



Winnebago County Master Gardeners

Newsletter

June 2020

Mission Statement

Our purpose is to provide horticultural education, community service and environmental stewardship for our community in affiliation with the University of Wisconsin Extension Program.

*Plant LOVE.
Let it sprout.*



Dutchman's Breeches, submitted by Eric Kropp.

What am I?

By Jane Kuhn

I am an herbaceous, clumping, North American native, perennial herb that grows to a height of 3-4 feet and a width of 1-1 ½ feet in zones 4-9. My green leaves are alternate with a toothed margin and become smaller as the stalk rises. I grow in shade to full sun and in sand, loam or clay soil that is moist to wet. My bloom occurs in mid-summer to early fall with a spike of tubular, [zygomorphic](#), blue flowers. They are angled upward, are 1-1 ½ inches long, and densely distributed along the raceme.

Propagation is by sowing ripe seed in a cold frame, then transplanting into pots and growing them in a greenhouse for their first winter. Plant in late spring or early summer. Additionally division of mature plants in spring or basal cuttings in spring can be used. After my seed is produced, my flowering stem and roots die. New offsets soon form and generate roots. My native locations include meadows and woodlands. In the landscape I can be found in butterfly gardens, native gardens, rain gardens, as a border or in naturalized areas along ponds or streams. I attract butterflies, hummingbirds and other pollinators.

WCMGA Contacts

Check your membership guide for contact information.

Co-Presidents: Ed Dombrowski & Bob Kneepkens

Vice President: Britton Dake

Secretary: Susan Raasch

Treasurer: Deby Voyles

Advisor: Kimberly Miller

Newsletter Compilation: Anne Murphy



We would love your help! If you are interested in contributing in a future newsletter by writing an article or submitting a photo, please let me know by the 15th of each month by emailing pakster0605@yahoo.com. Thank you!

Letter from your Presidents: Ed Dombrowski & Bob Kneepkens

*Wow. How fast things can change. At the writing of this letter, the Wisconsin Supreme Court just struck down the "stay at home" guidelines. As you can conclude, this letter is composed a couple of weeks before publication. In this fast-paced environment, supplying timely and accurate information about upcoming events is not possible. The best source of information is from **Kimberly**. She will keep us informed about availability of Master Gardening volunteer and continuing education activities.*

There is some interesting news we would like to share. There was a Board meeting held via Zoom on May 5. The Board approved a reduction of membership fees to \$20 per person. However, the couples discount, when both spouses are members, is no longer available.

*Vice President, **Britton Dake** is taking a temporary leave from the VP duties. **Nancy Karuhn** will be assuming those duties for the next 3-months.*

On May 12, Brian Hudelson held a question and answer presentation about plant diseases. Members took part via Zoom or telephone and earned 1.0 hours of continuing education.

Please stay safe and healthy.

Ed Dombrowski

Bob Kneepkens

Floating Row Covers Protect Against Cold, Heat, Pests

By Lawanda Jungwirth

A [floating row cover](#) is a thin white material made of polypropylene or polyester that has multiple garden uses. They come in various weights and sizes depending upon their intended use. The lightest weight products, used to protect plants from pests, allow about 95% of sunlight through and don't trap heat so they can be left in place all season.

Heavier covers intended for frost protection allow less sunlight to penetrate. Using two layers provides even more protection, giving plants up to 10°F of extra warmth. They can be used to extend both the beginning and the end of the gardening season to allow more time for growth and harvest. Frost protection covers should be removed on warm days to prevent excessive heat buildup.

For both frost and pest protection, the edges need to be held down with soil, bricks, stakes or pins sold especially for floating row covers.

Another use for the covers is to protect newly planted seedlings from transplant shock. Several days of partial shade and wind protection followed by removal of covers on a cloudy, still day can substitute for time consuming hardening off where plants are moved from sun to shade and back again several times a day for a few weeks to acclimate them to harsher garden conditions.

The covers can also provide shade to prevent leafy greens like lettuce and spinach from bolting in the heat of early summer. In this case, the edges don't need to be held down, but some kind of structure will be needed to hold the cover above the crop. Similarly, floating row cover shade can provide a few degrees of coolness necessary when starting late summer crops for fall harvest.

When used for pest control, covers can stay in place all season for self-pollinating plants like bush beans, leafy vegetables and root crops. Plants that need insect pollination such as squash, pumpkins, zucchini and cucumbers need to have their covers removed or opened at the ends to allow pollinating insects to access their flowers, or you could hand-pollinate.

Keep in mind that many insects overwinter in soil, so check under the covers often to make sure you haven't inadvertently provided a nice cozy buffet for the very insects you are trying to exclude.

If plants are going to be under cover for any length of time, it's best to build a support structure to allow for plant growth, increase airflow and avoid damage caused by unsupported fabric flapping in the wind.

