the BeeLine

Volume 30 Spring 2010a

Newsletter of the Western Cascade Fruit Society

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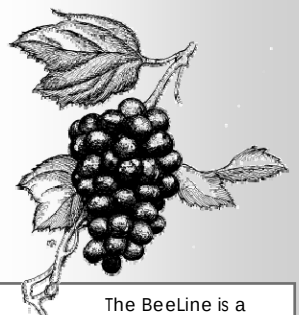
www.wcfs.org



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

BEES IN TROUBLE AFTER BAD WINTER

New study shows pollen and hives laden with pesticides

http://www.msnbc.msn.com/id/36013256/ns/us_news-environment/

Phil Vogel, South Sound Fruit Society, ran across this recent article and thought about one member who lost all two hives of bees and another bee keeper member who lost half of his hives. Have other WCFS members been experiencing losses? Phil asserts that we need to double up on the Mason Bees.

The mysterious 4-year-old crisis of disappearing honeybees is deepening. A quick federal survey indicates a heavy bee die-off this winter, while a new study shows honeybees' pollen and hives laden with pesticides. Two federal agencies along with regulators in California and Canada are scrambling to figure out what is behind this relatively recent threat, ordering new research on pesticides used in fields and orchards. Federal courts are even weighing in this month, ruling that the U.S. Environmental Protection Agency overlooked a requirement when allowing a pesticide on the market.

In 2006 a new concern, "colony collapse disorder," was blamed for large, inexplicable die-offs. The disorder, which causes adult bees to abandon their hives and fly off to die, is likely a combination of many causes, including parasites, viruses, bacteria, poor nutrition and pesticides, experts say. This year bees seem to be in bigger trouble than normal after a bad winter, according to an informal survey of commercial bee brokers cited in an internal USDA document.

Among all the stresses to bee health, it's the pesticides that are attracting scrutiny now. A recent study published in the scientific journal PLOS (Public Library of Science) One found about three out of five pollen and wax samples from 23 states had at least one systemic pesticide – a chemical designed to spread throughout all parts of a plant. EPA officials said they are aware of problems involving pesticides and bees and the agency is "very seriously concerned."

The pesticides are not a risk to honey sold to consumers, federal officials say. And the pollen that people eat is probably safe because it is usually from remote areas where pesticides are not used, Pettis said. But the PLOS study found 121 different types of pesticides within 887 wax, pollen, bee and hive samples.

"The pollen is not in good shape," said Chris Mullin of Penn State University, lead author. None of the chemicals themselves were at high enough levels to kill bees, he said, but it was the combination and variety of them that is worrisome.

University of Illinois entomologist May Berenbaum called the results "kind of alarming." Despite EPA assurances, environmental groups don't think the EPA is doing enough on pesticides.

Editor's Note: See Mike Shannon's, PFC, article on p. 12. Are the Mason Bees in Trouble Too?

Spotted Winged Drosophila attacks Oregon

Fruit farms, *by Melica Johnson KATU*

A fruit fly from Asia is threatening to destroy NW fruit crops, which could mean less available fruit, headaches for backyard gardeners, and even damage to vineyards.

While the fruit fly that's attacking Oregon fruit farms looks like any ordinary fruit fly, it is, in fact, the spotted wing *Drosophila*, an invasive fruit fly from Asia.

Stuart Olson, Marion County fruit farmer, said "We observed rot showing up on our peaches? I've never seen an insect that spreads this fast in my life."

Olson reportedlast fall his late-harvest peach crop was destroyed by the fruit fly.

"We probably lost 20 to 30 percent of that crop due to infection.

Researchers are scrambling to figure out how to kill this invasive species, which doesn't appear to have a natural predator. "Part of our concern is we don't know how concerned to be," said Jim LaBonte, an entomologist with the Department of Agriculture. "This is a species that we do not know how it will behave here."

LaBonte said the female flies saw through the skin of the fruit and lay their eggs, creating an incision which goes undetected until the eggs hatch into maggots.

"It doesn't take very long for them to turn the fruit into a disgusting soup of jam and maggots." LaBonte also said they've hatched as many as 64 flies from a single cherry. The flies can produce ten new generations of flies in one growing season. Researchers and farmers are concerned these flies will quickly develop a resistance to insecticides. The tiny fly has the potential to cause a large amount economic damage: millions of dollars of lost revenue from fruit crops and vineyards throughout California and the Pacific Northwest.

What would your reaction be to a new insect pest that could do extensive damage to strawberries, cherries, raspberries, blackberries, plums, peaches, figs, Asian pears, blueberries and hardy kiwis?

Unfortunately, this new pest is here. It is an Asian vinegar fly called spotted wing Drosophila (Drosophila suzukii). Dick Tilbury deployed a homemade bottle trap baited with a sugar/yeast bait and trapped 6 vinegar flies, two of which are definitely SWD.

SWD differs from our familiar vinegar fly in that the female has a sawlike ovipositer which enables her to penetrate ripening (not just over ripe or fermenting) fruit to lay eggs. A female can lay over 300 eggs; with an estimated 10 generations per year in our climate, the potential population buildup as the season progresses from strawberries to kiwis is simply enormous. The male fly differs from our usual vinegar fly by having a black spot at the end of each wing.

Oregon State U has a website devoted to this fly:: http://swd.hort.oregonstate.edu/.

They have an online only extension bulletin EM 8991 at the site with pictures and informative text.

There was a public meeting on this subject at the Airport Sheraton Hotel in Portland on March 30, 2010. The session included updates on research, trapping and monitoring, occurrence and available control measures from the perspectives of OR, WA, and CA universities, Oregon Dept. of Ag, USDA-ARS Horticultural Crops Research Lab and other scientists.

Leafcutting Bee Larval Tubes

Marilyn Couture, OOS, recently encountered larval tubes resembling cigars under old house siding. Leaf Cutting Bees make a tube with sections of leaves that they shear from plants in your yard, and then place an egg and a small stash of food in cells in the tube so their larvae will survive that early stage of its life. These small and often colorful bees, depending on the species, may nest in the soil or they may choose some cavity in wood or other convenient place. They do not appear to be destructive to the wood siding.

MESSAGE FROM OUR PRESIDENT

By Mark Youngs, Seattle Tree Fruit Society

Oh Springtime…there's nothing like it! New buds, new growth and the promise of the coming crop. I hope your plantings survived the winter and are showing you their eager young growth.

At our last Board of Directors meeting, Judy reported that the cherry varieties were grafted to the acquired rootstocks. This project will evaluate Cherry rootstocks in our individual areas, specifically Krymsk 5, Gisela 5, and the new Gisela 3. Variety trials will be included at the same time. Here's your chance to be directly involved with a research project that is funded by your WCFS dues. Many organizations are interested in our results so let's make this work. Contact your chapter President if you want to participate, you need room for 4 or 5 trees.

Attendance was light at the Spring meeting which was disappointing since our elections were held then. Perhaps this was due to the tremendous show put on by Lori Brakken and the STFS chapter. They had two speakers at a time most of the day. Remember, this is a volunteer organization. We would all like to see more new faces participating in the decision making for WCFS. Your fresh ideas are needed.

Many other chapters had Spring shows as well, I hope you had the opportunity to attend some of them. WWFRF held a very educational day event in Mount Vernon in March. While the funds for fruit research have been cut for now, they still are active with the demonstration orchard and gardens. The hope for new research funding is still alive and we wish our brothers and sisters to the north of us well.

Our next meeting will be a teleconference June 19th @ 10:00. Each chapter usually has a group participating and if you want to be a part of the meeting please contact your chapter president. Until next time I pray good health and bounty to you, your families, your plants and animals.

Ciao!

Mark

Editor Marilyn Couture with Dr. Robert Norton at OOS Fall Fruit Show. Dr. Norton is a regular contributor to The BeeLine.

Mark Youngs has stated our goal: to have at least one good article from each Chapter for each issue of the Beeline. We appreciate the contributions of members such as Dr. Norton.

The Spring 2010 BeeLine was produced by Editor Marilyn Couture , with input from membership. Former Co-Editor Carlyn Syvanen will introduce a new column, *Carlyn Cooks.*

Please contribute your articles for our next issue!

