Lots of online classes available including new series of Vegetable Gardening classes.

Go to: https://workspace.oregonstate.edu/course/master-gardener-series-

OSU’s Unique Research...

Oregon State University’s North Willamette Research and Extension Center, located in Aurora, Oregon, 20 miles south of Portland, has the world’s only certified organic blueberry research planting.

(Capital Press, July 31, 2020)
I’ve always thought plants in general are amazing. With their abilities to use the energy from the sun to create food, there are so many interesting facets of plants. Of course, not all plants use the sun’s energy for food; a couple of examples are carnivorous plants which get their nutrients from insects and arthropods, and also parasitic plants.

Mistletoes are commonly found in Oregon white oak trees in our region, and of course are most easily visible in the winter when deciduous trees have lost their leaves. Another less common parasitic plant in our region came into the desk clinic the other day: dodder. This plant is an annual plant in the genus *Cuscuta*. Dodder is pale green to yellow and has slender stems that twine around the host plant stems that they attach to.

This parasitic plant uses haustoria to penetrate the host’s vascular system to obtain nutrients and water. Management to lessen the impact of dodder includes pruning out parts of the host plant to which dodder has attached itself. Regular cultivation to remove young dodder plants is also a good procedure.

Another interesting parasitic plant I saw recently in a field is broom rape. Like dodder, some broom rape are native, whereas others are not and can cause economic loss. These are purplish, yellowish or brownish root parasites. They lack chlorophyll and have branchy, scale-like leaves. Their attachment to host root systems can cause disruption to the host nutrient and water transport systems.

To read more about these and other parasitic plants, https://pnwhandbooks.org/plantdisease/pathogen-articles/common/parasitic-plants-oregon

Dodder information: http://ipm.ucanr.edu/PMG/PESTNOTES/pn7496.html


Common broomrape (*Orobanche minor*)

Several variations of broomrape
Research to Track Asian Hornets

Pioneering research in the United Kingdom may help keep Asian Giant hornets from colonizing in the United States. At the University of Exeter in the United Kingdom, a behavioral ecologist is studying the Asian hornet (*Vespa velutina*). This is not the Asian giant hornet (*Vespa mandarinia*) which has been observed in Washington state, but it is hoped that this research will apply to the Asian giant hornet as well. (Now that it is apparent that there is at least one functioning nest of Asian giant hornets in Washington State, researchers are focusing on ways to locate nests to destroy them).

To track hornets, one or more embryonic technologies may be used, including tiny cameras, drones, and radio-telemetry tags to track hornets to their nests. The radio-telemetry tags are now being tried by the British researchers.

To install the tags on hornets, ecologists capture a hornet and anesthetize it. According to the researchers, there is a very fine line between anesthetizing the hornet with carbon dioxide and gassing it to death! Once anesthetized, a radio tag is tied with thread to its back. In the future the plan is to possibly strap or glue radio tags onto the backs of the hornets. The research has found that an Asian hornet can fly with radio tags that are up to 80% of their body weight, so of course the Giant hornet should be able to carry an even larger device.

When the hornet flies back to its nest in a tree, researchers should then be then able to find the nest and destroy it. However, the Washington State Department of Agriculture is concerned that since the Asian giant hornet nests in the ground, (rather than in trees) this may block radio signals and human observation. And, the destructive efforts of the Asian giant hornets within their nest might be another challenge for the WSDA, because the tag may be disabled in the nest.

Due to the predatory attacks by the Asian giant hornet on the western honeybee (*Apis mellifera*), the WSDA is preparing for an eventual large invasion into Washington State by the Asian giant hornet and is looking at research throughout the world for ideas.

*(Capital Press, July 17, 2020)*

An Asian hornet (non-giant type) tagged with VHF radio telemetry in the United Kingdom, to try to track it to its nest. The Washington State Department of Agriculture may try the technology to search for and destroy the nests of the larger Asian Giant hornet.

Volunteers are trapping Asian giant hornets in Washington State.
Hello All,

It’s hard to believe the summer is nearly over and it is September. However, I always enjoy the changes that fall brings with rainfall and cooler weather.

Another change is also on the way for our Master Gardener training in 2021. The challenges we have faced due to COVID-19 have brought about changes in the way we reach our clients as well as our ability to volunteer in ways we traditionally have. In order to address these changes, our upcoming training season will focus on providing advanced training for current Master Gardener volunteers.

This training will occur during January through March and will be hosted online. The weekly trainings will enable you to better transfer your horticultural knowledge to the public through learning new tools. There will be online discussions and meeting rooms to foster connectivity during these trainings. These changes will be an opportunity to learn some new skills as well as make connections with Master Gardeners and eventually our community. More details of what this training will look like will be coming in the future.