Although I'd prefer to see and touch the floating row cover before I buy, this year I'm not willing to go from store to store to shop. Websites for local big box stores and garden centers turned up no results for floating row cover, and an Amazon search led to several hundred results which was too many to sort through. In the end I decided to go with what was offered at one of the mail order nurseries that I trust.

Growing Asparagus

By Lawanda Jungwirth

Asparagus is usually the first vegetable out of the garden in spring, in early May. If you're already growing asparagus - lucky you! - because after planting, it's two years until the first harvest. It is well worth the wait though, since harvesting can continue beyond one gardener's lifetime.

While asparagus can be grown from seed, it is easier to plant dormant one- or two-year-old asparagus crowns. The crowns are planted deep in the soil. Dig a trench 10" deep and 12" wide and as long as you need to be able to space the crowns 1 ½ - 2' apart. If you dig more than one trench, allow 4' between them. Loosen the soil a few inches below the trench. Add an inch or two of compost. Mound the soil a couple inches high where you'll place each crown and set the crown atop the mound, spreading the roots out and down the sides of the mound. Add soil to the trench until the crowns are covered by about 2" of soil.

As the asparagus spears begin growing, continue to fill in the trench with soil and compost until it is filled to ground level. At this time, placing a mulch around the spears will keep weeds down.

Do not cut any spears the first year. The spears will form into ferns by mid-to-late summer. Let them die down naturally and leave them in place until spring. Around Thanksgiving, consider adding a winter mulch of hay or shredded leaves to prevent the roots from frost heaving which can damage them.

The next spring, cut down the dried ferns, remove any mulch and add compost or organic fertilizer to the beds. Do not cut any spears the second year. Replace the mulch once the spears come up and keep the area weed-free.

Finally, two years after planting, you may begin harvest, but only for a few weeks. The next year and for many years to come you may harvest until July 1.

Harvesting is most easily done by snapping spears off at ground level. You can also use an asparagus knife to cut spears just below ground level. Choose spears that are about the diameter of your finger. Let pencil-thin or smaller spears uncut to form ferns.

There are several asparagus cultivars appropriate for Wisconsin gardens including 'Jersey Giant,' 'Jersey King,' 'Jersey Knight,' 'Mary Washington,' and 'Purple Passion' which produces purple spears. The three 'Jersey' hybrids are predominantly male plants which tend to have higher yields than female plants.

The most common pest on asparagus is the asparagus beetle. They are metallic blue-black insects with three white or yellow spots and are just 1/4" long. They lay tiny black eggs on the stems, which can easily be removed by rubbing your fingers over them. If you miss the eggs, they will hatch into light gray or brown larvae with black heads and feet. They can be picked off, or for serious infestations, dusted or sprayed with rotenone.

Master Gardeners Present Scholarships

By Jane Kuhn

Winnebago County Master Gardeners Association recently presented two \$1000 scholarships, one each to Paige Obershaw, a senior at Oshkosh North High School and Amanda Stone, a senior at Winneconne High School. Although we weren't able to present these in person at our May meeting, we can report that both recipients were very excited and thankful to receive the news via phone calls.

Paige plans to attend Fox Valley Technical College to study Horticulture/Agronomy with future plans of owning a flower shop or greenhouse in the Oshkosh area. Her overall GPA is 3.39 and she has come highly recommended. She is an active member of North's FFA chapter and serves as chapter president. Paige has organized many events including fundraising and community service projects. She placed first in FVTI's Floriculture Contest and received her State FFA Degree this spring. In one of her teacher's letters of recommendation it states: "Paige's charitable nature combined with her scholarly persona have made her a truly exceptional student."

Amada's plans include attending UW-River Falls to obtain a bachelor's degree in dairy science and then to attend a veterinary school to become a large animal vet. Her love of animals shows in her jobs including working at a horse boarding facility where she cares for 30 horses and working at a dairy farm where she milks and cares for 170 cows. Amanda volunteers at a therapeutic horseback riding center and also rides along with large-animal vets from a local clinic. She has a 4.0 GPA, attended Badger Girls State and solo and ensemble state competition as well as attending state competition in track. She is a two-time 4-H State Horse Show Grand Champion and has won many other 4-H awards. Her letters of recommendation praise her high academic achievement in addition to her many other accomplishments. As one teacher stated: "Amanda is an ambitious young woman who constantly demonstrates a strong work ethic, integrity and maturity." Another comments that she shows heart, accountability and passion in everything she does.

The Master Gardener Scholarship Committee developed the process and criteria for this scholarship which was open to high school seniors residing in Winnebago County who are enrolled in a post-secondary educational institution in an area of study including horticulture, landscaping, agriculture, forestry, conservation or other similar areas approved by the committee and board. Plans are to continue offering this scholarship annually with information coming out in January of each year.

