS meeting is Feb. 14, with Brown Bag at 6:00 pm. At 6:30 we will break into the Administrative, Service, Teaching and Education Committees to discuss 2019! The current division on committees and assignments will be available at the meeting for revision. At 7:00 pm will be the business portion of the meeting by 7:30 be ready to socialize and enjoy the refreshment. Since this is Valentine's Day, let's all wear red, pink or white! Of course, candy brought would not go to waste with our Team!

Thank you for all the support and contributions you each make every day! Go Team MGVS!

HANCOCK COUNTY MASTER GARDENER VOLUNTEERS

MEETING MINUTES

January 2019

Rose Morrison called the meeting to order at 6:00 p.m. with 22 Master Gardeners present.

Volunteer Coordinator Updates: Karl Farwig reviewed the OSU Standards of Behavior sheet which employees and volunteers working in activities and programs with minor participants are required to read and sign each year.

President Updates: Rose asked for a volunteer presenter for our February meeting brown bag presentation. Peg Biolchini volunteered to do a presentation.

Rose mentioned that with her new duties related to MGVP President she would like to step away from her role with the Phenology Garden. She asked Bill Jones if he would assume the leadership role for the garden. He agreed to do so.

Rose reminded everyone to keep track of their volunteer hours and contacts made with the community related to gardening and horticulture.

Secretary's Report: Tim Brugeman requested that the October 11, 2018 meeting minutes be amended to reflect a motion he made at that meeting. The motion was to suspend our bylaws for the 2018 President/Treasurer election to allow for the election of these two positions to be held in November 2018 due to the new Master Gardener class to begin in February 2019. Lynn Farwig and Randy Greeno first and seconded the motion to amend the October 11, 2018 minutes. (Special note: The revised October 11, 2018 minutes were sent to Linda Casey for publication in the February newsletter.)

New Master Gardener Class: Ed Lentz gave an update stating currently there were 15 enrolled with the possibility of 5 additional members. He reminded us that current MGVP's may attend sessions to meet their 2019 volunteer education hour requirement. He handed out a course schedule with the morning sessions running from 9:00 to 12:00. The afternoon session runs from 1:00 to 4:00. The dates are February 6, 13, 20, 27 and March 6, 13, 20, 27. There will be a one-hour lunch break. Ed hopes to have current event sessions over the noon hour. A sample of ideas for the noon sessions might include discussion on GMO's, organic food, Monarch butterfly, and food safety.

Tim Brugeman reviewed the New Member Mentors program. Its purpose is to help the new members become active members. It makes it easier and more fun for new members going through classes and their first-year internship to have a friend, a MENTOR to start growing with our group from day one. Thus, each new member will be matched with a current MGVP member by Feb. 6. It is

hoped that the mentor will stop in to at least one class to meet their match. As the year progresses if you sense your match is having a problem please tell Karl, Ed or Tim. It is hoped the mentor will be at the final class session to congratulate their match on successfully completing the class and formally invite them to the next MGV meeting. During the intern's first year the mentor should help to guide the intern explaining the many MGV activities.

Rose stated that there will be a need for volunteers to help with setup and end of day take down prior to and after each class session. In addition, a sheet was circulated for volunteers to help with refreshments each day.

Speakers Bureau: Tim distributed and collected a sheet for MGV's to fill out listing what they feel are their gardening strengths or interest areas. When calls come in for speakers, he will be contacting individual members related to the topics requested and the interest areas our member listed.

Interesting Tips: Laurie Pressel mentioned we might want to investigate using a software program like "SignUp Genius" for organizing our group activities.

Karl stated that all hours were submitted for 2018.

Rose called for a motion to adjourn the meeting. The motion was first and seconded by Lynn Farwig and Barb Phillips. By a voice vote the motion was passed.

Next Meeting: Thursday, February 14, 2019 with a brown bag presentation at 6:00 p.m.