Issue Deadlines:

Winter December 15; Spring February 15; Summer May 15; Fall August 15

Email your articles to:
Marilyn Couture: **couture222@msn.com**

About WCFS

Western Cascade Fruit Society (WCFS), formerly Western Cascade Tree Fruit Association (WCTFA), was founded in 1980. It's 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(c) (3) Non-Profit organization WCFS is Parent organization to eight affiliated Chapters. WCFS provides 501(c) (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. Editors welcome your suggestions to improve this section.

It was on my fifth birthday that Papa put his hand on my shoulder and said, "Remember, my son, if you ever need a helping hand, you'll find one at the end of your arm." … Humorist, Sam Levenson.

WCFS NEW MEMBERS

Seattle Tree Fruit Society

Emmet Adam
Bob Baines
Karen Brattesani
Jennifer Cochrane
Nancy D'Archangel
Jean Elledge
Mollie Groendyke
Rick Hargreaves
Theodore Johnson
Betty Lou Kapela
Patti Karthas
Tim Keller
Bill Kesel
Ronne Klompus
George Krasle
Read & Marianne Langenbach
Keith Mastenbrook
Dan Mazur
Janice Murphy
Amy Ockerlander
William Pitcher
Raphaela Pope
Mary Reak
Carolyn Reeder
Candance Robbins
Patrice Rossano
JoAnn Schuh
Lorelei Seifert, Swansons Nursery
Ronald Timmons
Sallie JoWall
Ingela Wanerstrand
Larry Ward
Betsy Wittick
Ritz Wood

Peninsula Fruit Club

Pierre & Heidi Cappuccino
Dan & Kathy Defenbaugh
Ying Fowler
James & Sabine Hazel
Chuck Muller
Eileen Maroney
Tom & Jan Shandera

Vashon Island Fruit Club

Rick Edwards
Lorine Brakken
Jean Williams
Marion Comaskey
Steve Sheldenhelm
Cory Wlazlak
Carla Cokigwe

Olympic Orchard Society

Bob Cain

Also, Deceased:
Stewart MacRobbie
Clay Couture

WWFRF Current Tree Fruit Research Program Status April 8, 2010

By Kristan Johnson, President WWFRF

Western Washington Fruit Research Foundation is an all volunteer organization which was founded 18 years ago to support Tree Fruit Research at the Washington State University research center in Mount Vernon. We have expanded our mission to include educational outreach which includes a 7 acre Fruit Display Garden whose activities are separately financed. Many of the fruit varieties that we covet today such as *Jonagold, Akane, Karmijn De Sonnaville, Melrose, Spartan,* and *Honeycrisp* apples; *Puget Gold* apricots; *Frost* peaches; Asian pears; *Orcas, Rescue, Conference, Highland* and European pears, *Seneca, Beauty, Methley, Shiro,* and *Mirabelle* plums; and *Lapins, Sweetheart, Angela, Hardy Giant,* and *Heartland* cherries; etc. were introduced to Western Washington through this program.

WWFRF has initiated research and education into technical areas beyond fruit variety selection, as with the following recent projects: Apple Anthracnose Control, Vole Control, and currently Spotted Wing Drosophila control. A presentation, panel discussion and handouts will be featured in this year's **August 28 Summer Fruit Festival**.

At this time, **WWFRF** is converting from its past WSU billing procedures whereby **WWFRF** paid for work after the work was completed (a billing cycle that was established 18 years ago with WSU) to the standard WSU billing procedure whereby work is paid for in advance. This places **WWFRF** in a very challenging financial situation this year. In addition to $8,600 for 2008 expenses and $8,600 for 2009, **WWFRF** needs to pay current research costs estimated at $3,500 for 2010. The 2010 expenses cover research for the new **Cherry** "lines" of potential new cherry cultivars, and several very promising **Plums and Peaches** (including the Peach-Leaf-Curl-Resistant varieties). Thanks to both the North Olympic Fruit Club and the Vashon Fruit club for their donations towards the 2010 funding efforts! Taste some of the new varieties at the **WWFRF Sample the Cherry Harvest Day, July 10.**

Another issue that **WWFRF** became recently engaged in was responding to a 'call to arms' email from Dean Bernardo on Feb 3 regarding the threat to the $26 million in state funding for WSU research, primarily agricultural research, possibly leading to closure of all four of WSU agricultural research and extension centers around the state. At a **WWFRF** Board meeting in February we voted to hire (pro-bono) the very supportive lobbyist Jim Simmons to address this issue in Olympia. While working on this issue, we found that termination of the Fruit Horticulture Research and Extension program at WSU-Mount Vernon by the Pullman based Department of Horticulture and Landscape Architecture was not well received by legislators who believe that without a firm footing in the research community, our agricultural industries will be unable to deliver the jobs and revenue that currently look so promising for the region. These are high value and high value-added industries, and the critical research performed at Mt Vernon has been the cornerstone of their success in Western Washington.

We hope and expect that legislators, once they examine the issue closely, will conclude that cutting agricultural research would be both shortsighted and counterproductive as our state seeks to pull itself out of recession. **WWFRF** extends that sentiment to the WSU administration regarding agriculture in Western Washington. To this end, **WWFRF** President Kristan Johnson recently met with Dean Bernardo (Dean & Director of the WSU College of Agricultural, Human and Natural Resource Sciences) along with Steve Jones (Director of WSU Mount Vernon NWREC). Discussion focused on establishing Ph.D positions at NWREC to support specific Western Washington agriculture industries: **Wine**, **Fruit-Wine**, **Cider**, **Tree Fruit Orchards**, and **Wholesale and Retail Nurseries**. This successful meeting was followed by a discussion with the visiting WSU President Elson S. Floyd. We are very optimistic and believe that we will be able to reestablish a Fruit Research Program at NWREC to support Western Washington's varied agricultural needs. Thank you for your continued support through this period of uncertainty.

Information about events are at NWFruit.org

Continued p. 6

Seedless Table Grapes Around the Sound

By Jean Williams and Bob Norton

You can go to the grocery store these days and get luscious red, white (green), or blue (purple) seedless grapes, probably grown in California, Mexico, or Chile. Rarely are they labeled by cultivar (variety). One used to assume that the green ones were either Thompson Seedless or Perlette, but that no longer is the case. Breeders have been busy creating new seedless varieties of all colors, some almost as big as plums. It's pretty obvious that none of these can be grown in our cool Puget Sound climate. Other breeders from New York, Minnesota, and especially Arkansas have been hybridizing grapes, often crossing winter-hardy, mildew-resistant Labrusca (ex. Concord) type grapes with Vinifera (ex. Thompson) grapes to produce cultivars with winter hardiness, disease resistance and, especially, earlier maturity, all to provide reasonable quality seedless table grapes that we can grow and enjoy in our region. This breeding has been going on long enough that we can begin to select some of the better ones and, perhaps, phase out those that have deficiencies, such as questionable maturity, mildew susceptibility, mediocre flavor, or other problems. The chart which follows attempts to describe the cultivars which some of us may be growing or would consider growing in the Puget Sound Region where our accumulated heat units (AHU's) vary from the 1500's (Sequim) to the low 2000's (Everson, Puyallup), varying with slope, elevation, and other factors. This is a compilation of experience (sometimes very limited) expressed by a number of growers throughout the region. The recommended pruning style is from Lon Rombough's website (bunchgrapes.com). Lon is a local (Oregon) grape expert and the author of the award-winning book The Grape Grower and new video Proper Pruning of Grapevines. We anticipate that some of our impressions will change with time. We encourage anyone to provide additional information to either of us so that over time we may be able to improve the list and perhaps add new promising cultivars. Note: zoom and enlarge the font to 150% to enable you to read the table.