Asian Giant Hornets

Asian giant hornets, which are sometimes called sparrow wasps and murder hornets, are a potentially invasive wasp from eastern Asia. A colony was found on Vancouver Island in 2019 and destroyed.



Asian giant hornets. Photograph by Alpsdake via Wikimedia, used under a CC BY-SA 3.0 license.

Summary

A nest and workers of Asian giant hornets were discovered on Vancouver Island, British Columbia and in Washington state in the fall of 2019 and eradicated. It is currently unclear if they are established and reproducing in those areas. **Asian giant hornets do not occur in Pennsylvania or eastern North America more generally.**

Classification

Common name: Asian giant hornet, sparrow wasp

Scientific name: *Vespa mandarinia* Smith, 1852

Order: Hymenoptera (bees, wasps, and related insects)

Family: Vespidae (yellowjackets, hornets, and paper wasps)

Distribution

Asian giant hornets are, as the name suggests, native to temperate and tropical eastern Asia, including parts of Japan, China, India, and Sri Lanka. They are most commonly encountered in rural areas of Japan and one former subspecies was called the Japanese giant hornet. In September 2019, a nest of Asian giant hornets was discovered and destroyed on Vancouver Island, British Columbia and in December the Washington State Department of Agriculture confirmed a dead specimen had been found in Washington. That was the first record of this species in the United States. At this time, **Asian giant hornets are not known to occur outside of Washington state and Vancouver Island and are not present in Pennsylvania.** It's not clear if the hornets are established and reproducing in North America or how widespread they are in the Pacific Northwest, although given the lack of specimens, it's likely that they are not widely established. DNA evidence showed that the hornets in Washington and Vancouver were unrelated and came from different nests, which suggests there may have been multiple independent introductions of the wasps. Because they were only discovered a few months ago, official news about them is scarce, although there will likely be an effort to find and eradicate them from North America before they spread too far.

Description

Asian giant hornet queens are among the largest wasps in the world and can grow in excess of 2 inches with a wingspan of 3 inches. However, they

are only seen outside the nest when they are hibernating or in the spring before workers have emerged. Asian giant hornet workers (Figures 1, 2) can grow to 1.5 inches in length and are similar in size to other wasps that occur in Pennsylvania and may be confused with Asian giant hornets. Asian giant hornets are strikingly colored, with yellow heads, a black thorax, and yellow and black or brown striped abdomens.



Figure 1. Asian giant hornet. Photograph by the Washington State Department of Agriculture via [Flickr](#), used under a CC BY-NC 2.0 license.



Figure 2. Asian giant hornet in flight. Photograph by Fufill via [Wikimedia](#), used under a CC BY-SA 3.0 license. Cropped from original.

Look-alike species

While Asian giant hornets do not occur in eastern North America, there are a number of other large wasps that may be confused for them, including European hornets and cicada killers.

European hornets (*Vespa crabro*) (Figure 3) are the species most commonly mistaken for Asian giant hornets as they are similar in size, shape, and color. However, they can be distinguished by a number of features including the color and of the abdomen (banded yellow, black, and brown in Asian giant hornets vs black anteriorly and yellow posteriorly with rows of black teardrops in European hornets) and thorax (mostly black with a yellow spot between the wings in Asian giant hornets vs black and reddish brown in European hornets) and the thorax (mostly black with a yellow spot between the wings in Asian giant hornets vs black and reddish brown in European hornets) and the forward facing eyes of Asian giant hornets, which appears as a larger gap between the rear of the eye and the rear of the head compared to European hornets. For more information about European hornets, please refer to this Penn State Extension [fact sheet](#).



Figure 3. European hornet. Photograph by Judy Gallagher via [Flickr](#), used under a CC BY 2.0 license.

Eastern cicada killers (*Sphecius speciosus*) (Figure 4) are native wasps that are similar in size to Asian giant hornets. However, they can be distinguished from Asian giant hornets based on coloration and behavior. Cicada killers have the terminal abdominal segments completely black instead of banded with yellow and lack any yellow on the head. Both Asian giant hornets and cicada killers nest in the ground.

However, cicada killers are solitary, so only each female digs her own nest. Cicada killers may nest communally, with many nests in a small area that

has the right soil substrate, while Asian giant hornets will not.



Figure 4. Cicada killer. Photograph by Katja Schulz via [Flickr](#), used under a CC BY 2.0 license. Cropped from original.

Baldfaced hornets (*Dolichovespula maculata*) (Figure 5) are native wasps that are important predators on caterpillars, flies, and other soft bodied insects. They can be distinguished from Asian giant hornets by their smaller size, black and white coloration, and aerial nests that are commonly found on tree limbs and house eaves. For more information about baldfaced hornets, please refer to this Penn State Extension [fact sheet](#).

