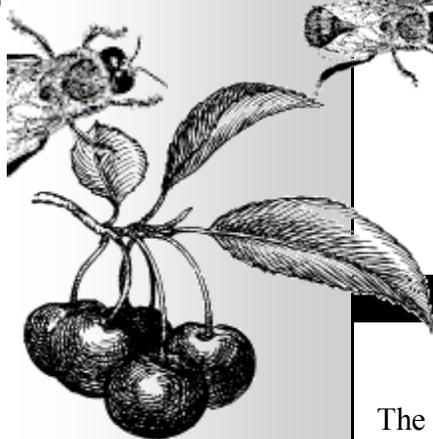


the **Beeline**

Spring 2014

Newsletter of the Western Cascade Fruit Society



Spring Events

The **Western Washington Fruit Research Foundation (WWFRF)** Winter Field Day, Saturday, March 1, 8:30 a.m. to 3:30 p.m. at the Washington State University Northwest Washington Research and Extension Center (WSU-NWREC), 16650 State Route 536, Mount Vernon, Washington.

Olympic Orchard Society Grafting Workshop, Saturday, March 8, 9:30-11:30, McComb Gardens, 751 McComb Road, Sequim.

Peninsula Fruit Club Spring Grafting Show, Saturday, March 8, 10:00-4:00, Silverdale Community Center, 9729 Silverdale Way NW, Silverdale. <http://wcfs.org/wp-content/uploads/Microsoft-PowerPoint-2014GraftingFlyerRev3.pdf>

Seattle Tree Fruit Society Spring Grafting Fair - March 22, 10-3pm at the Cedar Valley Grange, 20526 52nd Ave W, Lynnwood, WA 98036.

Western Cascade Fruit Society April 5, 10:30-3:00, WCFS Membership and Board meeting, Cedar Valley Grange , 20526, 52nd Ave. West, Lynnwood.

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LOOKING FOR WCFS BOARD MEMBERS!

No, we didn't lose them, but every year we seek to bring three new directors onto the Board governing the Western Cascade Fruit Society (WCFS). WCFS is the parent organization for all of our local Chapters; it provides key services and legal non-profit status for each affiliated Chapter. The Board meets two times a year plus twice by teleconference. The Board will next meet on April 5th at 10:30 a.m. in the Cedar Valley Grange (prior to the Cherry Growing and SWD program discussed elsewhere in this Beeline). Visitors to Board meetings are always welcome, and attending one is a good opportunity to find out if you'd be interested in joining the Board. Serving on the Board helps to give a voice to the concerns of your local Chapter, so please consider getting involved. In addition to three director positions, we also currently have an opening for Vice President. We'll elect new Board members at the annual General Meeting during the afternoon program on April 5th. Ron Weston, President WCFS



The BeeLine is a quarterly publication of Western Cascade Fruit Society, a non-profit 501(c)3 corporation in the State of Washington.

WCFS Membership and Board Meeting

In addition to the WCFS Spring Quarterly meeting this year, WCFS will hold an educational seminar and workshop series on Saturday, April 5th at the Cedar Valley Grange in Lynnwood. All WCFS members are welcome and encouraged to attend. The program will feature Dr. Bob Norton presenting "Growing Cherries in Western Washington" and Dick and Marilyn Tilbury sharing their research on SWD, the spotted-wing drosophila, a small but formidable adversary. Bekie Jackson and the SCFS research team will present the results of their SWD trial conducted last summer, and members will have the opportunity to construct SWD traps, in an ongoing workshop. Toward that end, please start saving your 12-23 ounce plastic, screw-top water and soda bottles and lids, and bring them with you.

Please bring a sack lunch. Refrigeration and a microwave will be made available.

Coffee and tea will be served, but please note: No LIQUIDS whatsoever are allowed in the upstairs lecture hall of the Grange. Downstairs you will be able to be social, eat, drink, peruse displays and make SWD traps.

The display area will feature information on WCFS research projects and individual chapter activities. Chapters are encouraged to have a table/booth with information about their chapter events over the past several years as a way to share ideas among chapters. If you are interested in having a Table/Booth for your Chapter, or helping out with set up, clean up or anything in between, please contact Emily MacRae: egmacrae@yahoo.com.

The Schedule for Saturday April 5th is as follows:

- 10:30-12:00 WCFS Board Meeting
- 12:00-12:30 Lunch (Bring your own sack lunch for Board Members and Volunteers)
- 12:30 Displays open, SWD Trap making workshop
- 1:00-1:45 Dr. Bob Norton: "Growing Cherries in Western WA"
- 1:45-2:00 WCFS Membership meeting
- 2-3 Dick & Marilyn Tilbury, Bekie Jackson et al: SWD: History, Overview and Trial Results
- 3-4 Wordpress and Gmail Intro Workshop (OPTIONAL FOR CHAPTER LEADERSHIP)

The Cedar Valley Grange is located at 20526 52nd Ave. W, Lynnwood, WA, 98036, 2 blocks south of Wright's Nursery.

Emily MacRae VIFC

applename.com

Apple Identification Program

by Lori Brakken

The Apple Identification program has been evolving over the years and is now taking shape as a useable tool. I'm so delighted. It has taken a lot of hours in front of the computer and while I'd rather be out in the garden, I am so excited about finally getting it smoothly running. My hope is that by apple harvest this year, 2014, I'll have all my photos up and also be able to add more varieties to a smoothly running Apple Identification tool.

