Learn to Safely Preserve Foods Online with Preserve @ Home

Interested in safely preserving food for you and your family? It is time to think about gifting yourself or a loved one with an online, hybrid course, Preserve @ Home. OSU Extension Service invites you to enroll in Preserve @ Home, a national award-winning, online food safety and preservation course to teach individuals how to safely preserve a variety of food products. Participants learn how to produce high quality, preserved foods and the science behind food preservation and food safety in this self-paced 6-week course. The first class opens on-line on January 14, 2021. Each lesson includes online text (that can be downloaded and printed), online forum to facilitate participant discussion, and a live weekly chat session through Zoom to interact with classmates and instructors. The topics are released weekly:

- Foodborne Illness - causes and prevention
- Spoilage and Canning Basics: Freezing and Drying.
- Canning High Acid Foods and Specialty High Acid Foods - pickles, salsa, jams, jellies, etc.
- Canning Low Acid Foods
- New this year: materials on planting varieties for food preservation, cold storage and root cellaring!

Cost of the course is $45 plus the cost of required supplemental materials. Many of the supplemental materials are available free, online. Class size is limited. This course is offered cooperatively with the University of Idaho Ext. Service. Registration deadline is January 11, 2021: https://extension.oregonstate.edu/deschutes/preserve-home-oregon
In the garden

New Year’s Garden and Health Resolutions

Darryl Boom and I were discussing life and the world in general in preparation for our radio show. We decided to record a show on New Year’s resolutions related to gardening and health. Here is what we came up with:

- Order seeds early for best selection. Discard seeds more than two years old unless they have been held cold and dry for the whole time.
- Grow something exotic like sweet potatoes, okra, a Meyer lemon (needs to winter inside) or other semi hardy citrus, etc.
- Vow to trap every mole in the vegetable garden – they make it so hard to water evenly and create highways for field mice to wreak havoc on your crops. Outwit squirrels at bird feeders.
- Create a space to start seeds early for those crops that are somewhat frost tolerant to get your garden off to an early start.
- Learn to use row covers for earlier corn and bean plantings and other crops.
- Experiment with short term cover crops like buckwheat, phacelia, and others to improve soil health.
- Experiment with winter cover crops for the same reason and to add nitrogen.
- Start on long-term projects to control invasive weeds like English ivy and holly.
- Spend a lot more time relaxing in your garden, reading a book, sniffing the air, watching all the insects and birds find life and love in your space, etc.

Now the health resolutions:

- Get the vaccine as soon as you can. It is a life saver.
- Reach out to friends that you have lost contact with during the pandemic.
- Exercise outside as much as you can. Walking is a miracle cure.
- Pace yourself on hot days in the garden – know the signs of sunstroke and leave a project if you start feeling peaked.
- Eat more vegetables and fruit with meals. Explore the value of lentils and some of the other beans and peas.
- Drink enough water on hot and other days.

There are some many other things you could add but this is what, with a few minutes, we came up with.

Garden to Table: Revelations

This is a repeat of a delightful column written by Master Gardener Robert Hammond in October, 2008. It is all about received wisdom and learning new tricks. Robert and Thom are back in North Carolina where Robert was raised. They are excellent gardeners and tended their garden in Warren.

When I talk to other gardeners, the shared opinion is that this has been a tenuous gardening year. Now if I based my opinion on poor strawberry yields or tomatoes coming on way too late, I would have to agree. But all things considered, I’m more than satisfied with the bountiful yields my garden has provided. The cupboards and freezers are full and there’s still more to do.

There is a saying that you can’t teach an old dog new tricks. Well, this old dog begs to differ. If the school of hard knocks is the best teacher, I have earned a PhD. Just when I think I know how to do something, my garden has a way of teaching me differently. Despite all the reading and research, gardening at times can be a crap shoot. Every garden, I believe, has its own individual personality, as much so as the gardener that cares for it. So here
are some things I have learned this year – or haven’t learned as the case may be.

