



# Tillamook County Tiller

HORTICULTURAL NEWSLETTER FOR TILLAMOOK COUNTY

SPRING 2011

Oregon State  
UNIVERSITY Extension  
Service

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## *Think Like a Plant when Measuring Soil pH*



Soil pH can make a big difference to the plants in your garden. In order to understand how, you have to "think" like a plant.

"Think of yourself in a swimming pool," said John Hart, soil scientist at the Oregon State University Extension Service. "If the water is too cold, or the chlorine makes your eyes hurt, you don't want to be there for long."

"Roots in the soil are just like you in the pool. If the soil pH is too high or too low, plant roots don't want to be there. They don't grow normally and they may not take up enough nutrients to support the plant."

Scientifically speaking, pH measures the concentration of hydrogen ions in soil solution. It is measured on a scale from 0 to 14. Values below 7 indicate acidic soil. Those above 7 indicate basic or alkaline soil. Each unit change is a 10-fold difference in the concentration of hydrogen. That means if your soil pH is 6.0 and your neighbor's soil pH is 5.0, your neighbor's soil pH is 10 times more acidic than yours.

Soil in western Oregon has a natural tendency to be acidic. Centuries of leaching the soil with the abundant winter rainfall removed chemical constituents such as calcium and magnesium, making the soil acidic. The natural process of soil acidification is accelerated by the addition of nitrogen fertilizers, and farming or gardening in general.

As soil pH decreases (becoming acidic), the solubility of iron, zinc, manganese and aluminum increases. The concentration of some of these metals can reach levels that are toxic to some plants. Alfalfa, garlic and many garden vegetables are particularly sensitive,

whereas blueberries and rhododendrons are quite tolerant.

Standard soil tests can determine the pH level of your soil. If it is too acidic, the addition of lime can help raise the pH.

To understand how lime works, Hart again helps us think like a plant. Begin with coffee, with a pH of about 5.5, coffee can be too acidic for some people. How do you reduce the acidity of coffee? You add cream. The action of cream in coffee is the same as adding lime to soil. Just as you would need to stir the cream into the coffee, so you need to mix the lime into the soil before planting.

The goal of putting lime in your garden or cream in your coffee is not to neutralize all hydrogen or raise the pH to 7, rather it is to reduce acidity to a tolerable level.

The pH of a liming material is not as important as its ability to combine with hydrogen, the primary component of soil acidity. Just as an oyster shell in your coffee cup would do little to neutralize the acid, so some materials react differently with the hydrogen in the soil. Effective liming agents such as calcium carbonate (agricultural lime) or dolomitic lime, bind with hydrogen and remove it from soil solution, which in turn reduces acidity.

For more information about testing your soil's pH, check with the OSU Extension Service. ([EC 628](#)) - "Soil Sampling for Home Gardens and Small Acreages" and ([EM 8677](#)) - "Laboratories Serving Oregon" are available online or obtain a copy at the OSU Extension Service, 2204 4th St., Tillamook. ☞



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## President's Corner

*APRIL is the cruelest month, breeding  
Lilacs out of the dead land, mixing  
Memory and desire, stirring  
Dull roots with spring rain.*

The above is a quote from T.S. Eliot's *The Waste Land*. I think that perhaps in Oregon, January is the cruelest month. The scattered sunny days (and the daily arrival of gardening catalogs) make me very optimistic about spring's arrival, until the wind blows and rain (or snow) comes down. But on those sunny days I can almost forget that we still need to survive February, March, and April.

Now is the time to plan your garden and there are lots of resources in the community. First of all, the Tillamook OSU Extension Service is there to help all of you. There are a multitude of brochures that will help you determine the appropriate plants (disease resistant fruit trees, for example). If you prefer not to venture out on our numerous rainy days, you can browse the gardening literature provided by the Extension Service from Oregon State University online at <http://extension.oregonstate.edu/gardening/> You will find calendars of things to do in the garden, brochures, gardening hints and even videos. You can order brochures (for a small fee) or view them online for free.

Master Gardeners will be in the Tillamook Extension Service Office Monday and Thursday afternoons in March, and April. Feel free to call or stop in. They can answer questions or get you reference

Tillamook County  
Master Gardener Association 



material from OSU publications. I also see notices popping up of groups getting together to chat about gardening, exchange seeds and lessons learned.

Master Gardeners will hold a Community Pruning Day on March 5th this year. This is one of our community service activities that also helps our new apprentices practice their pruning skills. We solicit applications from the community for people who are unable to do their own pruning. We concentrate on pruning bushes and shrubs that we don't need a ladder to reach. Teams made up of apprentices and Master Gardeners spend a Saturday in March pruning in the area. The apprentices have a pruning class in mid February so this is a great way to sharpen their skills and serve the community at the same time.

Don't forget to mark your calendars for the TCMGA Spade and Wade Garden Tour and plant sale on July 23<sup>rd</sup>. Watch for more information about the Oregon State Master Gardener Mini College in Newport, July 13- 16<sup>th</sup>. All gardeners are welcome to attend and we plan to charter a bus for a day visit there if we have enough interest from the community. ☺

*Jean Scholtz*

TCMGA President 2011



## *Yellow Leaves May Mean Soil pH Imbalance*

**T**his time of year, yellowish leaves on azaleas, rhododendrons and blueberries may indicate a problem. Perhaps the plant needs additional nutrients, such as nitrogen, sulfur or iron. Sometimes yellowing leaves indicates that the soil has the wrong acidity level and the plant is unable to absorb nutrients that are present.