Right now you can access the program at <http://www.applename.com/>. Access is also through the Western Cascade Society's webpage. <http://wcfs.org/> There is a link to the Seattle Tree Fruit Society website, once at the STFS site, look for Apple Identification is under the 'Apples' tab. Look for more photos and information on the apples this Spring and Summer. Also, we have a pear identification site to look forward to hopefully next year. I have the address, pearname.com and we've begun discussions on how to make this happen. If you have any questions or if you can help contact me lorineb@mindspring.com

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BeeLine Archives – Volunteer Needed

Several years ago, every available back issue of the Bee-Line was uploaded to the website as a PDF file and can be found under the heading "Archives." These back issues not only deal with the history of the Western Cascade Fruit Society but they contain an enormous amount of information about the growing of fruit in western Washington and are available to anyone visiting our website. When you look at the website page, you'll see that the BeeLines from the last 5 years have been indexed by their articles thanks to Editor Marilyn Couture and former Editor Carlyn Syvanen. Unfortunately, all of the previous newsletters have not been indexed. There is no way at this time to search for articles on a specific subject in older newsletters without opening each and every one and using the PDF search feature, so their information is not easily accessible. We need a volunteer or volunteers to take up this project. To open an older BeeLine, look at the articles and type the headings into a document. Once the index has been created, the information can be emailed to me and I will upload it next to its newsletter. There is no time frame for completion and it can be done in parts, possibly by year. If you are interested, please email me, Patti Gotz redquilter1@gmail.com



Table Grapes to Grow in Puget Sound

Gil Schieber

I have had nearly 20 varieties over the years. Recently concentrating on seedless table grapes-not the BEST of flavors but closest to greatest public acceptance (I sell at farmers markets). After 28 years growing fruit in Seattle(Ballard) I'm now out in cooler Snohomish, jutting out at 80' elevation to pickup the Sound's cooler air-great for slower ripening of fruit that tend to develop more complexity with the coolness,- though I haven't found this true for grapes. So, e.g. when much of Seattle and more inland regions get 1600 growing degree days(GDD), I'll get 1300. So I'm hard-pressed to grow a decent grape that most require at least 1400 GGD

Some of the choices I like that consistently bear good fruit here. #1 Interlaken-in 35 years I've never seen less than 20% sugar with peaks of 26%, Canadice-some mildew, Glenora-yes, lovely fall color, and my latest favorite-Jupiter which is large and develops sugar earlier than Interlaken!- but not as much, Reliance is also consistent, Himrod- like Interlaken but fruit comes with a pip of stem when picked, Flame is a vinifera - good in Seattle but mildewy; of the other varieties I'm growing that show promise here are Einset-quite flavorful, Mars, Venus, 47616/Sweet Shelly- excellent all purpose/good flavor but still not the 'foxy' concord, Beauty has failed me with some root issue-even grafted on 3309 Riparia rootstock, others not tested and anxious to hear about are Diamond, Fresno and Delight-I have but still haven't fruited.

There are many seeded varieties that warrant growing and #1 is Lynden Blue, similar to the later Isle Belle/Cambell's Early, Buffalo, Jovan (A new cross from David Johnson-unpatented variety), Saint Pepin x Alden- another cross by David Johnson).

Please add to this thread your own experience/climate. Skipley Farm grows (and makes available)all of the above varieties.

I have depended on Ray Ethel and the late Ron Lombough in Oregon and David Johnson-- locally for sourcing information and material to trial.

www.SkipleyFarm.org Organic fruit and vegetables, CSA, nursery, classes, internships
www.BorealisLandscape.com Design/Build/Maintain

WCFS NEW MEMBERS



OOS

Larry & Beverly Peterson
Florence Larsen
Patrick Jones
Elyse Grotz
Anne Storch

SCFS

Marcie Allen
Susan Davis
Peter Burkett
Gail Dillaway
Karen Winchell
Anthony Root
Vince Caruso
Ray and Kathy Bowman
Mary and Reiner Decher
Grif and Sandie Owen
Janis and Dave Wheeler

The Winter 2014 BeeLine was produced by Editor Marilyn Couture, with input from membership. Please contribute your articles for our next Spring issue!

Issue Deadlines:
Winter December 15;
Spring February 15;
Summer May 15;
Fall August 30

Email your articles to: couture222@msn.com
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HOS--CRFG--NAFEX Meeting 2014**What: Joint Meeting of**

**Home Orchard Society (HOS)
North American Fruit Explorers (NAFEX)
California Rare Fruit Growers (CRFG)**

When: August 6-9, 2014

Where: Portland, Oregon

Venue: McMenamins Edgefield Inn, a wonderfully eclectic and artistic eating, sleeping and meeting place on a 74 acre parcel of farmland a short drive east of Portland.

The "Big Three" North American amateur fruit growing organizations will hold a joint meeting this summer outside of Portland, Oregon. Join us for three organized days of lectures and tours, and an additional day of on--your--own activities in the beautiful Pacific Northwest. Western Oregon enjoys mild summer temperatures and clear sunny days, and offers many nearby travel opportunities from unpopulated beaches to majestic volcanic mountains. The diverse agricultural areas are teeming with vineyards, nurseries, berries and orchards that are of special interest to these groups.

Meeting venue will be at one of the more interesting of the McMenamins properties. The historic Edgefield Inn was originally the county poor farm but has been artistically restored into a popular meeting and celebration site. Check their website <http://www.mcmenamins.com/54-edgefield-home>

Wednesday, August 6, we have lined up a full day of very interesting presenters, including a session devoted to celebrating the Year of the Quince! Featured presenters include the Queen of Quince, Barbara Ghazarian; Keynote banquet speaker Susan Dolan will talk about Historic Orchards in our National Parks. Amigo Bob Cantisano will talk about establishing The Felix Gillet Institute to preserve the historic contributions of a California nursery pioneer. Well known garden author Lee Reich will inspire you with tales of cultivating uncommon fruits. Retired USDA apple curator Phil Forline will enlighten us as to the "Real" origin of his favorite fruit, and several other inspiring nurserymen, growers, extension specialists and cider makers will motivate us to explore new horizons of fruit growing. There will also be an 'Open Mic' session, where any member can sign up to make a short presentation on a fruit related topic.