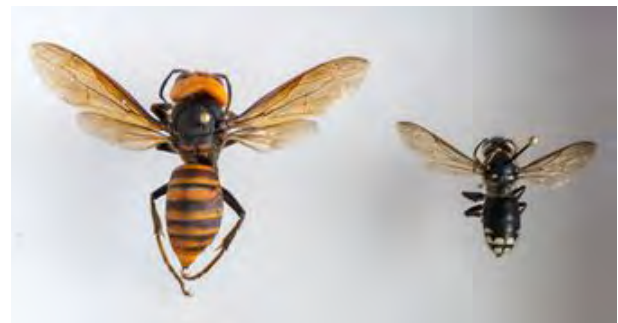


Figure 5. Asian giant hornet compared to a baldfaced hornet. Photograph by the Washington State Department

of Agriculture via [Flickr](#), used under a CC BY-NC 2.0 license.

Common name

There is no accepted common name for *Vespa mandarinia* in English. Asian giant hornet is the common name most frequently used for the species in English and so is the name used throughout this article. Japanese giant hornet was used for a now-defunct subspecies of *V. mandarinia* that occurs in Japan (it is now recognized to be just a color morph instead of a valid subspecies). In their native range, *V. mandarinia* is referred to as "great sparrow bee" (Japanese, ■suzumebachi), "tiger head bee" (Chinese), and "general officer hornet" (Korean). Since 2008, some Japanese media outlets have also referred to the species as "murder hornets" (satsujin suzumebachi), a name that a viral [New York Times article](#) used in the headline and throughout the article.

As far as any entomologist in the United States can tell, "murder hornet" was not used in English prior to the NY Times article. Therefore, it is not recommended to refer to *V. mandarinia* as "murder hornets". "Asian giant hornet" is somewhat problematic as *Vespa velutina* has the common name "giant hornet", which may lead to confusion. Until the Entomological Society of America (which governs the use of common names for insects in the United States) decides on the official common name for *V. mandarinia*, the author suggests the use of "sparrow wasp" or "sparrow hornet" as it is distinctive, reflects a name used in the wasps' native range and does not carry the sensationalist tone of "murder hornet".

Life history

Like other social wasps, Asian giant hornets are an

annual species that build new nests every year. When winter arrives, the current seasons' nests die out and the only individuals that survive are overwintering queens. When overwintering queens emerge in the spring, they seek out protected areas in the ground to begin building a nest, which often includes abandoned rodent burrows. Unlike other social wasps which build exposed aerial nests (e.g., baldfaced hornets) or nests in protected aerial spaces such as hollow tree trunks (e.g., European hornets), Asian giant hornet nests are always in the ground. While queens are building their nests and raising the first broods of workers, they feed on tree sap (Figure 6) where they outcompete other insects, including other hornet species. The nests grow slowly through the spring and summer until they reach a peak population of around 100 workers in August. The queen begins to produce males and queens in September. Males and queens leave the nest in October and early November to mate. Interestingly, queens fight off the males, which results in a large percentage (up to 65%) not being fertilized. Both fertilized and unfertilized queens overwinter, but only fertilized queens go on to found new nests the following year. After males and queens are produced and begin to leave, the colony falls into disarray until it eventually dies off with the coming winter.



Figure 6. Asian giant hornet feeding on sap. Photograph by urasimaru via [Flickr](#), used under a CC BY-NC 2.0 license.

Impact on honey bees

Asian giant hornets, like other social wasps, are predators of other insects. For reasons that aren't clear, Asian giant hornets switch from other prey sources to honey bees beginning in August and peaking in September and October. This switch may be related to the size of the colony (colonies are largest at this time, so the largest number of worker hornets can be recruited to raid the target honey bee colony) or the production of reproductive queens and workers.

Japanese honey bees (*Apis cerana japonica*), which have coevolved with Asian giant hornets, have defenses against them. Specifically, the worker bees [form a ball around the hornet, buzz](#)

[their wing muscles to create heat, and raise CO2 levels so that the invading hornet is killed](#) (Figure 7). This form of defense works because the hornets die at temperatures above 115°F, while honey bees can survive temperature up to 122°F.



Figure 7. Japanese honey bees that have formed a ball around a marauding Asian giant hornet to kill it. Photograph by Takahashi via [Wikimedia](#), used under CC BY-SA 2.1 JP license.

However, western/European honey bees (*Apis mellifera*), which are the species used in commercial honey production and did not coevolve with Asian giant hornets, do not form balls around hornets in this manner. Rather, individual guard bees attack the hornets in the air away from the nest. In this contest, the much larger hornet always wins. Because the hornets are targeting bees for protein, they only utilize the muscle-rich bee thorax and discard the head, abdomen, and legs. After the bee is killed, the hornet prepares the thorax into a "meat ball", which is carried back to the nest.

