



Tillamook County Tiller

HORTICULTURAL NEWSLETTER FOR TILLAMOOK COUNTY

FALL 2009

Rain Gardens Come to Tillamook

During the last week of June and the first week of July, eight Tillamook County OSU Master Gardeners and other volunteers pitched in to complete the last of three demonstration rain gardens in Tillamook County. This last rain garden was installed in Bay City near the intersection of 7th and Main. Other gardens have been installed in Pacific City and downtown Tillamook at Hoquarton Slough Park.

A rain garden is a sunken garden bed that collects and treats stormwater runoff from rooftops, driveways, sidewalks, parking lots and streets. Rain gardens work like a native forest, meadow or prairie by capturing and infiltrating stormwater from rooftops, driveways, and other hard surfaces. They can be planted with attractive native and horticultural varieties of perennials, grasses, sedges, shrubs and trees.

Rain gardens are a great way to add beautiful landscaping to your yard as well as protect our overloaded urban stormwater system and precious water resources! Why are rain gardens so important?



Above: Volunteers Mick Dressler and Gary Albright put their backs into installing a silt fence along Patterson Creek in advance of building Bay City's first rain garden.

When the Pacific Northwest was covered with forests and prairies, rainfall dripped through branches and vegetation, seeped through duff, and sank into underground aquifers as it slowly flowed to nearby water bodies. As our landscapes become developed, the rainfall that lands on hard surfaces drains to pipes, ditches, and storm drains and is routed directly to streams or into the sewer system.

Water that once took days, weeks or months to reach a stream now gets there in a matter of minutes. The result is too much water all at once. As a large pulse of fast-moving water flows down the stream system, it scours and erodes the stream bed, moves gravel downstream and degrades habitat for life in the stream. In addition, the runoff picks up pollutants like chemicals, fertilizers, and oil from parking lots, and in some places, carries it straight to streams without being treated. Too much water arriving in a short amount of time and carrying pollutants negatively affects the health of our streams, lakes and estuaries. Rain gardens help restore the natural flow and



Above: A City of Bay City backhoe operator carefully digs out the basin for the rain garden.

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Agriculture, Family and Community Development, 4-H Youth, Forestry, and Extension Sea Grant programs. Oregon State University, United States Department of Agriculture, and Oregon counties cooperating. The Extension Service offers its programs and materials equally to all people.

President's Corner

There's already a chill in the air and what's that strange noise? The furnace kicked on this morning!! Yes, summer is winding down and my refrigerator is overflowing with the bounty from my garden. It's wonderful to be able to share with friends and family – peas and beans, cucumbers and artichokes. There's also that "rush" to preserve to enjoy later. Got to get pickling cukes this week (that's next weekend's chore). We usually do 40 pounds, that's right, 40 pounds of pickling cukes become about four cases of spicy "river" pickles.

The tomatoes this year have been great. I've had ripe tomatoes since late July. Thanks in part to the terrific starts from Don's Waterfall Farms, and growing some different varieties this year. Taking Don's advice, I tried the "Stupice" and the "Siletz", and both are performing very nicely. Hopefully, we'll have enough sunny, warm days to ripen the huge green tomatoes on my early "Beefsteak" – we have several tomatoes that are larger than the palm of my hand. The garden is a jungle right now, and harvesting is a challenge. Looking for cucumbers I came across a strange looking zucchini ... no, it's a pumpkin! Not sure if we got it mixed up with a cucumber start or if it's a volunteer. Oh, well, it has several nice pumpkins that will be great for fall.

This is the first year our blueberries have produced well, and they are right on schedule as they are

about 4 or 5 years old. We have three different varieties, one early, one mid-season and a late season, so each plant has ripened in succession. I picked over 2 pints from one bush yesterday; blackberries are ripe, too. There's so much to do, but it's wonderful, fulfilling work that we will really enjoy this winter when we can go to our cupboard or freezer and remember these warm days of harvest.

The Farmers Markets are winding down, and now's the time to stock up on all the great things our local farmers have to offer. The Manzanita Farmers Market's last day is Friday September 11th, and Master Gardeners will be there with helpful advice about fall clean-up and preserving garden bounty. The Tillamook Farmers Market wraps up on Saturday, September 26th. Supporting our local farmers is one of the best ways to help the economy and it's always the safest source of food.

You'll find helpful articles in this issue of the Tiller about preserving your harvest and fall and winter gardening. Summer ending doesn't mean you can't have fresh vegetables – greenhouses, cold frames and cloches can extend your gardening and harvest for months to come. ☺

Laura Swanson, TCMGA President 2009

Preserve Homemade Salsa Safely

If salsa isn't canned properly, harmful bacteria can grow in the jar and cause a severe type of food-borne illness called botulism, according to Carolyn Raab, OSU Extension food and nutrition specialist. Depending on the amounts and types of ingredients used, salsa might be low in acidity. Acidity determines whether or not salsa must be processed in a pressure canner.

If you plan to can salsa, use a recipe with a laboratory-tested processing recommendation.

Some salsa recipes with added vinegar and a high proportion of tomatoes can be safely processed in a boiling water canner. Those with a higher proportion of vegetables other than tomatoes may need to be processed in a pressure canner. Temperatures reached while processing under pressure will kill *Clostridium botulinum* bacteria spores.