Tours have been arranged to the geologically fascinating fruit growing region along the Columbia River Gorge on August 7, and the USDA Genebank and Oregon State University in Corvallis on Aug. 8. Tour space will be limited, so plan to register early. Registration for the meeting and tours will open in early March. Watch for more information and the registration form at the Home Orchard Society website <http://www.homeorchardsociety.org/>

Joanie Cooper, Pete Scott and Joseph Postman are working on making this 2014 meeting interesting and affordable. Feel free to contact Joanie (pomonascion@gmail.com) with logistics question or Joseph (joseph.postman@ars.usda.gov) with presentation questions, and we hope to see you in August.

Tentative Agenda

Tues. evening, August 5

- Evening registration and welcome at Edgefield Inn.
- Evening NAFEX Board Meeting at Best Western

Wed., August 6

- Full day of presentations at Edgefield Inn
- Evening buffet dinner with speakers: **Amigo Bob Cantisano**, The Felix Gillet Institute, and **Lee Reich**, Garden writer

Thurs., August 7

- Choice of Bus Tours:

1. Columbia River Gorge: Waterfalls and Geology; Bonneville Dam; OSU Mid-Columbia Research Station; Columbia Organics Composting.
2. Hazelnut Orchard & Olive Farm/Winery Tour

Evening Banquet at Edgefield with guest speaker, Susan Dolan, Historic Orchards in our National Parks.

Fri., August 8

-Choice of Bus Tours:

1. Corvallis, Oregon State University hazelnut breeding; lunch and tasting at 2 Townes Ciderhouse; USDA Fruit and Nut Genebank.
2. Fruit Farm and Winery Tour (tentative)

Sat., August 9

Various on your own options including HOS Arboretum Open House & Cider Tasting, One Green World Nursery, Portland area attractions.

Note that on Sunday, August 10, the Northern Nut Growers Association (NNGA) meeting begins in Corvallis. <http://www.nutgrowing.org/meetinfo.htm>



Rootstock Propagation

I've ordered so many rootstock bundles in the past, the majority of which were of excellent quality. Then there were batches that were too thin to graft and needed to grow out another year which wasted time, or too fat which wouldn't accommodate a grafting tool and made it difficult to cut with an ordinary grafting knife. Then there were those with the skimpy roots or the dry roots. If you too have ordered oodles of rootstock, especially for chapter grafting programs, I think you understand. I also realize that many rootstocks cannot be easily propagated and when there's a nursery failure or a short supply, you put up with it.

So now I'd like to propagate my own rootstocks this year from hardwood cuttings of Marianna 2624, B9, Quince, P. bet. and more. If you've been successful, please educate me and anyone else here who may be interested.

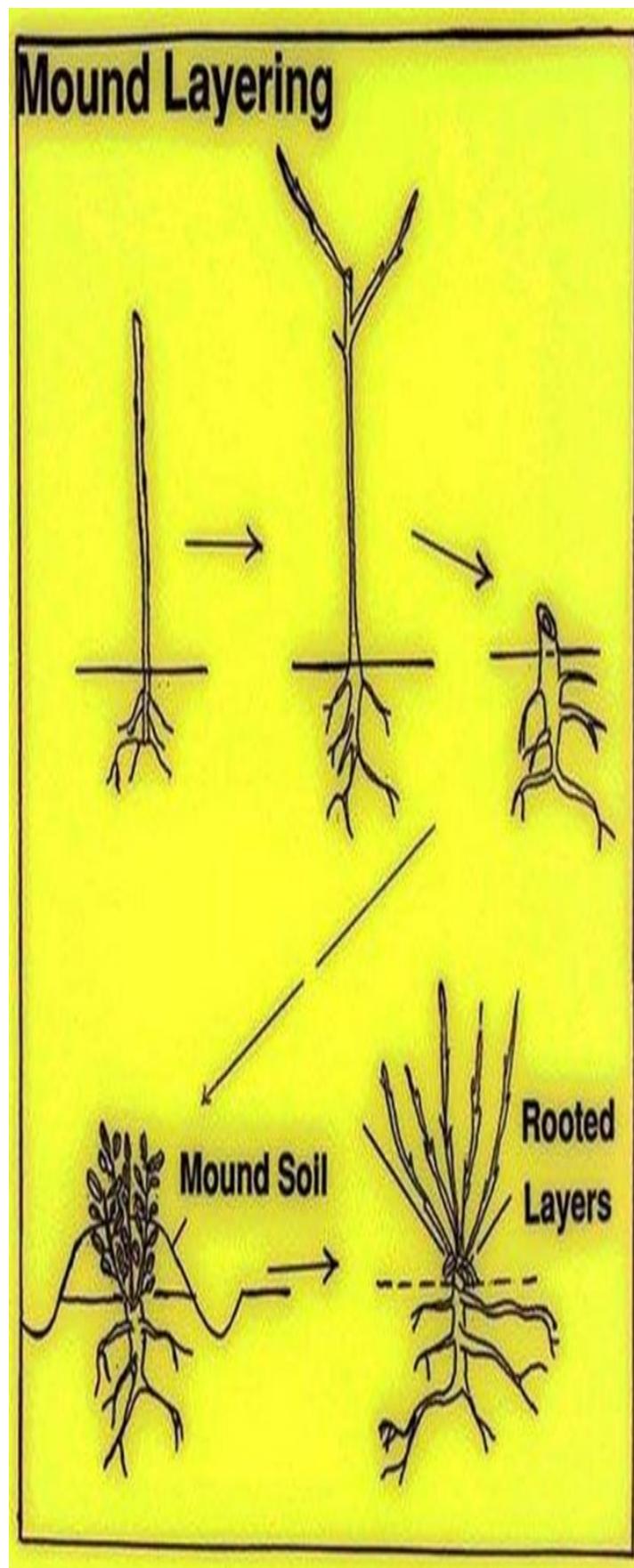
Judi Stewart NOFC

In response to this dilemma with rootstock, think about propagating apple rootstock using layering system. It is hard to root from cuttings. Try the following Mound Layering technique. Marilyn Couture, Editor