While an individual hornet can kill many bees in this manner, it is not likely to destroy the honey bee colony. However, when three or more hornets from the same nest attack the same honey bee hive,

they can enter a state that has been referred to as the "slaughter phase". The trigger for this phase is unclear, but it has only been observed when more than two hornets are present. Hornets in the slaughter phase do not return to their nest after killing a bee or at all for the rest of the day, but rather drop the corpse and kill the next bee they capture. If the attack is still ongoing when night falls, the hornets return to their nest but then continue to attack the same honey bee colony the following morning.

The slaughter continues until the colony is decimated and only a few bees remain. The hornets then enter the "occupation phase", where they enter the honey bee hive and predate the pupae and larvae, as well as the bees they had previously killed. During this phase, the hornets make continual trips from the occupied hive to their nest for several days to up to two weeks as they devour the honey bee brood.

If they enter the slaughter phase, a group of 20–30 Asian giant hornets can kill 5,000–25,000 honey bees in a few hours.

However, Asian giant hornets only fly 0.5– 1.25 miles (1–2 km) on average (and never more than 5 miles (8 km)) from the nest in search of food and there is some evidence that hornets do the worst damage to honey bee colonies that are less than 0.5 miles (1 km) from the nest and that, while nests further away may be molested by one or a few hornets they are not generally slaughtered.

If Asian giant hornets become established in North America, it's not clear how they will impact honey bees and American bee keepers, although there probably will be some impact if they become widespread. Beekeepers in Asia have implemented

a variety of strategies to combat Asian giant hornets and deter/eliminate attacks that enter the slaughter phase. Presumably, some or all of these strategies can also be implemented in North America if necessary.

Medical importance

Asian giant hornets, like other social wasps, can be defensive when they feel their nest is threatened or when they are defending a food source, such as an occupied honey beehive. However, they do not seek people out just to sting them for no reason like some human-hating guided missile.

Stings from Asian giant hornets, when they do occur, are **extremely painful**. There is some evidence in the scientific literature that Asian giant hornet stings **may cause skin necrosis and hemorrhaging**. However, it should be noted that the reports are likely based on rare, extraordinary events (because if it wasn't an extraordinary event, it wouldn't be published), so it's not clear how common those reactions are.

Asian giant hornets have been reported to kill 50 people a year due to sting-induced allergic reactions and, more rarely, multiple organ failure due to a large number of stings. This statistic is often alarming for people. However, for perspective, **an average of 62 Americans are killed every year by bees and wasps** for the same reasons. Further, the reported death count is from across the entire range of Asian giant hornets, which includes large swaths of eastern Asia. In Japan, where they are most common and abundant, an average of 21 people from 2000–2018 died per year from all wasp, hornet,

and bee stings combined, with Asian giant hornets accounting for only a subset of those deaths.

The venom of Asian giant hornets isn't even as deadly as some native wasps on a per volume basis; for example, southern yellowjacket venom has an LD 50 of 3.5 mg/kg compared to 4.0 mg/kg for Asian giant hornets. However, Asian giant hornets are large and deliver a proportionally large volume of venom per sting, so on a per sting basis are delivering more venom. That being said, it's not clear that Asian giant hornets are "more deadly" or more likely to induce an allergic reaction than honey bees, yellowjackets, and other social wasps.

Control

Asian giant hornets do not occur in Pennsylvania or eastern North America more generally, so control information is unnecessary at the time. If they do become established here, this section will be updated to reflect the best current strategies. If you live in an area Asian giant hornets are found and wish to control them, please refer to the USDA publication " New pest response guidelines, *Vespa mandarinia*, Asian giant hornet ", which includes sections on "Survey and eradication" and "Control options" and details ways in which beekeepers in Asia protect their honey bee colonies from attack.

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Side Note about the Murder Hornets:

PJ Liesch, Director of the UW-Madison Insect Diagnostic Lab, spoke on the Wisconsin Horticulture Update on Friday, May 8, and had this to say about the murder hornets:

- 1) There have been no sightings in 2020. They may have not survived the winter.
- 2) 0% risk in Wisconsin as the closest sighting was 1500 miles away.
- 3) Based on publicly available data from the Japanese e-Stat statistics portal, from 2009-2018 an average of 18 deaths were reported annually in Japan from hornets, wasps, and bees combined. For comparative purposes, roughly twice as many annual deaths (average of 35) were reported as the result of slipping and drowning in bathtubs over that same period of time.



Spring Beauty submitted by Eric Kropp.

