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Unique Winter Vegetables to Grow
Online June 8, 3 pm

Take a deep dive into some of the more underappreciated winter vegetables! We'll cover garlic, radicchio (a form of leaf chicory) celeriac, or celery root, Brussel sprouts, cabbage, cauliflower, collards, winter squash and purple sprouting broccoli, to name a few. Basic winter gardening techniques to add these delectable veggies to your plates in winter will also be covered.

Help Wanted!
A Master Gardener to be Education/Outreach committee chairperson.
Contact Rita Canales or Carla Stables for details and to volunteer.
Help plan clinics, educational activities, field trips & more.

https://ycmga.org/ Facebook.com/yamhillcountymastergardeners
Neem Oil

Master Gardeners regularly recommend neem oil to clients and other gardening enthusiasts to eliminate insects and as a fungicide. I’ve always wondered “What is a Neem?” So I’m here to tell you!

There is actually a neem tree (Azadirachta indica) growing in India and SE Asia. It’s a fast-growing tree in the mahogany family (Meliaceae). It reaches 49-98 feet in height, is evergreen, and the fruit is a smooth yellow-green drupe with sweet-flavored pulp.

The oil is found in seeds from the neem tree. It has many components, Azadirachtin being the most active. It reduces insect feeding and acts as a repellent. It also interferes with insect hormone systems, making it harder for insects to grow and lay eggs. Azadirachtin also repels nematodes and reduces their feeding. And, it is also a fungicide for rust, black spot, mildew, scab and blight.

Surprisingly, components of neem oil are found in many of products we use, including toothpaste, cosmetics, soaps and pet shampoos.

The National Pesticide Information Center, Oregon State University Extension Service states that neem oil is practically non-toxic to birds, mammals, bees and plants. In reference to toxicity to bees and other pollinators, these insects are not likely to be harmed because they do not eat the plant, as insects do.


Nancy Woodworth
Because we have had several intakes this spring in which it appears that compost was contaminated with herbicides, I decided to find out how producers of compost can ensure that there is no herbicide mixed in. We’ve seen this problem randomly in past years: it happens often enough to be a real headache for gardeners.

**How is the compost tested?**
Company representatives feel confident in their claims for organic compost because they have samples tested regularly. In fact, the tests are very thorough. Tests are for more than 40 items; micronutrients, major nutrients, presence of heavy metals, fecal contamination, minerals, moisture levels, and much more.

All test results must fall within an acceptable range for the product to be approved. One sample is taken randomly each month from the entire month’s intake of plant matter. The results from this sample are presumed to apply to all the production for that month.

**How is it tested for herbicide residue?**
After studying the test results thoroughly, I realized that there is only one line in the test results for presence of herbicides. It is called the “cucumber bioassay” and consists of planting a cucumber seed in the compost and watching it grow for 2 weeks!

**How are herbicide residues found?**
The photograph of the sign to the right is the entire answer. Dumpers are expected to know whether or not there is a possibility of contamination. If they decide there is, they are expected to separate the possibly-contaminated parts of the load, take that to another dump site, and pay a much higher dump fee there. There is no way to check for contaminants at the dump site, where everything from lawn clippings to whole trees are deposited. Homeowners, landscapers, tree care companies, and others are all dumping simultaneously. A level of herbicide of 2 parts per billion (2 drops in a full tank on the largest tanker truck) causes plant damage.

**How do you know the compost is safe?**
You really don’t until you test it yourself. But that’s easy: just plant some cucumbers in it and see how they behave! And by all means it would be wise to test every batch you buy before applying it or filling a planting bed.

Learn more from Department of Environmental Quality website below:

Donn Callaham
I suspect that most of you know that June is National Dairy Month. No, the Chef’s Garden does not have dairy cows. In case you’re wondering if I’ve lost my mind, here’s a trip down my memory lane. In the late 1960s, (I think), one of the gals in our farm community was chosen as the Washington County Dairy Princess. She was part of the advertising campaign that summer which featured larger-than-life scoops of delicious ice cream pictured on billboards around the state. In reality, the “ice cream” was colored mashed potatoes, as they didn’t melt! So that is why I immediately think of the garden when I think of National Dairy Month!

June is also the month when you had better have your irrigation in place or your garden is toast. As with most things garden-related, you have options.

1) Water by hand. I have done this a lot over the years. I typically also tried to simultaneously read a book, with varying degrees of success. (I did support my library with the various book damage fines!)