Tested recipes from the National Center for Home Food Preservation are on-line at: http://www.uga.edu/nchfp/publications/usda/utah_can_guide_03.pdf.

If you prefer to create your own salsa recipe, freeze it rather than can it. If you have home-canned salsa in your cupboard, evaluate its safety before eating it. That includes canned-food gifts. If the salsa was not made with a recipe tested in a laboratory, its safety is questionable. Examine the container and contents for signs of spoilage such as unusual sediment, spurting liquid when the jar is opened, or an off-odor.

If there are no signs of spoilage, boil the salsa for 10 minutes before eating. Boiling destroys the *Clostridium botulinum* toxin, which is invisible. Spoiled salsa should be boiled and discarded. ☺

Rain Garden (Continued)

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Treatment of water in the landscape which is critical to ensure healthy streams, even in towns.



Above and below: OSU Master Gardeners and others plant sedges and grasses around the edges of the rain garden, June 30 and July 1.



Tillamook County OSU Master Gardeners Andrea and Larry Goss, Chris Bolger, Carla Albright, Kathie Reames, Phyllis Holmes, and Evelyn VonFeldt, plus Gary Albright and Mick Dressler pitched in for three days of hard work. The volunteers began by installing silt fence to keep sediment out of nearby Patterson Creek, and then watched as a skilful backhoe operator from Bay City let his machine do most of the digging.

If you would like more information on rain gardens, Ecoroofs, pervious pavers and other green stormwater management techniques, be sure to attend the free video tour "Stormwater Management: One Back Yard at a Time" hosted at the OSU Extension Service office on September 15 from 9:00 AM to 12:00 PM. Extension faculty Robert Emanuel will be on hand afterwards to answer questions and talk about how rain gardens and other stormwater solutions work on in Tillamook County.

Once the main basin of the rain garden was dug, volunteers set to work grading the ponding surface, constructing berms, placing rocks and mulching. Together, they planted more than 100 native and non-invasive grasses, sedges and sedums around the garden. While the weather was unusually warm, everything has survived their initial transplant into the new garden. On the final day of work, several volunteers drove down to Tillamook Bay where they selected a spectacular piece of driftwood to finish the garden.



Above: Volunteers Chris Bolger, Larry and Andrea Goss and OSU Water Resources Extension faculty Robert Emanuel pose in front of the finished rain garden on July 1.

The Bay City rain garden represents the culmination of three years of research and development around North coast appropriate stormwater management by local water resources and community development faculty Robert Emanuel. It also marks the last of three major demonstration projects funded by Oregon Sea Grant. Now it's up to community members around Tillamook County to try out these attractive options on their own residential and commercial properties. This winter, OSU will publish the **Oregon Rain Gardens Guide** to help coastal residents and others around the state to assess, design and install the gardens themselves. Contact the OSU Extension Service Tillamook County for more information. ☞

Choosing Your Home Heating Energy Source

With fluctuating prices of natural gas, fuel oil and electricity, many people consider heating their homes by burning firewood or wood pellets as a less-costly alternative.

When considering a change in home-heating energy use, it is a good idea to compare heat content of traditional fuels with wood and wood pellets. The most common measure in the United States is the BTU, or British Thermal Unit. One BTU is the energy needed to raise the temperature of one pound of water by one degree Fahrenheit.

A new Oregon State University publication compares several types of fuels based on their cost per million BTUs of available heat at a given price. The publication, "Home Heating Fuels," (EC 1628-E) is available online at: <http://extension.oregonstate.edu/catalog/pdf/EC/EC1628-E.pdf>

A table reveals that burning wood or wood pellets can be less expensive at a cost per million BTUs than natural gas, electricity, heating oil or propane. The publication also explains how to calculate the payback period for money spent on a new wood stove or insert.

Cost is not the only consideration, however, when deciding to switch to firewood or wood pellets. Firewood heating values vary significantly, depending on how dry the wood is.

Because the most important factor affecting BTU is moisture content, if you decide to heat with wood, you need to stack and season the wood through a dry summer and protect it from getting wet throughout the rainy season. Seasoning over two summers is even better. Stacked wood should allow free air



flow through the openings to facilitate drying.

Tree species also are important in heating value. Denser hardwoods such as white oak have more wood and weight with fewer air spaces than lower-density trees such as red alder or true fir.

Denser hardwoods provide longer-burning fires and greater total heating value per unit of volume. Softwoods burn more quickly and heat less efficiently.

Good quality wood pellets typically have low moisture content and are cost competitive with firewood. Pellets must be stored in a dry environment, and electricity is needed to operate the stoker. Unless you have a back-up battery system, you'll be without heat if the electricity goes off.

There also may be safety issues to consider. Wood smoke consists of a complex mixture of gases and fine particles. The particles are the problem and can get into the eyes and respiratory system. Modern wood and pellet stoves produce less particulate matter than either open fireplaces or older models of wood stoves. Highly efficient pellet stoves emit even less than wood stoves.

Keep in mind also the area in which you live. You may be subject to "high pollution alerts" when it may be inadvisable or even illegal to use a wood burning appliance.

When purchasing a new stove, look for a U.S. EPA emissions testing certification label. More information is in the OSU publication - available at the OSU Extension Service 2204 4th Street, Tillamook.



Autumn is the Time to Plant Next Year's Garlic

October is the best month to plant garlic in your garden. There are several types of garlic to choose from – non-flowering, top-setting and elephant garlic are among those available from nurseries or stores. Most commercially grown garlic varieties are the non-flowering types, including Silver, California Early, California Late and Creole.