Respectfully submitted by Cheryl Miller

Calendar of Events

February 2019

DATE	EVENT	TIME	COST	LOCATION	BRIEF DESCRIPTION	CONTACT
Saturday, January 5	Courier Article - draft due		N/A	The Courier	Article in Jan. 19 newspaper	Laurie Pressel
February 1 - 9	Tandada Foundation special volunteer vacation for	9 days	\$1,400 +	Highland Ecuador	Work on various horticultural projects	Denise Johnson johnson.2924@osu.edu 614-292-6089

	OSU Ext MGVs & Friends					
Tuesday, February 5	Courier Article - draft due		N/A	The Courier	Article in February 23 newspaper	Ann Woolum
Wednesday, February 6	First MG V class	9:00 - 4:00		OSUE Office	1st Class for new MGVs	Karl Farwig
Wednesday, February 13	Second MG V class	9:00 - 4:00		OSUE Office	2nd Class for new MGVs	Karl Farwig
Thursday, February 14	Brown Bag Presentation	6:00 PM	N/A	OSUE Office	TBD	Peggy Bilochini
Thursday, February 14	Refreshments for MG V Meeting		N/A	OSUE Office	Provide Refreshments	Doris Salis and Judi Clymer
Thursday, February 14	MG V Monthly Meeting	7:00 PM	N/A	OSUE Office	Monthly Meeting	Rose Morrison
Wednesday, February 20	Third MG V class	9:00 - 4:00		OSUE Office	3rd Class for new MGVs	Karl Farwig
Saturday, February 23	Gardening at your doorstep	10:00 - 2:00	\$45 / \$55	Medina MGVs	Discovering smaller gardens	go.osu.edu/mgvregister 330-725-4911

Wednesday, February 27	Fourth MGVS class	9:00 - 4:00		OSUE Office	4th Class for new MGVs	Karl Farwig
Tuesday, March 5	Courier Article		N/A	The Courier	Article in March 23 newspaper "Beneficial Insects"	Bob Campbell
Wednesday, March 6	Fifth MGVS class	9:00 - 4:00		OSUE Office	5th Class for new MGVs	Karl Farwig
Wednesday, March 6	Ohio Woodland, Water, & Wildlife Conference	8:45 - 3:30	##	Mid Ohio Conference Center Mansfield	Topics on water, bees, trees, wildlife, etc.	ohiowoods@osu.edu 614-688-3421
Wednesday, March 13	Fostoria Garden Club (Carol Kinn/ Judi Clymer)	Noon w/lunch	N/A	Kaubisch Library, Fostoria	Historical Look at MW Ohio Garden & Landscapes	Tim Brugeman tentative pending another speaker
Wednesday, March 13	Sixth MGVS class	9:00 - 4:00		OSUE Office	6th Class for new MGVs	Karl Farwig
Thursday, March 14	Brown Bag Presentation	6:00 PM	N/A	OSUE Office	TBD	Volunteer Needed
Thursday, March 14	Refreshments for MGVS Meeting		N/A	OSUE Office	Provide Refreshments	Volunteers Needed

Thursday, March 14	MGV Monthly Meeting	7:00 PM	N/A	OSUE Office	Monthly Meeting	Rose Morrison
Saturday, March 16	Art of Gardening	8:00 - 3:15	\$50	OSU Lima, 4240 Campus Dr	Edibles, rare plants, weeds & herbs	Mail in Registration
Wednesday, March 20	Seventh MGV class	9:00 - 4:00		OSUE Office	7th Class for new MGVs	Karl Farwig
Wednesday, March 27	Van Buren Lions Club Linda Brinkman (419-299- 3710)	6:00:00 PM w/dinner	N/A	Kathy's Corner, Arcadia	Spring Garden Makeovers (landscaping and/or vegetables)	Tim Brugeman tentative pending another speaker
Wednesday, March 27	Final MGV class	9:00 - 4:00		OSUE Office	Final Class for new MGVs	Karl Farwig
Friday, April 5	Courier Article		N/A	The Courier	Article in April 20 newspaper	Karla Dennis
Thursday, April 11	Brown Bag Presentation	6:00 PM	N/A	OSUE Office	TBD	Volunteer Needed
Thursday, April 11	Refreshments for MGV Meeting		N/A	OSUE Office	Provide Refreshments	Volunteers Needed