2) Water by overhead sprinkler. This is quick and indiscriminate in that it waters the good and the bad. It also uses a lot of water which may or may not be a problem depending on your water source. My municipality thinks highly of their water and charges accordingly.

3) Set up some kind of drip irrigation.

In the Chef’s Garden, I use a hybrid drip system. I have “vortex” mini sprinklers off of ¼” line for the stock tanks and flower beds. In the main growing beds, I have drip line which the irrigation folks call “T-tape”. (Don’t ask; I don’t know why.) Both the ¼” lines and the T-tape connect into 18mm main lines.

This is not to be confused with ½” main line. They are slightly different and their components are NOT interchangeable. If you try to cram them together, you’ll regret it. Your fingers will take years to forgive you for the abuse they suffered in the attempt.

It all goes together like a puzzle—a leaky puzzle. Faucet connectors compression-fit onto the 18mm line and sometimes a “T” or an “elbow” is needed to get the right direction. Both of those are compression fittings. I have several zones on each line requiring a valve for each zone.

These are not compression fittings and actually go on and off quite easily. The key is using the
right-sized valve for your line. The t-tape attaches to barbed emitters. The end of every line needs some sort of closure. The easiest is a figure 8 which holds the line doubled shut. Don’t mix the t-tape and vortex sprinklers on the same zone. The sprinklers get most of the water and the non-dripped-on plants complain. The sprinkler lines connect to barbed emitters for ¼" tubing.

To make your life easier, carry a bucket of HOT water with you to soak the main line ends when attempting to install the compression fittings. It does work miracles. I’ve also used rancid olive oil to ease the fittings as well.

Now the thing about drip systems is that they drip to some degree at just about every connection. The t-tape develops leaks out of the blue for no discernible reason. Small leaks can be patched with electrician’s tape. Just wrap it around and around to spread out the leaking so the sound doesn’t annoy you as much. If the leak is too large, cut it out and install a coupler. Typically this happens when the water is on! (Because who wants to walk to the top of the hill to turn it off?) This is best performed on a hot day.

Just fold back that t-tape and work quickly! If the t-tape has too many leaks and too many couplers in it, and I’m particularly annoyed at that moment, I’ll replace it with new t-tape to start the cycle all over.

We use the same bed spacing each year, so we just have to lay out the main lines and reconnect the t-tape. Typically, we’ll wait for a hot day before we test for leaks since fixing leaks when it’s cold is miserable. That’s how we keep the plants watered all summer.

At the end of the irrigation season, we remove the t-tape and carefully store it in a heap by the section to which it goes. The main line stays in place until it is time to get it out the way of Mr. Rototiller.

Anna Ashby, Master Gardener
Master Beekeeper

Bloom where you are planted.
Weed-killing Laser Robots

Another transformation in weed control is here. Compared to the “Weed Electrocutation” machines described last month, this seems a much more practical and functional system.

To weed 30 acres of organic onions typically requires a crew of around 30 people for a day of work that can be tedious, including sometimes using pocket knives to carve away weeds around the onions.

A Seattle robotics company (Carbon Robotics) is producing a self-driving completely-robotic machine that zaps weeds with laser beams. About the size of a small tractor and diesel-powered, each robot is equipped with artificial intelligence, 12 cameras, 8 lasers, GPS, and a safety scanner. It kills 28 weeds per second with no soil disturbance and no herbicides.

The robot is pre-programmed to recognize field boundaries and to differentiate between wanted crops and weeds. The robot will weed 15 to 20 acres per day, and will make organic crop production more competitive with traditional methods.

Also, using lasers instead of electrical high-voltage discharges to burn weeds eliminates most of the drawbacks of the electrocutor. Soil consistency and moisture levels are no longer relevant, the charge does not need to travel down one weed and up another, much less energy is required, and safety is vastly improved.

Donn Callaham

*Three of the Plant Sale Rock Stars*
We are getting into the main growing season, which for many gardeners means the addition of compost to the garden. Unfortunately, that can sometimes cause issues. Recent research from Gail Langellotto has shown gardeners are adding too much compost and organic matter in their gardens, leading to nutrient excesses.

Another issue often seen this time of year is herbicide-contaminated compost. This can happen in many compost types when material used in making compost such as hay, grass clippings or manure was treated with growth regulator herbicides. Damage such as stunting and leaf curling can be seen on sensitive plants such as beans, peas, tomatoes, roses and grapes; however, there are many additional plants which can be damaged. What can you do?

