

Have You Seen Me? or What Am I? Bill Horn, Tahoma

Before a recent Pierce County Master Gardener continuing ed. session that was to be held at Bob Hartman's Fruit Tree Nursery, I received a call & email from Bob about something he'd found on the leaves of some of the pear trees that were to be part of that program. The damage was not uniform across all varieties nor was it as severe/developed on the Asian pears as on the European pears. The problem was only apparent on some of the leaves and not on fruit nor twigs & branches. It did not seem to have a significant impact on growth of the leaves nor their retention on the tree during the growing season. Bob had researched and narrowed the problem down to a couple of possibilities. We checked WSU Hortsense <http://pep.wsu.edu/hortsense/> to further identify it. Sure enough, the problem, with an almost identical photo, was included in Hortsense. A quick confirmation by Jenny Glass, WSU Puyallup Plant Diagnostician, concluded that the problem was indeed Pear Trellis Rust.

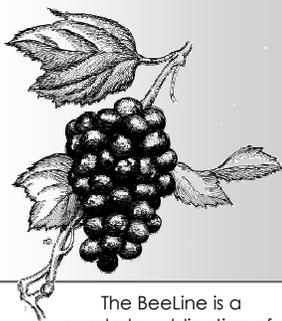
Pear trellis rust is caused by a fungus *Gymnosporangium fuscum* that affects pears and junipers. Until the late 1990's, trellis rust was only found in southern British Columbia and Contra Costa County, California. In recent years, the disease has been commonly observed on pears in western Washington. Jenny Glass noted that she had identified it on the WSU Puyallup Research & Extension Center campus in several locations including on pears in the research plot in the Puyallup Demo Garden. This rust, like many other rust diseases, requires both hosts to complete its life cycle. Trellis rust is most commonly observed as its aecia stage grows from pear leaves in late summer/early fall. The fungus can also infect pear branches and fruit. Sanitation of infected plant material will help reduce the population of the pathogen, but the only truly effective cultural method of control is complete removal of alternate host species within 1000 feet of the desired plant. WSU Hortsense lists no chemicals that are labeled for homeowner use on pears and the Pacific Northwest Plant Disease Management Handbook (OSU) lists only one chemical that is registered for use on this host that may help to manage the disease. Bill Horn.

Editor's note: Pear Trellis Rust has been observed in Sequim pear trees.

Inside:

Pear Trellis Rust	p. 1
Blueberries	p. 4-5
Doing Better This Year -	
Marilyn Tilbury	p. 6-7
Best Pie Apple	p. 8
Storing Fruit	p. 10-12
Mad Scientist	p. 14
Chapter News	p. 15- 16
Fruit web sites	p. 17

www.wcfs.org



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



Pear Trellis Rust

Acting President's Column

Ron Weston, Vashon Island

It has been a good year in my small orchard. A bumper crop of fruit certainly puts one in a good mood, as I'm sure you'll agree. However, just when you think that everything is going great, along comes a challenge that you hadn't anticipated. In my case I suspect it is an old refrigerator that is cycling too cold and freezing some of the stored produce. I lost a sack full of Honeycrisp apples—ruined! Now that sure takes away some of the joy of a bountiful harvest. It also demonstrates that we will always need to learn new lessons if we are going to continue to improve our abilities at fruit-growing—and fruit-enjoying.

For accomplishing that goal there is no better place to be than within the circle of like-minded people who are members of our WCFS Chapters. The Chapters are where the action is...it is where we can share our enthusiasm and our lessons-learned, as well as glean similar tidbits from others. Hopefully, we can also enjoy ourselves in the process via the field trips, educational meetings, and social gatherings our local Chapters provide. If you are not already taking an active part in these many opportunities to have fun learning more about fruit—well, you should!

The terrific volunteers who manage our several Chapters are responsible for putting together the interesting and fun programs that so many of us enjoy. There is so much good that happens at the Chapter level, that to single out any one of them risks slighting the others. However, I will take that risk and just mention how potentially important is the project undertaken by Seattle Tree Fruit Society to develop an online apple identification program. I know it is not the only noteworthy project happening within the WCFS family, but I think it is emblematic of the good things that are getting done. So please take a moment to let your local Chapter officers know that you appreciate what they are doing on your behalf, and if there is something that you think deserves more attention—let them know that as well.

I'm happy to be part of an organization that is dedicated to such a positive and joyful enterprise—promoting the knowledge of fruit-growing here in the Pacific Northwest. I'm thankful to have so many wonderful people who share my interest in fruit and who are helping me (and many others) achieve our goals of being better fruit growers. Then it is up to us to “pay it forward.”

Here's hoping 2012 is a great year for you and all of those dear to you.

Ron Weston

About WCFS

Western Cascade Fruit Society (WCFS), formerly Western Cascade Tree Fruit Association (WCTFA), was founded in 1980. Its primary objective is to bring together new and experienced fruit growers who will promote the science, cultivation and pleasure of growing fruit bearing trees, vines and berry plants in the home landscape. We provide the public with the knowledge and ability to cultivate their own fruit-bearing trees, and plants. Local chapters in geographical areas of Western Washington, disseminate information through education, fruit shows, orchard tours, meetings, workshops, publications, and give financial and other support to fruit research organizations.

As a 501© (3) Non-Profit organization WCFS is Parent organization to seven affiliated Chapters. WCFS provides 501© (3) Non-Profit status to Chapters via IRS group exemption, provides liability insurance for Chapters, maintains financial records, and makes annual reports to IRS. A Board of Officers and Directors manage WCFS.

WCFS publishes a quarterly BeeLine newsletter to inform members of events, tours, articles, and reports: a Web site—<http://wcfs.org>; and, a digest forum: <http://lists.ibiblio.org/mailman/listinfo/wcfs>. Members receive automatic membership in WCFS after joining an affiliated Chapter. A portion of chapter dues go to WCFS. Please refer to <http://wcfs.org> for chapter membership and dues structure.

Dick Tilbury has suggested that each issue should contain a brief boilerplate section explaining what WCFS is, its founding date, purpose and functions. Editor welcomes your suggestions to improve this section.

Attention WCFS Members

Don't be left out in the rain.

Join your fellow orchardists and subscribe to the Forum.

This is a benefit of membership and is closed to the general public.

Simply send an email to:

<http://lists.ibiblio.org/mailman/listinfo/wcfs>

.and follow the prompts.

Judi Stewart, Forum Administrator



WCFS OFFICERS AND BOARD MEMBERS

President [Vacant](#)
 Vice President Ron Weston
ronweston09@comcast.net
 Secretary [Vacant](#)
 Treasurer Dave Hanower
dhanower@me.com

Directors

2012 Sally Loree
SAL@wavecable.com
 Loretta Murphy
lojodc@yahoo.com
 Hildegard Hendrickson
hildegard@seattleu.edu
 2013 Erik Simpson
orchards@olypen.com
 Steve Vause
svause@teleport.com
 Del Simpson
orchards@olypen.com
 2014 Bill Horn
hornbill66@msn.com
 Jerry Gehrke
bercogehrke@comcast.net
 Patti Gotz
plsgotz@comcast.net

Chapter Presidents

Olympic Orchard Erik Simpson, Co Pres.
orchards@olypen.com
 Marilyn Couture, Co Pres.
couture222@msn.com
 North Olympic Judi Steward
js@olympus.net
 Peninsula Jean Williams
fhe@hurricane.net
 Seattle Tree Fruit Lorine Brakken
seattletreefruitsciety@hotmail.com
 South Sound Francesca Ritson
ritsonf@hotmail.com
 Tahoma Henri Carnay
hcarnay@comcast.net
 Vashon Island Elizabeth Vogt
eavogt@comcast.net