Thank you to all of you for your continued flexibility and participation in the service of our gardening community. I know it has been a challenge to adapt during these times, and I appreciate all you have done through propagation, demo garden, and community garden work with restrictions, online desk clinic, and connecting for meetings and educational classes virtually. You are making a difference and I appreciate every one of you.
Q: **Black slime in my barkdust: is this a concern?**

We had new tanbark laid down in our backyard and have been finding black tarry-looking patches after it rains. We clean them up...then it rains and new patches of it show up again. Have you seen this before or have any idea what it is??? Three more patches of the stuff this morning after last nights rain. I've sent pictures and also have saved the globs should you need them to help with identification.

A: **This** is a slime mold, which is a non-pathogenic fungus that feeds on organic material, not uncommonly large, freshly applied batches of organic matter like bark dust. They tend to appear and disappear equally quickly. They are really a curiosity more than anything to worry about. There seems to be a lot of this as I've had three Ask-an-Expert inquiries on this same topic this week. I include a link to a short discussion of slime molds from the PNW Disease Management Handbook.

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Q: **Do I have poison hemlock in my pasture?**

I found these plants growing in my horse pastures. I plan on spraying unless someone can tell me that they are definitely not hemlock.

A: **That indeed** appears to be poison hemlock and spraying while the leaves are more of a rosette form make it easier to control. Good eye and something you don't want to fool with if you have horses in the pasture.
For all gardeners it is healthy to understand that many times, it’s more a process of controlling weeds rather than eradicating them. In fact, even an OSU Extension weed specialist says that with many weeds, you will have to fight them forever. Here, though, are some hints to give you an advantage over weeds, and to make your horticultural experiences more encouraging.

For annual weeds, the best hope for control is constant pulling and keeping them from going to seed. Get them out when they are small. Since the seed can live in the soil for years, you’ll need to be vigilant and keep pulling new seedlings year after year. If you keep pulling as they pop through the soil, eventually you will thin them out.

Though unsightly and frustrating, annual weeds are nothing compared to perennials, which take a high level of patience and persistence to contain. Anyone who has wrestled blackberry knows how difficult invasive perennial weeds are to keep in check.

Digging out as many roots as you can and then continuing to pull new shoots can eventually eradicate the plant, but it takes vigilance and years to succeed. Eventually, you may get the population under control and have to weed less.

For more information on how to deal with weeds, Chip Bubl, an OSU Extension horticulturist, weighs in with some tips.

Bird seed is notorious for starting weed infestations. Avoid this by buying black oil sunflower seeds, which many birds prefer, or put a tray under the bird feeder to catch any errant seed.

Organic mulches such as bark dust, wood chips, leaves, straw and grass clippings keep weeds under control and improve soil as they break down. Apply a layer of organic mulch 2 to 4 inches deep to your garden. Avoid the leaves of black walnut trees (Juglans nigra) or tree of heaven (Ailanthus altissima), which can inhibit growth of plants and seeds. Don’t use lawn clippings if the lawn was mowed when weeds were in seed, or if any herbicide has been used on the lawn. (A common mistake is using lawn clippings from a lawn where “weed and feed” products have been applied). If you are trying to control perennial weeds, a layer of garden fabric can be placed on the soil before applying mulch.

Compost is one of the worst offenders of bringing in weeds to the garden. Get recommendations of businesses that sell compost from friends or neighbors who have had loads without many weed seeds. Ask employees at the business what they do to their compost to avoid weed seeds.

Hay can contain herbicide residue and many
weed seeds. It’s better to use straw, which has most of the seeds removed.

**Plastic sheeting** may also be used to control weeds. Black plastic reduces light and prevents weed growth. For vegetable gardens, you will need drip irrigation and appropriate fertilizer in place before you lay the plastic. Make slits in the plastic, and if weeds appear in the planting slits, immediately remove them. For other areas of the garden, pull weeds, cover with plastic and leave for six weeks. The weeds will “starve” without sunlight.

**Sprinklers** water a large area but encourage weed growth. **Drip irrigation** delivers water only where you want it and will slow the number of weeds in the garden.

**Hand pulling** works well in small gardens and raised beds. Pull when the soil is damp, but not wet. Try to get to annual weeds before they go to seed or you’ll get a whole new crop. When you pull **perennial weeds**, you likely won’t get the entire the root system.

However, if you **persistently remove** new weedy shoots of perennial weeds, you prevent the plant from storing carbohydrates and may, eventually, kill the perennial plant. This process is called carbohydrate starvation and must be done with passion every day, over years, to be successful. But people really can control morning glory and other perennial weeds with this high level of commitment.

Kym Pokorny

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**CRIMES AGAINST NATURE**

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