May 2020: Toxic Plant Disease Olympics

MAY 3, 2020 Brian Huddelson, UW Madison Plant Disease Diagnostic Clinic



Most days, I really love my job. I am well-known for my love of plant diseases and I tend to get giddy when plant samples arrive at the PDDC. There is always the possibility with each new package that I will become reacquainted with an old disease friend (e.g., cedar-apple rust) or that I will be introduced to new disease friend that I've been wanting to meet for years (e.g., zonate leaf spot).

Others days, I open a package and my shoulders sag, and I let out sigh. This most often occurs when the sample potentially has a disease/pathogen that is regulated by either the state or federal government. These diseases are often fascinating in and of themselves, but the paperwork involved with their diagnosis can be soul crushing. Right now in Wisconsin, there are three diseases on my radar that fall into this dreaded category. This month's web article is devoted to these medal-winning diseases that keep me up at night.

BRONZE MEDAL – BOXWOOD BLIGHT:



Leaf spots typical of boxwood blight on boxwood sprigs in a holiday wreath. (Photo courtesy Purdue PPDL)

In the scheme of things, boxwood blight is not bad as regulated diseases go. Boxwood blight was introduced into Wisconsin in 2018 through contaminated nursery stock and is regulated at the state level. The Wisconsin Department of Agriculture, Trade and Consumer Protection (WI DATCP) monitors boxwood blight's spread and is currently attempting to eradicate the disease as it rears its ugly head, particularly in nurseries. I first encountered boxwood blight last summer when a landscape maintenance professional submitted a sample from a boxwood shrub planted at a Madison area residence. Once I made my diagnosis, I immediately contacted WI DATCP so that they could follow up with the homeowner regarding containment and eradication.

Boxwood blight typically first shows up as distinct spots appearing on leaves in the lower canopy of boxwood shrubs. Most boxwood varieties are very susceptible to the disease and rapidly defoliate and die. Pachysandra, a common ground cover, is also susceptible. If you want to see how devastating this disease can be, do an internet search on “boxwood blight” and your favorite state along the eastern seaboard (e.g., North Carolina, Virginia, Maryland). You will find photos of landscapes where every boxwood has been wiped out. For additional details on this disease, check out our [boxwood blight pest alert](#).

SILVER MEDAL – [SUDDEN OAK DEATH/RAMORUM BLIGHT](#):



Rapid wilting and die back of branch tips can be a symptom of ramorum dieback.

Sudden oak death (I prefer the name Ramorum blight) was first described in California in the 1990's and has killed millions of oaks in that state. Because of its destructive potential, the disease/pathogen is regulated at the federal level by the United States Department of Agriculture Animal and Plant Health Inspection Service (USDA APHIS). There has been movement of the disease/pathogen over the years into other states (again through movement of nursery materials), and in 2019, WI DATCP inspectors found the disease on an azalea in a nursery in Wausau. Unfortunately, azaleas from the same supplier were distributed to nurseries around Wisconsin, and many were sold to homeowners before WI DATCP became aware of potential problems.

Another possible introduction of the disease/pathogen on red 'Double Knockout' roses also occurred in 2019. I have not yet had this disease arrive in my lab, but I did prescreen several samples for the disease last summer. Based on my preliminary testing, I forwarded two suspicious samples to a second lab for another round of testing. If those samples had tested positive at this second lab (luckily they didn't), they would have been sent to yet another lab (a USDA APHIS facility) for a final round of testing.

Unfortunately the symptoms of sudden oak death/Ramorum blight are not readily distinguishable from other diseases. Branch dieback, nondescript leaf browning and eventually plant death can be typical symptoms. See our [sudden oak death pest alert](#) for additional details on this disease.

GOLD MEDAL – RALSTONIA WILT:



Yellowing and wilting characteristic of Ralstonia wilt. Photo courtesy of WI DATCP

This is the granddaddy of regulated diseases that I have encountered over the years. One variant of the bacterium that causes this disease (*Ralstonia solanacearum* race 3, biovar 2) causes a devastating disease of potatoes (called brown rot) and was classified in the early 2000's as a select agent by the federal government. This means that the pathogen is recognized as having the potential to be weaponized and used in bioterrorism attacks against US agriculture. Ralstonia wilt was first detected on geraniums in Wisconsin (on a plant submitted to the PDDC) in 1999 with additional introductions on this

crop through 2004. In March of 2020, the disease/pathogen was detected after a 16 year absence, this time on Fantasia® 'Pink Flare' geraniums in Michigan. This variety of geranium was also distributed to greenhouses in 38 other states including Wisconsin. USDA APHIS is currently leading efforts to eradicate potentially contaminated plants and to decontaminate affected greenhouses. The PDDC has the capacity to detect the bacterial species involved in the disease (but not the specific race and biovar) using the plant disease equivalent of a home pregnancy test. Suspect samples must be forwarded to USDA APHIS labs for a final confirmation of race/biovar.