Many home gardeners like to grow top-setting garlic, sometimes also called "hard stem," Italian Silver Skin or Rocambole garlic, which often has darker or purple-tinged skin. It is called top-setting garlic because in the summer after it is planted, it produces bulblets, tiny garlic bulbs, at the end of a tall flowering stalk, in addition to a fat underground bulb of cloves. Some enthusiasts say that top-setting garlic has a richer, more pungent flavor than non-flowering types. The flower buds of top-setting garlic can be harvested in spring and sautéed or steamed as a delicious side dish.

Elephant garlic, actually a type of leek, produces large, mild-tasting cloves, usually fewer per bulb than the true garlics.

All types of garlic thrive in full sun in well-drained organic soil, and sandy, silty loam is best. On heavier soil, make raised beds that are two to three feet wide and at least 10 to 12 inches deep. The plants have well-developed root systems that may grow more than three feet deep in well-drained soil.

Lime the soil prior to final bed shaping if you haven't done so recently. Before planting garlic cloves, work in a couple tablespoons of 5-10-10 complete fertilizer, bone meal, or fish meal into the soil several inches below where the base of the garlic will rest. Select healthy large cloves, free of disease. The larger the clove you plant, the bigger the bulb you will get the following summer.

Plant cloves root side down, two inches deep and two to four inches apart in rows spaced 10 to 14 inches apart. Space elephant garlic cloves about six inches



apart. Garlic can be lightly mulched to improve soil structure and reduce weeds. A single 10-foot row should yield about five pounds of the fragrant bulbs. Garlic is rarely damaged by insects.

Fertilize garlic in the early spring by side dressing or broadcasting with blood meal or a synthetic source of nitrogen. Just before the bulbs begin to swell in response to lengthening daylight (usually early-May), fertilize lightly one more time. Keep garlic well weeded, as it cannot stand much competition. As the spring weather dries out, water garlic to a depth of two feet every eight to 10 days. As mid-June approaches, taper off on the watering.



Don't wait for the leaves to start to die back to check for maturity. Sometimes garlic bulbs will be ready to harvest when the leaves are still green. The best way to know if garlic is ready to pull from the ground is to pull one up and cut it open cross-wise. Start checking for mature cloves about late June. Harvest garlic when the head is divided into plump cloves and the skin covering the outside of the bulbs is thick, dry and papery.

If left in the ground too long, the bulbs sometimes split apart and become difficult to harvest as intact heads. The skin may also split, exposing the cloves. Then it doesn't store too well.

Dig, then dry the mature bulbs in a shady, warm, dry and well-ventilated area for a few days. Then remove the tops and roots. Brush dirt off the bulbs. To braid garlic together, harvest it a bit earlier while leaves are green and supple. Avoid bruising the garlic, as it will not store well.

Store bulbs in a dark, dry, well-ventilated place. Protect from high humidity and freezing. The refrigerator is not the place to store garlic - the cold temperature stimulates sprouting.

Properly stored garlic should last until the next crop is harvested, the following summer. Cloves also can be peeled and frozen or made into pesto with basil and olive oil and frozen. With care and a pinch of luck, you may never have to buy garlic again.

The OSU Extension Service offers a fact sheet about "Garlic for the Home Garden," (FS 138), available on the web at: <http://extension.oregonstate.edu/catalog/html/fs/fs138/> Or, you may ask for a printed copy, at the Tillamook Extension Service, 2204 4th Street, Tillamook. ☺

How to Dry Home-Grown Tomatoes

Sun-dried tomatoes are not just an exotic import from the Mediterranean. It is easy to create the flavor and aroma of dried tomatoes at home at a fraction of the cost of the imports. All you need is access to a food dehydrator, your oven or even a sunny day.

The Oregon State University Extension Family Food Program recommends the following simple and safe method for drying your garden-grown tomatoes.

Select ripe tomatoes of good color. Meaty "plum" varieties such as Roma, Oroma or Saucy work the best. Remove the skins, if you wish, by dipping the tomatoes in boiling water for 30 seconds. Chill immediately in cold water then peel.

Cut the tomatoes into slices that are one-fourth to one-third inch thick. Place them on food dehydrator trays. For seasoned dried tomatoes, sprinkle fresh tomato slices with herbs or garlic powder.

Dry them until leathery, with no moisture pockets. Store them in a cool, dry and dark place in plastic or glass containers.

If you have trouble with tomatoes darkening or turning black during the drying process, heat the fresh slices

before drying. Steaming, blanching or heating in a microwave oven until the slices are heated throughout but not cooked, will reduce the enzymatic reaction that causes the blackening.

When you want to use the dried tomatoes, soak them in hot water until softened. They make great pizza or pasta sauce and liven up creamy dips.

Dried tomatoes can be packed safely in vegetable oil and stored at room temperature, as long as you added no fresh herbs or vegetables to the tomatoes while you were drying them. You can safely dry fresh herbs along with the tomatoes.

To soften "crunchy" dried tomatoes before putting them into oil, dip them in bottled lemon or lime juice first. Add only dried herbs or garlic to your tomatoes in oil – do not use fresh garlic or herbs as they can introduce potentially harmful bacteria that can cause food poisoning.

