



Heads UP!

From the
Master Gardener Diagnostic Lab
in King County

March 2020
Volume 6, Issue 1

WELCOME FROM HEADS UP!

It's March **already!** And so another season of the joys and frustrations of gardening in the Pacific Northwest begins! Our enthusiastic Diagnosticians are eagerly awaiting those puzzling samples that turn up in your clinics. Figuring out those mysteries and sharing our conclusions with clients and with you is the core of our responsibilities. For us in the Lab to do our jobs accurately we need the support of the rest of our team—you Master Gardeners who staff Master Gardener clinics every week.

The Diagnostic Lab's Wish List:

- An accurately, completely and legibly filled out form
- An adequate (as in big enough) and fresh sample in a plastic bag
- The accurate, complete and legible paperwork outside the plastic bag
- All paper, plant material and plastic bag stuffed in a box and mailed ASAP

Complete instructions will be available on a new laminated sheet in your clinic boxes. Please, check it out! For Master Gardeners, solving gardening problems is a team activity with everyone sharing their knowledge and working together. Teamwork is a beautiful thing!

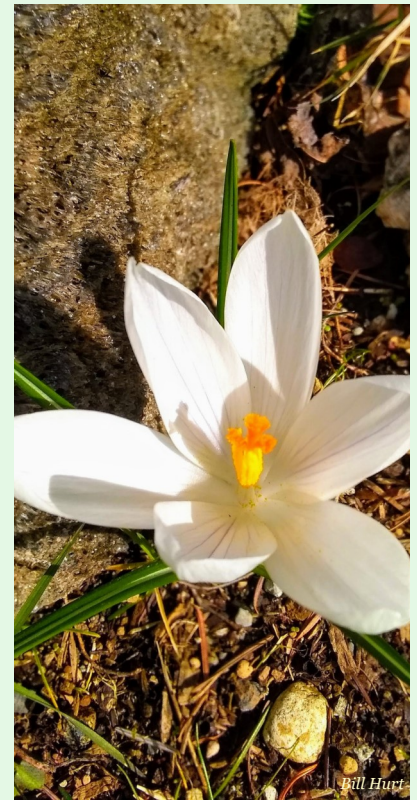


Dave Sherbrooke
Edgeworthia



Barbara Reisinger
Galanthus

Happy spring to all, and **welcome back** to *Heads UP!*



Bill Hurt
Bright smile of the spring crocus.

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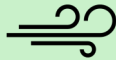
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- Weather Station
- Useful Web Resources
- Nerd's Corner
- Twigga Mortis

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WEATHER STATION



"Huge gains in mountain snowpack along with higher than normal January rainfall (tying the record for most days in the month with measurable rain) has thankfully resulted in drought-free conditions in western Washington."—OWSC.

However, nothing is for free: as of Feb. 18 it had been "80—yes, 80!—days since we had seen a full-on sunny day in Seattle—the kind where clouds are everywhere and crystal clear blue skies are nary to be found." Scott Sistek (Komo News meteorologist)



Dave Sherbrooke

According to the Office of Washington's State Climatologist (OWSC):

January 2019:

Seattle mean temperature: 44 °F
Seattle precipitation: 2.87 inches

January 2020:

Seattle mean temperature: 44.2 °F
Seattle precipitation: 7.96 inches

Weather resources:

<http://www.climate.washington.edu/>

<https://www.weather.gov/>

<https://cliffmass.blogspot.com/>

<https://www.almanac.com/weather>



Dave Sherbrooke

DON'T PLANT THAT TOMATO YET!

Sunny days in March tempt us gardeners to get outside and garden. It doesn't help when all the stores start offering tomato plants for sale. BUT STOP! You can buy those warm season plants, such as tomatoes, corn, beans, peppers, and impatiens, BUT DON'T PLANT THEM OUTSIDE UNTIL MID MAY.

Here is a link to an article from last year on this important topic:

<http://www.mgfk.org/wp-content/uploads/2019/02/20190301-HeadsUp-Mar2019-v2.pdf>

How can your clinic help clients who are tempted to plant too early? Put up a sign on your clinic table in March, April, and early May that says, "Do Not Plant Tomatoes Yet". Recommend to your clients to wait until mid May before planting those species that need warm soil and warm night-time temperatures.



It's too cold for us out here!!! Don't plant us yet!

THE WORD FROM CAPTAIN CLEANUP

Captain Cleanup says it's time to rake out those beds.