SEEDLESS TABLE GRAPES FOR THE PUGET SOUND AREA

Blue Cultivars	Maturity	Disease Problems	Productivity	Lon Rombough's Recommended Pruning Style	Availability	Comments
GLENORA	**L**	**Disease resistant**		**Cane**	**R, OGW, BR, BG**	**Intense fall colors, clusters vary from perfect to straggly**
Port Orchard	Unknown	Unknown	Unknown			No crop yet, started 2009
Port Orchard	Sep	None	Moderate			Very vigorous
Vashon		Somewhat mildew resistant				Seems to do well here, also good for jellies and wine?
Auburn		Got fungus one year	Very Good			Large loose clusters, my favorite for flavor
JUPITER	**E (late Sep)**			**Spur**	**R, CM, BG**	**Muscat flavor, occasional soft seed, resistant to cracking**
Location						
MARS	**E (mid-late Sep)**	**Disease resistant**		**Spur**	**R, CM, BG**	**Concord type, occasional soft seed, slipskin, late to bud out**
Port Orchard	Unknown	Unknown	Unknown			No crop yet, started 2009
Vashon	Early	Mildew resistant				Foxy flavor
Longbranch						Only a few grapes so far - young plant
Edmonds						No crop yet
VENUS	**E (late Sep)**			**Cane preferred**	**R, CM, BR, BG**	**Ripens with or before Canadice, occasional soft or hard seed**
Longbranch						Only a few grapes so far - young plant
Edmonds						No crop yet
Vashon	Early	Unknown	Excellent			Ripens with/before Canadice, delicious rich & grapy flavor, prefer to Canadice and Interlaken

Red Cultivars	Maturity	Disease Problems	Productivity	Lon Rombough's Recommended Pruning Style	Availability	Comments
CANADICE	**E (late Sep)**	**Subject to bunch rot in wet years**		**Spur**	**R, CM, OGW, BR, BG**	**Consistent producer in cool climates, holds well on vine**
Port Orchard	Early to mid Oct	No problems	Excellent			Consistent heavy producer, good flavor
Vashon		Somewhat mildew resistant				Foxy flavor, usually ripens
Auburn		No problems	Excellent			Always quite sweet, always ripens
Edmonds						No crop yet
Puyallup		No problems	Excellent			Very sweet and spicy, ripens after Interlaken and before Lakemont, didn't color once
Vashon	Early to mid Oct	No problems	Excellent			Consistent, sweet, always ripens, excellent production, after Interlaken
EINSET	**E**			**Cane**	**R, BR, BG**	**Ripens week before Canadice, occasional soft seed, quality varies w/soil type**
Port Orchard	Unknown	Unknown	Unknown			No crop yet, started 2009
Vashon	Fairly early					Fruity with hint of strawberries
FLAME	**L**			**Spur**	**BR, BG**	**Needs hot summer, very vigorous, resistant to cracking**
Puyallup			Poor			Vine is vigorous but poor productivity
Vashon	Early	Problems if rains come early	Good			Needs warm location and good summer to ripen, large clusters
RELIANCE	**M (late Sep-early Oct)**			**Spur**	**CM, BG**	**Will crack if rainy**
Port Orchard	Unknown	Unknown	Unknown			No crop yet, planted in 2007, seems slow to establish - vine not vigorous
Bainbridge	Early Sep	None seen to date.	Very good			Planted in 2007, first crop in 2009. Has been fast growing, numerous clusters.
Shelton		No problems	Very good			Produces well every year
SATURN	**M (early Oct)**			**Cane**	**CM, BG**	**Noticeable seed remnants some years, does best in warmer areas**
Location						
SUFFOLK RED	**M (late Sep-early Oct)**	**Disease resistant**		**Spur**	**OGW, BG**	**Straggly clusters w/ undeveloped berries**
Port Orchard	Early to mid Oct	No problems	Poor			Poorly filled clusters, few clusters, good flavor, poor coloring
Vashon			Very good			Productive but only good for jelly
Auburn			Moderate			Slow to bear, not very sweet
Longbranch			Poor			Did well for 2 years, lately little production
VANESSA	**E**			**Young - cane, older - spu**	**R, BG**	**From Ontario, occasional soft seed, good for short or cool areas**
Vashon						Does fair in this area, oblong medium size grapes

White Cultivars	Maturity	Disease Problems	Productivity	Lon Rombough's Recommended Pruning Style	Availability	Comments
HIMROD	**E (mid-late Sep)**	**Sligthly susceptible to powdery mildew**		**Cane - required**	**R, OGW, BR, BG**	**Berry stems are weak & clusters tend to shatter**
Port Orchard	Late Sep to early Oct	No problems	Excellent			Vigorous vine, good production, good flavor, weak berry stems, good raisins
Bainbridge	Late Sep	Some curling of leaves Fall 2009	Excellent			Vigorous growth. In 2007, almost got two crops of fruit.
Vashon			Good			Not as good a producer as sister Interlaken
Auburn		No problems	Very good			Very reliable
INTERLAKEN	**E (mid-late Sep)**	**Disease resistant**		**Spur**	**R, CM, OGW, BR, BG**	**Most reliable for this area, more productive than Himrod**
Port Orchard	Late Sep to early Oct	No problems	Excellent			Heavy producer, good flavor, makes good raisins
Montlake	Early to mid Sep		Excellent			
Port Orchard	Late Sep	Occasional bunch rot	Excellent			Small grapes but full clusters, very productive, makes good raisins
Port Orchard	Late Sep	None	Very good			
Vashon			Excellent			Vigorous, one of first to ripen, good fresh and in raisins, fruity flavor
Sandpoint	Early Sep	None	Very good			Reliable, unaffected by cold winters
Duwamish		None	Very good			Good flavor
Bainbridge		None	Very good			
Auburn		No problems	Excellent			Heavy producer, good for raisins
Edmonds						No crop yet
Puyallup		No problems	Excellent			Excellent flavor
Vashon	Early Sept	None	Excellent			Reliable, good flavor, smallish grapes
LAKEMONT	**E (mid-late Sep)**			**Cane - best, spur - OK**	**R, BR, BG**	**Better producer than sisters Interlaken & Himrod w/ bigger grapes, gets better in storage**
Vashon	E (mid-late Sep)	None	Very good			Ripens early before Interlaken, good flavor
Auburn		No problems	Very good			Many large, loose clusters, sweet but slow to ripen
Longbranch						Needs more heat than this location, may not ripen some years
Puyallup		No problems	Excellent			Excellent flavor, ripens in order after Interlaken and Canadice
MARQUIS	**E (mid Sep)**				**OGW**	**New from Cornell, abundant crops of large, very sweet, juicy and flavorful fruit**
Location						
NEPTUNE	**ML (early-mid Oct)**	**Disease resistant**		**Spur**	**R, CM, BR, BG**	**Highly resistant to cracking**
Vashon		Unknown	Unknown			No crop for another year
SWEET SEDUCTION					**, BR**	**Muscat flavor, ripens with Interlaken**
Location						

KEY

Nursery	Website
R - Raintree	http://www.raintreenursery.com/
CM - Cloud Mountain	http://www.cloudmountainfarm.com/
OGW - One Green World	http://www.onegreenworld.com/
BR - Burnt Ridge	http://www.burntridgenursery.com/
BG - Bunchgrapes - unrooted cuttings only	http://www.bunchgrapes.com/

Board meeting highlights for 14 March 2010

Meeting was called to order by President Mark young at 10:08AM. There were 19 members at Center for Urban Horticulture, Seattle. Minutes From the last meeting, treasurer's report, and 2010 amended budget were read and approved.

Chapter reports highlights were given.

OLD BUSINESS

For the Cherry Trials, each participant needs room for 4 or 5 trees and we need 20 participants. (Beeline p. 12-13).

NEW BUSINESS

No need for ByLaws Amendment to reflect teleconferencing Board Meetings.

Summer meeting will be a teleconference on June 19, 2010, 10:00am.

WWFRF Report by Judi Stewart. Kristan Johnson will be asked to give a report on WWFRF mission and whether further research funding is needed. (Beeline p. 6)

Marilyn Couture is continuing as Beeline Editor without any needed assistance.

General Meeting WCFS Membership

All current office holders were re-elected. Directors elected to a three year term: Erik Simpson, Steve Vause, and Judi Stewart.