Mound Layering

Mound layering is used to propagate apple clonal rootstocks. In this method, soil is mounded around shoots that have been cut back, thereby stimulating roots to grow at the base of the shoots. A year before propagation begins, eight to ten millimeter diameter stock plants are planted in rows and then cut back to 45-60 cm. They are then grown for one year. In the spring, the plants are again cut back, this time to 2.5 cm above the ground. New shoots gradually form and more soil and bark is added in mounds around the plants. This cycle may continue on through the growing season (Hartmann et al. 509). Then the shoots are harvested by cutting close to the bases. The mother stool beds are then left exposed until further growth of the new shoots has occurred and another cycle of hilling begins (Hartmann et al. 510). Hartmann, Hudson T., et al. *Plant Propagation: Principles and Practices*. New Jersey: Prentice Hall, 1997

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Is a Permaculture Food Forest Possible?

Recently at an Orchard care seminar John Saltveit, long time HOS member and Board member, talked about the possibilities of permaculture in the orchard. He integrates flowers and edibles in every corner of his landscape. He is striving for a Permaculture Food Forest – permanent agriculture while maintaining the earth in sustainable ways.

In a conventional orchard one species monoculture is grown in rows and synthetic chemicals are used. Plants are positioned to the sun: tallest trees on the north of the property, and shortest plants on the south.

In a Permaculture with diverse guilds – each section of your garden is built around compatible plants with similar needs. Plant a pear next to a cherry next to a blueberry. Unrelated plant families are combined. Mixed interplanting will deter pests and set up competitive microbiology that adds nutrition and stops disease.

Include more than one kingdom: Fungi, nematodes, types of worms, etc. will prevent pests and diseases. Include mycorrhizal wheat which can carry helpful mushrooms in your soil, transporting nutrients and protecting.

There are no rows – plants are of different heights. This assures that spiders and little birds can help nature do the work. Letting nature do the work is the goal. Allow for animals – beetles eat slug eggs; lacewings and ladybugs eat aphids; worms feed and aerate.

Nature shades out weeds. Healthy, well sited plants out compete others, in a healthy balance. Less bred plants have fewer disease and pest problems, more antioxidants, and less sugar.

Many weeds are edible – weeds grow where there are mineral deficiencies. Dynamic accumulators like comfrey have deep roots that tap deep minerals and share when mulched. A soil test will tell you what you are missing.

Legumes, alders and relatives of goumi can fix nitrogen from the air and put it into your soil. Native plants are easy to grow, require few inputs and attract pollinators and beneficial insects.

Continuous flowering of different plants ensures beauty for you and encourages bees to stay at your home Feb. to Oct. Mixing colors is important – yellow, white, purple.

Plant perennial vegetables – sweet cicely, black salsify, asparagus, artichokes, cactus pads, salad burnet, leeks – with self seeding vegetables – curly mallow, perennial chard, Egyptian onions, red sorrel, turnip greens, etc.

Mixing easy and hard plants will foster your experimental side but ease your frustration.

Return soil to natural state by adding wood chips or diverse leaves, nurturing the life in the soil. Leave the chips on top and worms will draw them in. Permaculture uses a minimum of irrigation. Check out Hugulkultur beds.

John Saltveit sees three areas of tremendous growth in the next twenty years: Biodynamic gardening- gardening with the subtle forces of the earth (see Rudolf Steiner), biochar- using inoculated ground charcoal as a soil amendment as the South American Indians have for centuries, and aquaponics- growing plants with fish in water in a closed system.

John Saltveit. skyjs@yahoo.com

Marilyn Couture, Editor, attended this seminar Jan. 18.

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Hugulkultur beds

Hugulkultur beds are stacked, dirt covered wood that eventually don't need to be watered. It is a mound covered with soil and never needs water.



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What Weeds Can Tell Us About the Soil Common Plants with Surprising Benefits

nw farms and food - June 28, 2010

Seeding dandelions and other weeds.

Recognize these weeds? If they're growing in your garden, they may be trying to tell you something. Although we often regard weeds as troublesome interlopers, these wild plants, which love to root in areas of bare earth, offer many benefits to the garden. Weeds appear to "accumulate the nutrients in which a particular soil is deficient." Deep taproots of such uninvited guests as dandelions and docks reach down into the subsoil to bring up minerals and moisture that have leached to levels that shallow-rooted vegetable plants can't access. When these weeds are composted (preferably without their flowering heads), they release their accumulated minerals back into the soil.

Weeds often grow in bare areas where the soil is too poor to support other kinds of plants. In addition to concentrating minerals deficient in a particular soil into their structures, many wild plants have extensive root systems which, as they decay, leave channels for drainage, and help build humus in the ground. Some weeds can also absorb excess salt from the soil.

You can identify problems in your soil by what weeds are growing in it. The prolific sprouting of purslane, amaranth, dandelions and some others indicate a calcium deficiency. "[Weeds and why they grow](#)" by Jay McCamen from [Moses](#) (Midwest Organic & Sustainable Education Serv. Inc.)

Weeds provide other benefits. Flowering weeds produce pollen which attracts beneficial insects like ladybugs and bees to the garden. In early spring, this is especially helpful to vegetable beds not yet in flower. Weeds also prevent erosion, especially on steep slopes.

Finally, weeds indicate the health of the soil—whether it is acidic, alkaline, compacted or fertile. By looking at the kinds of weeds in your garden, you can determine nutrient deficiencies and the general health of the earth. If you have healthy green weeds in your garden, you will likely grow good vegetables. And maybe this season you'll add a few edibles like chickweed and dandelion greens along with your usual fare.