The flavored oil can be used on pizza, pasta salads, appetizers, Italian dishes, in vinaigrette dressing or in a marinade sauce. It is also wonderful as a dip for crusty French bread. ♪

How to Ripen Green Tomatoes

You can ripen "mature green" tomatoes by picking them and storing them off the vine. To test whether green tomatoes are mature enough to ripen off the vine, cut one in half with a knife. If the interior is yellowish and the tissues are jelly-like or sticky, it will probably ripen. Mature green tomatoes may also have a pink or reddish tinge on the blossom end.

Place mature green tomatoes in thick straw or in a shallow box in a room, shed or garage, where the temperature ranges from 55 to 70 degrees. They will ripen over a period of three to four weeks. Place newspaper between rows of tomatoes, or wrap them individually to prevent decay from spreading from fruit to fruit if you are storing them in boxes. Sunlight is not needed; they ripen best in the dark.

Tomatoes may suffer from chilling injury at temperatures below 50 degrees if held there for longer than two weeks, or at 41 degrees for longer than 6-8 days. Chilling injury may prevent your green, mature tomatoes from ripening and keep them from developing their full color and flavor. It may also cause them to spoil more rapidly. Remember to store only tomatoes that have not been exposed to frost. Cold damage, including frost and cooler temperatures, is cumulative and may have happened prior to harvest, out in the garden.

Check your stored tomatoes every few days for signs of decay. Dispose of damaged fruit immediately, as rot can spread rapidly in storage. Unripe tomatoes can be used for canning or fresh cooking. ♪

How to Tell When Your Apples are Ripe

There are hundreds of varieties of apples grown in Oregon, from old heirlooms to modern disease resistant cultivars. But often apple tree owners don't know what kind of apple tree they have, much less recognize when their specific type of apple is at its peak of perfection and ready to harvest.

Here are some hints to help those with apple trees figure out what to do, from the Oregon State University Extension Service.

Any given variety of apple reaches harvest maturity at about the same time each year. So keep records for each of your trees, even if you don't know the variety name.

In districts with cool growing seasons such as in the mountainous regions of Oregon, the fruit usually matures later than in the warmer districts, such as in southern Oregon. Within a district, the time of maturity varies slightly from season to season. The most important factors affecting the time of maturity are variety, growing district and the type of growing season it was during the current crop year.

Oregon State University horticulturists classify Oregon into tree fruit ripening districts:

Early - Jackson County, Milton-Freewater, and Wasco

Midseason - Lower Hood River, Malheur, Douglas County, and Josephine County

Mid- to late - Willamette Valley

Late - high mountains and plateaus and the coast.

Early districts often begin harvest about 10 days earlier than midseason districts, and late-season districts about 10 days later.

There are also other clues you can use to determine when apples are ready to pick, including color, ease of separation, fruit drop, softness and flavor. Also, location on the tree may matter. Fruits on the southern side of the tree often ripen sooner than those that get less sun.

Color, both outside and under the skin, is a useful indication of maturity. Apples may be yellow, red, green or combinations of these colors at harvest. When the green has almost completely given way to yellow, a yellow variety is mature. With red blush or striped apples, the area where there is no red color usually changes from green to yellowish at maturity.



The newer red strains are confusing, because they are red all over long before maturity. In these, the change of flesh color (between skin and core) from greenish to white signifies maturity. The greenish color of spur-type Red Delicious may disappear only after several months of storage.

Ease of separation. Unless a "stop-drop" spray has been applied, mature apples are rather easily separated from the tree. Do not pull the apple down to pick it-rather, twist it upward with a rotating motion.

Fruit drop. When a few sound apples drop to the ground, the apples on the tree are nearly mature.

Softness and flavor. When an apple becomes slightly softer and tastes sweet and juicy, it is mature. Some varieties, such as Delicious, become sweeter in storage.

Maturity dates for many of the commonly grown apple varieties in Oregon are given in OSU Extension's publication Picking and Storing Apples and Pears, FS 147, available at the OSU Extension Service, 2204 Fourth Street, Tillamook. ☞

Cover Crops Keep Your Garden Healthy

Often called green manure, cover crops are an effective way to build garden soil during the fall and winter. Certain grains, grasses and legumes grow during the colder months and provide nutrients when spaded or tilled under in the spring. While they grow, cover crops also help reduce soil compaction and prevent erosion. Their roots penetrate and loosen heavy-textured soils, allowing air and water to penetrate.

"Cover crops are also called catch crops," according to Amy Dreves, research associate in the Oregon State University crop and soil science department. A grass or legume crop catches and uses the nitrogen and other mineral nutrients that winter rains normally leach away. Over-wintered crops also provide habitat for beneficial insects and help control weeds.

Nearly all garden soils need organic matter to maintain bacteria, fungi, earthworms and other forms of life needed to make healthy, fertile soil. When you turn under the cover crop in the spring, these nutrients return to the soil, ready for another crop of vegetables.

Plant cover crops from late August until early October where vegetables have been harvested or between rows where vegetables still grow. Annual grasses or grains make a quick, dense cover that will protect soil. Legumes, such as clover or vetch, are not as quick or dense, but are a rich source of nitrogen when chopped into the soil in the spring. A mixture of legumes and grasses is especially effective.

OSU Extension recommends the following crops.

- ★ Legumes: Austrian field peas, common vetch, crimson clover and fava beans.
- ★ Grains: annual ryegrass, barley and winter wheat.