Meeting adjourned

Respectfully submitted Ron Weston

Grafting Background Information

Olympic Orchard Society used this paper along with a handout explaining the Owens Square Graft in their recent grafting workshop at Sequim High School. By Pat Volk, President, OOS

Grafting is a method of asexual plant propagation widely used in agriculture and horticulture where the tissues of one plant are encouraged to fuse with those of another. In most cases, one plant is selected for its roots, and this is called the stock or rootstock. The other plant is selected for its stems, leaves, flowers, or fruits and is called the scion. The scion contains the desired genes to be duplicated in future production by the grafted plant. Grafting is an ancient Chinese practice, and has been observed in nature when limbs merge. However the art and science of grafting evolved, it remains centrally important in the cultivation of fruit.

Advantages of Grafting:

Maintain consistency:
The natural reproductive method of heterosexual fruit trees (cross pollinated flowers leading to seeds) does not ensure that desirable fruit qualities (size, color, firmness, flavor, etc.) are passed on consistently. Fortunately however, from time to time it does result in trees that have very desirable qualities. Grafting allows scion taken from superior trees to be divided and grown on a hardy stock. Over time as many similar trees as desired can be produced, all bearing fruit with those superior qualities. This is essential in commercial farming, and is also desirable in establishing home orchards with known, preferred varieties.

Dwarfing: Grafting extends the dwarfing characteristics of a selected rootstock to the scion. Standard or full sized fruit trees on their own roots may be 40 feet tall, which is too impractical to prune, thin, and pick. Much more manageable are semi-dwarf trees at 12 to 18 feet tall, or dwarf trees at 6 to 10 feet tall. Most apple trees in modern orchards are grafted onto dwarf or semi-dwarf rootstock. This allows trees to be planted at high density yielding more fruit per unit of land and higher quality fruit.

Easier or more efficient propagation: Some scions are difficult to propagate vegetatively by other means, and grafting may be the only practical way to propagate such plants commercially. Even when scions can be propagated by cuttings, grafting may provide the most efficient or cost-effective way of duplicating the desired plants.

Precocious breeding: Grafting speeds the maturity of hybrids in fruit tree breeding programs. Hybrid seedlings may take ten or more years to flower and fruit on their own roots. Grafting can reduce the time to flowering and shorten the breeding program.

Hardiness: Grafting allows stock plants with one or more hardiness traits, i.e. cold tolerance, roots tolerant of difficult conditions, and/or resistance to disease, to be matched with desirable scions which lack such traits. Sometimes compromise is needed. For example, highly dwarfing stocks often have roots that are weak structurally, but their size advantage justifies providing stakes or support for trees produced with them.

Pollen source: Grafting can provide essential pollenizers, either in tightly planted orchards of a single variety, or on a single fruit tree without suitable pollinizing neighbors. This is done by *topworking*, i.e. grafting scions of a pollinizer variety onto selected branches.

Changing cultivars: To change an entire orchard to a more profitable cultivar, instead of replanting it may be faster to graft new cultivar scions onto the limbs of established trees.

Providing variety in limited space: Multiple cultivars of fruit can be grafted on a single branched tree using topworking. Scions grafted to one tree must all be of the same family (all apples, or all pears, etc).

Repair: Grafting can repair girdling damage to the trunk of a tree, i.e. when bark is removed around the entire tree circumference by gnawing animals. A bridge graft may be used to connect tissues receiving flow from the roots to tissues above the damage.

Artistic Expression: For some, grafting allows the creative juices to flow. To see trees in shapes you never thought possible, google Axel Erlandson!

See Vascular Cambium illustration from Wikipedia on page 11.

Principles of Agricultural Botany, p 101, Alexander Nelson, Read Books, 2007, ISBN 1406746622

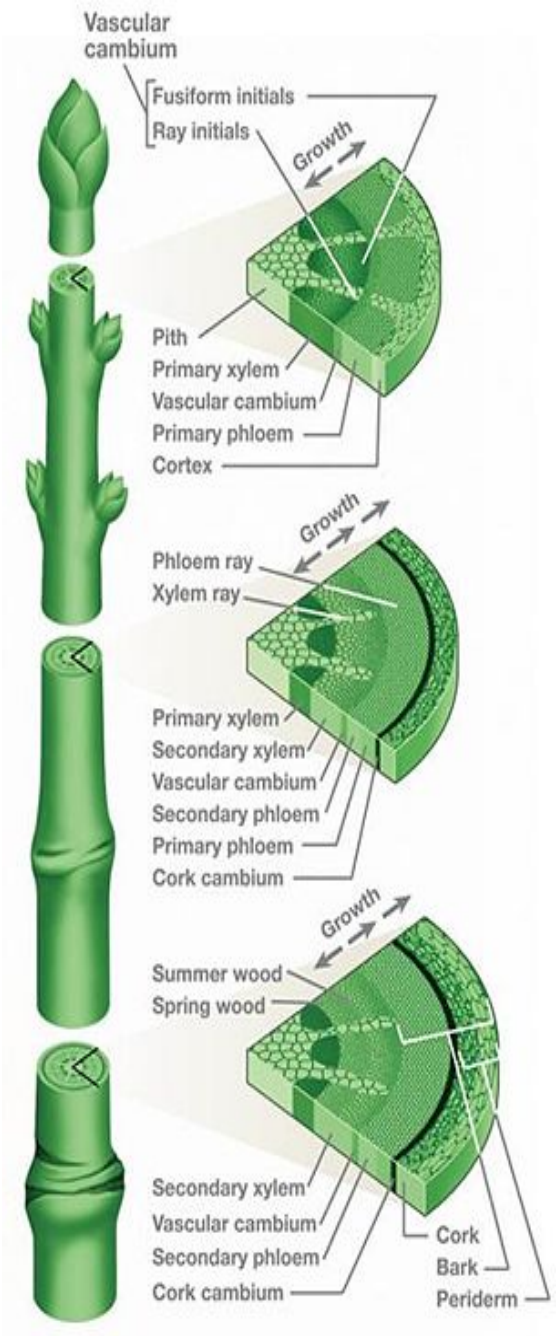
Garner, R.J. (1988) The Grafters Handbook P. 131 ISBN 0-304-32172-9

C.Michael Hogan (2008) *Quercus kelloggii*, Globaltwitcher, ed. nicklas Stromberg [1]

Lang, A., Chailakhyan, M.K. and Frolova, I.A. 1977. Promotion and inhibition of flower formation in a dayneutral plant in grafts with a short-day plant and a long-day plant. *Proc Natl Acad Sci U S A.* 74(6): 2412-2416. [2]

Core, J. (2005). *Grafting watermelon onto squash or gourd rootstock makes firmer, healthier fruit.*. Agricultural Research. p. 53. http://www.ars.usda.gov/is/AR/archive/jul05/fruit0705.htm.

Wikipedia References:



Vascular cambium

Illustrated at left are multiple cross sections of a stem showing **vascular cambium** and companion cells. One year old wood is typically used for grafting, corresponding to the cross section at the top.

The **vascular cambium** is a lateral meristem in the vascular tissue of plants - tissue consisting of embryonic (incompletely differentiated) cells from which other (more differentiated) plant tissues originate. The vascular cambium is the source of both the secondary xylem (inwards, towards the pith) and the secondary phloem (outwards), and is located between these tissues in the stem and root. A few leaf types also have a vascular cambium.

The vascular cambium usually consists of two types of cells:

- Fusiform initials (tall cells, axially oriented)
- Ray initials (almost isodiametric cells - smaller and round to angular in shape)

Primary meristems are the apical meristems, i.e. those on root tips and shoot tips. A secondary lateral meristem called the cork cambium develops on older wood, shown in the lower crooss sections. This produces cork, part of the bark, and is not central to grafting.

For successful grafting, the vascular cambium of the stock and scion must be aligned and placed in firm contact with each other so they can grow together. Both tissues must then be kept alive and protected until the graft has taken, usually a period of a few weeks.