Thursday, April 11	MGV Monthly Meeting	7:00 PM	N/A	OSUE Office	Monthly Meeting	Rose Morrison
Thursday, April 25	2019 Garden Centers Bus Tour	Entire Day	\$30	Pick up at Walmart	Visit Wolf's Bloom & Berries, 4 greenhouses, classes, presentations	Clip e-mail coupon or contact by calling 419- 352-3755
Sunday, May 5	Courier Article			The Courier	Article in May 25 newspaper	Doris Salis
Thursday, May 9	Brown Bag Presentation	6:00 PM	N/A	OSUE Office	TBD	Volunteer Needed
Thursday, May 9	Refreshments for MGV Meeting		N/A	OSUE Office	Provide Refreshments	Volunteers Needed
Thursday, May 9	MGV Monthly Meeting	7:00 PM	N/A	OSUE Office	Monthly Meeting	Rose Morrison
Wednesday, June 5	Courier Article			The Courier	Article in June 22 newspaper	Betsy DeFrancesco
Thursday, June 13	Brown Bag Presentation	6:00 PM	N/A	OSUE Office	TBD	Volunteer Needed
Thursday, June 13	Refreshments for MGV Meeting		N/A	OSUE Office	Provide Refreshments	Volunteers Needed

Thursday, June 13	MGV Monthly Meeting	7:00 PM	N/A	OSUE Office	Monthly Meeting	Rose Morrison
Friday, July 5	Courier Article			The Courier	Article in July 27 newspaper	Linda Casey
Monday, August 5	Courier Article			The Courier	Article in August 24 newspaper	Karla Davis
Thursday, September 5	Courier Article			The Courier	Article in September 28 newspaper	Cheryl Miller
Tuesday, September 10	Findlay Garden Club	TBD	TBD		Using Native Plants in the landscape	Tim Brugeman tentative pending another speaker

Ohio State expert warns about effect of rock salt on plants

JAN. 29, 2019



(Photo: Getty Images)

Rock salt and other de-icing agents can be especially useful in tackling the ice and snow during cold, long winters. However, according to a horticulture expert at The Ohio State University, if misused, these chemicals can cause damage to surrounding plants.

Consumers have used de-icing agents for years to remove snow and ice from driveways, sidewalks, and porches. The rock salt lowers the freezing point of the ice by creating a solution of water and salt.

However, this salt has other damaging effects: pitting of concrete sidewalks and driveways, as well as harming plants, shrubs, and grass in surrounding areas, said Pam Bennett, an associate professor in the College of Food, Agricultural, and Environmental Sciences.

“High salt content changes the chemistry of the soil so that plants can’t absorb water and the roots dry out,” said Bennett, who is also the state Master Gardener Volunteer program director for Ohio State University Extension, the college’s outreach arm.

The problem is worse in especially snowy and icy areas or seasons, simply because there is more rock salt being used.

“If you are using salt constantly, you may notice more damage,” Bennett said.

Plants affected can range from turfgrass to white pines. Often however, plants on the roadsides and sidewalks see the most damage, because they are exposed to higher amounts of the salt.

“It is similar to applying too much fertilizer,” she said. “If you spill a large amount of it in one spot, you will see turf burn from the high amounts of salt.”

Luckily, there are ways to de-ice your driveway without damaging the surrounding plants.

“The best thing you can do is switch to a nonsodium de-icing agent such as calcium chloride or calcium magnesium acetate,” Bennett said.

You can also put in a protective barrier, such as a snow fence or a set of burlap sacks around the plants.

Finally, make sure you spread whichever de-icer you use properly.

“Most people just take a handful and toss it around,” Bennet said. “Make sure you are applying it according to label directions so it doesn’t bunch up in piles that cause damage.”

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Pretty ground cover or a weed

B. Rosie Lerner



The photo appears to be *Commelina communis*, more commonly known as Asiatic dayflower. It does have pretty blue flowers, but this non-native plant is generally considered a weed. Because the plant tends to sprawl along the ground, the stems root when they stay in contact with moist soil. This species can form a dense colony that outcompetes other plants. Dig the plant out, removing as much of the root system as possible.