WCFS NEW MEMBERS



NOFC

Jim & Nancy Chase
 Ali Dyche
 Cathy Luce
 Mark & Tami Ingraham
 Cherie Perry
 Zee Humenuk
 Mo Moss
 Marty Loken
 Ryan Hansberry
 David Powell
 Bob Miller
 Cathy Barsukoff
 Richard & Nadine Hild
 Kathy Fox
 Bob Maland

STFS

Georgina Kerr
 Tamara Lee
 Edward McCluskey
 Darren & Colleen Pryke
 Bragdon Shields
 Christine Austin Castro
 Thomas Young
 Missy Anderson
 Lacia Bailey
 Danielle Butz
 Sharon Collman
 Elaine Corets
 Mike Dedrick
 Robert King
 Paul Reimann
 Kathleen Sabo
 Robert & Teri Stephens
 Craig Thompson
 Kathleen Warner
 Sooz Appel
 Hans Ehlert

OOS

Martin Muschinske
 Dee Muschinske
 Gary Elliott
 Virginia Elliott
 Patricia Lebowitz
 Kim Loafman
 Patrick Loafman
 Susan Lundstedt
 Wanda Bean
 Ron Bean
 Ake Bjornsson
 Teresa Bjornsson
 Randy Brackett
 Judith Duncan
 Bob (Coach) Cummins
 Jerry Culhane
 Beth Culhane
 Jeanne Couillard-Jones
 John Littlehales
 Lori Brakken

PFC

Heidi Bennett
 Charles & Mary Coker
 Kathy Ford
 Ann Laine
 Stefan Melher
 Fred Nyman
 Jessica Port
 Jim & Connie Quatermass
 Ned Voelker & Cindy
 Schwarzkoph
 Lori Brakken

Blueberries: Making a Superb Fruit Even Better!

When U.S.D.A. botanist Frederick Coville started the world's first successful blueberry breeding program, did he envision it would grow into the multi-million dollar industry it is today? Maybe. But a century later, thanks to dedication by scientists, blueberries are the second most popular berry consumed in the U.S.

A member of the genus *Vaccinium*, blueberries are related to many commercially important and popular fruit species, like cranberry, lingonberry, and huckleberry. Blueberries are mainly native to North America and are lauded for their health benefits.

Coville began researching blueberries in 1906, when he started a series of experiments to learn fundamental facts about them, thinking they might be suitable for cultivation. Coville found that blueberries and many other plants require acid soils to grow. Coville published in 1910 the first bulletin outlining how to successfully grow blueberries from seed to fruit. Collaborator Elizabeth White helped Coville acquire some of the best wild blueberry plants to use as parents in his breeding experiments.

In 1911, Coville made the first cross of wild blueberry germplasm that eventually led to the release of several blueberry cultivars—ancestors of cultivars currently grown throughout the world—marking the beginning of USDA's current breeding program.

Throughout the years, notable Agricultural Research Service blueberry breeders George Darrow, Donald Scott, and Arlen Draper have made significant contributions to the advancement of blueberries. Today, 100 years after Coville made his first successful cross, ARS researchers throughout the country continue the longstanding goal of improving blueberries.

Mitigating Mummy Berry Blight and Fruit Rot

Geneticist Mark Ehlenfeldt and plant pathologist James Polashock are researching mummified blueberries which got that way because of a disease. The scientists are with the Genetic Improvement of Fruits and Vegetables Laboratory in Beltsville, Maryland, and are stationed at the Philip E. Marucci Center for Blueberry and Cranberry Research and Extension in Chatsworth, New Jersey.

Chatsworth houses the largest collection of potted and in-ground blueberry cultivars in the world. In addition to releasing improved blueberry varieties, the researchers focus on screening for disease resistance, and mummy berry is one of the most important blueberry diseases in North America.

Mummyberry is caused by the fungus *Monilinia vacciniae-corymbosi*. *It occurs almost everywhere blue-*

berries are grown and affects all cultivated species, including highbush, lowbush, rabbiteye, and some wild species.

Mummy berry disease occurs in two distinct phases. During the blighting phase, small, cup-shaped structures bearing fungal spores sprout from mummified berries concealed in leaf litter on the ground. Wind spreads the spores to blueberry plants, infecting the newly emerging shoots and leaves. A second phase of spores, produced on blighted tissue, is carried by bees to the flowers, beginning the fruit-rotting stage. During this phase, the fungus fills the inside of the blueberry as it grows and causes it to shrink, shrivel, and turn whitish—hence the mummy reference. The mummified fruit drops to the ground and overwinters, waiting to begin the process again in the spring. In an effort to mitigate this disease, Ehlenfeldt, Polashock, plant pathologist Allan Stretch, and statistician Matthew Kramer undertook two long-term, simultaneous studies examining cultivar response. The first study, published in the scientific journal *HortScience*, sought to predict cultivar resistance and susceptibility to both phases of the disease. The scientists examined more than 90 blueberry cultivars over 9 to 12 years. “We found that disease response had significant and large genotype-by-environment interactions,” explains Ehlenfeldt. “This means that the 2-3 years of data typically used for publication aren't enough to reliably estimate disease resistance. Breeders should be evaluating resistance for 8 years to get a good estimate of cultivar response to this disease.” The researchers found an important predictor of blighting to be either the average amount of precipitation at the end of January or rain frequency at the end of March. The average high temperature in late February was predictive for the fruit-infection phase.

A second study published in *HortScience*, analyzed data from 125 cultivars tested for 2-6 years for resistance to the blighting phase and 110 cultivars tested for 2-5 years for resistance to the fruit-infection stage. The researchers were able to rank resistances among the wide range of cultivars. “For breeding, one often needs only to know which cultivars are the most resistant on a relative basis,” says Ehlenfeldt. They found several cultivars, such as Brunswick and Bluejay, to be resistant to both phases of mummy berry infection. “Ultimately, documentation of resistance to each phase will help growers select which cultivars to plant,” says Ehlenfeldt. “This will also help breeders develop strategies to produce cultivars with superior resistance.”



Generating Genomic Tools for Blueberry Improvement

Geneticists Chad Finn, with the ARS Horticultural Crops Research Unit, and Nahla Bassil, with the ARS National Clonal Germplasm Repository—both in Corvallis, Oregon—are developing and improving blueberries for the Pacific Northwest. Although Corvallis is the most recent ARS location to conduct blueberry breeding, Finn and Bassil are playing an important role in a nationwide, multi-institutional project aimed at developing genomic tools to help improve blueberries.

Funded by the Specialty Crops Research Initiative, the project is led by fellow ARS geneticist Jeannie Rowland in Beltsville, Maryland, and involves several university and international collaborators. Finn and Bassil are working with Michigan State University professor James Hancock in developing a genetic map for highbush blueberry.

“We are currently testing plants made from a cross between the northern highbush cultivar Draper and the southern highbush cultivar Jewel at various locations across the country where blueberry is grown,” says Finn. “Our task is to compare the performance of each plant in the field. For the next couple of seasons, we will evaluate the plants for chilling requirement, cold tolerance, and fruit-quality traits.”

In the lab, Bassil is processing leaf samples to extract DNA and genotype the plants. The researchers will then merge the field and lab data to determine whether genetic markers that predict a plant’s performance can be identified. Bassil is also helping to develop genetic markers and following them through mapping populations and wild blueberry populations for genetic diversity studies.

The new tools, once available, should make blueberry breeding and cultivar development far more efficient.—By Stephanie Yao, formerly with ARS.

This research is part of Plant Genetic Resources, Genomics, and Genetic Improvement (#301), Plant Diseases (#303), and Crop Production (#305), three ARS national programs described at www.nps.ars.usda.gov. To reach scientists mentioned in this article, contact Robert Sowers, USDA-ARS Information Staff, 5601 Sunnyside Ave., Beltsville, MD 20705-5129; (301) 504-1651.

This article was published in the May/June 2011 issue of *Agricultural Research* magazine.