Anyone that plants more than a quarter of an acre of vegetable garden for two people should have their head examined. I should either have a passel of youngins or a fruit stand to justify it. Every year by summer’s end, I swear that I am not going to make this big of a garden. Come spring, like deer gazing into headlights of an oncoming vehicle, my eyes glaze over, passion overtakes sensibility, and I do it all over again. I can’t help myself. It’s a gardening addiction. I love watching things grow.

Don’t plant tomatoes next to the asparagus bed. My asparagus bed is mulched with a six inch layer of chicken manure and straw. The abundant August rain carried the nitrogen to the tomatoes producing an abundance of luscious growth but little fruit. I’ve also learned of the technique and importance of pruning indeterminate tomatoes after it was too late of course.

Cucurbits take way more room than you might think. I never seem to get the spacing right, probably because my frugality gets the best of me. I have difficulty letting go of the six feet that is required between rows. The vines always end up getting all tangled up with one another. Next year, I think I will try to grow some vertically.

If you go away for a week in August, the garden will be a jungle when you get back, well at least mine was. Vegetable gardens need daily diligence to keep thinks picked, otherwise you end up with giant squash and cucumbers and over-developed snap beans. That gives a signal to the plant that its work is done and can stop reproducing.

When a seed catalog or packet says “bush habit”, take that with a grain of salt. Every variety of bush bean or pea that I planted ended up putting out runners so long that they needed a trellis. By the time I realized it, the vines toppled over and became all intertwined. Picking was a challenge to say the least.

Follow planting time guideline then figure out for yourself if they work for your location. To save me, I have yet to determine the best planting times for fall vegetables. Some plants are ready for harvest before summer’s end and some don’t do at all.

You can grow plants that the books say you can’t. Many gardeners, myself included, like to push the envelope. I’ve been told that you can’t grow okra, sweet potatoes, or black-eyed peas west of the Cascades. Gee, tell that to my garden.

Gooseberries have the nastiest thorns in existence. After waiting three years, my two gooseberry bushes finally yielded a small crop. Even though they make a toothsome pie, the physical pain that has to be endured to pick them simply isn’t worth it. Gooseberry thorns make Himalayan blackberry canes seem like chamois cloth.

Time to maturity is all relative so don’t take what a seed packet tells you as gospel. I planted a variety of butterbeans specifically bred for cooler climates that was supposed to mature in 60 days. After 90 days, the beans still weren’t ready to pick.

Floating row cover is the best thing since sliced bread. Not only did it prevent the murderous crows from stealing the corn and beans as they began to sprout but it provided additional warmth that was so badly needed during our unusually cold June.

Finally, take time. Often a garden becomes so much work, I lose sight of the importance of taking time to sit and relax and to walk through the garden and enjoy its inherent beauty. Take time to feel the warm soil and to wonder at the miracle of life. Take time to laugh at mistake and to give thanks for triumphs. That’s the catalyst that makes it all worthwhile.

Successful gardening is about soil and season, about choosing the right plants for the right location, about experimenting and taking chances, and about constantly learning from both trials and jubilations. It’s all about fertile earth, water, air, light, and heat. A gardener can coax and coerce but if at any time you think you can outwit one of these elemental spirits, they will certainly prove you wrong. But given time, stewardship to our good mother earth will yield its bounty.
Bushy tailed woodrats

Some years ago, a rather cute immature woodrat was brought into the office by a young woman who had found it as a baby. She fed the young bushy-tail and was now quite attached to it. Bushy tail woodrats appear to be quite gentle creatures. But keeping them as a pet is not legal and not recommended.

The bushy tailed woodrat creates much confusion when the first one is encountered. It is shaped somewhat like a rat with a body that is 5-10 inches long and a tail of about equal length with its body. But that tail- it is covered in hair! The hair is shorter than a squirrel’s fur, less dense, and somewhat more flattened. General coloration tends to gray, tan, and brown.

