

The Bee Line

NEWSLETTER OF
WESTERN CASCADE FRUIT SOCIETY

WINTER 1995

Apples Pears Figs Grapes Kiwi Cherries Nectarines Peaches Plums Blackberries Raspberries Strawberries Blueberries Currants Huckleberries Gooseberries Nuts

1995 ANNUAL SPRING MEETING ROOTSTOCK, SCION WOOD and

☆ ☆ ☆ **FRUITING PLANT SALE** ☆ ☆ ☆

Saturday March 4, 1995

at

Allmendinger Center
WSU Research Center
7612 Pioneer Way East, Puyallup

DONATION \$1.00 - UNDER 16 AND VOLUNTEERS FREE

This year the rootstock and scion wood sale is being expanded to include a FRUITING PLANT SALE with initial offerings of apple, pear and plum whips (one year old trees) and a limited supply of two year old feathered maidens. Other offerings will include raspberries, strawberries, rooted cuttings of grapes, currants, gooseberries, figs and other fruiting plants all grown in our region.

**TELL YOUR NEIGHBORS--BRING A FRIEND--COME ONE, COME ALL
THE FIRST 100 TO REGISTER (ONE PER FAMILY) WILL RECEIVE FREE A NEWLY BENCH-
GRAFTED APPLE TREE - A VALUE OF OVER \$10.00**

Those of you new to WCFS can come and learn how to graft hands-on, or our experienced members will graft a tree for you (donation of \$1.00 per graft). Select from over 150 varieties of apple, pear, and stone fruit scion wood many of them rare and gourmet varieties impossible to find in local nurseries.

Learn about grafting inexpensive fruit tree rootstock and which ones are best suited for you and your growing space so you can be sure to have the right combination for your specific needs.

If you will help with the rootstock or fruiting plant sale, call Steve Jackson 868-8344 after 6:00

If you will help with the scion wood sale, call Bill Davis 771-8978 after 5:00

If you will help at registration or membership table, call Evelyn Hoyme 485-3835

Call Chuck Parkman to find out where else help is needed, 452-6600

SCHEDULE OF EVENTS

- 9:00 REGISTRATION AND COFFEE
- 9:30 GENERAL MEETING - Election of Officers and Board Members, Annual Report
- 10:00 Address by Art Antonelli, WSU Experimental Station, Puyallup; "Control of Fruit Tree Insect Pests in Western Washington"
- 11:15 Address by Ralph Byther, WSU Experimental Station, Puyallup; "Loss of Disease Control Sprays for Tree Fruit in Western Washington"
- 12:30 to 1:30 Lunch break Lunch Wagon will be at the Center
- 1:30 Address by Pat Moore, WSU Experimental Station, Puyallup; "Latest on Growing Strawberries and Raspberries in Western Washington"
- 3:00 Board of Directors meeting
- 10:00 to 3:30 Rootstock sale
Scionwood sale
Grafting instruction & Workshop
Continuous fruit oriented videos
Grafting tool available for free use at rootstock table
Dr. Robert Norton with apple bags

LOCATION OF ABOVE EVENTS WILL BE POSTED AT REGISTRATION TABLE



DIRECTIONS TO ALLMENDINGER CENTER

Southbound I 5--Take exit 142 B at Federal Way, go west on 18 a short distance then turn left on 161 and continue to its merger with Meridian St in Puyallup, turn right (west) and continue to 7612 Pioneer Way E

Northbound I 5--Take exit 127 in South Tacoma area, continue on 512 to Meridian in Puyallup, north on Meridian to Pioneer Ave and (west) on Pioneer to 7612 Pioneer Way E

Southbound on 167 take 512 to Puyallup, exit on Meridian-go north past fairgrounds about 4 blocks, left (west) on Pioneer Ave SW to 7612 Pioneer Way E.