ARS News Service - USDA Agricultural Research Service - October 28, 2011.

Submitted by Judi Stewart.

Blueberries of the World Housed in Unique Collection

Blueberries from throughout the United States—and more than two dozen foreign countries—are safeguarded at America’s official blueberry genebank. Located in Corvallis, Oregon, this extensive living collection includes domesticated blueberries and their wild relatives, carefully maintained as outdoor plants, potted greenhouse and screenhouse specimens, tissue culture plantlets, or as seed.

The genebank’s purpose is to ensure that these plants, and the diverse gene pool that they represent, will be protected for future generations to grow, study, improve, and enjoy. Plant breeders, for example, can use plants from the collection as parents for new and even better blueberries for farm or garden.

Blueberries and several other berries are among the fruit, nut, and specialty crops housed at what’s officially known as the ARS National Clonal Germplasm Repository-Corvallis. The repository is part of a nationwide, ARS-managed network of plant genebanks.

Likely the most comprehensive of its kind in the world, the blueberry collection nevertheless continues to expand, according to research leader Kim E. Hummer. Some acquisitions, referred to as “accessions,” are donations from breeders. Others are acquired through collecting expeditions, which have taken plant explorers to, for example, Russia, China, Ecuador, and Japan, as well as throughout the United States.

“We have focused on collecting blueberry relatives that may have immediate use for U.S. breeders,” says Hummer. “For example, we’ve acquired native species of wild blueberries from the Pacific Northwest that bear fruit with pigmented flesh, or pulp. Some breeders are trying to breed some of these species into the familiar highbush blueberry that has a white interior. If breeders can put color on the inside of berries through crossbreeding the internal-color berries with the highbush plant, they may be able to produce a blueberry that gives fuller color to processed blueberry products, i.e. jams, jellies, juice, and dried fruit.”

Other prized specimens at the genebank may someday become landscaping favorites. “We have *Vaccinium praestans*, or redberry Kraznika, from Russia, China, and Japan,” says Hummer. “It’s low growing and is called ‘rock azalea’ in Japan. This red-fruited berry plant is suitable for northern latitudes and would be an interesting and attractive ground cover that comes complete with edible fruit.”—By Marcia Wood, Agricultural Research Service Information Staff.

Kim E. Hummer is with the USDA-ARS National Clonal Germplasm Repository, 33447 Peoria Rd., Corvallis, OR 97333; (541) 738-4201.

Doing Better This Year, Marilyn Tilbury STFS

Many of us harvested fewer fruit last year. This was almost entirely due to the cool, damp La Niña weather last spring and early summer. In July 2011 only one day met the criteria for “sunny” at SeaTac, tho August finally turned warm.

To get fruit: flower buds were formed the previous year, flowers were free from diseases at bloom, pollen matured and exited the stamens, pollinating insects flew during bloom, and pollen reached the flower’s ovary to accomplish fertilization.

Fruit trees set up flower buds the previous summer and if they are stressed by drought or over production (biennial bearing), fewer flower buds are produced. Huge old trees on seedling rootstock can withstand drought but trees on dwarfing rootstocks are smaller precisely because of their smaller root systems—they cannot forage far for water. Our area has a summer drought every August and perhaps in July and September too. It’s important to water then and to thin developing fruit promptly after bloom.

Some fruit tree diseases including scab, powdery mildew and brown rot infect flowers and destroy their ability to produce fruit. These diseases thrive in cool, damp weather. Pseudomonas can be bad in Oriental pears, especially if a frost occurs in early spring. There are protective sprays against these fungal and bacterial diseases but last spring it was hard to find windows of dry weather for spraying. Rain shields could be erected over small trees to protect them during the winter and spring until petal fall. Rain shields over peaches protect against peach leaf curl.

During bloom fruit trees need enough heat units to release mature pollen from the anthers. Even with such pollen grains present, blossoms may not get pollenized if it’s too cold for pollinators to fly. Not only was it too cold and wet for honeybees but mason bees and our hardest pollinator, bumblebees, often didn’t take wing last year until *after* petal fall.

Here’s another hurdle: even if pollenized, blossoms don’t produce fruit unless the pollen grains can grow pollen tubes down the flower’s style to the ovary and accomplish fertilization. This process is temperature dependent, and under too cool conditions pollen grains die before ever reaching the ovary.

What can we do now to help our trees this spring? Sanitation is a biggie. Get those scabby leaves raked up and buried or out of the area. It’s hard to compost hot enough to destroy the scab spores. Remove all fallen fruit, prunings and of course any old fruit still on trees. Inspect apple trees in dry

weather for small pointed terminal buds which have a whitish coating on the twig. These harbor powdery mildew spores under the bud scales which will burst forth during bloom. Simply prune these off. (While thinning fruit this spring carry a bag and pruners to remove any you missed.)

It’s possible to reduce bacterial canker in stone fruits by applying copper sprays at leaf fall. A serious disease occurring more in our recent damp springs is apple anthracnose. It *may* be reduced by copper sprays too. Inspect your trees for any cankers over winter and treat them in dry weather, by cutting out or by burning with a small plumber’s propane torch.

This year think about growing lots of flowers to aid pollinating insects. Insects are attracted to clumps of flowers rather than to scattered individual plants. Flowers attracting bees are of course the natives as well as dandelions, cosmos, coreopsis, clover, mint, etc. Don’t worry that flowers will divert *Osmia*; they feed on dandelions and other early flowers but prefer fruit tree blossoms and other roseaceous flowers.

Clean the nest blocks for our native *Osmia* now, before bloom. Some small solitary pollinators like to nest in undisturbed bare earth and bask on dark rocks to get up to flight temperature in the morning. They need just a sunny square foot or two. Bumblebees are our best pollinators and would appreciate a bit larger area with a pile of straw, twigs and dried grass per nest. Their favorite nest site is an old mouse nest but these are hard to find.

Look at the area surrounding your fruit trees. Have ornamentals grown up and cut off the sun? Maybe the fruit trees could use thinning during dry periods this winter to provide air circulation and light penetration. Save any downsize pruning for the first week of August, to reduce regrowth. It is helpful to remove vegetation at least a couple feet from the trunk to reduce vole damage and lessen root competition. It’s fun to plant crocus or snowdrops in this circle. Trunk guards also can help inhibit voles, sun scald and cracking in young trees.

During especially wet periods, brave the weather and check for drainage. Standing water problems must be addressed. Pears tolerate just a bit more wet than other fruit trees. Among small fruits raspberries are very susceptible to phytophthora root rot if too wet.

Looking really far ahead.....Our area is predicted to be one of the last to feel climate warming. But we *are* predicted to experience increasingly cool, cloudy weather in spring and summer.

Think about choosing short season cultivars which can still thrive with lower heat units (choose Early Fuji over Mutsu or Goldrush apples). Cont. on page 7



Cont. Doing Better

Choose cultivars which are disease resistant or self fertile. Self fertile cultivars still need to be pollenized but insects don't have to bring in pollen from a different tree. Plan to grow fruit trees on a trellis system and outfit it with a clear rain shield about half the year, from leaf fall to petal fall. Consider growing more small fruits such as strawberries and raspberries which may also benefit from rain shields. Take advantage of south or southwest facing walls for reflective heat. Investigate high tunnels made from 20 ft PVC hoops and polyethylene sheeting. Finally, think about relocating to property which slopes to the southwest and has full sun exposure.

Last year saw several all time weather records broken, none of them good. Let's hope for better conditions this year!

* * * *

Notes on HoneyCrisp, Bob Norton

Honeycrisp is an unusual apple in that it has the capability of remaining crisp and juicy for a very long time at a higher temperature than most other varieties, yet can show storage problems rather quickly if not picked at the proper time and stored in the proper way. Storage can result in Internal browning around the core or scald, a browning of the skin and flesh just under the skin. The latter problem is caused by storing the fruit at too low a temperature (32-34 degrees), especially right after the fruit is harvested. Internal browning is often associated with picking at the wrong maturity, either too early or too late. I have seen evidence of both conditions in fruit at the Supermarket so the industry has not totally solved the problem.