In the spring, cut down or mow cover crops, compost the tops and till the rest into the soil before they flower or set seed. Allow a few weeks for the cover crop residue to break down. The complete list and when to sow and turn under the crops are available in the publication "Cover Crops for Home Gardens," FS304-E, online at <http://extension.oregonstate.edu/catalog/html/fs/fs304-e/> ↗

Storing Your Potatoes

Here are some research-based hints how to best harvest and store potatoes, from the Oregon State University Extension Service.

- Toughen up potatoes for storage before harvest by not watering them much after they flower. Let the vines die all the way back before you harvest them.
- Clean potatoes before storing them. Brush the soil off potatoes grown in coarse, sandy soil. If your potatoes need washing, be sure the potatoes are completely dry before placing them in storage.
- Cure newly dug and cleaned potatoes for a week to 10 days in moderate temperatures and high humidity. Store newly harvested potatoes where the temperature is about 65 degrees and the relative humidity ranges from 85 to 95 percent. Keep them under these conditions for a week to 10 days to harden off and heal any injuries caused during harvest.

- Sort out and cull injured and diseased spuds. Put the best ones in well-ventilated containers. Eat the ones hit by your shovel or with bad spots or disease in the first month. Injured potatoes may spread spoilage or disease microorganisms to uninjured potatoes.
- Store in a cold, dark environment with moderate humidity. Store your best tubers in a dry room with constant temperature of 35 to 40 degrees and moderate humidity. Under these conditions, well-matured potatoes will stay in good condition for seven to eight months. When storage temperatures exceed 40 degrees sprouting and shriveling may occur. Make sure to keep them dark, as light will turn them green and make them unfit for table use. Discard potatoes with an excessive amount of greening.
- Grow potatoes that keep well. Red potatoes do not keep as long as yellow or white varieties. Thin-skinned potatoes don't last as long in storage as those with thick skins, such as Russets. ↗

How to Harvest and Store Winter Squash

Harvest your winter squash when the "ground spot" changes from white to a cream or gold color. The Oregon State University Extension Service recommends the following steps for proper handling and storage of winter squash and pumpkins:

- Check before harvesting to see that all winter squashes and pumpkins to be stored have hard rinds.
- Leave the stems on acorn, butternut, turban and buttercup squash or pumpkins that have woody, angular stems.
- Cut, don't break the stems off Hubbards, banana and other fleshy-stemmed squash, leaving about one to two inches of stem. These should last six months if properly stored, especially if the stem is cut off and the stem area is well healed.
- Leave a three- to four-inch stem on a pumpkin to help it last longer. Avoid scratching or bruising them. Most types of pumpkins don't last as long in storage as winter squash.
- Be gentle with your produce. Try not to drop or pile your squashes on top of one another. Injured produce spoils quickly.
- Bring winter squashes and pumpkins in well before the first cold snap.
- Since most squashes and pumpkins are warm season crops, they are susceptible to low temperature injury at less than 50 degrees. Squashes and pumpkins left out in the garden may become cold-injured and will decay prematurely in storage. Once the weather gets below about 50 degrees for more than a week, or there is an extended period of rain, pumpkins and squash should be brought in for storage.
- Cure squashes and pumpkins after harvesting them by holding them at warm, dry temperatures for a few days until any abrasions or cuts from harvesting heal up.
- Store most winter squashes and pumpkins as close to 50 degrees as possible and between 70 and 80 percent humidity for best results. Good air circulation in the storage area is also helpful. Do not store pumpkins and squash in layers. Avoid storing them near the ground or floor where the humidity is highest. A layer of straw helps keep them dry.
- Avoid storing them on paper or in paper or plastic bags, as bags tend to hold in too much moisture. An attic or high garage shelf, if kept above 50 degrees, may work well.
- Under proper storage conditions, acorn squashes will last from five to eight weeks, butternut squashes from two to three months and Turban and Buttercup should keep at least three months. Keep an eye on your stored pumpkins and squash and remove any that are turning soft. ☞

Collect, Dry and Roast Seeds

If you'd like to try gleaning out the seeds from sunflowers, pumpkins or squash, you will have a nutritious snack. It is easy to dry and roast these high protein seeds.

For sunflower seeds, cut the spent flower heads, leaving a stem about one foot long. Hang each of these upside down in a dry location with good air circulation. Tie a cloth bag or a worn out, clean pair of panty hose around each head to catch the seeds, which might drop during drying.

For pumpkin and winter squash seeds, wash and remove all clinging fiber from the seeds. Dry in a dehydrator at 115 to 120 degrees until crisp or in a

warm oven for an hour or two. Stir the seeds frequently until they are crisp.

For seasoned roasted seeds, try mixing two cups of the dry seeds in a bowl with a half-teaspoon of Worcestershire sauce, 1 1/2 tablespoons melted butter or margarine and a teaspoon of salt. Place the coated seeds in a shallow baking pan and roast in a hot oven 300 degrees for 10-15 minutes or until crisp. Stir the seeds frequently, assuring that all are dry.