These woodrats are surprisingly common in the coast range. They forage at night and make nests in trees on limbs or in hollow logs where those are available. Nests built on limbs can be anywhere from 12 to 50 feet above ground. They prefer older conifer stands and will gather dead limbs material as well as freshly cut twigs from fir, alder, elderberry, and other suitable material to make their nests.

The nest is a cup-like mass of sticks and other assorted material like moss but not neatly constructed. Nests built in buildings can range from the neat cup to a jumbled mass of sticks and other debris. The nests can range in size from 1.5 to almost 3 feet in diameter.

Bushy tailed woodrats are mainly vegetarians but may eat some insects and meat if available. They appear to get enough moisture from their food that they don’t need to look for water. Favored foods include young conifer shoots and leaves of alder, trailing and Himalayan blackberry, red elderberry, waterleaf, and probably others. Their night foraging is accompanied by quite a bit of noise.

Often the nests will have a trove of material picked up while foraging. If around human habitation, this can be anything shiny (bits of tin foil, coins, earrings, screws, etc.), edible (dried fruit, seeds and nuts, old chicken bones, etc.), or odd things like pieces of soap. This is why they are also called pack rats. There are a number of stories about the diversity materials that have been found in nests in structures.

Their reproduction cycle is not well understood (they aren’t all that easy to study). They are thought to generally have one litter with an average of 2-4 young, per year.

Woodrats are also fairly clean. They grasp their fecal pellet with their front teeth and fling it from their nest. One biologist reports that this can be done while asleep (the woodrat, not the alert biologist).

Contents of a Washington Bushy-tail cabin nest (circa 1920):
chewed rags, grass and leaves, chewed paper, the thumb of a glove, pieces of string, leather thongs, an apple core, onion peel, bacon rind, 10 bars of chocolate, figs, oakum, puff balls, 1 dime, a newspaper clipping on prevention of forest fires, the lid of a coffee can, paraffin from a jelly jar, bread crusts, bones, meat scraps, the rind of a cantaloupe, a scone, 19 pieces of candy, 4 potatoes, dried apricots, several cakes of soap, lemons, mushrooms, beans, peanuts, a banana, and 15 lumps of sugar.
Predators include bobcats, spotted owls, barred owls, larger owls, coyotes, weasels, and domestic dogs and cats.

It is not clear whether they can damage electrical wires inside houses like Norway and roof rats and mice. It is also not clear if they return to their nest if live trapped and moved a decent distance away. I once snap-trapped a wood rat (not knowing that was what was making the noise) and have regretted it since.

While woodrats do not appear to be in danger, their habitat is decreasing in Columbia County as forests are managed on increasingly short rotations and with a minimum of plant diversity. This may be of consequence for the wood rat and many other species (animal, bird, plant, fungal, and insect) that have traditionally been found here in relative abundance.

**The mind of a woodpecker**

Pileated woodpeckers are not uncommon in Columbia County. These raucous and altogether delightful birds are avid consumers of insects, especially carpenter and thatching ants. There is no lack of food in the spring, summer and fall but in the colder, wet months insect activity slows.

An alert biologist observing pileated woodpeckers in Alberta noticed an odd summer foraging pattern. His bird flitted from tree to tree, drilling holes, probing for carpenter ant nests, eating a few at each location and moving on.

The biologist was interested in the cues that engage the drilling response of the woodpecker.

It was known that they don’t focus on vigorous live trees but appear to have a search protocol that has them concentrate on trees with signs of decay.

While he studied the cues that led them to drill, he became more interested in the summer foraging behavior itself, i.e. locating an ant nest, pausing for only a snack. The scientist realized that the woodpecker might be mapping next winter’s food sources. His further studies revealed that to be the case.

Woodpeckers returned to those sites that winter when food was harder to come by. These birds retain a precise map of their summer food explorations. Such pre-planning and memory banking was clearly a highly adaptive trait in the evolution of the pileated woodpecker.