There is a native, closely related species known as slender dayflower, *Commelina erecta*, that has more narrow-shaped leaves, is more upright, does not form dense colonies, and tends to be found in drier soils.

For more information about each of these species:

Asiatic dayflower – https://www.illinoiswildflowers.info/weeds/plants/asia_dayflower.htm

Slender dayflower – http://www.illinoiswildflowers.info/prairie/plantx/sl_dayflower.htm

Boxwood blight disease identified in Michigan

A serious fungal disease of boxwood that results in defoliation and decline of susceptible boxwood. A downloadable fact sheet is available.

Author: [Monique Sakalidis](#), Jeanne Himmelein, Thomas Dudek, [Jan Byrne](#)



Photo 1. Field-grown nursery plants. Photo by Victoria L. Smith, University of Connecticut.

This article is available in a [printable fact sheet: Boxwood blight disease identified in Michigan](#).

Origin and distribution

Boxwood blight or “box blight” is a serious fungal disease of boxwood that results in defoliation and decline of susceptible boxwood. Repeated stem infections can kill young plants, and in larger plant specimens defoliation reduces the ornamental value of the plant and infection predisposes bushes to infection by other pathogens and environmental factors leading to plant death.

Boxwood blight was first reported in 1994 in the U.K. and has spread throughout an additional 12 European countries and into Asia (Georgia and Iran). It was also reported in New Zealand in 1998. In 2011, it was detected for the first time in the U.S. in Connecticut and soon after was reported in North Carolina and Virginia. Around this time, it was also reported in British Columbia, Canada.

Boxwood blight has now been reported in 28 U.S. states (AL, CA, CT, DE, FL, GA, IL, IN, KS, KY, MA, MI, MD, MO, NC, NH, NJ, NY, **OH**, OR, PA, RI, SC, TN, VA, WA, WI, WV), and it was detected for the first time in Michigan in 2018. In Canada, it has been reported in British Columbia, Ontario and Quebec. The prediction is that boxwood blight will continue to spread throughout boxwood growing areas of North America.



Photo 2. Boxwood blight in a residential property. Photo by Mary K. Inman, University of Connecticut.

Host range

Several genera in the plant family Buxaceae are susceptible to this disease; this includes *Pachysandra terminalis* (Japanese spurge), *Pachysandra procumbens* (Allegheny spurge) and *Sarcococca* species (sweetbox) and of course Boxwood (*Buxus* species). There are 95 species of *Buxus* worldwide, with four species and several hybrids and 365 cultivars available in the U.S. English boxwood, *Buxus sempervirens* 'suffruticosa' and American or common boxwood, *B. sempervirens*, are highly susceptible to boxwood blight.

No boxwood species is known to be completely resistant to infection. Some varieties can show partial resistance, however, these partially resistant varieties can harbor the pathogen, allowing nearby susceptible varieties to become infected.



Photo 3. Leaf spot symptoms. Photo by Sharon M. Douglas, University of Connecticut.

Fungus description and plant symptoms

Proper analysis by a diagnostician from a land-grant university or State Department of Agriculture is recommended because boxwood blight symptoms are similar to other boxwood diseases, insect feeding damage and abiotic disorders. It is important to note that this disease can infect boxwood at all stages of production from propagation to finished material as well as landscape plantings (Photos 1 and 2).

Often the first symptom noticed is a large amount of rapid defoliation (leaf drop), which is indicative of a severe infection. Generally, part of the plant will become chlorotic or brown, and leaves will rapidly fall to the ground, leaving bare branches behind. Initial symptoms are generally first observed in late spring or early summer when close examination of boxwood leaves may reveal round, dark or light brown leaf spots with darker borders and potentially a yellow halo (Photo 3). These spots eventually grow larger and coalesce, before turning brown or straw-like and dropping to the ground.

Black, elongated, streaking lesions may also be visible on the stem (Photos 4 and 5). These can occur on the stem from the soil line to the shoot tips. If the weather is humid, the underside of the leaf will have a white, frosty appearance caused by the formation of upright bundles of fungal spores.