John Hart, soil scientist with the Oregon State University Extension Service, suggests how to tell what your sick plant needs. "Remember that many plants - including rhododendrons, azaleas, huckleberries, heathers and hydrangeas - typically need a more acid environment than most plants."

First, apply nitrogen or sulfur fertilizer to the shrub. If your soil is nutrient poor, the fertilized plant should respond by turning back to a healthy green color within a few weeks. If, however, the jaundiced look hangs on, it could be a problem with the acidity of the soil. Soils with low acidity tend to starve some plants of iron.

*Source: John Hart*

By acidifying the soil, you can correct iron deficiency in plants. If you know your soil pH is too high (too alkaline), mix elemental sulfur or another acidifying material with soil excavated from the planting hole before you plant.



In Tillamook County we seldom need to acidify our soil. If you are seeing these symptoms, check your soil pH and modify accordingly.

Proceed cautiously with acidification. Test one plant before treating your entire yard. You will need to wait until next spring or summer to gauge the plant's response before you apply any more acid to the soil.

Iron can be sprayed directly on the leaves in addition to a soil acidification program if a severe iron deficiency exists. Leaf (foliar) iron sprays usually are short lived and need to be applied every other week during rapid growth. ☞

## *Take Your Soil Temperature*

**T**he temperature of your garden soil is key to successful seed germination. Different seeds germinate at different temperatures. Measuring soil temperature can guide your vegetable planting schedule.

Arugula, fava beans, kale, lettuce, pac choi, parsnips, peas, radicchio, radish and spinach seed will germinate in soils down to 40 degrees.

Chinese cabbage, leeks, onions, Swiss chard, and turnips can be planted in soil temperatures above 50 degrees.

When the soil warms to 60 degrees, warm season and many cool season vegetables can be sown, including beans, beets, broccoli, Brussels sprouts, cabbage, carrots and cauliflower. Beans will not tolerate any

frost and may have to be planted again if the temperature goes below freezing.

Plant warm season vegetables including tomatoes, eggplants, peppers, cucumbers, squash, corn and melons when soil warms to above 70 degrees.

Purchase a probe thermometer from a garden supply store. Insert the thermometer **two inches** for early season and small, seeded vegetables. Insert the thermometer **four inches** for warm season vegetables such as tomatoes, eggplant, peppers, squash, and cucumbers.

Take the temperature the same time every day (mid-day is best) for several days in a row and average them out. Just because something has germinated and is starting to grow doesn't mean it can't be hit by a late frost, so be prepared. ☞

*Source: Deborah Kean*

## Make Your Own Seed Starting Soil

A good way to get motivated for growing seedlings or “starts” is to make up some planting medium at home. A good germinating medium must be fine and uniform, yet well-aerated, loose and free of pests, diseases and weed seeds. The planting medium also should be low in fertility and total soluble salts, yet capable of holding and moving moisture by capillary action.

But beware! Soil straight from your backyard just won't do the job. Typical backyard soil is too compacted, full of weed seeds and it is not pasteurized, causing seedling diseases and death. And native soil does not often drain as well as seedling mixes. It can develop a crust that prevents seedlings from pushing through the soil.

A recipe for a good basic pasteurized soil for growing vegetable seedlings is a mixture of one-third pasteurized soil or finished compost, one-third sand, vermiculite or perlite, and one-third peat moss. Many people just use half peat moss and half perlite,

vermiculite or sand, and this combination seems to work well, too.

To pasteurize a small quantity of soil or finished compost in an oven, put the slightly moist soil or compost in a heat-resistant container or pan. Cover with a lid or foil. Place in a 250-degree oven for at least a half-hour. Use a candy or meat thermometer to ensure that the mix reaches a temperature of 180 degrees for a full half-hour. Avoid overheating it, as the structure of the soil may be damaged, rendering it useless as a seedling soil ingredient. Sand, vermiculite, peat moss and perlite are available at most nurseries and garden stores.

Another task to complete before the start of seedling growing season is to clean your pots, trays and flats. Then rinse the containers in a solution of one part chlorine bleach to 10 parts water to kill remaining plant disease microorganisms that could weaken or kill your tender young seedlings. Avoid re-contaminating your planting medium or tools.

Source: Barbara Fick

## Best Time to Prune Fruit Trees



The best time to prune fruit trees is in the winter and when you have enough time to finish the job, according to Ross Penhallegon, horticulturist and pruning expert with the Oregon State University Extension Service. November through March is a good time to prune. If you are worried about winter freeze damage, wait until after Feb. 1, which is the best time to prune in western Oregon.

### General rules of thumb about pruning fruit trees:

- Take a hands-on pruning class so you can see good pruning in process.
- Prune out any diseased, dead, dying or crossed limbs.
- Cut off the water sprouts that grow straight up and suckers that grow out of the ground near the trunk, out of the top of the tree or from the roots.

- Prune out suckers from last year's pruning cuts and from the center of the fruit trees.
- Get a good mental picture of what shape you want the pruned tree to look like this year and five years into the future. Then prune for shape, size and good scaffold branches to support the fruit.