**Kestrels key on male voles**

Kestrels (aka sparrow hawks) are excellent hunters. Some Finnish scientists looked into the impact of UV light on bird behavior. It was known that birds’ sight is UV sensitive. They wondered whether that skill played a role in prey tracking. They knew (and how, I don’t know) that vole urine absorbs UV light.

Voles (“field mice”) are also liberal with urine to mark their paths and announce themselves to other voles. The scientists speculated that kestrels might see the marks and have a good idea where to look for voles. That, indeed, was the case. And since male voles do most of the marking, well, you get the picture.

Life and love has always been risky. If you are male vole, even more so.
~ JANUARY ~

Garden hints from your OSU Extension Agent

OSU Extension Service encourages sustainable gardening practices. Preventative pest management is emphasized over reactive pest control. Identify and monitor problems before acting, and opt for the least toxic approach that will remedy the problem. First consider cultural, and then physical controls. The conservation of biological control agents (predators, parasitoids) should be favored over the purchase and release of biological controls. Use chemical controls only when necessary, only after identifying a pest problem, and only after thoroughly reading the pesticide label. Least-toxic choices include insecticidal soaps, horticultural oils, botanical insecticides, organic and synthetic pesticides — when used judiciously. Recommendations in this calendar are not necessarily applicable to all areas of Oregon. For more information, contact your local OSU Extension Service office.

Planning

- Keep a garden journal. Consult your journal in the winter, so that you can better plan for the growing season.
- Check with local retail garden or nursery stores for seeds and seed catalogs, and begin planning this year's vegetable garden.
- Have soil test performed on garden plot to determine nutrient needs. Contact your local Extension office for a list of laboratories or view EM 8677 online.
- Take hardwood cuttings of deciduous ornamental shrubs and trees for propagation.
- Plan to replace varieties of ornamental plants that are susceptible to disease with resistant cultivars in February.

Maintenance and Clean Up

- Clean pruners and other small garden tools with rubbing alcohol.
- Reapply or redistribute mulches that have blown or washed away during winter.
- Place windbreaks to protect sensitive landscape evergreens against cold, drying winds.
- Do not walk on lawns until frost has melted.
- Water landscape plants underneath wide eaves and in other sites shielded from rain.

Pest Monitoring and Management

- Monitor landscape plants for problems. Don’t treat unless a problem is identified.
- Scout cherry trees for signs and symptoms of bacterial canker. Remove infected branches with a clean pruner or saw. Sterilize tools before each new cut. Burn or send to landfill before bloom. See EC 631, Controlling Diseases and Insects in Home Orchards.
- Watch for field mice damage on lower trunks of trees and shrubs. Eliminate hiding places by removing weeds. Use traps and approved baits as necessary.
- Use dormant sprays of lime sulfur or copper fungicide on roses for general disease control, or, plan to replace susceptible varieties with resistant cultivars in February.
- Moss in lawn may mean too much shade or poor drainage. Modify site conditions if moss is bothersome.
- **Mid-January:** Spray peach trees with approved fungicides to combat peach leaf curl and shothole. Or plant curl-resistant cultivars such as Frost, Q1-8 or Creswell.

Houseplants and Indoor Gardening

- Monitor houseplants for correct water and fertilizer; guard against insect infestations; clean dust from leaves.
- Protect sensitive plants such as weeping figs from cold drafts in the house.
- Propagate split-leaf philodendrons and other leggy indoor plants by air-layering or vegetative cuttings.
- Plant dwarf annual flowers inside for houseplants: coleus, impatiens, seedling geraniums.
- Gather branches of quince, forsythia, and flowering cherries; bring indoors to force early bloom.
Winter Chicken Keeping
Housing, feeding & boredom busting tips!

Back in April, I shared tips on “Raising Baby Chicks,” including housing, feeding & watering. Now that we have entered the winter season, here’s advice on keeping your flock comfortable during these wet & cold months in the PNW.