Cool the seeds after roasting. For long-term storage, store them in a plastic bag or container (removing as much air as possible) in the refrigerator or freezer to prevent rancidity. ☞

by Evelynn
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Gardener

The (Invasive) Weed Patch

Garlic Mustard

(*Alliaria petiolata*)



First year rosette

Last issue we shared information on False Brome a new invasive weed just showing up in Tillamook County. This issue we would like to make you aware of another invasive called Garlic Mustard, *Alliaria petiolata*. Both of these weeds are have been spotted near the Tillamook and Washington County line and were probably spread by recreational vehicles, the seeds hitchhike on tires, shoes and clothing or on animal's fur.

Why get all excited about one more "invasive weed"? The answer is simple- by knowing what we are looking for we can "nip it in the bud" (no pun intended). Our ancestors may not have been aware of how much damage some non-native plants can cause. We see hillsides covered with Scotch broom, purple loosestrife and yellow flag iris choking waterways, butterfly bush in the headwaters of the Willamette River, Japanese knotweed at every turn of the local rivers. Not to mention the Himalayan blackberries and English ivy everywhere you look. These plants are not from here and push out our native plants because they don't have any natural enemies. Some can start out as



Second year mature

lovely garden additions and escape into the wild by seed spread by wildlife or division of plant parts by flood waters.

Garlic Mustard was brought to America by European settlers who used it as a cheap substitute for real garlic in cooking and for medicine.

The real scary part about garlic mustard is it can completely take over the understory and nothing else, not even other weeds or tree starts, will grow where it is growing as it is allelopathic, producing chemicals that inhibit the growth of other plants. Deer won't even eat it.

How do I recognize garlic mustard? It is a biennial (vegetative plant the first year- blooms the second), with a basal rosette of kidney-shaped scalloped leaves the first year. The single flower stalk is topped by clusters of white four petaled blossoms in April or May. Plants range from 12" to 48" tall. The seeds are black, oblong in rows found in a narrow pod.

This plant has many look-alikes with foliage like many native Saxifrages: Fringcup, Coast Boykinia, Piggy-back plant and foamflower. Blossoms look like the wild radish and wild turnip. So learn the difference. You can learn more at the Oregon Department of Agriculture web-site <http://oregon.gov/ODA/plant>.

What to do if you do find garlic mustard? Small patches can be hand pulled or sprayed. Pulled material will complete flowering and set seed, so bag and destroy everything. Mowed plants will still set seed, so don't rely on mowing alone. And please document the site (location, date and treatment) and report findings to the Oregon Department of Agriculture Noxious Weed Control Program 503-986-4611 or call 1-866-INVADER. ☞

*Garden hints from your OSU Extension Agent***SEPTEMBER**

- Harvest winter squash when the “ground spot” changes from white to a cream or gold color.
- Plant lawns until October 15 .
- Plant or transplant woody ornamentals and mature herbaceous perennials.
- Plant cover crops of annual rye or winter peas as garden is harvested. Spread manure or compost over unplanted garden areas.
- Mulch carrot, parsnip, and beet rows for winter harvesting.
- Spray holly for leaf and twig blight, blueberries for stem canker as needed.
- Divide peonies and iris.
- Plant daffodils, tulips, and crocus for spring bloom. Work calcium and phosphorus into the soil below the bulbs at planting time.
- Clean houseplants, check for insects, and repot if necessary.
- Protect tomatoes and/or pick green tomatoes and ripen indoors if frost threatens.
- Use stakes to support tall flowers and to keep them from blowing over in fall winds.
- Bait for slugs with traps or iron phosphate products that are safe for use around pets.
- Dig, clean, and store tuberous begonias if frost threatens.
- Harvest potatoes when the tops die down. Store them in a dark place.
- Prepare compost pile for recycling vegetation from garden and deciduous trees. Do not compost diseased or insect-infested plant material.
- Copper spray peach and cherry trees.
- Monitor trailing berries for leaf and cane spot. Treat if necessary.
- Spray for juniper twig blight after pruning away dead and infected twigs.
- Monitor arborvitae for Berckmann’s blight. Spray if necessary.
- Spray potatoes and tomatoes for early and late blight. ☞

OCTOBER

- Harvest sunflower heads; use seed for birdseed or roast for personal use.
- Dig and store potatoes; keep in darkness, moderate humidity, temperature about 40°F.
- Harvest squash and pumpkins; keep in dry area at 55° to 60°F.
- Harvest and immediately dry filberts and walnuts; dry at 95° to 100°F.
- Harvest and store apples; keep at about 40°F, moderate humidity.
- Spray stone fruit trees to prevent various fungal and bacterial diseases. Use copper fungicides. Obtain a copy of *Managing Diseases and Insects in Home Orchards* (EC 631) from your local Extension office.
- Place mulch over roots of roses, azaleas, and rhododendrons for winter protection.
- Place hanging pots of fuchsias where they won’t freeze. Don’t cut back until spring.
- Trim or stake bushy herbaceous perennials to prevent wind damage.
- If weather permits, spade organic material and lime into garden soil.
- Cover asparagus and rhubarb beds with a mulch of manure or compost.
- Propagate chrysanthemums, fuchsias, and geraniums by stem cuttings.
- Remove and dispose of windfall apples that might harbor apple maggot or codling moth larvae.
- Rake and destroy diseased leaves (apple, cherry, rose, etc.).
- Clean up annual flower beds; mulch with manure or compost.
- Dig and divide rhubarb. (Should be done about every 4 years.)
- Treat for moss on roofs during dry periods.
- Dig and store geraniums, tuberous begonias, dahlias, gladiolas.
- Take care of soil drainage needs of lawns before rain begins.
- Fertilize lawn for last time this year.