Photo 4. Blighted leaves, defoliation and stem lesions. Photo by Peter W. Trenchard, University of Connecticut.

How is it spread?

The fungus that causes boxwood blight produces sticky spores. These spores can attach to animals (birds, deer or people), plant material, tools, equipment, shipping containers and vehicles. The major means of spread of this pathogen is by movement of contaminated plant material (e.g., fallen, infected leaves, container or field-grown boxwood, boxwood greenery used for holiday decoration), but boxwood blight spores can also be spread on pruning tools, clothing, equipment and anything that might have contacted infected plants. The spores may be moved over short distances (between plants, within hoop houses or within a field) by wind-driven rain or splashing irrigation water.

Long-distance spread of this disease occurs via movement of infected plants or plant debris, or from infested soil or equipment. The resting spore structures (microsclerotium) that the pathogen produces ensures the pathogen can persist in plant debris on the soil surface or buried below the soil surface for up to five years.



Photo 5. Black stem lesions. Photo by Peter W. Trenchard, University of Connecticut.

Life cycle

This pathogen can complete a life cycle in one week under warm and humid conditions. Fungal growth occurs in a broad temperature range from 41 to 86 degrees Fahrenheit with the optimum temperature for reproduction at 77 F.

Like many fungal diseases, moisture is necessary for infection. Free water from dew, irrigation and rain play a part in the severity of the disease and is an element to carefully monitor. This fungus does not need a wound to infect the plants; it can readily penetrate the cuticle and epidermis. It produces spores in clumps that can be seen on the undersides of infected leaves and on the black lesions on stems (Photo 6). The fungus survives in leaves and cankers as well as in leaf debris that has been infected.

The boxwood blight pathogen can persist for long periods of time because of specialized structures called microsclerotia that are present on fallen leaves. The overwintering fungus will produce spores that are capable of infecting host plants under appropriate environmental conditions.

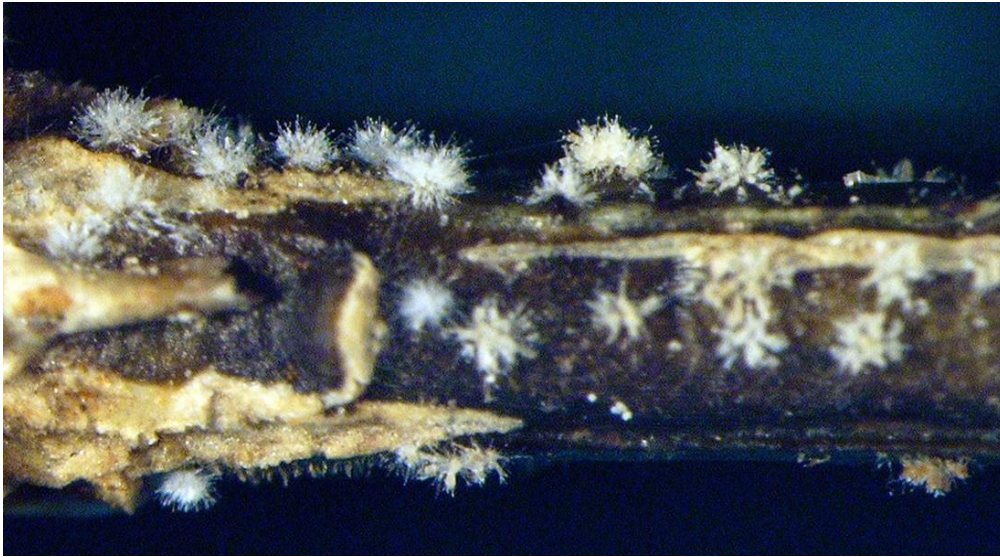


Photo 6. Sporodochica on stem lesion. Photo by Sharon M. Douglas, University of Connecticut.

Integrated pest management (IPM) strategies

The best methods for Michigan nurseries to minimize the risk of boxwood blight introductions include purchasing plants from nurseries that participate in the “Boxwood Blight Cleanliness Program,” carefully inspecting incoming plants and potentially quarantining incoming plants (as fungicides can mask symptoms) for four weeks. Remember, even resistant varieties can harbor a “cryptic infection” (not visible), so make sure your plants come from a reputable source.