A major problem with Ralstonia wilt is that plants can be contaminated with the bacterium without showing symptoms. Eventually, in susceptible hosts like geranium, the bacterium colonizes the plant's water-conducting tissue and blocks water movement, leading to leaf wilting and yellowing. Sometimes, only part of the plant will wilt at first, but eventually the disease is lethal. For more on this disease, check out our [Ralstonia wilt pest alert](#).

If you believe you are seeing ANY of the diseases described in this article, please contact me IMMEDIATELY at (608) 262-2863 or pddc@wisc.edu. We will need to make arrangements for appropriate testing. And also, as always, feel free to follow me on Twitter or Facebook (@UWPDDC) to receive updates on these and other diseases.

Hang in there, be safe, and stay healthy everyone!



From the Tool Bucket

a monthly review of various tools, suggestions for using them and how to care for them, compiled and written by Valerie Stabenow. Any opinion expressed in this review is that of the reviewer with no opinion of the WCMG or UW Extension inferred or implied.

For the May newsletter, I wrote about pruners. This month I am taking on sharpeners, because after you use those pruners for a while, you are going to need to sharpen them. Sharpening also works on other tools, and I like to sharpen the edge of my spades, especially my sod spade, to aid in cutting through turf.



First of all, if you are going to do this sharpening yourself, please use protective gear. If you do not have Safety Glasses, you really should have at least one pair around the house and a set in the garage.

They are inexpensive and available everywhere. If you mow and/or string trim your lawn, protecting your eyes is paramount. Last time I checked, replacement eyeballs look OK, but don't seem to work too well. The other piece of protective wear for use when sharpening is a pair of gloves, preferably leather, given the sharp blades we are working with. There are many options for leather gloves, they don't have to be heavy or thick, but enough material to protect your hands and fingers from sharp objects.

I am going to profile four different sharpeners. There are many, but these are ones that are particularly useful for garden-related tools.

1. Chestnut Tools, universal sharpener
2. Smith's Scissor and Knife Sharpener
3. Zenport Manual Knife Sharpener
4. Corona Sharpening Tool, Carbide Tip

1. This Chestnut Tool sharpener is the one I use.

Not to say it's for everyone, but this is why I like it: it's handheld and easy to maneuver the sharpener blade in tight spaces.

I've had it for over 10 years and the original carbide blade is still going strong. Although the sharpener is a bit pricey (\$24.00), replacement blades are available for \$6.95, and like I said, 10 years of use on the original blade. Here is a link to a YouTube video for using it on a knife blade, but enough to give you an idea of how to use it. I've also used it clamped in a vise for improved access. I



don't use it for any of my scissors as I have a specialty scissors sharpener. I especially like this tool to sharpen the edges of my spades, especially my sod cutter.

<https://www.youtube.com/watch?v=ztMFfJj7jb0>

It's available mostly through online retailers and here is one that also sells the replacement blades:

<https://www.leevalley.com/en-us/shop/tools/sharpening/files-and-hones/66738-universal-sharpener>

2. Smith's Scissor and Knife Sharpener.

This uniquely shaped tool has its scissors sharpener in the upper level handle, a blade sharpener in the front and knife sharpener on top. Widely available in local retailers for about \$10 and has great reviews for its versatility. This link is to Lowe's, because of the great photos that show how to use it.

<https://www.lowes.com/pd/Smith-s-Scissor-and-Knife-Sharpener/4752024>



3. Zenport Sharpener



Another uniquely shaped tool, the Zen KS06 (about \$14) has great reviews on Amazon. It sharpens pruners, scissors and knives (even serrated blades) and has tungsten carbide sharpening surface. It features a non-slip, soft grip handle, ideal if your hands are getting like mine and sometimes having a hard time gripping things for extended periods of time.

Here is a link to a retailer (Amazon), which also offers a video to show how to use it. It's a short video and shows knife, scissors and pruner sharpening. I think I am going to get one of these, too!

<https://www.amazon.com/Zenport-KS06-Multi-Sharpener-Scissors-8-Inches/dp/B008U7IQC4>

4. The last sharpener presented here is the Corona Sharpening Tool AC-8300

Corona is a well-known name in the garden tool sector and this one is modestly priced at around \$9 and available through local BigBox stores. Similar to the Chestnut Tool, it also has a carbide blade and is small enough to fit in a pocket. It also has great reviews, but does not have replacement blades.



Care for a sharpener is as easy as wiping it off after use with denatured alcohol, to prevent transmission of any virus or bacteria from the tool you were sharpening.

So, check out your preferences as well as reading the reviews. I often think I'm ready to buy and then after going through the reviews (positive and negative) I read something that changes my mind.