For us backyarders, I suggest that we pick Honeycrisp starting about Sept 15, taste it and if possible do a starch test, This is very easy to do- just dilute tincture of iodine 10:1 and spray the cut surface of the fruit. If it turns almost black, the fruit should be left on the tree another week or so. If about half the apple turns clear, it should be ready to pick for long term storage. If the entire cut surface turns clear (no black color), pick all the fruit that has color and use it within a month or two. I store my fruit in an old refer that has kept Honeycrisp in good condition for almost a year. I also had one refer turned down too low this year and already noticed some scald. Let me hear the harvest and storage conditions of your fruit. We still have things to learn about this apple, but I think it potentially is one of the most promising apples we can grow on the Westside.
Bob

Button Up the Orchard for Winter, Bob Norton

On balance, it was a pretty good year in the orchard and berries this year. We had shy crops of pears (especially Abate fetel), peaches and plums due to poor pollination but good crops of cherries and apples with little problem from apple maggot, codling moth or SWD with little or no insect control.

Wonder if the hard winter may have had an effect? The strawberries did exceptionally well, producing up until almost November when the rains came and the Botrytis took over. Had they been under a hoop house or greenhouse, I *could* still be picking. The varieties Albion, Monterey, Seascape and Evie 2 never stopped flowering.

Back to the tree fruits. I picked the last apples a couple of days before T'giving:

Suncrisp, Lady, Newtown Pippin and Roxbury Russet. They went into my old frige to further ripen. Carol made pie with Honeycrisp which was excellent, also with Elstar and Belle de Boskoop which was also good but took second place. I've got to learn to either slice the apples thinner or pre-cook them to be sure they are not too firm in the final product.

Now it's time to put the orchard to bed. A copper spray went on the cherries, peaches, apples and 'cots the week before T'giving. Another will go on between now and January 1st, mainly on the peaches for leaf curl. I have made sure that all dropped fruit has been picked up and disposed of outside the deer fence where it is quickly picked up by deer or 'coons.

You can start winter pruning any time, first with apples, pears and plums. The peaches and 'cots can wait until after bloom and the cherries until after harvest. By the way, it's not too late to plant or move trees if you have them. The Club just sold trees to some of our members and a lot more are available for spring planting. The Club is ordering rootstock of pears and stone fruits including cherry, plum, and peach for spring planting and grafting. If you have questions, just bring them to the January meeting or join the WCTFR forum managed by Judy Stewart (js@olympus.net)

All for now . Bob Norton

Vashon Island first meeting of 2012 will be a quarterly meeting and will be held Tuesday, January 24th at the Land Trust Building at 7:00 PM. We hope to see you all there.

The Best Pie Apple—WCFS Forum

Which apple to use is certainly a matter of preference. Some people like their pie apples to remain quite firm, ie. Granny Smith, while others like them to be very soft. A pie apple is typically one that retains its shape but softens well, i.e. Cortland, Mutsu, Empire, Jonagold, or Fuji. Consider the taste - some apples like Gala lose a lot of flavor when cooked. Others gain tremendous flavor when cooked i.e. Empire.

From Bob Norton: My feeling from experience and reading is that there are probably very few apple cvs that can never make a good pie.(one might be Red Delicious). When I lived in Utah, Wolf River was our favorite pie apple. Others I recommend are Honey Crisp, Elstar and Belle de Boskoop. First, a good crust is essential and that ain't easy. Next maturity of the fruit is important. Yellow Transparent can be an excellent pie apple if you pick it on the green side. Likewise Granny Smith can make a mediocre to poor pie if the fruit is totally green. How you prepare the apples can be critical. Sometimes I have made the slices too thick and they remained crunchy, a real turn-off for me but not for everyone. Precooking the fruit can take care of this - a quick shot in the microwave. Other factors are important ei. sweetener, spices, shortening, etc. Cooking time and temperature are important. But the most important is the pie maker, male or female. If you've got one in your house hang on to her/him. I'm one of the lucky ones.

George Moergeli: the very best pie apple to me is Northern Spy.

Jean Williams: Gravenstein does not hold its shape. You can't begin to make an Akane turn to mush no matter how long you cook it.

The winning pie at this year's Piper Orchard Festival of Fruits, was made from our antique orchard's "Wealthy" variety of apples, "Dutch Mignonne", and maybe a few "Gravensteins".

Erik Simpson: My best pie apples this year were the Spitzenburg, Mutsu and the Red Jonagold. My best baking apple is still Wolf River.

Eric D'Asaro: The various red-fleshed apples have a unique taste that I like in pies. My favorites are Discovery and Pink Pearl.

Linda Gately: likes Yellow Transparent pie with crumb topping.

Joanie Harris and Marilyn Couture prefer Jonagolds for pie apple.

Some like Henry's Golden Keeper.

Judi Stewart: Belle de Boskoop took first place in the

NOFC apple pie contest one year. I find that three different apple varieties give my dish more interest. Opalescent is usually one of the apples. Adding one chopped quince really picks up the flavor. If I cook the pie filling first and pile it high, I never worry about the top crust collapsing.

Bob Hartman: "Does this apple stay as a chunky slice or does it cook up when made into a pie?"

Lori Brakken: That is info that we can include in the Apple Id program and search for chunky apples.

See Bauman Orchard Apple Chart and uses.

<http://www.baumanorchards.com/chart/index.htm>

Also, see Kitchen Charts – Apple Varieties and Uses

<http://www.recipegoldmine.com/kitchart/kitchart71.html>

* * * *

Apples and Cold Weather, Bob Norton

How long you can leave apples on a tree.

I have had apples freeze on the tree in Wenatchee and remain edible. The answer relates to the extent and duration of the freezing. If only a few hours at 30 to 32 degrees, they should recover. If for several days at below freezing in a refrigerator that is turned too low, they probably will not recover and will break down quickly.

* * * *

Dan River Apple A Snohomish County homeowner saw the news that WCFS is forming a new Chapter. He asked if we'd be interested in taking cuttings from an old apple tree on his property. The tree is part of an original orchard with a few other older trees still standing. A large branch split from this apple recently leaving two thirds of the tree still intact. The round sweet tart apple matures in October, is green with a yellow/red blush. Michael is considering removing the rest of the tree, and I advised him to wait. The tree diameter measures 5'6" at chest height though it stands at about 14 feet due to pruning over the years.

Michael said he understood that the people who homesteaded his property around 1880 came from somewhere near the North Carolina/Virginia border and were considered rebels in the Civil War. Understandably, the homesteaders called this apple, "Dan River." The well known bedding and apparel manufacturer, Dan River, Inc., is in Danville, Virginia.

If anyone would like to see the tree or take cuttings, we'll be doing that on Saturday afternoon, January 21st, after the Snohomish chapter meets. You're welcome to join us.

Contact Judi Stewart, js@olympus.net.



Apple Rush!

The quiet and peaceful town of Steilacoom is overrun annually with apple lovers. The weather was perfect for this historical setting's 2011 Apple Squeeze!! THEY CAME FOR THE APPLES!!

They didn't come to charge-in for the cotton candy,
They didn't come to get the chance to pet the llamas,
They didn't come to scout deals on foreign import souvenirs...

You better believe...THEY CAME FOR THE APPLES!!!

APPLE cider, APPLE pie, APPLE aromas!!
They also came to learn what it takes to identify an apple's origin and what name had been attached to that mysterious apple variety they had been picking in their backyard and eating for years.

An apple identification booth was setup with samples of locally grown varieties displayed. While it wasn't always possible to make a 100% positive ID, most possibilities were quickly eliminated.