Primary sources are limited to the Wikipedia. Changes/additions from the original article are credited to Pat Volk, OOS, and were to either clarify or simplify, giving the students useful information in areas not covered by our other handouts, primarily on reasons for grafting, and the identification and role of the vascular cambium layer. All of the info on various grafting techniques was eliminated, since our workshop is not trying to teach that. Some separate topics were condensed into the introduction or otherwise squeezed into the table of advantages. Volk also dropped Sturdiness as an advantage, as typically that applies just to ornamentals - with fruit trees the dwarfing rootstock most often makes the tree less sturdy.

KIDS AND APPLES - A MAGICAL COMBINATION

SALT SPRINGS ISLAND APPLE FESTIVAL

Sunday Oct. 3, 2010 9am-5pm

The ultimate experience for many a child is to be able to reach up and pick an apple from a tree and then EAT IT. So at the Apple Festival, we encourage children to get involved. All kids under 12 attend for FREE. The kids also get an Apple Festival badge to wear on their shirt. We want whole families to come and we also try to get children involved (with their family)in volunteer positions so they really get connected in a much deeper sense.

Where else do you have over 350 different apple varieties being grown *organically*? Salt Spring's apple history dates back to 1860. Explore our incredible island, the Organic Gardening Capital of Canada.

WCFS Cherry Rootstock Trial
Opportunity to Participate by Judi Stewart, NOFC

Western Cascade Fruit Society is sponsoring the WCFS Cherry Rootstock Trial. This trial is for the benefit of backyard fruit growers in western Washington who have been searching for dwarfing, precocious and productive cherry rootstocks. Only members of WCFS may participate. We'll learn if the rootstocks we test can provide improved precocity, productivity, vigor, disease tolerance and adaptability for our soils and microclimates. Survival, yield, fruit size, brix, tree growth, shoot growth and flower density will be measured. WCFS' appropriation to fund this program is $2,000.

We're examining 5 rootstocks and 6 sweet cherries for a total of 30 combinations. The rootstocks are Gisela 3, Gisela 5, Krymsk 6, Weiroot 158 and Krymsk 1 with a plum interstem. We'll be evaluating the performance of specific scion cultivars at each location. Though we're trialing sweet cherries, these rootstocks can be used for both tart and sweet cherries. Rootstocks perform differently in different regions. It's important to test rootstocks under local conditions instead of relying on data from other areas. A critical consideration is variety/rootstock combinations. Rootstocks will perform much differently with different variety combinations.

Each participant will be planting four or five trees with various scions. Expect the trees to be ready for planting sometime in June. Participants will be asked to pick up their trees and follow the planting instructions provided.

It's necessary to have a sunny site with good air circulation, well-drained soil and room for four to five trees. Low areas where frost and standing water are problem areas should not be considered as well as soils where cherries, peaches or plums have been grown previously. Participants will plant a set of four trees and a fifth tree if they have room. The trees should produce fruit in their third year (10 to 15 quarts).

Participants will be asked to sign a non-propagation agreement. This trial will take place over a 5-year period. Trees need to be measured, examined and photographed. Data will be submitted periodically during this commitment period. Evaluations will include fruit quality, precocity, fruit set, pollination and yield, etc. The trees remain the property of WCFS for the term of the trial. The crop cannot be sold. Participants will follow planting and maintenance instructions. The crop minus study samples belongs to trial participants. There will be publicity as the trial progresses.

Gisela rootstocks show earlier cropping. Cherries on Gisela are productive over many years. Gisela 5 has proved adaptable in trials in commercial orchards. The Gisela 3 and 5 are flat branching with board growth habits, no suckering tendencies, excellent winter hardiness and very good compatibility with healthy scionwood. Gisela rootstocks do not flourish in shallow or low fertility soils. Such locations may require amended soils or hilling. Gisela rootstocks have been shown to accept all known sweet cherry cultivars from certified virus free scion material. Dwarfing rootstocks require more pruning, fruit-thinning, irrigation and fertilization. Some trees will tilt away from the prevailing winds. Stakes may be required with dwarfing rootstocks.

Gisela 3 is a dwarfing rootstock. It induces precocity and regular high yields. Fruit quality is not compromised. Gisela 3 has good winter hardiness and good compatibility with cultivars. It is recommended for testing in high density orchards with good soil, irrigation, tree support, and intensive cultural management. Branching is extremely flat. This rootstock is virus tolerant. There's been very little grower experience with Gisela 3 and that's an especially good reason to include it in our trial.

Gisela 5 is a very precocious rootstock that produces a tree about 45 – 50 % of Mazzard. It adapts to a wide range of soil types if soil is well drained. The tree has spreading wide crotch angles and produces few root suckers. If over-cropped, the tree may be stunted. Fruit thinning, irrigation and preventing stress is important in its early years. Gisela 5 is somewhat tolerant to virus infection. This rootstock has proven to be unsuccessful if not irrigated.

Krymsk 6 is 60-75% of Mazzard. (Krymsk 5 is 80 – 90%.) Krymsk 6 may be more draught tolerant than Krymsk 5. Krymsk 6 could be the replacement for the Gisela series. It is precocious (flowering, fruiting, or ripening early) with lower flower density than Gisela. Krymsk 6 seems to be adapted to both cold and hot climates as well as heavier soils. Trees are well anchored but may need staking on windy sites. There is some root suckering. These trees form wide crotch angles.

Weiroot 158 is about 70% of Mazzard (10 to 15 feet). Weiroot rootstocks have an ability to maintain fruit size while reducing tree size. Weiroot 158 is the most popular cherry Weiroot in Germany. It

Continue to p.13

WCFS Cherry Rootstock Trial (cont.)

semi-dwarf rootstock does not generally need staking and has low suckering.

Krymsk 1/Puente Interstem grafted cherry trees will only be available for trial to those with room for a fifth tree. This combination is reported to produce a tree similar in size to Gisela 3. Krymsk 1 has been used for European and Japanese plum, peach and sometimes apricot. It offers tree vigor reduction and good fruit size. Anchorage is good. It may produce some root suckers. Puente interstem was developed in Spain and has been used as a stand alone rootstock, particularly in heavy soils. This interstem combination has broad cherry compatibility and may make it possible to use many different rootstocks for cherries. If successful, this rootstock combination may have a great impact on the future of growing dwarfing cherry trees.

We are testing six sweet cherry cultivars. Four are from Cornell's advanced sweet cherry breeding program. They were named, licensed and trademarked in 2008 in cooperation with International Plant Management, Inc. (IPM). These four sweet cherries ripen before Bing and average 20 degrees brix. Four scions were chosen from 171 cultivars and identified as firmer, larger, more crack resistant and of exceptional quality. We're referring to these four as the Pearl series. They are self-sterile but cross pollinate one another. These cherries were bred to adapt to production challenges (winter injury, spring frost and bacterial canker). We are also trialing two self-fertile cherries, Sunburst and Benton, from the WSU Prosser program.

Burgundy Pearl is a hybrid of Royalton x Hedelfingen. It's early-mid season and very large. Its dark red fruit averages 12 grams, is of high quality, hard, crunchy and with good storability. It's a strong productive cherry with a long harvest period and low cracking incidence. The tree is canker resistant.

Ebony Pearl is a seedling of Somerset. It ripens mid-season, is exceptionally large, averaging 9.5 the row or 12.5 grams. It's very firm, a dark red fruit with long, firmly attached stems and averaged only 4% cracking with 2" rain in 2008. The fruit is dark red with good flavor and 21% brix. The tree is spreading and vigorous with good resistance to canker.

Ebony and Burgundy are offspring of two previously named cherries at Cornell, Somerset and Royalton. Somerset is a hybrid of Van x Vic, a hybrid that was named in 1994 and granted US plant patent #11,118. Royalton was named in 1993 (US plant patent 11,107).

Black Pearl is a hybrid of Vernon and a University of California breeding selection. It has great flavor, quality and is crack resistance with superior firmness and storability. This cherry is large, crunchy with 20% brix. The fruit has an extremely low incidence of cracking. This is one of the best early cherries.

Radiance Pearl is an early blush-type cherry with exceptional flavor. Cherries average 11 grams with 20% brix. The tree is a heavy producer, hardy, vigorous and spreading. Radiance Pearl shows some resistance to cracking, has good storage qualities and is medium-firm.