July Tool Bucket will be shovels and spades and yes, there is a difference!

Member Business Meeting Minutes - No May meeting

Answer to What am I?

By Jane Kuhn



I am great blue lobelia. Order: Campanulales. Family: Campanulaceae – Bellflower family. Genus: Lobelia L – lobelia. Species: Lobelia siphilitica L – great blue lobelia. Other names: blue cardinal flower, great lobelia. Great blue lobelia is not a true perennial because the shoots and associated roots die after the plant sets seeds. However, new shoots rapidly grow from the lower leaf axles and put down new roots. These form a new plant the following year. This plant is potentially poisonous as it contains the alkaloid lobeline which has a similar effect upon the nervous system as nicotine. It was believed by some native North American Indian tribes that if the finely ground roots were secretly added to the food of an arguing couple then this would avert a divorce and they would love each other again. I can be found in the rain garden adjacent to the Coughlin Center.

References: *USDA Plants Database and associated links.*

Upcoming Events - See Calendar for April Events

Oct. 19: Flower Arranging, Park View Great Room

Squash Vine Borer by Bob Kneepkens

As summer approaches and the days continue to warm, it is nearing the time to be alert for the squash vine borer.

The squash vine borer (*Melitta curcurbitae*) attacks summer and winter squash and pumpkins. Squash vine borers overwinter as pupae in the soil and emerge as moths in late June and in July when the degree days DD₅₀ over 900 is reached.



Adult squash vine borers resemble wasps more than moths. Unlike moths, which fly at night, the adult squash vine borer moth flies during the day. They are about ½ inch long with an orange abdomen and black spots. The first set of wings are metallic green, while the back pair of wings are clear.

Female moths lay small, brown eggs at the base of plants. The eggs hatch in 7 – 10 days and the larvae at once begin burrowing into the vines. The larvae are white, or cream colored with brown heads and grow to almost an inch. They feed through the center of the stems for 14 to 30 days, which blocks the flow of water.

Early detection is important. The first symptom of feeding damage is the plant wilting at midday. Look for holes near the base of wilting vines. Moist greenish or orange sawdust like material called frass (insect feces) could be present in or near the hole. Split the vine open lengthwise near the hole to confirm the presence of the larvae. Promptly pull and destroy plants confirmed with the presence of larvae. Undetected symptoms often result in plant death in late July and August.

After feeding for four to six weeks, the larvae leave the stems and burrow into the soil one to two inches. They will remain there until next summer until the cycle begins again.

There are some methods to control the squash vine borer.

- Consider planting vine crops not susceptible to the squash vine borer.
- Plant a second crop of summer squash in early July, after the adult borers have finished laying eggs.
- Place floating row covers over plants when they start to vine or after detecting a borer. Keep the row covers in place for about two weeks. Secure the row covers at the bottom to prevent adults from getting underneath. Do not use row covers in areas where susceptible squash was planted the year before, because when the past summer's larvae emerge as adults, they might be trapped under the row cover.
- Practice crop rotation by planting cucurbits in different areas of the garden (if possible) or alternate seasons when you grow cucurbits.

For more detailed information see the following:

- [Squash vine borers, Garden Facts, University of Wisconsin Division of Extension, publication A3756-A](#)
- [Squash vine borer, Wisconsin Horticulture, Division of Extension, publication XHT-1136](#)
- [Squash vine borers, University of Minnesota Extension](#)

WCMGA Projects

Check your Member Guide for contact information.

Project	Project Lead(s)
Algoma Town Hall	Petey Clark
Butterfly Garden Miravida Living Oshkosh	Jane Kuhn
Carter Memorial Library, Omro	Pat Behm/Linda Petek
Octagon House, Neenah	Jerry Robak
Invasive Species	Sue Egner/Valerie Stabenow/Audrey Ruedinger
Morgan House	Kathy Schultz
Neenah Public Library	Tamara Erickson
Oshkosh Area Humane Society	Julie Miller/Matt Miller
Paine Gardens & Arboretum	Virginia Slattery
Park View Cutting Garden	Donna Kudlas/Jane Kuhn
Park View Prairie Garden	Eric Kropp
Park View Flower Arranging	Lil Hansche
Park View Vegetable Garden	Tom Weber
Farmer's Market	Dorothy Gayhart-Kunz/Janet Priebe/ Synda Jones/Patty Schmitz
Plant Health Advisors	Patty Schmitz/Mary Shepard
Shattuck Park, Neenah	Diane Iott
Sullivan's Woods	Linda Loker

Project Leads: If you'd like your meetings listed on the calendar, please email information to Anne Murphy pakster0605@yahoo.com.

June 2020						
Sun	Monday	Tuesday	Wednesday	Thursday	Friday	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

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