There are more than 2,500 varieties of apples in the U.S., but many varieties are extremely rare. Although the common locally grown types are fairly easy to identify, more than a picture and description are needed.

Naming an apple can be tricky. Factors that need to be considered are:

- ripening date
- aroma
- taste
- texture, and even the
- leaves

Apples on the same tree can vary in shape and color. In addition, they also vary from 1-season to the next and from tree to tree and even on the SAME tree if some apples had more exposure to sunlight. So, 3 or 4 representative apples with similar color and size need to be examined.

There are thousands of foreign apple varieties that may one day be introduced to the U.S. In addition, DNA classification and computer-based systems are rapidly being created. I hope there will always be a place for good old-fashioned Apple Identification booths!!

Chuck Polance, Tahoma Chapter

Bob Hartman and Pete Piotrowski of the **Tahoma Chapter** displayed fruit, answered questions and identified apples as the Steilacoom Apple Squeeze's 38th annual event on Oct. 2nd. The street fair takes place every year on the 1st Sunday in October.



WCFS Quarterly Meeting at STFS Spring Fruit Show

The WCFS meeting will be held during the STFS Spring Fruit Show March 24, 2pm, Sky Nursery, 18528 Aurora Avenue, North Shoreline, WA 98133. We have been offered a space in the upstairs offices.

More Info: Lori (206)715-4149
lorineb@mindspring.com

The Winter 2012 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 15

Email your articles to:
Marilyn Couture: couture222@msn.com
Permission to copy from the Beeline is granted with attribution.

Storing Fruit

Dr. Eugene Kupferman

WSU Extension Horticulturist—Fall 1996

In order for fruit grown in a small orchard to be stored and consumed over several months there are a few things which must be considered. These include the type of fruit, the variety, fruit quality, maturity at harvest and the type of storage available. Half of the challenge comes in selecting and growing fruit with storage potential.

I. Choosing the Correct Fruit to Grow

The flesh of apple and pear fruit contain starch which is converted to sugar during storage. The conversion of starch to sugar provides energy for the fruit's life processes. Peaches, cherries, nectarines and other "stone fruits" do not lend themselves to storage. Berries or grapes also do not last long. Stone fruits and berries do not store photosynthates as starch, thus they have no reserve and cannot be stored for long periods. Incidentally, it is the starch in apples which makes them taste like a potato when eaten immature.

a) Determine which apple variety to plant:

Variety selection is crucial to successful storage. Summer maturing varieties will not store as well as varieties which mature in the fall. For example, Summerred and Gravenstein can only be stored for one month while Red Delicious, Granny Smith, Rome Beauty or Fuji can be stored four months or longer.

Generally, apples which mature in late September or October have better storage potential than those which mature earlier. For example, Gala, a variety which matures in late August in Eastern Washington, is currently the earliest maturing commercial variety. Unfortunately, Gala loses its flavor in only a few months in even the best commercial controlled atmosphere (CA) storage. On the other hand, Granny Smith, one of the latest maturing varieties, holds its flavor for many months even in less than optimum conditions.

There are many apple varieties which can be grown in Western Washington and Oregon. Many are described in the excellent bulletin by Robert Norton titled *Apple Cultivars for Puget Sound*. It is available from WSU Cooperative Extension offices under the catalog number EB 1436. This publication lists many cultivars and describes bloom dates, scab and mildew susceptibility and most relevant to this discussion, harvest date.

b) Determine which pear variety to plant:

Pear varieties are also stored commercially in Wash-

ington and Oregon. The longest storage pear grown commercially is Anjou which matures in September in the Wenatchee River Valley. It is difficult to store varieties which mature before Anjou.

Some of the early maturing pears, like Bartlett, ripen if left on the tree. However, they lack the full flavor and uniform texture of fruit which has been refrigerated before being ripened. Commercially, warehouses will stimulate uniform ripening by storing fruit in the cold or use ethylene gas before shipment.

After proper storage at precise cold temperatures, winter pears must be allowed to ripen at room temperature for 4- 7 days before they will achieve a buttery texture and juicy flesh. Even then, some individual pears fail to ripen for reasons we do not comprehend.

The best varieties of European pears for Western Washington homeowners would be Comice, Bosc, Highland or El Dorado.

II. Growing Quality Fruit; Selecting Fruit for Storage

Fruit storage is somewhat like computers—"garbage in, garbage out." Only the highest quality fruit should be stored. This fruit must be strong enough to resist the ever present fungi. This fruit must be bruise free and without cuts or punctures. Fruit must be high in calcium and have a balanced nutrient content. Growing quality fruit requires a careful blending of fertilizer, pruning and protection.

It is impossible to give a recommendation for the amount or type of fertilizer needed. However, one can gauge fertility on the basis of shoot elongation. The best fruit is grown on a tree with balanced nutrition. Fruit bearing limbs should grow no more than 18" per season. Longer growth indicates the tree is receiving too much fertilizer. In this case, nitrogen fertilizer should be cut back significantly. Growth of less than 10" indicates a need for nitrogen fertilizer. Trees without fruit will have greater extension growth. Trees with too much nitrogen will have fruit which remains green, soft and will not store well.

Calcium sprays build strong cell membranes which resist both fungal diseases and physiological disorders. Washington soils usually have sufficient calcium, and the problem is allocation of calcium within the tree. Therefore, repeated sprays of calcium are important. One spray per season will not get enough calcium on the fruit—six to twelve sprays are necessary.

Pruning is a fruit growing imperative. Pruning is an annual event necessary to produce quality fruit.

cont. on pg. 11



Cont. Storing Fruit

Light is what makes the machine run! Light must penetrate the full canopy and not just the outside perimeter. The leaf to fruit ratio affects fruit size and quality. More leaves grow bigger fruit and often higher quality fruit.

Pest control is another imperative since fruit with scab, codling moth or mildew will not store well. The moisture retained by the fruit in storage depends upon the continuity of skin and the natural wax (cuticle) layer. Mildew, scab and other surface blemishes provide places for moisture to exit. Therefore, this fruit will not store without shriveling.

Fungi are the most destructive organisms which attack fruit after harvest. It is very important to protect fruit from fungal organisms. Infected fruit placed in storage will at best continue to decay and at worst will spread disease onto healthy fruit. A first step is to reduce the number of fungal spores on the fruit by creating an environment hostile to the growth and spread of the decay organism. Reducing the number of spores can be done in several ways:

- 1) Fruit should be sprayed with a fungicide as per your WSU County Agent's advice. This reduces the possibility of infection during the growing season and reduces the number of spores in the tree canopy. Limit sprays to recommended levels and be careful as to timing of application.
- 2) Do not harvest fruit which has fallen to the ground or growing close to the ground as it is likely to be infected.
- 3) Bruising of fruit should be avoided at any cost. Do not store seriously bruised fruit. Bruised fruit respire more rapidly than healthy fruit and will speed the ripening of other fruit in storage.

III. Harvest Maturity

Determining when to harvest apples and pears for storage is very difficult. The basic principle is to harvest fruit for longer-term commercial storage when fruit respiration is at a low ebb. This low ebb comes just before the fruit is ready to eat off the tree **before** it develops full flavor. Once it is ready to eat off the tree there is very little starch reserve for storage. Fruit begins its final decline, the rate of respiration increases, and it becomes increasingly difficult to store so that it will have acceptable eating quality after storage. Fruit designated to be stored 3-4 months must be harvested well before it achieves the best edible quality on the tree, and it will develop flavor and aroma in storage as the starch converts to sugars.