To learn details about pruning and training fruit trees, download at no cost the OSU Extension publication “Training and Pruning Your Home Orchard” (PNW 400) at <http://extension.oregonstate.edu/catalog/pdf/pnw/pnw400.pdf> Or you may obtain a copy at OSU Extension Service, 2204 4th Street, Tillamook.

The 14-page illustrated guide gives basic principles of training and pruning apple, pear, sweet and sour cherries, peach, prune, plum, walnut, filbert and apricot trees. ♪

Source: Ross Penhallegon

## *Prune Blueberries for More Fruit*

**M**oderate pruning of highbush blueberries done every year can make the difference between a mediocre and a bumper crop – and inconsistent production of quality fruit.

Highbush blueberry, a native of North America, grows six to 12 feet tall and is the major blueberry producing species in commerce. Its name refers to its tall stature. The best time to prune is from January to early March during the dormant period. Research shows that annual, moderate pruning results in bushes with the fewest canes, but with the greatest yields and largest berries.

Plants not pruned or pruned too lightly become dense with weak, twiggy growth. They produce small fruit and fail to develop strong new wood for future berry growth. Severe pruning leads to more new wood and larger but fewer berries.

If bushes are pruned only occasionally and then pruned heavily, many young canes will grow the year after. These canes will age together and become unproductive all at the same time. After several years, if you wanted to prune out the unproductive canes, nearly the entire bush would have to be removed. And no young growth would be present to replace the lost fruiting wood.

*Source: Bernadine Strik*

### *Steps for pruning highbush blueberries:*

1. Remove the low growth that would touch the ground when loaded with fruit. Cut out short, soft shoots that develop from the base of the plant late in the season.
2. Prune off canes and twigs damaged by winter injury, mechanical causes, diseases or insects. Cut out the unproductive canes: those that haven't produced much new growth on one-year-old canes, which have buds and are dull in color.
3. If you have been pruning every year, remove the two oldest (most unproductive) canes each winter.
4. Prune to let light down into the plant center.
5. If your plants tend to bear numerous small fruits rather than larger ones, thin the fruit buds by clipping back some of the small shoots carrying a heavy load of flower buds. Blueberry flower buds are near the tips of the past season's growth and are large and plump, compared to the small scale-like "leaf" buds.

Pruning and general care of blueberry plants is available in "Growing Blueberries in Your Home Garden," ([EC 1304](#)), online. For more specific pruning information, the 22-minute video "A Grower's Guide to Pruning Highbush Blueberries," (DVD 2) is for both home gardeners and commercial growers. Cost is \$19.95 plus S &H. Order [online](#), or call 800-561-6719.



## *Fertilize Houseplants*

**A**ll plants, including those kept indoors, need nutrients in the spring. Take care to not feed them too often or too much. Most house plant ailments relate to overfeeding, coupled with poor watering practices. The key to success is to feed sparingly and to 'double water' monthly to flush away excess fertilizer salts. To double water, water once as usual, then follow with another watering five minutes later with enough water to cause some to run out the bottom of the pot.

Houseplants need fertilizers containing three major elements: nitrogen (N), phosphorus (P), and potassium (K, sometimes listed as K<sub>2</sub>O or potash). The numbers

following the fertilizer name correspond to the percentage of those elements by weight in the fertilizer. Houseplant fertilizer is sold in granular, crystalline, liquid or tablet forms, under a multitude of brand names. The label should indicate how much water-soluble nitrogen, phosphate or potassium is available per pound of product.

A 20-20-20 mixture is good for stimulating foliage plants; 10-20-10 might be better for flowering plants. Fertilizer mixtures can be used to stimulate growth, enhance flowering, or maintain the plant. Use according to instructions on the package label, or even more diluted.



## *Approximate Planting for a Family of Four*

When planting a garden to feed your family, keep in mind your family's appetite and preferences as well as your desire to can or preserve extra. If starting from seed take into consideration the germination rate of seeds. If you start from seed (vs. transplants) the chart below will help you determine how many seed packets to purchase.

<b>Plant Type</b>	<b>Spacing</b>	<b>Quantity to Plant</b>	<b>Seeds Needed</b>	<b>Seeds Per Ounce</b>	<b>Seeds Per Gram</b>
Asparagus	9" to 12"	32 plants	32	1300	46
Bush Beans	4" to 6"	80-120 ' row	360	90	3
Beets	4"	60 ' row	180	1000-2750	37-99
Broccoli	24" to 30"	12 - 15 plants	15	5000-9300	174-330
Cabbage	24" to 36"	12 - 15 plants	15	2750-10500	99-370
Carrots	2" to 4"	40 ' row	240	11000-24300	385-850
Cauliflower	18" to 24"	12 - 15 plants	15	5000-9300	174-330
Corn	8" to 12"	140 ' row	210	135-400	5-6
Cucumbers	8" - 36"	6 - 8 plants	8	1000	35
Leaf Lettuce	12"	20 - 30 ' row	30	26500	935
Green Onions	1" to 2"	10 ' row	120	13000	440
Peas	2"	120 - 160 ' row	960	100	3
Peppers	18" - 24"	6 - 10 plants	10	4300	154
Pumpkins	36" - 48"	3 plants	3	185	6
Radishes	2"	20 ' row	120	2000-4500	70-160
Spinach	12"	10 - 20 ' row	20	1500-4000	50-150
Squash	36" - 48"	3 plants	3	260	10
Tomatoes	24" - 36"	10 - 15 plants	15	10000-11875	350
Turnips	4" - 6"	10 - 15 ' row	45	7800-15300	275-530

*Source: "Garden Highlights" newsletter by Marty Miller - OSU Master Gardener, Wasco County*

## OSU Recommended Vegetables

Vegetable varieties recommended by OSU for 2011 are adapted to local growing conditions to produce the best yields in home gardens. The recommended updated varieties are listed here for Region I, the Oregon Coast -- cool but long season of 190 to 250 days.