However, if an incursion does occur, there are integrated management options that can be used to prevent or limit the spread and reduce the impact it can have in Michigan. This includes preventing further introductions, sanitation, scouting, chemical control and using resistant cultivars.



Photo 7. Destruction of plant debris using a flamethrower. Photo by Virginia Cooperative Extension, Virginia Tech and State University.

Scouting the crop for the disease is a critical step in managing boxwood blight. Both boxwood and *Pachysandra* should be regularly scouted for signs of disease. In greenhouses, temperature and moisture management can reduce the infection potential and disease spread. In nurseries, proper water management can reduce disease spread. Using drip irrigation systems eliminates the splashing of water from an overhead irrigation system.

If boxwood blight is confirmed, it is critical to remove all infected material (whole plants, fallen debris) and either double bag and dispose/bury or burn (Photo 7). Fungicide trials have been performed in several states and efficacy data on various fungicides is available. [Michigan State University Extension](#) educators can assist growers and homeowners with fungicide recommendations.

Download the printable, PDF version of this fact sheet: [Boxwood blight disease identified in Michigan](#)

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).

Snow Is Good for Gardens



Though your aching back may not agree, recent heavy snows actually will be good for your garden and landscape. Snow provides moisture as well as protection from cold and wind.

Snow is an excellent insulator against low temperatures and excessive winds. The extent of protection depends on the depth of snow. In addition, the soil gives off some heat so that the temperature at the soil surface can be much warmer than the air temperature. One study found that the soil surface temperature was 28°F with a 9-inch snow depth and an air temperature of -14°F!

Snow brings welcome moisture to many landscape plants, which will in turn help prevent desiccation injury. Even dormant plants continue to lose moisture from twigs (as water vapor) in the process known as transpiration. Evergreen plants, which keep their leaves through the winter, are at even greater risk of injury.

On the other hand, it is possible to have too much of a good thing. Some evergreens will suffer from too much snow load. The weight of snow and ice can bend or even break branches, particularly on multi-stemmed shrubs, such as arborvitae. If needed, snow should be gently removed by brushing away with a broom or rake. Do not try to remove ice, since it is more than likely that you will break the stems. Multi-stemmed shrubs that are known to be susceptible to breakage can be bound with twine to hold branches together to prevent them from splitting apart.

Of course, there's still more winter to come before we'll know how well our plants fare. In the meantime, rest assured that there really is a silver lining to this storm cloud.

Signs that spring—and planting season—is on the way

What are good indicators that it is time to plant crops in spring?

Author: Eric Anderson, Michigan State University Extension



Forsythia bushes are often used as a phenological indicator that spring is here. Image courtesy of Eric Anderson, MSU Extension.

Ask a number of older farmers about what signs in nature tell them spring is here and it's time to get out the planter and you will hear many different stories. "When the robins come back." "My wife starts to get after me about getting the taxes done." "I get stuck waiting for the ducks to cross the street." "The groundhog saw his shadow...or he didn't see his shadow, I forget which." "The porta potties start to line up at the seed corn plant." "Fertilizer prices go up."

Of course, we all know day length and soil temperature play the most important roles in determining when it is time to plant crops. For corn, the minimum soil temperatures should be 50 degrees Fahrenheit to allow germination and emergence to be as uniform as possible. Corn will germinate at colder soil temperatures, albeit with inconsistent results, and soil temperatures between 60 and 70 F will usually result in quicker germination if soil moisture is not limiting. We use 50 F as a good “starting point” to ensure the most uniform stand as possible.

Soil temperatures for soybean germination are similar to those for corn. A key time window is the first 24 to 48 hours following planting when the seed gets its first “drink” of water—water temperatures are key at this time to avoid chilling imbibition, a well-researched topic (see “Soybeans and corn seed rot – seedling blight and damping off” by Michigan State University Extension; “Imbibitional Chilling and Variable Emergence” by Iowa State University Extension and Outreach; “Early-Planted Corn & Cold Weather” by Purdue University; and multiple other authors).