NOVEMBER

- Bait for slugs during rainy periods. Use pet-safe iron phosphate baits.
- Rake and destroy leaves from fruit trees that were diseased this year. Remove mummified fruit.
- Tie red raspberry canes to wires; prune to 1 foot above the top wire or wrap the canes around the top wire. Check for holes made by crown borers at base of plant.
- Good time to transplant landscape trees and shrubs.
- Prune roses to “knee-high” to prevent winter wind damage.
- Renew mulch around perennial flower beds after removing weeds.
- Take cuttings of rhododendrons and camellias for propagation; propagate begonias from leaf cuttings.
- Place mulch of manure over dormant vegetable garden area. A 3- to 4-inch layer of leaves spread over the garden plot prevents soil compaction by rain.
- Cover rhubarb and asparagus beds with composted manure and straw.
- Protect built-in sprinkler systems: drain the system, insulate the valve mechanisms.
- Clean and oil lawnmower, other garden equipment, and tools before storing for winter. Drain and store hoses carefully to avoid damage from freezing.
- Protect tender evergreens from drying wind.
- Trim chrysanthemums to 4 to 6 inches after they finish blooming.
- Place a portable cold frame over rows of winter vegetables.
- Reduce fertilizer applications to houseplants.
- Time to plant spring-flowering bulbs.
- Apply lime to lawns if needed.
- Rake and compost leaves that are free of diseases and insects.
- Good time to plant trees and shrubs.

Oregon State University Extension Service encourages sustainable gardening practices. Always identify and monitor problems before acting. First consider cultural controls; then physical, biological, and chemical controls (which include insecticidal soaps, horticultural oils, botanical insecticides, organic and synthetic pesticides). Always consider the least toxic approach first.

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Coming Events

- Sept 2 to October 29th - Master Gardener Office Hours:
 Mondays and Thursdays 12:30 to 4:30 pm
- Sept. 5, Sept 19: Tillamook Farmers Market
 Master Gardener Clinic 9 am - 2 pm
- Sept. 11: Manzanita Farmers Market
 Master Gardener Clinic 5 to 8 pm
- Sept. 12 TCMGA Bus Tour - Corvallis - Garland
 Nursery and Dallas - Dancing Oaks Nursery
- Sept. 15 9 a.m. to noon - OSU Extension meeting
 room - "Stormwater Management -- One Back
 Yard at a Time" Video Tour and Discussion
- 3rd Wed. Bonsai Club 9:30-11:30 at 911 meeting room



TCMGA Bus Tour

Saturday, September 12th: Corvallis - Garland Nursery and Dallas - Dancing Oaks Nursery



Autumn Festival Classes

Saturday, October 24th

9:00 am --10:30 am

Harvest Medley With Susie
 Managing Your Utility Bills
 Raised Beds, Cloches, and Cold Frames
 Winterizing Ponds and Water Features

10:45 am -- 12:15 pm

Local Razor Clam Chowder
 How Does Your Credit Score?
 Composting
 Beyond Daffodils and Tulips

1:00 pm -- 3:00 pm

Fall Twig Wreath/+ *additional fee, \$15*
 Rising Waters: Floods/Streamfront Property
 Transplanting Shrubs and Trees

Register by October 16th

OSU Extension Service

OSU Extension Events

**Stormwater Management -
 One Backyard at a Time**

Sept. 15 - OSU Ext. Mtg Room 9 a.m. to noon

Lunch 'n Learn - Dollar Decisions
 OSU Ext. Mtg Room
 Noon to 1 p.m.

Bring your lunch and explore the following topics:

October 8 Tracking Your Expenses
 October 15 Spending and Saving Plans
 October 22 Credit Basics
 October 29 How Does Your Credit Score?
 November 5 Take Control of Debt
 November 12 Guard Against Identity Theft
 November 19 Putting it All Together to Develop
 Your Plan

Autumn Festival Classes

9 a.m. to 3 p.m.

October 24th - See Box on the left or the Insert

**Autumn Festival Classes
Registration Form**

Cut and return this form to the OSU Extension Service,
2204 Fourth Street, Tillamook 97141
Make checks payable to: OSU Extension Service

Last Name	First Name	Phone
Mailing Address	City	Zip

Class Selection -- Please X your choices

9:00 am --10:30 am

- (09AFC-01) Harvest Medley With Susie
- (09AFC-02) Managing Your Utility Bills
- (09AFC-03) Raised Beds, Cloches, and Cold Frames
- (09AFC-04) Winterizing Ponds and Water Features

10:45 am -- 12:15 pm

- (09AFC-05) Local Razor Clam Chowder
- (09AFC-06) How Does Your Credit Score?
- (09AFC-07) Composting
- (09AFC-08) Beyond Daffodils and Tulips

1:00 pm -- 3:00 pm

- (09AFC-09) Fall Twig Wreath/+ additional fee, \$15
- (09AFC-10) Rising Waters: Floods/Streamfront Property
- (09AFC-11) Transplanting Shrubs and Trees

\$7 /class or 3 classes for \$20 \$ _____

Additional Fee: Fall Wreath Class \$ _____

Total Paid:() cash \$ _____

() check (# _____) \$ _____

Receipt # _____

(fee is non-refundable unless the class is cancelled)