The basic principle is to harvest fruit for longer-term commercial storage when fruit respiration is at a low ebb. This low ebb comes just before the fruit is ready to eat off the tree **before** it develops full flavor. Once it is ready to eat off the tree there is very little starch reserve for storage. Fruit begins its final decline, the rate of respiration increases, and it becomes increasingly difficult to store so that it will have acceptable eating quality after storage. Fruit designated to be stored 3-4 months must be harvested well before it achieves the best edible quality on the tree, and it will develop flavor and aroma in storage as the starch converts to sugars.

How then does one determine when to harvest? It is very difficult. Let me give you a short explanation of how the apple industry decides when to harvest. The industry has funded a laboratory to which fruit from 50-70 orchards is brought each week, starting in August. The lab analyzes the fruit for 11 different horticultural indicators including flesh color, firmness, the quantity of sugars, acids, ethylene and respiration. The lab reports are discussed by industry horticulturists at weekly meetings. The horticulturists combine the scientific information with their own experience and send out an advisory statement to the growers. This is a long way of explaining that we are dealing with a biological system influenced not only by the tree, but by weather and man. Scientists have not fully unlocked the keys to ripening.

To the backyard horticulturist, I would suggest several things you can do to determine the progress of maturity of the fruit on your tree. First, get a notebook in which you can write (and keep) notes from year to year. Start 3 weeks before you expect to harvest. You can determine the approximate harvest dates from nursery catalogs, WSU Extension or Master Gardeners. You will need to sacrifice a number of fruit. Pick 2-3 fruits on the south side of each tree; pick those on the sunny upper part of the tree as they mature first. Note the skin color of each fruit. The background color changes in most varieties from green to white then to yellow as the fruit matures.

I would perform a number of tests on the fruit and mark the results in your notebook for future reference. You may wish to invest in a pressure tester (about \$150). A pressure tester is a plunger with a dial. Testing the firmness of several fruits can help determine when the fruits are maturing. Remove the skin of the fruit by making two shallow cuts on opposite sides of the fruit—the sunny side of the fruit will be softer.

cont. on pg. 12

Cont. Storing Fruit

Usually there are two tips provided with the pressure tester. Select the apple tip (the larger one) and push the plunger into the fruit while holding the fruit against an immovable object. Insert the plunger up to the mark on the tip (about ¼ inch). Record the reading from the dial and average all readings for that variety. This is average firmness for that variety that week.

Then cut each fruit horizontally through the seed cavity. Look at the color of the fruit flesh. Most varieties will begin to change from green to white flesh as they mature. Once they are white fleshed they will not continue to increase in size. When the flesh turns yellow it is too late to store the fruit as there will be little starch.

Obtain a solution of iodine from a veterinarian and place it in a spray bottle. Spray the cut surface. Be careful not to get the iodine solution on your clothing as it will stain. When the iodine contacts the starch in the flesh of the fruit the flesh turns blue/black where starch is present and remains white where it is absent. Look at the pattern. In many fruits, and depending on the desired length of storage, 25-50% of the fruit's flesh should be blue/black when the fruit is ready to be harvested for storage. This figure is broad because the fruit variety, length of storage and type of storage will dictate the desired amount of starch. You will notice that the starch 'clears' progressively from the core area out to the skin. A very immature apple or pear has starch all the way to the core. A very edible fruit has no starch remaining and no storage potential.

Apples and pears will get easier and easier to remove from the tree. They will begin to separate with a snap rather than being removed with broken stems.

In summary, you can keep track of the maturation of apples and pears by using flesh color, background color of the skin, uniform seed color, starch and firmness. Now that you have accumulated the information the decision of when to harvest must be made. Consider harvesting apples when the background skin color turns white, the starch has cleared from ½ to ¾ of the flesh and the firmness has not dropped. Pears should be harvested when the seeds have turned a uniform dark color, fruit finish is smooth and half the starch has cleared. Again pears will be firm at harvest and only soften after storage.

Try picking the same variety on two harvest dates a week apart and see which ones comes out of storage with better edible quality. After a few seasons you'll get the hang of it.

IV. Minimizing Decay in Storage

As noted above, healthy fruit are less susceptible to decay. Bruised fruit, overmature fruit and fruit

picked from the orchard floor are all candidates for decay. Fruit which has russet, scab or insects are subject to shrivel in storage. So select your fruit with care.

Reduce decay organisms coming in on fruit by following an appropriate fungicide program throughout the growing season. Researchers have found that a spray of fungicide two weeks prior to harvest will reduce decay.

Following harvest some orchardists have had luck with the application of a chlorine spray onto fruit in the bin. Others use a fungicide after harvest and before storage. If the storage does not have good air circulation, it is important to have the fruit somewhat dry when entering the storage room.

V. Storage Techniques for Small Growers

The basic principle of fruit storage is to slow the respiration rate of the fruit to the bare minimum necessary to support life and still provide quality fruit after storage. This can be done by reducing the temperature. In most cases 32° - 34°F is ideal for apples and pears. A few apple varieties like Spartan and McIntosh will suffer chilling damage at 32°F so these can be stored at 36°F. The faster the 'field heat' is removed, the colder the fruit is held and the more controlled the temperature, the longer it can be stored.

Another way to reduce respiration is to lower oxygen. This is called CA—Controlled Atmosphere storage, and 50% of Washington's commercially grown fruit goes into CA storage each year. CA storage is atmosphere modification in refrigerated rooms.

Backyard gardeners may wish to purchase a used refrigerator to keep the longest storage fruit, and use a root cellar for shorter term storage. Fruit should be dry and isolated from each other by a paper wrap and enclosed in a plastic sack to prevent moisture loss. Obtain used apple boxes from grocery stores and line the box with a plastic bag. Pencil size holes should be made in the plastic bag for ventilation. Avoid having apples and pears in the same plastic bag since the apples easily give off a gaseous hormone ethylene, which will stimulate the ripening of the pears. Inspect the fruit at weekly intervals and promptly remove any which have rotted as they will give off both ethylene and fungal spores.

DO NOT store apples with potatoes or they will pick up off flavors. Don't store apples with carrots or the carrots will taste funny.

In summary, choose the correct variety, grow it well, and harvest it at the proper stage of maturity. Protect it from fungi, select only high quality fruit. Use low temperature and possibly low oxygen to preserve quality.



Ticket Sales Contest - Did Annette sell 3-tickets or 111-tickets? You read...You decide!!
Chuck Polance, Tahoma

Mike & Annette Smith were sitting passively at the WCFS booth at the Puyallup Fair when Mike said “dear, do you realize that we haven’t sold a single cider press raffle ticket in the last 2-hours!?!”

Annette said “you’re right, at this rate we’ll never even sell enough tickets to cover the cost of the press!!” Mike said “we have an hour left on our shift. I’ll challenge you to a contest to see who can sell the most tickets!”

Knowing that Mike was a very persuasive salesman with a lot of charm, Annette reluctantly agreed. They agreed to compare their totals at shift end. Scorecards would tally the sales as they occurred. Each kept a running total out of sight from one another as each ticket sale was privately recorded.

The 60-minute clock started ticking. The competition began!!

Mike grabbed a handful of tickets, waved them in the air and shouted out like a carney working a game booth.

She watched and admired his total effort to sell enough tickets to show her up and win the contest. This is what Annette witnessed:

Mike ran up to passers-by and yelled “you have a good chance to be the owner of this beautiful cider press if you buy 5-tickets...you can double your chances if you buy 10!!” The customers said “then I’ll buy 10!!” Mike smiled at and put 10-notches on his board. This sales pitch was effective with many people. Tickets were selling briskly and his tallies kept soaring.

Another fairgoer had a Wazoo hat on and Mike exclaimed “I’m a Wazoo fan, too!!” “You are? That’s great” the man beamed. Then Mike said “OH! By the way good buddy, would you like to take a chance on winning this cider press?” The guy said, “of course, I’ll take 20-tickets.” 20-more marks on his scorecard!!