Forsythia bushes (*Forsythia* spp.) are often used as a phenological indicator, i.e., using the annual/seasonal cycle of plants or animals to tell you something else is soon to occur. Why is that? Is that “an old wives tale” or is there some truth to a correlation between forsythia bushes blooming and ideal planting conditions?

Forsythia are part of the Oleaceae family (olive trees) and are comprised of several species. It is a deciduous shrub that grows to a height of 3 to 9 feet and can grow as quickly as 2 feet per year. It grows well in USDA hardiness zones 5–8, which includes most of Lower Michigan and parts of the central Upper Peninsula. It is most widely known for the brilliant yellow blooms (see photo) in early spring before the leaves are produced.

Timing of forsythia bloom is strongly affected by soil temperature, but it is also influenced by variety, day length, air temperature and sun exposure. Researchers have attempted to time pre-emergence herbicide applications for crabgrass (*Digitaria* spp.) based on withering time of various flowering perennials, but results varied and ended up being only better than basing timing on “a routine calendar date or a best guess.”

Crabgrass can also be used as a good indicator of soil temperature as germination generally begins when soil is 57 to 64 F at 1-inch depth for one or two days. But who wants to watch for crabgrass to germinate just to gauge soil temperature? Better to buy a decent soil thermometer, or bookmark your local MSU Enviro-weather station and keep tabs on the 2-inch soil temperature.

For example, using the station data for Mendon in St. Joseph County, the maximum and minimum 2-inch soil temperatures on March 30, 2017, were 46.1 F and 43.6 F, respectively. On the same date in 2016, the maximum and minimum were 48.0 F and 43.7 F, respectively. So, even with the unusually warm February this year, soil temperatures

are actually slightly cooler than last year. In 2016, soil temperatures (maximum and minimum) at the 2-inch depth remained above 50 F for three consecutive days by April 20. If we assume a spring warming trend similar to that in 2016, we can expect favorable soil temperatures for planting in southwest Michigan towards the end of April in 2017.

This article was published by Michigan State University Extension.

IT'S TIME TO.....

HOME (Indoor plants and activities)

- Check water levels in cut flowers daily.
- Check stored produce and flower bulbs for rot, shriveling, or excess moisture. Discard any damaged items.
- Most houseplants require less water in the winter because growth is slow or stopped. Check the soil for dryness before watering.
- Move houseplants to brighter windows, but don't place plants in drafty places or against cold windowpanes.
- Early blooms of spring-flowering bulbs can make good gifts for a sweetheart. Keep these plants in a bright, cool location for longer-lasting blooms. Forced bulbs make poor garden flowers and you should discard them as blooms fade.

YARD (Lawns, woody ornamentals and fruits)

- Choose appropriate plant species and cultivars, and begin drawing your landscape plans.
- Cut branches of forsythia, pussy willow, crabapple, quince, honeysuckle, and other early spring-flowering plants to force them into bloom indoors. Place the branches in warm water, and set them in a cool location.
- Check mulches, rodent shields, salt/wind screens, and other winter plant protections to make sure they are still in place.

- Prune landscape plants (except early spring bloomers) that should be pruned after flowers fade. Birches, maples, dogwoods, and other heavy sap bleeders can be pruned in early summer to avoid the sap flow, although bleeding is not harmful to the tree.
- Delay pruning fruit plants until you can assess winter injury.

GARDEN (Flowers, vegetables and small fruits)

- Order seeds before it's too late for this year's planting.
- Sketch your garden plans. Remember to include plants to replace or replant crops that you will harvest in spring or early summer.
- Prepare or repair lawn and garden tools for the upcoming season.
- Start seeds indoors for cool-season vegetables so they will be ready to transplant to the garden early in the season. You should start broccoli, cauliflower, and cabbage seeds five to seven weeks prior to transplanting.
- Test leftover garden seed for germination. Place 10 seeds between moist paper toweling or cover with a thin layer of soil. Keep seeds warm and moist. If fewer than six seeds germinate, then purchase fresh seed.