Sunburst is a cold hardy cherry tree, a cross between Stella and Van. It's a heavy cropper, producing large dark skinned almost black, sweet fruits of excellent flavor Sunburst ripens late in the season. The fruit will store well for a short period after picking. Sunburst was introduced from Canada in 1984.

Benton is a mid-season premier dark red sweet cherry released by WSU Prosser. It's similar to Bing in appearance. The fruit is large and ripens a few days before Bing. Benton is a firm cherry with superior flavor and produces a vigorous tree. It blooms later than Bing, consistently crops well and has lower susceptibility to rain cracking than Bing. Its parents are Stella x Beaulieu. (U.S. Plant Patent #15847)

The trial rootstocks were all grafted in February and planted in 3-gallon pots. As of mid-March, at the 3rd and 4th weeks, the grafts were doing well. Those who grafted, potted trees and assisted are Victor Colacurcio, Sid Hubbard, Dr. Roger Eichman, Jim Fritz, Starla Robinson-DeLorey, George Reycraft, Chuck Estin, Walter Schicker, Tom Graham, Dr. Bob Norton, Phil Vogel, Gracie Donaheu, Jean Williams, Erik Simpson and Linda Gately. The grafts are in the greenhouse, being watered and maintained by Dr. Eichman. Erik Simpson and Dr. Eichman are also leading this trial.

Each and every supplier of material for our trial is aware of our testing program and eagerly following our progress. This trial is unique in all respects and there is no other trial of its kind. This will be a wonderful learning experience on growing cherries for everyone involved. The number of trial participants is dependent on the number of successfully grafted sets of trees. I'd like to hear from you if you have space for 4 or 5 cherry trees and would like to participate.

Judi Stewart js@olympus.net

Judi Stewart NOFC was recently elected to WCFS Executive Board. Marilyn Couture, Editor

Are The Mason Bees In Trouble Too?

Mike Shannon, Peninsula Fruit Club

Spring is here, and it's time to put out the mason bee houses. I like to set my bee houses just about a week before the cherry blossoms are open.

I use dry cleaner hanger tubes cut to 7 inches long and split with a band of masking tape on the ends. I use plastic Folgers coffee cans to put the cardboard tubes in. I also make a wooden house for the coffee cans. The tubes are replaced every year. This set-up should last for years.

The best method I use is the plastic composite decking. I use my router to make 5/16" grooves in the decking boards. The boards are cut to 7 inches in length. I made a template for drilling two holes in each of the decking pieces. Each piece is drilled with a quarter inch drill bit. I secure them with two ¼" T-nuts and two ¼" by 6" bolts. There are 6 stackable pieces to each unit.

The female mason bee has lots of hair on her body, which she uses to collect pollen. The hair also helps mites found on early spring flowering plants hitch a ride to the nesting box.

I start cleaning my tubes and condos the second weekend in September. I found some of the tubes with spaces like there should have been a cocoon, but nothing was there. The mites had eaten all the pollen, and the bee larvae had starved to death. I have also found several maggot-looking creatures in the tubes and take-apart blocks. I did some research and found they were carpet beetle larvae. These larvae will make holes in mason bee cocoons and eat the mason bees. I have a video of the carpet beetle larvae having a feast on mason bees. The video reminds me of the old movie **"THEM**".

I guess the moral of this story is you should have a way to clean your mason bee houses if you want to have a good population of mason bees.

NOP Proposed Amendment to the National List of Allowed and Prohibited Substances

Although the deadline has passed for commenting on proposed changes to the National Organic Standards, Harley Oien, OOS, is providing this information to you on the National Organic Program Proposed Amendment to the National List of Allowed and Prohibited Substances.

This proposed rule would amend Section 205.601 of the National Organic Standards (National List) to reflect two recommendations submitted to the Secretary of USDA by the National Organic Standards Board (NOSB) on November 19, 2008, and May 6, 2009. Based upon their evaluation of petitions submitted by industry participants, the NOSB recommended that the Secretary amend NOS § 205.601 of the National List by amending the annotation for one exempted material (tetracycline) and add one substance (sulfurous acid) for use in organic crop production.

Revision would permit the use of both forms of oxytetracycline (i.e., oxytetracycline calcium complex and oxytetracycline hydrochloride) until October 21, 2012. Tetracycline will be removed from the National List by the October 21, 2012 expiration date rather than through a petition for removal or sunset. After October 21, 2012, no form of tetracycline could be used in organic crop production. Oxytetracyclines are derived from the soil bacteria, *Streptomyces,* by a fermentation process. Oxytetracycline is registered with the EPA for fire blight of apples, pears, peaches and nectarines; pear decline; bacterial spot on peaches and nectarines.

Sulfurous Acid was petitioned for use in organic crop production as a soil amendment. It functions as an acidifying agent to neutralize and reduce the excessive alkalinity (bicarbonates and carbonates) in soil or water. This substance also has transient biocide properties that contribute to keeping irrigation conveyance systems clean by suppressing growth of bacteria and pathogenic microorganisms. At its May 4–6, 2009, meeting in Washington, DC, the NOSB recommended adding sulfurous acid to the National List as a soil amendment for use in organic crop production, to be generated on-farm only by burning 99% pure elemental sulfur per § 205.601(j)(2), due to the transient nature of the sulfurous acid.

- Additional information regarding the proposed rule can be found on the NOP website: http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?template=TemplateA&navID=NationalOrganicProgram&leftNav=NationalOrganicProgram&page=NOPNationalOrganicProgramHome&acct=AMSPW

Anthracnose Control in Apple Trees Produced by Western Washington Fruit Research Foundation. Dr. Ralph Byther

Apple anthracnose is a common canker disease of apple trees in western Washington. Occasionally the fruit is attacked, causing a rot, but damage to the limbs is the most serious result of the disease.

The disease is found to a lesser extent on pear, quince, and crabapples. Infection generally occurs during fall rains but can take place throughout the winter and early spring during mild, wet weather. Spores of the fungus, *Pezicula malicorticis* (*Crytosporiopsis curviospra*), formed on the dead bark of older cankers, are splashed to other twigs and branches and infect through wounds or natural openings in the bark. These infection areas appear as small, circular, reddish brown spots on the bark in late fall. The discoloration extends into the tissue as far as the sapwood. Canker growth is very limited during the winter, but they begin enlarging rapidly in the spring.

The cankers usually form on young branches, and are generally less than 2 inches in diameter, but some may develop on larger branches or young tree trunks. By June, the cankers have grown to full size and subsequent branch growth results in formation of a crack around the canker . Fullgrown cankers are elongate, from 1-10 inches in length, and up to several inches wide but most are 2-5 inches long. There may be one or many on a single branch. Girdling of smaller branches frequently occurs.

By midsummer, the canker surface is sunken, and as the summer progresses, some of the dead bark in the canker falls out. A callus layer forms and produces a ridge around the canker. By fall, the canker generally has many lengthwise slits, the shredded bark sometimes having the appearance of many guitar strings. Larger cankers on main branches or trunks may not have this latter appearance.

This canker lacks the pattern of overlapping concentric rings so characteristic of the perennial canker and European canker diseases. In the fall, one year following infection, the fungus forms spores on the dead bark, and these spores cause new infections. Though the canker has attained full size, the fungus can live for several years in the bark, producing spores each fall for new infections.

Infection of the fruit occurs in the fall. The rot is sometimes apparent at harvest, but often it only appears after the apples have been in storage for a time. The rot is first seen as small, circular, light brown areas. As the spots enlarge they become darker in color and sunken, but remain circular in shape. The tissue beneath the spots is spongy. As the spots continue to develop, small bumps or cushions are formed in the centers. These bumps contain spores. Spots may measure 3/4 inches or more in diameter. Although the spots enlarge slowly, other rot-producing fungi may enter the damaged tissue and cause rapid rotting.