### Artichoke

Green Globe, Imperial Star, Emerald.

### Asparagus

Mary Washington, Jersey Knight, Jersey Giant, UC 157, Purple Passion.

### Beans

(*green bush*) Tendercrop, Venture, Slenderette, Oregon 91G, Oregon Trail, Provider, Jade, Oregon 54. (*flat Italian*) Roma II. (*French filet*) Nickel, Straight 'N Narrow. (*green pole*) Blue Lake, Kentucky Wonder, Romano, Cascade Giant, Kentucky, Blue, Oregon Giant. (*wax bush*) Goldenrod, Goldrush, Indy Gold, Slenderwax. (*lima, bush, large seeded*) Fordhook 242 (or any Fordhook). (*lima, bush, small seeded*) Thorogreen, Baby Fordhook, Jackson Wonder. (*dry*) Pinto, Red Kidney, White Kidney (Cannellini), Cranberry, Etna. (*edible Soybeans or Edamame*) Envy, Early Hakucho, Butterbean, Sayamusume, Misono Green.

### Beets

Ruby Queen, Red Ace, Kestrel, Early Wonder, Pacemaker III, Detroit Dark Red, Red Cloud. (*cylindrical*) Cylindra, Forono. (*golden*) Golden. (*novelty*) Blankoma, Chioggia. (*greens*) Early Wonder Tall Top, Bull's Blood.

### Broccoli

Premium Crop, Packman, Arcadia, Early Dividend, Windsor, Emerald Pride, Gypsy. (*Romanesco type*) Romanesco, Veronica.

### Cabbage

(*early*) Parel, Primax, Farao, Tendersweet, Gonzales, Surprise. (*main season*) Golden Acre, Bravo, Charmant, Cambria, Invento. (*late fall, winter*) Danish Ballhead, Storage Hybrid #4, Blue Thunder. (*red*) Ruby Perfection, Red Acre. (*savoy*) Melissa, Savoy Express, Savoy Ace, Perfection, Famosa. **Chinese cabbage** Michihili, Monument, China Express. Pac choi: Mei Qing Choy, Joi Choi.

### Carrots

Red Core Chantenay, Royal Chantenay, Scarlet Nantes, Mokum, Bolero, Apache, Danvers, Sugarsnax 54, Nelson, Napa, Kuroda, Nantindo, Magnum, Navarino, Sweetness III, Napoli, Yaya, Vitana, Skywalker. (*baby carrots*) Minicore, Parmex, Thumbelina.

Source: Jim Myers and Annie Chozinski

For more vegetables view the complete [report](#) online or obtain a copy at the OSU Extension Service, 2204 4th Street, Tillamook

### Cauliflower

Snowball "Y" Improved, Snow Crown, Candid Charm, Apex, Amazing.

### Chard

Fordhook Giant, Rhubarb, Bright Lights, Bright Yellow, Silverado, Broadstem Green.

### Kale

Dwarf Blue Curled Scotch, Improved Vates, Siberian, Winterbor, Winter Red, Nero di Toscana, Blue Ridge, Red Bor, Red Ursa.

### Lettuce

(*heading, main season*) Summertime, Ithaca. (*red leaf*) Prize-head, Red Sails, Redina, New Red Fire, Merlot, Red Tide. (*green leaf*) Salad Bowl, Grand Rapids, Slobolt, Pom Pom. (*oak leaf*) Oaky Red Splash, Cocarde, Mascara, Blade. (*romaine*) Paris Island, Valmaine, Green Towers, Outredgeous, Devils Tounge, Little Gem, Freckles. (*bibb type*) Optima, Buttercrunch. (*butterhead*) Esmeralda, Marvel of Four Seasons, Emerald Oak. (*batavian*) Nevada, Sierra.

### Onions

(*yellow*) Copra, Prince, First Edition, New York Early, Candy. (*red*) Redwing, Mars. (*white*) White Sweet Spanish, Superstar. (*overwintering*) Walla Walla Sweet. (*green bunching*) Ishikura, Tokyo Long White, He-shi-ko.

### Peas

(*shelling*) Novella II, Oregon Trail, Oregon Pioneer, Green Arrow, Maxigolt. (*oriental edible pod*) Oregon Sugar Pod II, Oregon Giant. (*snap pea, bush*) Sugar Daddy, Super Snappy, Cascadia, Sugar Sprint, Sugar Ann. (*snap pea, pole*) Sugar Snap or Super Sugar Snap (virus susceptible; plant early).

### Radish

(*red*) Fuego, Comet, French Breakfast, Cherry Belle, Champion, Cherriette, Crunchy Royale, Pink Beauty. (*white*) Burpee White, White Icicle. (*large Japanese*) Sakurajima Mammoth.