First, flocks in our area do not need a heater in their coop, as long as it is dry and draft-free (though some ventilation is required.) The risk of fire is just too great, especially if you use sawdust or leaf bedding, and chickens already wear their own down jackets! One way to add natural heat is to use the deep-litter method of letting a warm compost pile develop under their roost. Well managed, this method can be a useful way to manage several aspects of small flocks in the winter: exercise, distraction, warmth and less time spent cleaning the coop for you! (I save feed sacks through the year, and each fall, rake and stuff them with dry fallen leaves to add to their coop and run; useful to have on hand when it snows and they spend more time indoors, or need leaf “pathways” put down in their run – they don’t like snow!)

Secondly, in order to keep themselves warm, their feed consumption will increase. Be sure to follow proper feeding recommendations by providing a balanced ration and do not exceed 15% of their daily intake with treats (including scratch & scraps.) In the winter, one exception to this is feeding some cracked corn just before they roost at night – it is a favorite treat and digesting it helps warm them up. If you feed corn, or other whole grains, be sure to provide free-choice grit.) Fresh, clean, ice-free water is essential as well, even during winter months. With a small flock, fresh water can be provided each morning when the flock is let out into the run, and with a larger flock, a heated waterer may be worth the modest investment.

Next, if your flock had been laying into the fall, they may now take a break until daylight hours increase. This is natural, though some owners choose to offer artificial light to keep egg production higher. The choice is personal, as it may or may not extend the life and productivity of your laying hens, but my recommendation is to light pre-dawn vs. adding light at night as they need to find their roosts at bedtime.

Let’s talk about tips for distraction! Your chickens can get crabby when bored and start picking on each other. Some clever ways to entertain include: hanging a cabbage ball, creating a sunroom for dust bathing, or making them a batch of homemade protein cakes.

Dealing with mud this winter? Though this is not an ideal time to regrade and drain your swampy run (but make a plan to do so this summer) these quick fixes might help. Add a tarp to at least part of the run. You can even make a small trench to divert water that runs off that tarp away from your coop. Add a chicken “runway” of pallets, boards, cinder blocks, stumps, large rocks, etc. and add extra outdoor roosts if you are able (ladders, lattice, tree limbs all work fine.) In a small run, wood chips or a layer of straw could be added. Happy Chickens!

Contributed by Sonia Reagan, OSU Extension Education Assistant and experienced poultry farmer. Submit poultry questions: Sonia.Reagan@oregonstate.edu

Read poultry keeping articles online at OSU Small Farms
Farm and livestock notes

Farming and climate change

Climate change projections depend on models that predict how changes in temperature, rainfall, and other atmospheric factors will affect where people live and what they can do there. The models can be run with various levels of assumptions on how well greenhouse gas emissions are controlled in the coming decades.

The best case models still end up with much of the southwest United States (with some mountainous areas excepted) as basically unlivable with extreme temperatures common and the lack of water (without some dramatic change in technology) profoundly disruptive.

So where do all those people go? They migrate north. Agriculture would follow since the current advantages in the southwest (adequate water for irrigation and a good winter growing environment) would be gone.

When climate models are run with increasingly more realistic assumptions about how well we can control greenhouse gasses, larger parts of the United States become less viable for at least the traditional crops they have grown.

The southeast (especially the areas more inland from the Gulf of Mexico like Tennessee, northern Alabama, Arkansas, etc.) loses due to increased heat and drought. The Midwest gains with longer growing seasons and still adequate summer rainfall that has made agriculture vibrant there.

In the more extreme models, agriculture shifts strongly toward the Canadian border. Russia, which is almost all above the 45 parallel (think the latitude of Salem) already has warmer and longer growing seasons. This has led agriculture to expand into regions that have never been farmed. Russia is one of the winners in climate change if there is such a thing as winners in these scenarios. Canada will experience the same effect. Western Oregon will probably be alright in the near term with somewhat increased temperatures and longer growing seasons. How we fare in the long term depends more on water than temperature. East of the Willamette River, farmers depend on snow-melt water from the western slope of the Cascades. West of the Willamette, it is all ground water from winter rain in the Valley and the east side of the coast range.