PRESIDENT'S MESSAGE

Are you interested in seeing the Western Cascade Fruit Society continue its operations with the Fall Fruit Show, rootstock and scion wood sales, newsletter and orchard tours? If so, its time you came forward and contact the chairman of the nominating committee, Joe Zeppa, to let him know you are ready to help hold the Society together by serving as an officer or on a committee. A very small group of people have been doing all the work for the 500 members, and this group is now asking for help. Call Joe at (206) 524-8943.

Chuck Parkman

ABOUT THE ANNUAL SPRING MEETING

The WCFS Annual Spring Meeting is being held at Allmendinger Center at the WSU Research Center in Puyallup this year because the site we have used in past years is unavailable. And in view of WSU's new policy of charging for use of their facilities, (the Board could not find another site at a reasonable fee), we are asking for a donation of \$1.00 to help defray the cost. **Free coffee will be available at registration, as well as donuts** (although donations gratefully accepted). The rootstock and scion wood sale will start at 10:00 a.m. after the annual meeting is adjourned. The Board hopes to see a good attendance for the Annual Meeting indicating your support for their time and for this once a year gathering of all the membership. Some new ideas for future direction for WCFS will be presented for your consideration and input. **The first 100 to register (one per family) at 9:00 o'clock will receive a free bench grafted apple tree—a value of over \$10.00.**

SAVE SCION WOOD FOR SPRING MEETING

Bill Davis, in charge of scion wood sales, says it is not too early to start thinking about saving your scionwood for sale at the Annual Spring Meeting on March 4. The scion wood will be sold for 50 cents each. (You won't find that price any where else!) All members are requested to save scions of their favorite varieties and any other varieties they think other members would like to have. In the past we have had shortages of plum, apricot, cherry, peach and grape. These varieties need to be pruned earlier than others.

The scions for spring grafting should be collected in January and February before the buds start to swell. Select new wood, about pencil size, 8" to 10" long, 18" maximum for ease of handling during sale, that grew last year on **healthy** trees of a **known** variety. Please, no patented varieties. It is very important to label **each one** accurately. Masking tape works well, **print legibly**, (spelling and neatness count!), and specify fruit if it isn't apple: Frost peach, Comice pear.

Protecting the scion from drying out is also important. They can be placed in an air tight plastic bag with a slightly moist paper towel and stored in the crisper of your refrigerator. If that isn't possible, bury the bundles in sawdust or soil on the north side of a building, deep enough so they will stay cold even in late spring.

There will be directions at Allmendinger Center to the scion wood sale site—take them there prior to the general meeting. **SALES WILL START AT 10:00 a.m.**

Call Bill if you have any questions: 771-8978 after 5:00 p.m.

IS THERE SOME ONE YOU KNOW WHO HAS GIVEN OUTSTANDING SERVICE TO WCFS? For many years WCFS has recognized outstanding contributors to the organization with a "Life Membership". The bestowal of a Life Membership honors those who have given of time and talent. Although recipients no longer are required to pay dues, many of those so honored continue to give; financially with contributions and dues, and with their time and talent.

Many of the members in our group, charter members as well as those who have joined through the years have been honored: Walt Lyon; Ed Lewis, John Parker; James Anstis, Bob Sestrap, Dal Leaf, Emory Leland, Bob Norton, Gerald Pate, Tom Perkins, Tom Thornton, Nancy Jo Cushman, Helen Zuelow, Daphne Lewis, Paul Donaldson, Dick and Marilyn Tilbury, Aaron Haynes, Norm Schut, and in 1994 David Battey.

If you would like to nominate someone for Life Membership, please prepare a short biography to be read on the floor of the general meeting and provide the information to the newsletter editor if your nomination is accepted.