### Spinach

(early summer harvest) (*smooth leaf*) Bloomsdale Long Standing, Olympia. (*savoy*) Correnta, Unipack 151, Melody, Hellcat, Butterfly. (late summer planted for fall harvest) (*smooth leaf*) Oriental Giant, Bordeaux. ☞

## Plant Native Oregon Shrubs Now

Would you like to grow the most fragrant mock orange on earth? How about a shrub that blooms in February or one that attracts hummingbirds in March?

These shrubs and more are native to Oregon and, in many cases, throughout the Pacific Northwest. Many shrubs that provide good color and blooms are also drought tolerant and can draw wildlife; some are hosts for native butterflies, others provide berries or other food for birds.

Many local nurseries and Soil and Water Conservation Service offices have sales. Some will be offered as bare root plants. Bare root shrubs come without soil attached, and it is important to place them in soil or in the ground shortly after you purchase them. Dig a hole with a one-to-two-foot perimeter and to the depth of the root system. Leave a mound in the middle of the hole and spread the roots around the mound. Hold the stem so that the place where it meets the roots lines up with the top of the hole. Then carefully fill in the hole with soil. Press down gently with your feet or hands and water the root area well.

For the first year or two, you may need to apply additional irrigation in dry months to help your young plants survive, but many will require little or no water after the first year or two.

The native mock orange, *Philadelphus lewesii*, is considered to be the most fragrant wild mock orange.



The large white blooms attract pollinators with their sweet fragrance each spring. It is fast growing to about six to eight feet. It requires little if any additional irrigation.

Source: Linda McMahan

*Ribes aureum*, the golden currant, is native to eastern Oregon, but grows as a drought-tolerant shrub throughout the state. Trumpet-like golden yellow flowers in late spring are followed by edible berries and golden fall color.



On the west side of the state the related red flowering currant, *Ribes sanguineum*, blooms in March, drawing hummingbirds that pollinate. It is one of the most popular ornamental native plants, with many colors available.

February bloomers are welcome relief in the winter. Two species of tassel bush are found in southern Oregon and can be grown west of the Cascades. They are the larger *Garrya elliptica* from the coastal areas and shorter *Garrya menziesii*, found naturally more inland. As the name implies, the flowers are formed like tassels that hang down from the shrubs. Both are evergreen.



Oregon grape, *Berberis aquifolium*, is Oregon's state flower. Its evergreen leaves are complemented by bright yellow flowers and bluish-black berries.

For more information on native plants, check the Yamhill County website online at: <http://bit.ly/6JiPrZ>



## *Mushrooms Can Indicate Healthy Soil*

**M**ushrooms come and go with rainy times in Oregon, but will the mushrooms that show up like unexpected guests in your lawn and garden do any harm? Susie Dunham, mycologist and pesticide specialist with the National Pesticide Information Center at Oregon State University, says "Don't be alarmed, mushrooms are the reproductive structures of fungi and may indicate healthy soil for trees and other plants to grow in."

Fungi and bacteria play an integral role in the earth. They break down complex organic compounds of proteins, carbohydrates and fats into their most basic elements that can be used by other generations of organisms. Plants rely on soil fungi and bacteria to digest nutrients for them. In return, they feed soil organisms with sugars they make in photosynthesis.

Underground, below the mushrooms, are thread-like networks called hyphae. Some attach to plant roots, creating filaments that reach far into the soil, increasing the surface area of plant roots up to a thousand times. Fungal hyphae and plant roots working together are called mycorrhizae.

Oregon's forest trees and many native and landscape plants depend on fungi and mycorrhizal relationships for optimal health and growth. A thimbleful of soil can contain miles of mycorrhizal filaments.

The mycorrhizal filaments of fungi also produce organic compounds that glue soils together and improve their structure and porosity to enhance root growth. In addition, mycorrhizae in the soil have been found to suppress soil-borne pathogens and protect plants from root diseases.

*Source: Susie Dunham*

It adds up to a fundamental mutualistic relationship between fungi and green plants. Most plants – from orchids, rhododendrons and madrone trees to most fruit and nut trees, turf grasses, annuals and perennials – depend on some type of fungal activity.

Mycorrhizal fungi are not fertilizers, although a fungal inoculation of roots can improve a plant's growth rate and tolerance to drought and disease. Landscapes that have been stripped of topsoil or otherwise degraded can be improved with the addition of mycorrhizae to the soil. Over-watering, over-fertilization and use of fungicides can eliminate mycorrhizae usefulness or even kill the fungi. Purchased mycorrhizal fungi often are mixed with other beneficial organic matter.

Despite their benefits to soil, you might want to remove mushrooms from your yard if you are worried that they could be poisonous and harmful to children or pets. Simply rake them and bury them in the compost pile. But be ready to see a new crop spring up, as they sprout new fruiting bodies in a day or so. Fungicide chemicals to get rid of mushrooms may be ineffective because the fungus mycelium may be several feet below the soil surface.