All that leaf litter from last fall is a great place for nasties like spores, slugs and overwintering insects to hide.

Captain Cleanup says it's time to mulch.

About an inch of organic material over a cleanly-raked bed feeds the soil and looks oh so tidy. Refer to the [March 18, 2018, Heads UP! article To Mulch or Not to Mulch](#) for more information on mulching.

Captain Cleanup says don't forget to trim back early spring growers like ferns and *Epimediums*. Captain Cleanup would hate for you to miss this kind of loveliness.



Barbara Reisinger



Sue Nicol

2019 DOWN TO THE NUMBERS:

A LOOK AT THE PAST YEAR IN THE DIAGNOSTIC LAB

357 TOTAL SAMPLES; UP FROM 330 IN 2018

STATISTICS

Out of 357 samples in 2019:

- 95, or 26.6%, were fungal
- 97, or 27.2%, were cultural
- 45, or 12.6% were plant IDs
- 60, or 16.8%, were insects
- 31, or 8.7%, had multiple problems
- 14, or 4%, were sent to Puyallup
- 18, or 5% were insect IDs
- The rest (8.3%) were viral, bacterial, or couldn't be processed

PLANT SPECIES SEEN IN LAB

- 29 members of the Prunus genus (plum, cherry, apricot, nectarine, laurel) Compared with 17 in 2018
- 32 Maples
- 18 Rhododendrons or Azaleas Compared with 30 in 2018
- 11 Pears and Asian Pears
- 7 Roses, 5 Raspberries
- 13 Apples and Crabapples, 10 grapes
- 7 Viburnums, 10 Dogwood, 4 Tomatoes
- Many more—65 samples were members of the Rose Family, compared to 52 in 2018.

TYPES OF FUNGAL PROBLEMS

- Powdery mildew—23
- Rusts—9
- Anthracnose—8
- Taphrina—5
- Verticillium wilt—8
- Leaf Spots—18
- Cankers—3
- Brown rot—7
- Blights—6
- Other: Needle casts; black spot; Sirococcus on cedars; shothole

THE BUGGIEST PLANTS IN 2019

- Maple
- Dogwood
- English Laurel
- Prunus (cherry, plum)
- Rhododendron
- Apple
- Pear
- Rose
- Viburnum

2018 VS 2019

- 27 more samples in 2019
- 24 more cultural diagnoses
- 11% more plants w/fungal problems
- 6% more plants w/insect problems but down from 2015 when 81 insects were submitted
- 9 more unknowns
- 40% more plant ID's
- 12.5% more insect ID's
- 22% fewer samples sent to Puyallup
- more than twice as many samples w/multiple problems

TYPES OF CULTURAL PROBLEMS

- #1 = Water (drought stress or overwatering)
- Winter Injury (sunscald)
- Transplant shock
- Chemical damage (herbicides or too many fertilizer salts)
- Nutrient deficiency

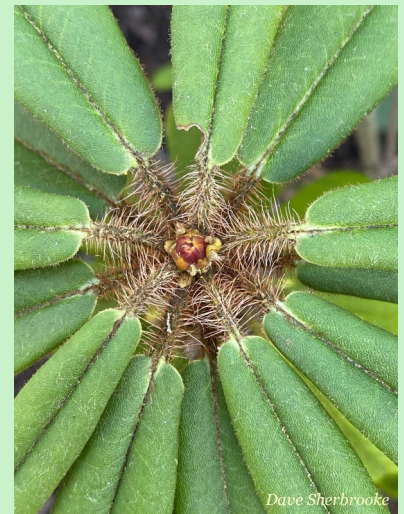
TYPES OF INSECT PROBLEMS (APPROXIMATELY 33 DIFFERENT INSECTS)

- Blister mites on pear
- Erineum mites on grape
- Daylily midge
- Leaf miner on lilac
- Aphids on apple, plum, fir, spruce
- Spider mites
- Root weevils on viburnum, rhododendron, euonymus, lupine
- Lacebugs (on rhododendron & azalea)
- Raspberry cane borers
- Psyllids (on Fatsia)
- Thrips on Pea, Jasmine, currant
- And on and on and on...



USEFUL WEB SOURCES!