Enrich Your Soil With Weeds

Take advantage of the nutrients weeds accumulate as they grow

- Pull weeds when they reach their full growth, but before they set seed.
- Let them wilt, then turn them under the soil or add them to your compost pile.
- As they decompose, their accumulated minerals will enrich your garden.



Weeds you can eat

Harvest the tender leaves of dandelion that appear in early spring and in late fall, when they're sweetest. The flowers are edible too and have a mildly bittersweet flavor. And eat them up! Dandelions have more beta-carotene than carrots.

Purslane is loaded with antioxidant vitamins like vitamins A and C, and also contains healthy omega-3 fatty acids. You can eat the stems and leaves fresh—try them in salads or sandwiches—or use them in soups or in recipes that call for spinach.

Lamb's quarters is a weed commonly referred to as "wild spinach," and fortunately, it starts to appear in early summer after the last of the spring spinach has disappeared from farmer's markets. It's loaded with calcium and protein, as well as vitamins A, C and K, even more so than spinach. The best way to eat the leaves, or pretty much any green weed in this list, is to wash them well, sauté them in olive oil while they're still wet (the steam helps them wilt), then add a dash of salt, garlic, pepper and a squeeze of lemon or lime,

WWFRF Winter Field Day, Sat., March 1

The Western Washington Fruit Research Foundation (WWFRF) presents its Winter Field Day on Saturday, March 1, 2014, from 8:30 a.m. to 3:30 p.m. at the Washington State University Northwest Washington Research and Extension Center (WSU-NWREC), 16650 State Route 536, Mount Vernon, Washington.

This year's event will include grafting and mason bee workshops; pruning demonstrations; and presentations on: red flesh apple varieties, the best apples to grow in Western Washington, growing fruit for a healthy diet, and fruit varieties from around the world. Rootstock, scion wood, and grafting will be available for sale. Tours of our six acre Fruit Display Garden containing the one of the largest and most varied collections of antique apple trees in western Washington will be provided. Free to members of WWFRF; Non-members: \$15 Single or \$30 Family. Go to www.nwfruit.org for more information. A schedule of the days events and available scionwood/rootstock is available at <http://nwfruit.org/winter-field-day/>

We have a number of interesting speakers joining us for this event, so please join us! And, remember, Grow Great Fruit! Darlene Granberg

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WSU Snohomish County Extension

presents Westside tree fruit expert **Gary Moulton** in a workshop on **Orchard Pest Management**, Wednesday, March 5, 2014; 6-9:00pm at WSU Snohomish County Extension's Cougar Auditorium, 600 - 128th St SE, Everett, WA inside McCollum Park.

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OOS Grafting Workshop

Olympic Orchard Society presents a Grafting Workshop Sat., March 8, 9:30-11:30am, McComb Gardens, 751 McComb Road, Sequim. See Chapter News in this BeeLine for details.

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South Sound Fruit Society

Check with Ian Stoner on time and place of scion exchange, Tuesday, March 4. ianstoner2@gmail.com

PFC Spring Grafting Show

Peninsula Fruit Club, a chapter of Western Cascade Fruit Society, presents the 2014 Spring Grafting Show on March 8 from 10 am to 4 pm at the Silverdale Community Center, 9729 Silverdale Way NW, Silverdale.

Choose from many antique and modern varieties of apples, pears, and plums. Join us and stock up on scion wood, rootstock, grafting knives, footies, mason bee houses, miscellaneous potted and bare root trees and berries, and other supplies. You can learn how to graft and make your own tree or have one of our members make it for you. Come and learn about common pests and diseases and what to do about them. Take in a lecture or video about micro-farming in small spaces, pruning, anthracnose, or helpful mason bees. Learn how to root a fig, grape, or kiwi, and take some home to try from our collection. Find out all about our native mason bees and how to care for them. We'll have lots of experts on hand to try to answer all your fruit related questions. Spend some time with us at the show and learn all kinds of interesting things. Admission is free, but donations are greatly appreciated. Hope to see you there. Jean Williams. Our flyer:

<http://wcfs.org/wp-content/uploads/Microsoft-PowerPoint-2014GraftingFlyerRev3.pdf>

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STFS Spring Grafting Fair

Seattle Tree Fruit Society Spring Grafting Fair, March 22, 10-3pm at the Cedar Valley Grange, 20526 52nd Ave W, Lynnwood, WA 98036.

Join STFS at the Cedar Valley Grange, and practice grafting apples, pears and stone fruits. More than 150 varieties of apples, numerous varieties of pears, plums and cherries! There will also be a limited number of potted hybrid rasp-blackberries and currants, as well as kiwi and fig cuttings to propagate. Learn about fruit in lectures by David Johnson - "Growing Grapes", by Kiwibob - "Kiwis and Figs", and Randy Lee - "Soil Fertility". Learn about about pests and diseases, and bring your pruners to be sharpened. Admission: \$5 for non-members.

Driving Directions from Interstate 5 Northbound: Take Exit 179, turn right onto 220th St SW, turn left on 52nd Ave W, just a couple blocks to 20526 – 52nd Ave on your Left.

Driving Directions from Interstate 5 Southbound: Take Exit 181 for WA 524 westbound, merge onto 196th St SW, turn left on 50th Ave W, it becomes Cedar Valley Road and then becomes 52nd Ave W. Continue to 20526 – 52nd Ave on your Right. It's actually easier than it sounds. Laure Jansen

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Bee Deaths May Stem From Virus, Study Says

By Michael Winesian. Jan. 21, 2014

The mysterious mass die-offs of [honeybees](#) that have wiped out roughly a third of commercial colonies each year since 2006 may be linked to a rapidly mutating virus that jumped from tobacco plants to soy plants to bees, according to a new study.