After a while, however, the mushrooms will stop sprouting, and the mass of hyphae will live unobtrusively in the soil for another year. ♪



*If you do not have internet, you may request a copy of most of the publications cited in this newsletter from the OSU Extension Service at 2204 4th Street, Tillamook, OR 97141. Phone: 503 842-3433*

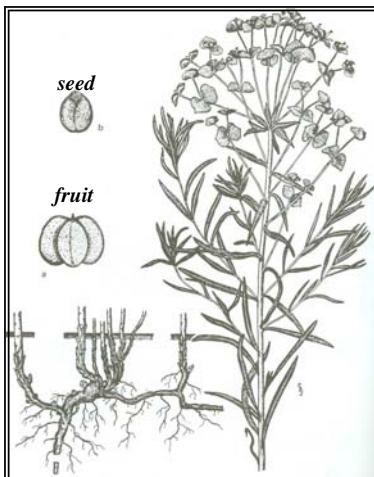
by Evelyann  
VonFeldt  
OSU Master  
Gardener

# The Weed Patch

## Spurges

Spurges belong to the Euphorbia plant family; they all have a milky juice that exudes when bruised or broken and can cause irritation to skin when touched. The most famous members of this group are Poinsettias and Mole Plant as well as many ornamental varieties. There are several weedy spurges including **Leafy spurge** *Euphorbia esula* L. (also known as Wolf's Milk, faitours-grass), **Petty spurge** *Euphorbia peplus*, **Spotted spurge** *Euphorbia maculate* L., **Prostrate spurge** *Euphorbia prostrata* and **Thyme-leaved spurge** *Euphorbia glypos-perma*.

**Leafy spurge** is a perennial weed that can grow to 3 feet tall and its narrow lance shaped leaves can be arranged alternately, opposite or even in a whorl below the flowering cluster. The flower is greenish-yellow umbrella-shaped with petals and sepals missing. Male flowers have a single stamen arranged in groups of 5, female flowers arranged in groups of three with a single pistil. The fruit (seed) has three segments and when ripe explodes scattering seeds up to 15 feet. This variety has an extensive underground root system that can go up to 15' deep and spread horizontally (see picture) making dense patches.



Leafy Spurge

**Petty spurge** this annual is found in moist, shady locations is gardens and greenhouses and grows 4 inch to 7 inch tall. Leaves are more oval in shape than leafy spurge.

**Spotted spurge**, an annual weed, can grow in a dense mat with dark-green leaves with a

purple “splotch” on each leaf. Tiny pink flowers are found at the leaf axils.

**Prostrate spurge** - by its name you can tell is flat upon the ground with some hairiness on the stems and seeds.

**Thyme-leaved spurge** is also known as ridge-seeded spurge also has a prostrate growth habit and is sometimes confused with **Purslane** *Portulaca oleracea* L. Leaves are opposite narrow-oblong shaped with a red mid-rib and are smooth with a few teeth near the tips. This variety has a tiny greenish-white flower found at the leaf axils that are either male or female. The seeds are prism-shaped, grayish white to tan and are sticky when wet which aids in their dispersal.

What can you do about getting rid of these weeds? Pulling or regular cultivation can kill this plant, but you must be persistent! Any herbicide program will also have to be long term. Glyphosate can be applied but will have to be applied repeatedly. 2,4-D is recommended for application to prevent seed production and slow the growth of surviving plants. The other annual varieties can be hand pulled or given spot applications of glyphosate or other broad-leaf weed killer. ☞

**BE SURE TO FOLLOW ALL LABEL AND SAFETY INSTRUCTIONS WHEN USING ANY PESTICIDE.**

*Sources:*

**Dennis, La Rey J.:** *Gilkey's Weeds of the Pacific Northwest*

**Royer, France and Richard Dickinson:** *Weeds of the Northern U.S. and Canada*

**Robbins, W.W., Margaret K. Bellue, Walter S. Ball:** *Weeds of California*

**Extension Services of OSU, WSU, and U of Idaho:** *2010 PNW Weed Management Handbook*

*Garden hints from your OSU Extension Agent***MARCH****Maintenance and Clean Up**

- Prune gooseberries and currants; fertilize with manure or a complete fertilizer.
- Fertilize rhododendrons, camelias, azaleas with acid-type fertilizer. If established, and healthy, their nutrient needs are minimal.
- Prune spring-flowering shrubs after blossoms fade.
- Fertilize caneberrries.

**Planting/Propagation**

- Divide hosta, daylilies, & mums.
- If soil is dry enough, prepare vegetable garden and plant early cool-season. Plant onions outdoors if the soil is dry enough to work.
- Plant strawberries, raspberries, blueberries, blackberries, currants, gooseberries, and other berries.

**Pest Monitoring and Management**

- Spray trees and shrubs for webworms and leafrollers, if present.
- Protect new plant growth from slugs.
- Spray to control leaf and twig fungus diseases in dogwood, sycamore, hawthorn, and willow trees.
- Prune ornamentals for air circulation to help prevent fungus diseases.
- Monitor for European crane fly.
- Control rose diseases such as black spot, starting at budbreak. Remove infected leaves. Spray as needed with registered fungicide.
- Trim heather post bloom.
- Start tuberous begonias indoors.
- Take geraniums, begonias, and fuchsias from storage. Water and fertilize. Cut back if necessary. Move outdoors next month. ♪

**APRIL****Maintenance and Clean Up**

- Allow foliage of spring-flowering bulbs to brown and die down before removing.
- Apply commercial fertilizers, manure, or compost to berries.
- Place compost or well decomposed manure around perennial vegetables: asparagus and rhubarb.
- Cut back ornamental grasses to a few inches above the ground.
- Optimum time to fertilize lawns. Apply 1 lb. nitrogen per 1,000 sq. ft. of lawn.
- Dethatch and renovate lawns.
- Prune and shape or thin spring blooming shrubs and trees after blossoms fade.