Meanwhile, Annette was able to sell only one ticket here and a single ticket there. She only sold 3-tickets and Mike must have chalked-up a hundred! People were practically waiting in line to hand over 5’s & 10’s To him. Annette knew she didn’t have a chance to



win and, in fact she knew she was losing the contest badly. Mike was truly a phenomenal ticket seller. His notches were adding up fast.

Annette felt relieved when the hour was over and the contest ended. Her exuberant hubby went over to her side of the booth. She said nothing as he peered at her scorecard. Embarrassed, she looked away as he compared results.

Annette knew he’d laugh because she sold only 3-tickets. Strangely, he got real quiet!?! Looking over, she saw his jaw drop as he stared, expressionless at the 3- vertical lines (111) representing the 3-tickets sold on her scorecard. A tearful Mike then yelled-out: **“ONE HUNDRED ELEVEN! YOU BEAT ME BY 5!!!”**

* * * * *

The WCFS booth in the massive Showplex at the Western Washington Fair once again proved to be a magnet for fairgoers. With over one-million people in attendance over the 17-day event, our booth received a steady stream of traffic.

Chuck Polance

Women, Farms and Food
Women in Agriculture Conference
Sat. Feb. 11

Conference will be held simultaneously in 15
counties in Washington State

<http://county.wsu.edu/chelan-douglas/womeninAg/Pages/default.aspx>

The Mad Scientist's Thoughts

Roger Eichman, NOFC



Here are a few questions with my answers or observations. To some, they may be of help. To others they may be a bit

unsettling. But I hope they're of some interest.

Pathological paranoia: ignorance or fears that are based on little direct evidence, of which can lead to a depressed immune system and unhappiness.

Chemical paranoia: an ignorance of general chemistry, usually based on verbiage. Is not a rose just as sweet by any other name? A few years ago I reported on the Forum that Jim Fritz used dihydrogen monoxide on his plants, and I would like to use more hydrogen hydroxide on mine but that it was rather expensive here on Marrowstone Island. A scathing return message reported that she was "natural" and did not use chemicals! --- Did NOT use water?! Of course we all use chemicals! What a hoot. Fortunately, the Island is now on city water, so my plants are doing a bit better.

Healthy paranoia: having said the foregoing, a bit of caution in life is prudent. Each of us sets our own limits. I for one, won't mix insecticides and herbicides, etc., or even use them while using deet bug repellent. The combination is several hundred times as toxic as each one alone. The use of herbicides may be somewhat linked to an increase in Parkinson's disease. Handling tansy ragweed without rubber gloves can allow its toxin to pass through the skin and damage the liver. So much for being "natural."

Founded paranoids: my top three are, Smoking, Mercury and MSG but not GMOs, natural, or "organic." Neither is global warming. But added to my list is the national debt of around \$240 trillion and world derivatives of more than \$900 trillion. A year of jubilation will arrive but it won't be very happy as all this mess is cleaned off the books. As for climate change - it's coming, always has been and always will be. The next page on change may be due to a drop in sunspot activity in 2012 to 2013. If the sun becomes quiet for a few or 30 to 50 years, the Earth will turn much cooler. China then starves and we'll be feeding the world. This selfishness of burning food in cars will end.

Solar activity is cyclic and so is volcanism which is now scheduled to increase. Watch the Uturuncu volcano in Bolivia. If or when it erupts, in an instant, it will cause a repeat of 1816, a year without a summer, or the result of about a thousand Mount St. Helens.

I'm not extremely worried about this as it could happen within the next thousand years. But I do expect this century to have much more volcanic activity than the last. Wonder how the change in solar activity and volcanoes will be blamed on anthropogenic causes?

In summary, don't worry so much. Be happy and don't pontificate so much on esoteric, occult verbiage. Just go plant some more new (GMO) trees.

* * * *

WCFS New Snohomish Chapter Meets Jan. 21.

Contact Judi Stewart, NOFC for information

One of the purposes of our organization is to encourage and support formation of local chapters in geographical areas of western Washington. This will be our eighth chapter. Everyone is invited.

The new chapter will be meeting on Saturday, January 21st from 10 am to noon. The location is the Blue Ridge Fire Station #14 at 18800 68th Ave., W., in Lynnwood, WA 98036. De Arbogast and Bill Davis will discuss "Backyard Blueberries." As an added incentive, if the firemen are in the station, they're more than happy to check your blood pressure.

* * * *



STFS 2012.

Dec 17th, STFS meeting – we met at Swanson’s Nursery for a wrap up of the year with a discussion by our club Experts on ‘This Year in Our Gardens’. The last hour was spent learning the Wassail songs to be sung at the Jan 7th meeting.

Jan 7th, STFS ‘Annual Member Meeting- Day of Workshops, Lectures, Elections and Wassailing!’ All are Welcome this free day at Sand Point Magnusson Park, in ‘The Brig’ just adjacent to the P-Patch orchard. Bring a potluck item, your pruning tools & gloves, and a musical instrument! Drums are good for the merriment in the orchard.

Time: 9am to 7pm (9am Set Up)

10-10:30 Lecture by Lowell Cordas of Lowell’s Tools ‘Tips on Selecting and Caring for Your Pruning Tools’ He will set up his tools for sale.

10:30-11 Lecture by Jean Williams ‘Making Scion Wood Cuttings for the Spring Fruit Show’

11:00 Break for Food & Beverage

11:30 - 1:00 Lecture & Workshop with Larry Davis ‘Winter Pruning with Hands-On Orchard Practice’

1:00 – 4:00 Lecture & Workshop with Evan Sugden ‘Biochar Production in the Orchard’ Evan will bring a gas burner to produce Biochar in the orchard.

4:00 – 6:00 Annual Meeting & Potluck – Elections!

6:00 – 7:00 Fire pit & Wassail in the orchard!

Apple Id Program Meetings ‘Upcoming Changes and Plans for the Program’

Jan 29th, 1-3pm, Victoria, BC @ Saanich Fair Grounds, 1528 Stellys Cross Rd, Saanichton BC

Feb 4th, 9:30-11:30am, Silverdale, WA @ Station 51 at 10955 Silverdale Wy NW, 98383

Feb 12th, 1-3pm, Portland, OR

Feb 18th, 1-3pm Seattle, WA @ Green Lake Library, 7364 E. Green Lake Dr. N. 98115

Feb 8th-12th - Flower & Garden Show, Sign Ups are Now! All Welcome to sign up for a shift. More info: Ingela (206)941-1478 ingelamw@gmail.com

Mar 24th, Seattle Tree Fruit Society’s Spring Fruit Show & 2pm WCFS meeting

10:00am - 3:00pm @ Sky Nursery, 18528 Aurora Ave N, Shoreline, WA 98133

April 14th, STFS Meeting ‘Hands on Practice’

Location: Sand Point Magnusson Park, in ‘The Brig’ adjacent to the P-Patch orchard.

STFS 2012 cont.

June 2nd, STFS meeting ‘Hands On Practice ‘Maggot Barriers/Espalier Pruning workshop’ Location: Sand Point Magnusson Park, in ‘The Brig’ just adjacent to the P-Patch orchard.

July/Aug – STFS ‘Hands On Practice’ Summer Pruning Workshop in the orchard, Location: Sand Point Magnusson Park, in ‘The Brig’ just adjacent to the P-Patch orchard.

More info: Ingela (206)941-1478 ingelamw@gmail.com

Sept 15th, STFS Meeting at Friends of Piper Orchard ‘Fall Fruit Show’ 10-3pm at the Learning Education Center room, Carkeek Park, Seattle. Fun for all ages! Festival has annual pie contest and tasty treats with cider prepared from Carkeek apples! Care of orchard is done by Seattle Fruit Tree Society, City Fruit, Carkeek volunteers & Park staff.

pipersorchard@gmail.com

Oct 27th, STFS Fall Fruit Show 10-3pm at Sky Nursery,

Dec 1st, STFS ‘Hands On Practice’ Winter Orchard workshops & STFS Member Meeting Location: Sand Point Magnusson Park, in ‘The Brig’ just adjacent to the P-Patch orchard.