The research, in the online version of the academic journal *mBio*, found that the increase in honeybee deaths that generally starts in autumn and peaks in winter was correlated with increasing infections by a variant of the [tobacco ringspot virus](#).

The virus is found in pollen that bees pick up while foraging, and it may be spread as the bees mix saliva and nectar with pollen to make “bee bread” for larvae to eat. Mites that feed on the bees may also be involved in transmitting the virus, the researchers said.

Among the study’s authors are leading researchers investigating the bee deaths at the Agriculture Department’s laboratories in Beltsville, Md., as well as experts at American universities and at the Chinese Academy of Agricultural Sciences in Beijing.

Their research offers one explanation for the phenomenon known as [colony collapse disorder](#), in which bees have died at more than twice the usual rate since it was identified seven years ago. But most researchers, including the study’s authors, suspect that a host of viruses, parasites and, perhaps, other factors [like pesticides](#) are working in combination to weaken colonies and increase the death rate.

Honeybees are crucial to the production of crops that make up a quarter of Americans’ diet, the Agriculture Department says, and pollination adds about \$15 billion to the crops’ value each year.

The infection of bees by the tobacco ringspot virus, spotted by chance during a screening of bees and pollen for rare viruses, is the first known instance in which a virus jumped from pollen to bees. About one in 20 plant viruses is found in pollen, the researchers wrote, suggesting that pollen should be monitored as a potentially significant source of host-jumping infections.

The tobacco virus is an RNA virus: usually a single strand of genetic material that mutates faster than other pathogens and so is adept at devising workarounds to its hosts’ defenses. In humans, diseases caused by RNA viruses include AIDS, influenza and some strains of hepatitis.

That rapid mutation rate also allows RNA viruses to switch hosts more rapidly than conventional pathogens, with the tobacco virus jumping to bees just as influenza has leapt to humans from pigs and chickens.

The tobacco virus is believed to attack honeybees’ nervous systems. Monitoring 10 colonies kept at the Agriculture Department’s Maryland laboratories, researchers found that the share of bees infected with the virus rose to 22.5 percent in winter from 7 percent in the spring.

In weak colonies — those heavily infected with tobacco ringspot or other viruses — deaths began rising sharply in late autumn. Researchers said the strong colonies that survived the winter showed no trace of either the tobacco virus or a second one, [Israeli acute paralysis virus](#), that may also play a role in colony collapse disorder.

<http://www.nytimes.com/2014/01/22/us/bee-deaths-may-stem-from-virus-study-says.html?hpw&rref=science>

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Fruit Vs. Shade Ted Swensen

In my home orchard I have a shade problem. On the south side of my orchard, my neighbor's trees provide more shade than fruit bearing trees can tolerate. The trees will grow but bear no fruit. You can draw a line across the back of my property (65' by 75'), fruit on one side, none on the other.

Those of you that have not converted to dwarfing rootstock may notice that as your trees get larger, the quality of the fruit is less. Fruit quality might be related to shade. As you observe the trees' shade pattern this spring and summer, watch to see if you have solid shade. If you do, then those solid shade areas are not getting enough light to set fruit buds or for proper fruit development.

Summer-prune these trees so that you at least get a mottled or stippled shade pattern. To get these light patterns try the following:

1. If there are branches that form a Y; remove one of the arms of the Y.
2. Any branches that are 1/2 to 2/3 the diameter of the central leader should be removed.
3. Prune all the strong upright branches.

Now, observe the light penetration into the tree. In the next year see if you can see a difference in fruit quality.

Ted Swensen is past president of Home Orchard Society.

* * * * *

Bitter Pit: Cause and Control**Ted Swensen, HOS**

At this year's All About Fruit Show, many home growers had bitter pit problems in apples and Asian pears. Bitter pit can affect all apple and Asian pear varieties but some are more prone than others. The main cause is a mineral imbalance, low levels of calcium.

A Little Information on Calcium:

Even if calcium is present in the soil, it does not readily move into the plant, it requires moisture and many trees are not irrigated. Once the calcium enters the plant by root tips, it does not move well in the plant. When calcium does move it is directed to the growing tips of the tree and fruit. All of the growing tips compete with the fruit for calcium, therefore, fewer tips more calcium for the fruit and less bitter pit. Remove excessive growth, such as suckers and water sprouts, as you see them all summer, until mid August.

Damage:

Bitter pit starts internally and eventually causes external blemishes. Internal lesions occur anywhere in the tissue from the core line to the skin, but more common just below the skin. The lesions are small, brown, dry, slightly bitter-tasting and about 3-5 mm. in diameter. As the affected cells die, they lose moisture, become "corky" and the skin over the area sinks in a round or slightly angular pattern. The skin over the pits gradually becomes slightly brown or sometimes black. For the first time I saw one apple variety that had red circles above the bitter pit site. At first, I thought it was a San Jose scale infection by the color. However, the fruit had a sunken spot in the center of the red circle. When cut, the tissue was starting to turn brown beneath the skin.

Control:

Avoid and remove excessive tree growth, many times caused by excessive nitrogen fertilizer application and excessive pruning in winter this can minimize the frequency and severity of bitter pit. Avoid irregular watering, large fruit, light crop load and high levels of potassium and magnesium.

Add calcium in the form of agricultural lime, it does not contain as much magnesium as dolomite lime. The incidence of bitter pit may also be reduced and sometimes controlled by several applications of calcium post-harvest calcium drenches. One product, Nutra-Plus Calcium 8% can be applied every 10 to 14 days during the growing season. This is how commercial growers control bitter pit.

Pome News, Winter 2007

'Zombie' Fungus Likes Blueberries

Denise Ruttan, The Oregonian

A fungus called *Monilina vaccinii-corymbosi* can infect blueberry fruit with a disease called mummy berry. Fruit falls on the ground and withers, but it turns out those "mummies" are actually the fungal version of the fruit—undead berry corpses, if you will.