**Planting/Propagation**

- Plant gladioli, hardy transplants of alyssum, phlox, and marigolds, if weather & soil conditions permit.

**Pest Monitoring and Management**

- Clean up hiding places for slugs, sowbugs and millipedes.
- Monitor strawberries for spittlebugs and aphids; if present; wash off with water or use insecticidal soap as a contact spray.
- If necessary, spray apples and pears when buds appear for scab
- Use floating row covers to keep insects such as beet leaf miners, cabbage maggot adult flies, and carrot rust flies away from crops.
- Help prevent damping off of seedlings by providing adequate ventilation.
- Spray stone fruits, such as plums, cherries, peaches, and apricots for brown rot blossom blight, if necessary. ♪

**MAY****Maintenance and Clean Up**

- Fertilize roses & control diseases.

**Planting/Propagation**

- Plant dahlias, gladioli, and tuberous begonias in mid-May. Plant chrysanthemums for fall color.

**Pest Monitoring and Management**

- Trap moles and gophers as new mounds appear.
- Leafrolling worms may affect apples and blueberries. Prune off and destroy affected leaves.
- Monitor aphids on strawberries and ornamentals. Control options include washing off with water, hand removal, or using registered insecticides labeled for the plant.
- Control cabbage worms in cabbage and cauliflower, 12-spotted cucumber beetle in beans and lettuce, maggot in radishes. Hand remove, place barrier screen over newly planted rows, or treat with pesticides, labeled for the plant.
- Tiny holes in foliage and shiny, black beetles on tomato, beets, radishes, and potato indicate flea beetle attack. Treat with Neem, *Bt-s*, or use nematodes for larvae.
- Prevent root maggots when planting cole crops (cabbage, broccoli, collards, and kale) by covering with row covers or screens, or by applying appropriate insecticides.
- Place pheromone traps in apple trees to detect presence of codling moth. Plan a control program of sprays, baits, or predators when moths are found.
- Monitor rhododendrons, azaleas, primroses and other broadleaf ornamentals for adult root weevils. Look for fresh notching at leaf edges. ♪

*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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*Take Your Soil Temperature*  
 Pg 4 *Make Your Own Seed Starting Soil*  
*Best Time to Prune Fruit Trees*  
 Pg 5 *Prune Blueberries for More Fruit*  
*Fertilize Houseplants*  
 Pg 6 *Approximate Planting for a Family of Four*  
 Pg 7 *OSU Recommended Vegetables*  
 Pg 8 *Plant Native Oregon Shrubs Now*  
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## Coming Events

- April 29 - Cheese Making Seminar-OOC at TBCC  
 April 30 - OSU Extension Spring Classes  
 Home, Garden & Small Farm  
 Starting in March - Master Gardener Office Hours:  
 Mondays and Thursdays 12:30 to 4:30 pm  
 July 13 - 16 - 28th Annual Mini College for Gardeners  
 July 23rd - 2011 TCMGA Spade & Wade Garden Tour  
 3rd Wed. of the month Bonsai Club - Tillamook PUD  
 Meeting Room 9:30 am -11:30 am

## SPADE & WADE - July 23, 2011



Oregon State UNIVERSITY Extension Service



OSU Extension Service  
**Spring Classes**

Oregon State UNIVERSITY Extension Service



## Home, Garden & Small Farm

### Saturday, April 30, 2011

**9:00 am -- 10:30 am**

Sweets With Susan  
 Pantry Pests  
 Raising Chickens

**10:45 am -- 12:15 pm**

To Can or Not to Can  
 New & Unique Fruits for Coastal Gardens  
 Keeping Livestock Healthy

**1:00 pm -- 2:30 pm**

Cake Decorating With Susie Johnson  
 Building a Cloche (Mini-Greenhouse)  
 Managing Pastures for Improved Productivity

## Oregon Open Campus

### Cheese-Making Seminar

April 29, 2011 - 10:00am-12:00pm  
 At Tillamook Bay Community College.

*An introduction to cheese-making. Oregon State University's Cheese Expert, Lisbeth Goddick, will provide a hands-on experience in the cheese making process.*



Early registration (before April 21st), is \$50. Registration at the door and after April 21st will be \$80. Please make checks payable to OSU Extension.

Register at OSU Extension Service  
 2204 4th, Tillamook  
 503-842-3433

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

\_\_\_\_\_  
Last Name                      First Name

\_\_\_\_\_  
Phone                                      Cell Phone

\_\_\_\_\_  
Mailing Address                      City                      Zip

\_\_\_\_\_  
Email address

**Class Selection - Please X your choices:**

**9:00 am -- 10:30 am**

- (11 SHG-01) Sweets With Susan
- (11 SHG-02) Pantry Pests
- (11 SHG-03) Raising Chickens

**10:45 am -- 12:15 pm**

- (11 SHG-04) To Can or Not to Can
- (11 SHG-05) New & Unique Fruits for Coastal Gardens
- (11 SHG-06) Keeping Livestock Healthy

**1:00 pm -- 2:30 pm**

- (11 SHG-07) Cake Decorating / *additional fee, \$10*
- (11 SHG-08) Building a Cloche (Mini-Greenhouse)
- (11 SHG-09) Managing Pastures for Improved Productivity

\$7 /class                                      \$ \_\_\_\_\_

Additional Fee: Cake Decorating    \$ \_\_\_\_\_

Total Paid: Cash                            \$ \_\_\_\_\_

**Cash / Ck # / or Credit**

**Receipt or Authorization #**

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

**Registration is encouraged by Friday, April 22**



***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 April 22, 2011***

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Oregon State University is an Equal Opportunity .