Control: Sanitation is extremely important when trying to control apple anthracnose. Cankered branches should be removed as soon as they are noticed. Do not wait until the dormant season to do this type of pruning. Cankers on large branches should be cut out during dry weather and treated with a registered fungicides. Check with your local WSU Extension office for chemical control recommendations, and for a copy of this DVD.

By Roy Davidson, Jr., former Agricultural Research Technologist, and Ralph S. Byther, Extension Plant Pathologist, WSU Puyallup Research Center. Extension Bulletin 0940. Reviewed 1996 by Mary Robson, Area Horticulture Agent.

Cultural control: Aggressive scouting for and removal of cankers is the key to long term control. Whole tree removal is recommended in British Columbia when cankers are found.

1. Establish new plantings with clean stock free of visible cankers.
2. Locate new orchards as far as possible from older orchards that may have existing cankers.
3. Scout new orchards for the disease, because early detection will aid in overall control.

Prune out and burn affected twigs and branches, especially on highly susceptible cultivars. This is best done in dry weather **before** fall rains. On larger limbs and branches, use a sharp knife to remove cankers that are less than half the branch width. Cut out a pointed oval oriented along the axis of the branch.

Chemical control: Must be combined with canker removal to be effective. Relying on chemical control alone has not been successful in British Columbia. Oregon State University

MAGNIFICENT MEDLARS

By Vern Nelson, Home Orchard Society, The Oregonian, Feb. 11, 2010

Give your garden a medieval look. Though popular in Europe in the Middle Ages, medlars have been out of favor for a very long time. Medlars (*Mespilus germanica)* are members of the rose family along with pears, apples and quince, and are native to eastern Turkey and western Iran, where the fruit is still popular.

They are spectacular 8 to 10 foot shrubs or small trees with leathery green leaves and large, white, self-pollinating flowers in May. Their foliage erupts into reds, oranges, yellows and purples in fall. Medlars grow twisted and gnarled, giving kitchen gardens a look of greater age.

Planting—Site in full to half day's sun on well-drained soil.

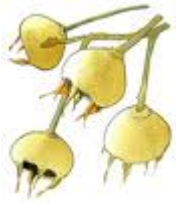
Pruning—Flowers grow from the end of small shoots that emerge from buds on 1-year-old branches and from fruit spurs on wood 2 years old and up. Take care in pruning to avoid cutting off too much fruiting wood.

Harvest– The first harvest usually comes in the third year after planting. Hard fruit will look like large, russeted rose hips 1 1/2 to 3 inches in diameter. Harvest in October and November when the fruit easily comes off the tree or can be picked from the ground after a frost. Some fruit may remain in the tree in winter until eaten by birds. Store in a cool garage or celler between layers of straw or sawdust and bring some fruit in to soften and darken for a few weeks as needed before using.

In the Kitchen—The fruit has a flavor like spiced applesauce and a coarse texture. Ripe medlars can be eaten fresh or made into jelly, chutney, cheese, fudge, liqueur or pie. Ripe medlar pulp can be gently folded into lightly sweetened whipped cream. Whole ripe fruits can be roasted over a wood fire.

Recommended Varieties– Fruit flavor varies little from one cultivar to another.

Try
'Breda Giant,' 'Dutch Giant,'
'Macrocarpa,' 'Marron,'
'Monstrueuse De Evreinoff,'
'Pucia Super Mole' or 'Royal.'



Vern Nelson, Oregon Live

SOURCES

onegreenworld.com (877) 353-4028

raintreenursery.com (360) 496-6400

TIPS

- Medlars can, with patience, be grown from seed and by rooting softwood cuttings. They are more easily propagated by grafting 1-year-old wood, gathered in Feb., to hawthorn, medlar, pear, quince or serviceberry plants in March.
- Use as an edible ornamental specimen or as a handsome border planting.
- Medlars are hardy to minus 20 degrees.

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

The Rescue Pear Story

From HOS Pome News, Winter 2010

This large beautiful fine flavored pear almost never made it out of a backyard. It was discovered by Mr. Knox Nomura, a horticulturist and nurseryman from Sumner, Washington, who specializes in Oriental pears and Japanese maples. A friend in Canada periodically sent Mr. Nomura newspaper clippings with photos of this large pear winning first prizes at county fairs. Mr. Nomura finally visited the owner of the tree, who was generous with fruit specimens, but refused to permit scion wood to be taken. When he died in about 1974 his property was acquired for an addition to an adjacent cemetery. Before the tree was destroyed, Mr. Nomura obtained scion wood which he has freely distributed to all who might be interested. Wherever it was tested, including Northwestern Washington Research station, it has proved to be a high quality pear worth growing in any backyard orchard. The fruit is yellow with a bright red-orange blush and the flesh is sweet, smooth and juicy. We are all indebted to Mr. Nomura for having rescued this pear from oblivion.

Do you know of a fruit tree that produces "good" fruit? Do you think it is worth propagating? It may be a seedling the only one of its kind in the world.*

Rescue Pear Photo Raintree Nursery

*Marilyn Couture, Editor, recently encountered a highly desired Salem apple that has won Oregon State Fair awards for size and quality. It has been given a family name, but unfortunately, some family members refuse to permit scion wood to be taken. In time it may pass into the custodial care of Oregon State U. for study and distribution.

Vanshur's Unknown Apple

During the OOS Fall Fruit Show last October, Jim and Nancy Vanshur of Lake Sutherland brought in an apple and left it at the ID Table to be identified. Dr. Bob Norton, our identifier, sampled the apple, was impressed with its taste. He was unable to identify the apple, but asked for the scion wood from the Vanshur's tree.

The apple is yellow with red stripes on one side, conical, crisp, fairly sweet, and aromatic with a mixture of flavors. It looks similar to a Winterstein, but according to Dr. Norton, it is not a Winterstein.

In March of 2010 with Dr. Norton's help I contacted the Vanshur's to secure the scion wood before the grafting workshop on Vashon Island. I was invited to visit their home where they provided me with scion wood plus the two remaining apples from this tree. I also took pictures of the apples. Although the apples had been in refrigeration for the five months following our fruit show, it was still crisp and very tasty.

I wrote a description of the apple and shared it with Lori Brakken, President of STFS.. Lori is in the process taking pictures of and building a data base of apples from the Puget Sound area.

Since that time, I have grafted three trees of the unknown apple, Federal Expressed the scion wood to Dr. Norton and have shared the scions with other grafters in the Olympic Orchard Society

Erik Simpson, OOS

Are Beneficial Nematodes a control for Codling Moth?

Would you recommend nematodes for a backyard grower? I am hearing more and more about these but am not sure if they are cost-effective.

Regarding your inquiry about Codling Moth, we originally were experimenting with "beneficial nematodes" to control apple maggot. However, they seemed somewhat effective for Codling Moth too, although we didn't have a severe problem with them to begin with. We also put out Codling Moth Pheromone Traps and caught a minimal amount. These both can be purchased from arbico-organics.com. Another good control is hand picking the fruit, as my wife does, when she sees frazz on the fruit. Don Anderson, PFC

GF-120 NF Naturalyte—Control for Apple Maggot Fly By Jean Williams, PFC

There's a new kid on the block in the fight against apple maggot fly: GF-120 NF Naturalyte Fruit Fly Bait. It was developed as a bait for attracting and killing cherry fruit flies, but it appears to work equally well for apple maggot flies. From the Dow AgroSciences site: "The goal is to strategically place large droplets where flies will find them in their normal search for food. Uniform coverage is not as critical as with conventional sprays. The bait performs best if kept concentrated and not over-diluted. The application technique for GF-120 is an ultra low volume application but with large droplets. Large droplets (5 or more millimeters in diameter—about ¼ inch) help the product remain viable in the field for longer periods of time." The bait is more effective when wet, and the large droplets take much longer to dry out, thereby increasing the time the bait is effective.