Pre-registration encouraged by Friday, Oct. 16



Walk-in registration accepted on a space-available basis

Day of classes

*pick up your schedule containing class location
at the front desk
OSU Extension Service
2204 4th Street, Tillamook*

Lunch is not provided

You are welcome to bring a "brown bag" lunch

If you have a disability that requires special considerations in order for you to attend this event contact the OSU Extension Service in Tillamook at 503.842.3433 by October 14, 2009

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**Autumn Festival
Classes**

**Educational Classes for
Adults & Teens**

**Saturday,
October 24, 2009**

Register Early

*Classes with insufficient enrollment
by Friday, October 16 may be cancelled*

**OSU Extension Service
2204 4th Street,
Tillamook, Oregon 97141**

(503) 842-3433

Sponsored by:
Tillamook County Master Gardener Association
Oregon State University Extension Service



9:00 — 10:30 a.m.

Harvest Medley With Susie: *Susie Johnson, OFNP Education Program Assistant, OSU Extension, Tillamook.* Wondering what to do with you bumper crop harvest? Come see what Susie is cooking up for fall. A mild curry veggie soup, oven-roasted veggies, and a fall veggie stir fry--all served with rice. To sweeten the deal Susie is also making glazed apples in caramel sauce. Recipes to keep and samples to eat.

Managing Your Utility Bills: *Tillamook PUD.* Some of the initiatives underway to help keep prices down and help Tillamook PUD customers save money on their electric bills include: Energy efficiency programs, securing power through long term contracts, investigating alternative sources and offering customer education programs. It is a challenging time for the utility industry and the community. Come hear what Tillamook PUD is doing to help keep customers' utility bills in check.

Raised Beds, Cloches, Cold Frames: *Deborah Bowman, TCMGA Demonstration Garden Chairman, Tillamook County Master Gardener, Class of 2004, Tillamook.* Deborah will share experience learned from the Demonstration Garden about raised bed styles, materials and construction. She will also cover hoop houses, cloches, cold frames and touch on adaptive gardening.

Winterizing Ponds and Water Features: *Dale Pallin, Clearwater Ponds, Tillamook.* Do you always admire other peoples ponds or water feature and wish that you had one? Did you realize that even in Tillamook County, you can safely use your fountains in the winter? It's true according to Dale Pallin. Students will learn the basics of installing a water feature or pond as well as how to prepare your ponds and water features for the winter.

10:45 a.m. — 12:15 p.m.

Comfort with Local Razor Clam Chowder: *Executive Chef Eric Jenkins, Duncan Law Seafood Consumer Center, Astoria.* It is the time of the year when curling up with a hot bowl of chowder just fits the bill. We will tackle a creamy chowder full of local Oregon razor clams, served with a garden salad and heaps of sesame seed garlic bread. Look in the September issue of Sunset magazine for more information about award winning, Food Network Seafood Challenge contestant, Chef Eric Jenkins.

How Does Your Credit Score? *Nancy Kershaw, Family Community Development Faculty, OSU Extension Service, Tillamook.* Learn what your credit score says about you and how to build/repair your credit history. Find out how to order a yearly free credit report and monitor your credit report and accounts to protect against identity theft.

Composting: *Evelynn VonFeldt, Tillamook County Master Gardener Class of 2000.* Fall is the best time to start a compost pile. Evelynn will explain how to get started, what is happening in your pile, different methods of composting, plus she will talk about our local digester materials.

Beyond Daffodils and Tulips: *Joy Jones, OSU Extension Service Agriculture Faculty, Tillamook.* Gardening with bulbs is no longer just about spring-flowering favorites. Utilizing perennials that reproduce via bulbs, tubers, or corms can expand your plant choices and reduce the cost of having a beautiful flower garden. In recent years many new plants have become available commercially. Come and learn about gardening with bulbs.

1:00 — 3:00 p.m.

Making and Decorating a Fall Twig Wreath: *Cindy Gardner, Sunflower Flats, Tillamook.* Join Cindy Gardner in making and decorating a fall twig wreath with fall leaves, pods, dried flowers and more.. We encourage you to bring your own glue gun and any additions the you choose (or a larger wreath form) to complete your project. There will be an extra ***\$15 fee*** for basic wreath and materials.

Rising Waters: Floods and Managing Your Streamfront Property: *Robert Emanuel, Water Resources and Community Development Specialist, Oregon Sea Grant.* Any local can tell you that Tillamook County is a flood prone area. Floods are a normal part of how our watersheds operate, especially during combined seasonal storms and high tides. But with so many streams running through our communities, how can we manage our properties to help minimize the impact of floodwaters to ourselves and our neighbors? And how can you be prepared for flood impacts to essential services such as wells, springs, and septic systems? Learn the anatomy of a flooding watershed, how floods are forecasted, as well as some basic practices that can be taken to prepare your streamfront property for a flood as well as deal with the aftermath of a flood.

Transplanting Shrubs and Trees: *Mark Bloom, Bloom River Gardens, Springfield.* Has your rhodie outgrown its' space? Do you want to build a deck where a nice little Douglas fir is growing? This class will provide the home gardener with instructions on the proper timing, methods and tools to use in transplanting shrubs, small trees and other plants in your landscape. Students will also learn how to care for their tools in the harsh coastal environment. Mark will bring a collection of transplanting tools he has acquired over the years and a selection of plants he and his wife, Val, grow in their nursery.