Call me anytime, Lori (206) 715-4149 Email: seattletreefruitsociety@hotmail.com
<http://www.seattletreefruitsociety.com/calendar>

* * * * *

Vashon Island: Remember to renew your membership to the Fruit Club for 2012. As you all know, the benefits are too numerous to list—from pruning workshops to lectures on orchard pests to our annual summer picnic—and the rewards obvious: more home-grown fruit!

We at the Fruit Club would like to encourage you to give the gift of fruit this holiday. A gift membership to the club will be a gift of 365 days of member benefits—and its tax deductible! A gift of a fruit tree—apple, pear, cherry, plum, you name it—will continue to give and give for decades.

Chapter News

“The best time to plant a tree was 20 years ago; the second best time is now”—old Chinese proverb

Tahoma Chapter News On November 3rd Jack Thompson, Wildlife Biologist gave a presentation and handed out copies of Arborist's Guide to Orchard Pests. As A All Animal Control franchise owner, he gets calls to diagnose damage and eradicate problems. You may ask "what kind of pests are you referring to?" Well, insects, deer, birds, raccoons and squirrels are common ones, but he also can handle calls for porcupines, beavers and bears. Some things we learned:

BEARS sharpen their claws on mature trees.

RODENTS damage the under bark of trees. Wrap the trunks.

MOLES – Noise, vibration, smell, etc are only 20% effective. If moles are already there, it is tough to get rid of them, but if they are not there yet, it is easier to keep them away.

RACCOONS – An electric wire is very effective. Traps? Not very useful since these animals are smart and learn to stay out of cages. They can also learn the range of a water spray and avoid getting blasted.

DEER – They will take a bite out of one apple and move to another. Deer can have a 15' vertical leap so the height of a fence is not the issue. Since they have eyes on the sides of their head they have no depth perception and can't focus well. An angle on top of a 6'+ fence will fool them visually and keep them from trying to leap over. A contoured landscape is also a deterrent. ELK are the same but likely to bulldoze a fence to gain access to your orchard.

STARLINGS will swoop in and clean out your grapes. WOODPECKERS may be feeding on insects and the insects may be feeding on diseased or rotting wood.

Jack invites WCFS members to contact him. So, if you have damage to your property and don't know what is doing it, see if Jack can help. Describe the symptoms to him and he'll try to identify your problem. This member of Nuisance Wildlife Professionals can be reached at capital@animalproblem.com or toll free 877-799-2552. Jack Polance.



Jack
Thompson &
Bill Horn

Olympic Orchard Society Annual Christmas party and meeting conducted by Erik Simpson was attended by 30 members. Seed saving program was presented by Master Gardener Muriel Nesbitt.

Jan. 10, 7pm —What's Good for Our Soil, Wanda Horst, Commissioner's Quarters, Clallam Court House.

Feb. 14—Mutual seed exchange with Seed Savers.

March 3—Pruning Workshop at McComb Gardens.

March 24—Scion Exchange at McComb Gardens.

March 29-30—Grafting workshop with Sequim High School Horticulture class.

* * * *

Peninsula Fruit Club Peninsula Fruit Club held the annual picnic at John Meyer's house in September, and everyone's cooking efforts and interesting conversation were thoroughly enjoyed by all who attended. At our September meeting, we talked about how to know when fruit is ripe. We learned about general ripening time charts, penetrometers and refractometers, starch charts, color changes, and ease of abscission. In October we took apart mason bee blocks and examined the contents. We looked at hairy footed pollen mites under the microscope and even discovered some leaf cutter bee cocoons in a couple of channels. We also held our Fall Fruit Show in October and had a great club turnout. There were around 200 different varieties of apples on display plus numerous pears, a few plums, different kinds of berries, figs, grapes, quince, persimmons, walnuts, chestnuts, and even a ripe akebia. In November we held a round table discussion about future topics for meetings and had elections. Our January meeting will feature Ken Miller from VIFC, who will be teaching us about biochar. We will be having a drawing for a 1-gallon biochar stove made by Ken. Later in the month on the 28th, we will have winter pruning workshops at two members' orchards. At our February meeting, member Steve Butler will be talking about sprays, organic and chemical, for pest and disease control. We plan to schedule another pruning workshop possibly in February. March starts the grafting season, and we will be busy teaching grafting to students at Klahowya Middle School and to our new members. We will teach grafting to the general public, have some interesting lectures, and have lots of scion wood and rootstock for sale at our Spring Grafting Show, scheduled for March 17 in Silverdale. Jean Williams

* * * *



Fruit-Related Web Sites

Home Orchard Society, Inc. <http://www.homeorchardsociety.org>
 California Rare Fruit Growers <http://www.crfg.org>
 North American Fruit Explorers <http://www.nafex.org>
 Western Cascade Fruit Society <http://www.wcrfs.org>
 Western Washington Fruit Research Foundation <http://www.wwfrf.org>
 Northwest Berry and Grape Infonet <http://berrygrape.org>
 Tree Fruit Research & Extension Center – Washington State Univ,
<http://www.tfrec.wsu.edu>
 Univ. of California Fruit and Nut Research <http://fruitsandnuts.ucdavis.edu>
 Mid-Atlantic Regional “Fruit Loop” of university research departments
<http://www.caf.wvu.edu/kearneysville/fruitloop.html>
 Michigan State University Extension fruit pages
<http://www.canr.msu.edu/vanburen/disthort.htm>
 Midwest Organic Tree Fruit Growers Network
<http://www.mosesorganic.org/treefruit/intro.htm>
 Online insect & disease phenology models <http://uspest.org/wea/>
 Beekeeping – 100s of links <http://www.badbeekeeping.com/weblinks.htm>
 Iowa State Entomology – BUGS! <http://www.ent.iastate.edu/List/>
 USDA Agricultural Research Service <http://www.ars.usda.gov>

National Clonal Germplasm Repositories – USA fruit collections!

Corvallis, OR <http://www.ars.usda.gov/Services/ocs.htm?docid=5948>
 Davis, CA
http://www.ars.usda.gov/main/site_main.htm?modecode+53-06-20-00
 Riverside, CA <http://www.ars.usda.gov/Main/docs.htm?docid=3887>
 Geneva, NY <http://www.ars.usda.gov/Main/docs.htm?docid+10013>

 English site with great variety descriptions <http://www.orangepeppin.com/>
 Pedigree – Canadian fruit site <http://www.pgris.com/>
 Midwest Apple Improvement Assn. (Midwest USA)
<http://www.hort.purue.edu/newcrop/maia/default.html>
Good Fruit Grower – web site and magazine <http://www.goodfruit.com>
 Michael Phillip (*The Apple Grower*) <http://www.groworganicapples.com/>
 Lon Rombough’s grape catalog/nursery (*The Grape Grower*)
<http://www.hevanet.com/lonrom>
 Salt Spring Island Apple Festival <http://www.appleluscious.com>
 Derry’s Orchard & Nursery; covered trees mean less disease!
<http://derrysorchardandnursery.ca/>
 Siloam Orchards – great Canadian site with varietal info.
<http://www.siloamorchards.com/>
 Fruit Handbook for Western Washington
<http://cru.cahe.wsu.edu/CEPublications/eb0937/eb0937.pdf>
 Oregon State Univ. online Plant Disease Handbook
<http://plant-disease.ippc.orst.edu/Default.aspx>
 WSU Hortsense (Cooperative Extension) <http://pep.wsu.edu/hortsense>
<http://wsu.edu/oregonhortsense>
 Tree Fruit Research West Virginia Univ. Kearneysville
<http://www.caf.wvu.edu/kearneysville/wvufarm1.html>