**OSU Extension Service**  
**Spring Classes**

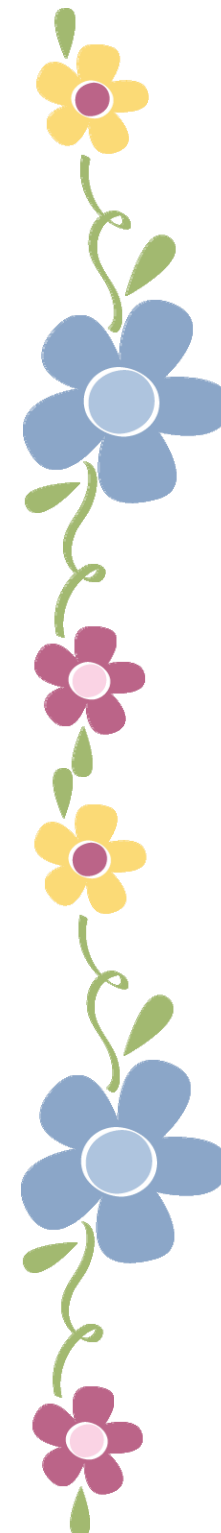
**Home**  
**Garden &**  
**Small Farm**

**Saturday, April 30, 2011**

***Register Early***

*Classes with insufficient enrollment by Friday, April 22 may be cancelled*

**2204 4th Street**  
**Tillamook, Oregon 97141**  
**(503) 842-3433**



## HOME

9:00 — 10:30 a.m.

**Sweets With Susan:** *Susan Pengally attended Culinary School in New York and now works for the Tillamook Headlight Herald. Join Susan for a class on pastry making. Have you tried tiramisu, loved it, and wished you could make it at home? Learn from Susan. Taste something yummy and take home some new sweet knowledge.*

10:45 a.m. — 12:15 p.m.

**To Can or Not to Can:** *Nancy Kershaw, OSU Extension FCH Faculty, Tillamook. Have you thought about canning your own fruits and vegetables, but not sure where to start? Or are you an experienced canner who would like to make sure you are using current canning techniques? Learn what's new in canning recommendations and equipment, and tips for using your canning equipment correctly and safely. Find out where to find new, safe canning recipes and more. Bring your questions.*

1:00 — 2:30 p.m.

**Cake Decorating:** *Susie Johnson, OSU Extension FCH Program Assistant, Tillamook. Enjoy the time with Susie Johnson and discover her tricks for making cake decorating easy. Learn cake basics: baking, leveling, splitting, filling, frosting, and decorating.*

*The \$10 supply fee includes a baked 6 inch cake, frosting, 4 basic tips and 10 bags for you to take home.*

## GARDEN

9:00 — 10:30 a.m.

**Pantry Pests:** *Evelynn VonFeldt, OSU Extension Master Gardener Program Support. There are many creatures that like the same foods we do and we often find them in our food! Identify, prevent and beat back these little intruders through healthy and safe management techniques.*

10:45 a.m. — 12:15 p.m.

**New and Unique Fruits for Coastal Gardens:** *Jim Gilbert, Owner, One Green World. There are many unique and delicious fruits we can grow in our region. Learn about Kiwis, Figs, Columnar Apples, Sea Berry, Honeyberry, and more!*

*Whether you are growing fruit in small or large spaces, Jim's knowledge gained from over 30 years of farming will help you be successful.*

1:00 — 2:30 p.m.

**Building a Cloche (Mini Greenhouse):** *Rick and Janet Anderson, OSU Extension Master Gardeners. Would you like to protect your newly planted beds and extend your growing season? Learn how by watching the actual building of a 4' X 8' cloche. Protect your plants from rain, wind, and light frost. Provide added warmth for heat loving crops in cool-summer regions like the Oregon Coast.*

## SMALL FARM

9:00 — 10:30 a.m.

**Raising Chickens:** *Joy Jones, OSU Extension Agriculture Faculty, Tillamook. Does the economy have you considering keeping a few chickens to supply you with fresh eggs? What do you need to consider? What about housing, feed, variety of chicken, do you need a rooster? Learn all of this and more.*

10:45 a.m. — 12:15 p.m.

**Keeping Livestock Healthy:** *Joy Jones, OSU Extension Agriculture Faculty, Tillamook. This class is for beginning and small livestock producers. The class covers the basics of animal health, preventive measures that will improve the health of your livestock, the signs that indicate it is time to call the vet, and information about diseases that you might vaccinate your animals against.*

1:00 — 2:00 p.m.

**Managing Pastures for Improved Productivity:** *Troy Downing, OSU Regional Dairy Extension Faculty. This workshop will discuss general pasture plants physiology, growth, management with grazing animals and fertility needs. Also covered will be fencing options, weed control and variety and species considerations.*