"It's truly like a zombie," said Jay Pscheidt, a plant pathology specialist for the Oregon State University Extension Service. "The fungus overwinters in mummified fruit on the ground. The spores of the fungus come from little mushrooms on the ground and attack developing buds in the spring."

In the first stage of infection, mummies sprout small mushroom-like structures called apothecia, which produce billions of spores. Wind and rain can spread spores to developing flowers, which turn brown and collapse.

In the second stage, which happens about three weeks later, new spores form on the collapsed plant tissue. If you cut open the fruit, you can see spongy white fungal growth.

The gardener's best defense is to regularly pick up shriveled fruit off the bush and ground as soon as you see it. Pscheidt advised. Dispose of the mummies in a hot compost pile, toss them in the garbage bin or bury them more than an inch under the soil.

Take care to rake up fallen berries every two to three weeks. Rake gently because blueberry plants have shallow roots. You can also add about 2 inches of a mulch of sawdust or leaves as an extra layer of protection.

If you are battling a mummy berry apocalypse, you may want to consider starting over with cultivars that resist the fungus, Pscheidt advised, such as Bluetta, Liberty, Darrow and Olympia.



Peninsula Fruit Club

In January, Jim Gouin from Fungi Perfecti [HYPERLINK "http://www.fungi.com/"](http://www.fungi.com/) <http://www.fungi.com/> gave a presentation about mycorrhizae and their symbiotic relationships with other plants and ecosystems. PFC member Steve Butler held a scion wood cutting event at his orchard. Because of the extraordinary amount of time involved in hand-writing scion labels, we decided to invest in a label maker. After the February meeting, we were able to send members home with bundles of scion wood and matching labels to attach to the scion at their leisure. Huge timesaver! At the February meeting, we watched grafting videos and the experienced members taught the new members how to bud graft with practice wood. The general opinion among new members is that grafting is harder than it looks! Over the week-end of February 22 & 23 we have two pruning events planned: One at the public Blueberry Park, where member Mike Shannon will demonstrate how to prune blueberry bushes. This event also helps to maintain the fifty mature bushes at Blueberry Park, which used to be a blueberry farm. The next day, members Cliff and Ona Reinke will hold a tree pruning event at their home. Our Spring Grafting Show is scheduled for Saturday, March 8, 2014, at the Silverdale Community Center. The address is 9729 Silverdale Way NW, Silverdale, and the hours are 10 am to 4 pm. Here's a link to our flyer: [HYPERLINK "http://wcfs.org/wp-content/uploads/Microsoft-PowerPoint-2014GraftingFlyerRev3.pdf"](http://wcfs.org/wp-content/uploads/Microsoft-PowerPoint-2014GraftingFlyerRev3.pdf) <http://wcfs.org/wp-content/uploads/Microsoft-PowerPoint-2014GraftingFlyerRev3.pdf> Everyone is invited. At our March meeting, member Cliff Reinke will be present an introduction to permaculture.

Denise Syrett, President PFC

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Attention WCFS Members

Want to know instantly what's happening in the organization?

Subscribe to the WCFS Forum. It's a benefit of membership. The Forum is private and closed to the public. It keeps us together and on top of what's happening in our chapters.

Click on this link and follow the prompts:
<http://lists.ibiblio.org/mailman/listinfo/wcfs>

Judi Stewart, Forum Administrator

Chapter News WCFS

Olympic Orchard Society

Many thanks to Gordon Clark for his inspiring and educational pruning presentation and demonstration at McComb Gardens last month. Neil Burkhardt and Jane Stewart generously offered the McComb Gardens classroom for this program and for the upcoming March 08 Grafting workshop. Gordon provided Basic Pruning for Fruit Trees in which he stressed let the tree be your teacher: assess the tree before you prune; make thinning and heading pruning cuts; the four "D's" (Dead, Diseased, Damaged, Directionally Challenged, and Redundant); thin spurs as needed; and, prune for light and air. Gordon Clark of Clark Horticultural is a certified arborist and an OOS member.

Once you have started your winter pruning, members are encouraged to save young wood offcuts from their pruning and bring them to the March 08, 9:30a.m., Grafting Workshop and Scion exchange at McComb Gardens, Sequim. Set-up will begin at 9:00am.

Learn reasons for grafting at this Grafting workshop, and how to graft safely. Care and planting of newly grafted trees for optimal success will be discussed, and reference information will be available. A package bargain of scion wood (your choice of varieties), rootstock, and grafting supplies sufficient for grafting one tree yourself will be available for \$5.00, including instructions. Optionally, for \$12 have an experienced OOS member graft your tree while you watch. There will be 100+ varieties of scion to choose and we ask for 50 cent donation for scion. You need bring only your interest, your questions and any labeled scion you have.

OOS will have its annual election of officers at this workshop. It is important that we rotate Officers so the Chapter will survive. We encourage members to come forward to fill a position. The following have agreed to serve as Officers: Jim Mraz, President; Erik Simpson, Vice President; Carol House, Treasurer; and Marilyn Couture, Secretary. Directors include: Jim House, Ron Gill and Steve Vause. Nominations will also be accepted from the floor..

We can use grafters and helpers at the Sequim High School Grafting Class March 27.

Marilyn Couture, Secretary.

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Seattle Tree Fruit Society

STFS welcomes you again to this area for the April 5th WCFS Membership and Board meetings. Magnuson Park of Seattle Parks is firming up their facility rental policies and raising many of the rates, including that of the facility that we had hoped to use. It is increasingly difficult to find affordable accommodations in Seattle.