If water becomes less available (and more valuable), irrigated crops in the Willamette valley will decline except for those crops of very high value. Water rights issues will be more contentious.

Farm acreage in the corn/soy belt has increased in value this last year but that seems to be due more to high commodity prices, low interest rates and stronger government support programs than a climate change bet. Right now, the core commodities (corn, soybeans, and wheat) are higher than they have been in some time.

There have been some larger purchases in Oregon but mainly based around specialty crops liked nursery stock, berries, wine grapes, and hazelnuts. Some California farming money is starting to flow north. That, I believe, is a climate change bet.

Salt needs of livestock

Livestock don’t always eat what is good for them. There are ample well-documented cases of cravings for poisonous plants, paint or other
equally unhealthy objects. Salt, however, is one thing that livestock seem to consume in proper proportions (assuming it is available and there isn’t a crush at the salt lick). Beef cattle eat about one ounce per day. Voluntary consumption of salt is higher when cattle are eating succulent forage, often twice as much as for dry-fed animals. Sheep show similar patterns in their salt needs, averaging ½ to ¾ pounds per month.

The crux of the matter is that well-placed salt feeders and blocks are essential to maintain healthy livestock. The animals will regulate their own needs.

**In addition, start feeding mol-mag blocks to prevent grass tetany in the spring!**

**Herbicide residues in compost**

Oregon Department of Agriculture handled a number of complaints about compost that appeared to be causing herbicide damage symptoms on vegetables. They found that one source, a mushroom farm, had used chicken manure to grow their mushrooms. That manure had residues of a class of herbicides that go through livestock and poultry unchanged and are very persistent in the manure.

The residue doesn’t affect fungi but is very hard on legumes (beans and peas), tomato family (tomatoes, peppers, eggplant, and potatoes), and squash/cucumber plants. Cabbage family is less affected.

Residues are active at 2 ppb (parts per billion) and the ODA lab can test to 10 ppb. That is a really small residue. Problems are most commonly found on grain and grass straw and hay that was treated with the herbicides (chlopyralid and aminopyralid) for broadleaf weeds and then the resulting manure after feeding gets into the compost chain.

The residues may last up to two years. Horse manure in Bend was found to contain these residues from the hay the horses had been fed. Again, there is no threat to the livestock since it passes right through them.

I first had contact with this problem in the mid-1990s. Chlopyralid was being used on lawns to control broadleaf weeds by lawn care companies. Lawn services were sending the clippings to regional compost facilities. It didn’t take too long before affected compost was killing tomatoes. A rule was made to require any use of this product on turf to be in a location like a golf course where clippings weren’t being picked up. That seemed to solve the problem.

But as the demand for organic matter in gardens has increased, it became common for large feedlots and/or dairies east of the Cascades to ship their composted manure to retailers. Unfortunately, farmers seem to use a lot of these herbicides out there and it was passing through the cattle, into manure, sold to garden centers, and ending up in home gardens.

ODA has said that any manure that might have come from feed with these residues be returned to the fields and not be composted for sale. Their monitoring will intensify this coming year.
Remote Delivery
Produce Safety
Alliance Grower Training Course

Oregon Department of Agriculture is pleased to offer the Produce Safety Alliance (PSA) Grower Training remotely. Remote classes are a temporary option developed by the PSA to serve growers during the COVID-19 pandemic.

The classes have limited seating and is offered on a first-come, first-serve basis. If you are interested in attending the course, please register soon. If you are unable to get a seat, please join the waitlists, and to be notified of future course offerings.

Register Online Here: https://content.govdelivery.com/accounts/ORODA/bulletins/2b0c287