GF-120 NF Naturalyte is a baited spinosad product and is listed by the Organic Materials Review Institute (OMRI) for use in organic production. The bait formulation is a mixture of feeding attractant and a very low rate of spinosad. It attracts and controls cherry fruit flies, including cherry fruit fly, western cherry fruit fly, and black cherry fruit fly in cherries, blueberry maggot in blueberries, and apple maggot in apples. Many other fruit flies are also controlled as well as walnut husk flies. It is also effective against the emerging threat of spotted wing drosophila. Fruit flies can detect the bait from several yards away. They forage aggressively, and complete coverage of fruit is not necessary. To target places where the flies normally move, the instructions are to spray on the underside of the leaves in the upper inner canopy beginning when monitoring traps indicate flies are present (usually in late June here) and continuing every 7 days until flights stop in September or more often if it rains (up to 10 sprays). Be sure to follow label precautions and directions. GF-120 NF Naturalyte is toxic to bees exposed to direct treatment, and insects may become resistant to it. It is also disruptive to some important beneficial insects. However, a study published in the August 2009 issue of the Journal of Economic Entomology states that study "results confirm previous tests showing that bees do not feed on GF-120 and also show that honey bees are repelled by the fruit fly attractant components of the bait in field tests."

I tried this product in the summer of 2009 with great success. I had installed over 2000 footies on about half of my apple trees when some GF-120 NF became available to me. I sprayed remaining trees five times with a 1:4 GF-120 to water solution at about 10 day intervals starting July 3 when the first apple maggot fly was trapped in the Port Orchard area. My Red Gravenstein apples, which are normally loaded with apple maggots unless footied, were completely clean. I have not used up all the other varieties of sprayed apples, but I have yet to encounter any significant apple maggot fly damage. This was not a scientifically controlled study by any means, but I intend to try using GF-120 NF Naturalyte to control apple maggot flies on all my trees in 2010. The only problem I encountered was the fact that the spray seemed to burn the areas on the leaves where it landed. The leaves had brown, burned-out looking areas for the rest of the season. I only gave quick spritzes in the upper canopy of the trees on the undersides of the leaves. The burned-out looking spots on the leaves did not seem to affect the growth of the trees or fruit. If any spray landed on fruit, it did not burn the fruit and was fairly easy to wash off when harvested.

GF-120 NF Naturalyte is made by Dow AgroSciences and is available in gallon size for group purchase from Progressive Crop Protection in Montesano 360-249-3710. One pint should be adequate for most backyard orchardists. Since it's relatively new, it may be awhile before it's available in smaller sizes, although I've heard rumors that some Del's Farm Supply stores may start to carry it.

More on Sunspot cycles,
Dr. Roger Eichman,NOFC

2008 was a low spot number but 2009 was lower and a few and small ones have shown up this year but very few. We should be 1/2 way up to the next maximum but are still at a minimum. They are now talking about a Dalton minimum so 20-30 years of few spots and a cold period of 40 years. We wont know for another solar cycle. But world wide , we should be in for at least a few cold years.Here we are in an el-none winter but that wont last long.CO2 has little to do with global weather . It is becoming quite a pile of "controversy".

http://Spaceweather.com – News and information about meteor showers, solar flares, auroras, and near-Earth asteroids

http://spaceweather.com/glossary/sunspotnumber.html - The Sunspot Number

http://science.nasa.gov/headlines/y2008/30sep_blankyear.htm - NASA – Spotless Sun: Blankest Year of the Space Age

CARLYN COOKS by Carlyn Syvenen

One of the challenges of fruit growing is what to do with all this wonderful product. I would like to start this new column to share recipes I have collected or developed over the years and to encourage our readers into sharing theirs. Please send your recipes to carlynbee@teleport.com and I will publish them here.

Fruit Smoothies for Breakfast

For many years my staple breakfast was a cup of yogurt topped with a cup of applesauce, preferably Gravenstein, and a sliced banana. Every fall I made and froze about 50 quarts of sauce. Now that I have more time to harvest and put up fruit in the fall that breakfast has evolved into our daily fruit smoothie.

Fruit Smoothie (one 16oz. glass)
½ cup yogurt
½ cup apple juice
1oz. blackberry juice ice cube
1oz. Nectarine or peach juice ice cube
1 handful of blueberries
1 banana

Place in blender, blend on high. Pour into glasses and enjoy the flavors and health of the previous summer.

Our summer smoothies are made with the fruit that is available at the time. The only staples are the yogurt, apple juice and banana. When making your own smoothie experiment with the fruit that you have an abundance of. I have used kiwis, raspberries, strawberries, and melons. We have never had so many sweet cherries that we can't eat them all but cherry juice may make an interesting addition.

The ingredients: When the Gravensteins and Tydeman Red's are at their peak we juice and freeze them in one or two liter bottles. I pick the blackberries which grow around the edges of our property and juice them. I freeze the juice in ice cube trays and pack the cubes in freezer bags. During the summer our local produce market often puts the almost over ripe nectarines and peaches on a marked down shelf. I buy these at the lowered price and then blend them in a blender and again freeze the juice in ice cube trays. When my sister-in-law's peach tree has a bumper crop I freeze peach slices on a piece of wax paper on a cookie sheet. When the slices have frozen they can be packed in freezer bags and removed from the bags in the number you want for the smoothie or for topping cereal.
We don't have enough of our own blueberries yet so we pick enough from local growers to freeze for the year.
I have not yet figured out how to grow my own bananas.

Seattle Tree Fruit Society had our Spring Fruit & Grafting Show on March 14 at the Center for Urban Horticulture in Seattle. Held in the main hall and adjacent glass house, it was packed with attendees, educational displays, 2 lecture rooms, fruit wood, and grafting. Thank you to everyone that traveled far to get there, and volunteered to help make it happen.

Next STFS Meeting April 24, Sat., 9:30-12:30. Marilyn and Dick Tilbury will present up-to-date information on Apple Maggot and Codling Moth life cycles and control. The Spotted Wing Drosophila will also be discussed. Center for Urban Horticulture, Douglass Classroom. For more info seattletreefruitsociety@hotmail.com or website http://www.seattletreefruitsociety.com/calendar.

Maggot Barrier Forum STFS is putting on an informational Maggot Barrier Forum Sat., March 27, 12-3pm., Northeast Branch Library, 6801 35th Ave. N.E. Seattle, WA 98115. Cost is free but pleas sign up to save a seat (206) 715-4149. Learn the history of using the footies and the life cycle of Apple Maggot. Demonstrations on the application and use of Maggot Barriers and Surround soaking. Surround, hard to find, will be available at the Forum. Lorie Brakken, President STFS.

STFS Officers elected in January: Pres. Lorine Brakken, VP John Reardon, Sec. Jack Pedigo, Treas. Bill Moritz.

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Peninsula Fruit Club has been busy offering public outreach programs about pruning and grafting at the public library. Dave Hunter talked about Mason bees. The club watched the new DVD about controlling apple anthracnose by Ralph Byther. Some of our members attended the Home Orchard Society Scion Exchange and the WWFRF's Winter Field Day. Our Grafting Show on March 13 was very successful.

Spring schedule—During March and April we will be visiting a local middle and high schools to teach about 500 students how to graft apple and pear scions to rootstocks. Members of PFC will present information about the Mason bee to the Kitsap Master Gardeners. A presentation about the Apple Maggot and Codling Moth will be shown at the Sylvan Way library during April. The club will hold its annual plant sale in May. Sally Loree, President, PFC.

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Tahoma has 33 active regular members and 2 life members. Bill Horn volunteered at the Home Orchard Society Fruit Propagation event in Hillsboro, OR recently. .Bill Horn, Tahoma Treasurer

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Chapter News

Olympic Orchard Society had a December dinner and Christmas Party; a January Anthracnose DVD presentation; a February Pruning workshop; a March Scion Exchange and Grafting workshop; and, recently a Sequim High School Grafting workshop.

Sixty-nine trees were grafted for four classes over a two day period. One of the Sequim H.S. students for whom we grafted a tree, Tyler Braithwaite, died in a recent car accident. The Hudson's Golden Gem apple may have extra significance for his parents, and instructor Kristi Short said the students were especially concerned that it takes and grows well for them. As it happens, it is one of the trees that have already pushed.

OOS newly elected officers include: Pat Volk, President; Jim Mraz, Vice President; Del Simpson, Treasurer; and Marilyn Couture, Secretary.

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