However, at the suggestion of Lori Brakken, Emily Macrae obtained the Cedar Valley Grange, which is just over the Snohomish County line at 20526, 52nd Ave. West in Lynnwood. Bekie Jackson of Snohomish County Fruit Society is working with Emily on the program. STFS used the Grange for our 2011 Spring Grafting Workshop and Fall Fruit Show. It was a little crowded but the events worked well. The kitchen is reasonably spacious and parking is adequate. STFS has been working hard on the orchard we planted at Magnuson Park several years ago. This is where we conduct pruning workshops, as we did Feb. 8, and local Fall Fruit events. We are also looking at some work on a few older trees in the park that date back quite a few years. We are really proud of the STFS booth at the Seattle Flower and Garden show. STFS shared a booth with Western Washington Fruit Research Foundation and we especially thank our organizers, Ingela Wanerstrand and Mike Ewanciw of STFS and Ira Collins of WWFRF for the great job they did. Paul Mallary, President

Snohomish County Fruit Society

SCFS first cider press party in November was a huge success and a lot of fun. We've had some excellent talks this past winter on fruit storage, blueberries, dormant season fruit care, and soil and fertility. Randy Lee who joined our club last year has been a valuable resource, and given several interesting and useful presentations. Upcoming topics for the regular meetings held the second Thursday of each month include Rootstock and Planting (Mar), Disease in Fruit Trees (Apr), Tomatoes (May, and Irrigation (June). SCFS had a booth at the Country Living Expo in Stanwood in January and met a lot of current and prospective fruit growers from Snohomish and Skagit counties. We'll have a booth at the WWFRF Winter Field Day in Mt Vernon on March 1 where we will be selling the "Edible Fruit in the Puget Sound" poster, SWD traps, and fruit notecards which the club has recently made from pictures taken for the fruit poster. We'll share our SWD research findings at the WCFS Membership meeting April 5th, help with the SWD trap making work-shop, and have the above items for sale. At the end of March we will be holding a grafting workshop and potluck while we plan to revisit pruning this summer with a hands on workshop workshop in July-August. Bekie Jackson, President.

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WCFS OFFICERS AND BOARD MEMBERS

| | |
|----------------|---|
| President | Ron Weston ronweston09@comcast.net |
| Vice President | Vacant |
| Secretary | Joyce Wheeler wheeler.joyce@gmail.com |
| Treasurer | Jerry Gehrke bercogehrke@comcast.net |

Directors

| | |
|------|---|
| 2014 | Bill Horn hornbill66@msn.com Jerry Gehrke bercogehrke@comcast.net Patti Gotz plsgotz@comcast.net |
| 2015 | Sally Loree SAL@wavecable.com Steve Vause Svause@teleport.com Vacant |
| 2016 | Emily Gar Macrae egmacrae@yahoo.com Vacant Vacant |

Chapter Presidents

| | |
|--------------------|--|
| Olympic Orchard | Jim Mraz, jjmrz@msn.com |
| North Olympic | Rita Hubbard rita_hubbard@yahoo.com |
| Peninsula | Denise Syrett oneroomhouse@gmail.com |
| Seattle Tree Fruit | Paul Mallary seattletreefruitsociety@hotmail.com |
| Snohomish County | Bekie Jackson snohomishcfs@gmail.com |
| South Sound | Ian Stoner ianstoner2@gmail.com ssfsoly@hotmail.com |
| Tahoma | Terry Tomlinson terryatmarys@comcast.net |
| Vashon Island | Elizabeth Vogt eavogt@comcast.net |



Links

Here is a list of sites on the web that may be of interest to you.

Related Organizations

Backyard Fruit Growers

www.sas.upenn.edu/~dailey/byfg.html

California Rare Fruit Growers

www.crfg.org

East of England Apples and Orchards Project

www.applesandorchards.org.uk

Indiana Nut Growers Association

www.nutgrowers.org

Midwest Fruit Explorers

www.midfex.org

North American Fruit Explorers

www.nafex.org

Northern Nut Growers Association

www.northernnutgrowers.org

Oregon Sustainable Agriculture Land Trust

www.osalt.org

Western Cascade Fruit Society

www.wcfs.org

Western Washington Fruit Research Foundation

www.wwfirf.org

Home Orchard Society

www.homeorchardsociety.org/

Seattle Tree Fruit Society

www.seattletreefruitsociety.com/

Seattle Tree Fruit Society—Apple ID program

www.seattletreefruitsociety.com/appleid.php

Fruit Research

National Clonal Germplasm Repository

www.ars-grin.gov/cor

Tree Fruit Research and Extension Center, Washington State.

www.tfrec.wsu.edu

Northwest Berry and Grape Infonet.

berrygrape.oregonstate.edu

Pedigree: A Genetic Resource Inventory System

www.pgris.com

Oregon Department of Agriculture

www.oda.state.or.us

Government Sites

US Dept. of Agriculture

www.usda.gov

USDA Agricultural Research Service

www.ars.usda.gov

Helpful Sites

Orange Pippin

www.orangepippin.com

Kiyokawa Family Orchards

www.mthoodfruit.com

Red Pig Tools

www.redpigtools.com

Friends of Trees

www.friendsoftrees.org

Cornell Gardening Resources

www.gardening.cornell.edu

http://www.fruit.cornell.edu/tree_fruit/GPGeneral.html

The National Arbor Day Foundation

www.arborday.org

UBC Botanical Garden

www.ubcbotanicalgarden.org

The Reckless Gardener

www.recklessgardener.co.uk

Farm & Garden

www.farm-garden.com

SeeMeGarden.com

www.seemegarden.com

GardenGuides.com

www.gardenguides.com

VitiSearch: Helpful Resources about Grapes

www.vitisearch.com

Avant-Gardening: Creative Organic Gardening

www.avant-gardening.com

The Hardy Plant Society of Oregon

www.hardyplantsociety.org

Ask the Berry Man

www.asktheberryman.com

BackyardGardener.com

www.backyardgardener.com

Tom Brown's website

www.applesearch.org

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