You may want to do a bioassay of your purchased compost which includes using some compost to grow quick-growing sensitive plants such as beans and looking for damage. If you are able to do this prior to using the compost you can save yourself a headache later on. Fortunately, herbicide contamination of compost isn’t a typical occurrence, but we do hear some reported issues every year or two. The articles below have lots of good information about how to use compost, as well as information about how to recognize and what to do if you have received herbicide contaminated compost.

[oregonstate.edu/gardeneologylab]

/extension.oregonstate.edu/mg/growing-oregon-gardeners-level-series - Weston Miller’s Level-Up webinar about compost - See the March 9th class (1 hour of continuing education if you watch!)

https://catalog.extension 8

Results of herbicide contamination, above

A few of the many Master Gardeners who made the plant sale a success, even with 2021 restrictions.
POLLY’S GRANDDAUGHTER, TIA, has volunteered to paint murals on the bare sides of the Demonstration Garden soil bin at the Yamhill County fairgrounds.

As you can tell, she is a meticulous perfectionist, and has spent hours on this scene of a honeycomb and (when completed) two honey bees.

She also plans to eventually paint different murals on the other sides of the bin.

Top photo shows her supply of tools and special fade-resistant outdoor paints.
Hello Master Gardeners! May was a busy month with the success of the recent plant sale. Thank you to everyone who participated in this event. It takes many hands to be able to organize and pull orders to make the online sale as successful as it was. I was able to see a few of you, and it was nice to see familiar faces in person again.

Fortunately COVID case numbers are decreasing in the state and hopefully we will be able to offer more in-person activities in the future. For now, however, OSU guidelines have not changed and we do have limited sign-ups and masking requirements as before. I realize that CDC guidelines have changed for wearing masks outdoors and indoors for those who are vaccinated.

At this point, this has not affected the OSU guidelines and everyone is still required to wear masks for all in-person volunteer activities. If I hear of any changes in the future I will let you all know. Thank you as always for your cooperation and volunteer time with the Master Gardener program: hopefully we will see a return to a more normal situation soon as more are vaccinated within the state and county.
Looking forward to a Brighter Future!

The Education Outreach Committee (EOC) of YCMGA is looking forward to being able to reach out to Master Gardeners and the public. During the Covid days we reached out to everyone with the Covid Garden, the gardens before and after, Zoom chats, and online talks. Now that we may go back to “normal” we need to begin thinking and planning to reach out to the public and each other. Here is a list of what we have done in the past:

- Off site clinics at festivals, farmer’s markets, and local retail nurseries.
- Educational opportunities for Master Gardeners and the public at demo gardens, community garden or Extension Office PWA.
- Field trips to local horticultural places such as the Clematis Gardens, Monrovia etc.
- Social Events such as Ice Cream Socials.

All of the events require planning, coordination with publicity and signups, pulling materials together, etc.

We are in need of people to take on some of these activities. Polly could use help with planning field trips and Tom would gladly let someone take on the MAC Farmers’ markets. But most of all we need people in leadership to coordinate all the activities. Rita and Nancy have been doing this for the last 5 years. Nancy has gone on to other areas in the Master Gardener program and Rita is stepping down and is ready to help you lead the YCMGA in our Outreach Program.

Please consider where you can contribute.

A UNIQUE USE FOR VEGETABLES!

Looks like scoops of ice cream, right?
Well, not so fast...

You are actually looking at mashed potatoes! To photograph “ice cream” for advertising, photographers actually use dyed mashed potatoes.
Mini College 2021 will be an opportunity to expand your knowledge with up-to-date research and information that will improve our gardening experience and sharpen our skills at providing advice to the communities we serve.

**Saturday Keynote:** Our own Gail Langellotto will present...“Oregon Master Gardener Program – Successes, Challenges and Opportunities.” OSU Master Gardener Annual Report.

**Dr. Mhuireach** will introduce the body of research investigating human exposure to environmental microbes, including those associated with soil and plants, and their potential health effects. We will also explore microbial sampling methods and a citizen science project to understand microbial transfer dynamics during gardening.

Visit the Website – Register Now
www.mastergardenerminicollege.org

Visit our website...mark your calendar...register now.
http://mastergardenerminicollege.org

REGISTRATION NOW!
Plan to join us for this year’s best virtual educational experience.

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Contributors vary by monthly edition.

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http://extension.oregonstate.edu/yamhill/