- <http://gardening.wsu.edu/>
- <https://pnwhandbooks.org/insect>
- <https://pnwhandbooks.org/plantdisease>
- <http://hortsense.cahnrs.wsu.edu/Home/HortsenseHome.aspx>
- <http://pestsense.cahnrs.wsu.edu/Home/PestsenseHome.aspx>
- <http://mastergardener.wsu.edu/diagnostic-resources/>
- <http://extension.wsu.edu/king/gardening/fact-sheets/>
- <http://www.mgfk.org/>
- [Puget Sound Gardening Tip Sheet #2 Gardening Publications](#)



Rhododendron strigillosum

NERD'S CORNER:

What Is Bt?

Bt, or *Bacillus thuringiensis*, is a naturally occurring bacterium in soils. It affects the larval stage (the wormy stage) of many insects by creating toxins when ingested that cause the insect to stop eating and die. There are different strains of Bt that affect different orders of insects. For example Bt, *Bacillus thuringiensis*, affects Lepidopteras (moths and butterflies) while Bti, *Bacillus thuringiensis israelensis*, affects Dipteras (flies and mosquitos). There are also Bts for control of other insect orders so be sure to read labels carefully to be sure you have the right Bt for your situation. Know your insect before you choose your ammunition.

<https://s3.wp.wsu.edu/uploads/sites/403/2015/03/bt-biopesticides.pdf>

<https://wimastergardener.org/article/bacillus-thuringiensis-bt/>



DEPARTMENT REPORT

Ahhh hellebores! Those treasured, much-awaited and revered signalers of a coming spring!



Barbara Reisinger



Dave Sherbrooke

ARGHHH!!! The Hellebores!! A tragic victim of a marauding rabbit. Note the telltale 45 degree angle cut where a glorious flower used to be. We mourn. We rage. We will just have to settle for daffodils and primroses this year.



Dave Sherbrooke

BUGS OF THE MONTH

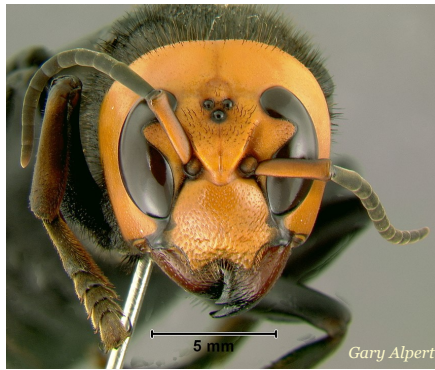
ONE HUGE HORNET: ASIAN GIANT HORNET

Washington State Department of Agriculture (WSDA) entomologists have identified the Asian giant hornet (*Vespa mandarinia*) near the Canadian border. Unlike other hornets, this species is not particularly aggressive towards humans, BUT their interactions with honeybees is the problem. These hornets are capable of quickly destroying honeybee hives. Beekeepers are encouraged to stay alert to this species.

Discovered in British Columbia in August 2019, the BC Ministry of Agriculture issued a BD Pest Alert for the Asian Giant Hornet in September 2019. What to look for? Nearly an inch and a half long, these hornets have large yellow-orange heads with black eyes. The worker hornets are around 1.25" in length, but the queen can be up to 2" in length with a wingspan up to 2.75". They nest in the ground and are usually dormant in winter, most often seen from July through October.

How do they act? Like other hornets, they are attracted to food and drink. They can inflict a powerful sting if threatened or swatted at. It is recommended that you take steps to keep food and drink under screens or covered out of doors and clean up picnic sites by disposing of food and garbage properly. If stung, Washington State Department of Health (DOH) recommends washing the site with soap and applying ice to reduce swelling and do not rub the site as this causes the venom to spread. If stung multiple times, you should seek medical attention.

What can you do? In 2020, WSDA and DOH will conduct outreach to the public for assistance in looking out for the Asian giant hornet and reporting any detections to the WSDA Pest Program. If you think you have spotted this pest, report it to WSDA's pest program (pestprogram@agr.wa.gov) and include a photo if possible.



Gary Alpert

Asian Giant Hornet head



Hornetboy1970

They really are giant!

AND ANOTHER INVADER OF OUR BEES: THE HOUDINI FLY

If you haven't heard, we have another new pest in Washington that is a threat to our mason bees: the Houdini Fly (*Cacoxenus indagator*). We would appreciate your help in spreading the word about this pest. While eradication is not possible, mason bee owners (commercial and hobbyists) can dramatically reduce Houdini fly populations with simple best-management practices. Learn more through these resources:

<https://wastatedeptag.blogspot.com/2020/02/houdini-fly.html>

<https://agr.wa.gov/departments/insects-pests-and-weeds/insects/apiary-pollinators/pollinator-health/houdini-fly>



Flickr user gbohne