BOARD MEETINGS 1994: In general, the Board planned the 1994 Fall Fruit Show and the 1995 Spring Annual Meeting: location, chair persons, speakers, etc. Evelyn Hoyme was approved as 1994 treasurer. They voted to contribute \$1500.00 to research at Mount Vernon and \$500.00 to research at the Oregon State University Agricultural Research Foundation; to order grey hats with new WCFS logo at \$6.80 each plus a one time set up fee, to be sold for \$10.00 each; to have a booth at the 1995 Northwest Flower and Garden Show February 22-26, 1995; to have a panel of WCFS members at the WSU Master Gardner Advanced Training session at the Puyallup fairgrounds in July; to have a booth at the 1994 Sky Nursery 2nd Annual "Garden Party" the theme Our Gardening Community September 10-11, 1994. A nominating committee was appointed; Joe Zeppa (chair), Dick Tilbury and Orel Vallen. To investigate the feasibility of creating standard, flexible visual display panels for use by WCFS and Chapters at shows and programs. To participate in the 1995 Puyallup Fair; Len Jessen, President of Tahoma chapter, has arranged to have a booth there, at no cost, he and Tahoma Chapter would manage it, with help from Peninsula members. Discussed ways to improve the 1995 Fall Fruit Show, and how to have as successful a Fruit Show as the BCFTA, (a description of the B.C. Fruit Testers

Association Fall Fruit Show was given to each Board member, see page ___), and agreed to hold it at Edmonds Community College October 21-22. Steve Jackson's proposal to enhance the rootstock-scion wood sale with other fruiting plants was accepted, a donation of \$1.00 would be asked (to try to make up for what was NOT realized at the Fall Fruit Show so a contribution could be made to Mt Vernon research), see page one. A committee was formed, named WCFS Improvement Committee, to seek ways to improve the efficiency of the Board, spread responsibility thus lessening the work of the President (see Nominating Committee report below), allow for more participation from the membership. **Details at the Spring Meeting** of the results of the January 14 and February 4, 1995 meetings of the Committee, whose members are: Joe Zeppa, chair, Bill Davis, Steve Jackson, T.K. Panni, Ron Schaevitz, Dick Tilbury, and Milton Piatok-who volunteered to serve on the 1995 board.

NOMINATING COMMITTEE CHAIRMAN, Joe Zeppa reports that although WCFS members are willing to serve on the Board, the committee, elected at the November 19 Board meeting, has not been able to find someone willing to serve as president. So at this time, a nominating committee report cannot be made.

MINUTES OF THE WCFS ANNUAL MEETING OF MARCH 5, 1994

The minutes are printed here for approval at the 1995 Annual Meeting:

The 1994 WCFS Annual Meeting was called to order by Chuck Parkman at 9:30 a.m. March 5 at the Snohomish County WSU Extension Center. Minutes of the 1993 meeting were accepted.

Treasurer, Ray Elder, reported:

Beginning balance 1/1/93		\$ 8264.70
Income Dues	2643.00	
Bank interest	168.59	
Rootstock, scion wood sale	1459.37	
Fall Fruit Show	3806.89	
Group purchases*	6788.29	
Misc.	5.00	
Contributions	<u>262.00</u>	
Total	14883.38	<u>14883.38</u>
		\$ 23148.06
Expenses Operations	1799.59	
Insurance	551.00	
Rootstock, scion wood sale	1277.18	
Fall Fruit Show	2069.38	
Group purchases	6810.31	
WA State Sales tax	<u>175.52</u>	
	12682.98	(12682.98)
Contributions		<u>(1682.00)</u>
Ending balance 12/31/93		\$ 8783.08

* \$118.80 in sales of group purchases were made in 1994.

Officers and Board elected: president, Chuck Parkman; vice president, Orel Vallen; corresponding secretary, T. K. Panni; recording secretary, Joe Zeppa; board members, Paul Hoyme, Gil Scheiber, Ernie Mazzei.

David Battey, nominated as a WCFS Life Member by Ed Lewis, was approved.

Announcements: Pete Kaiser is new newsletter editor; Dick Tilbury mentioned the group purchase of "Good Fruit Grower" magazine closes today; Ray Elder suggested that the next WCFS newsletter include a list of activities and duties WCFS membership could participate in - to help draw new blood into the board; Edmonds Community College would not be available for Friday afternoon set up of Fall Fruit Show, will have to either locate another site or set up on Saturday morning and start show early afternoon.

T. K. Panni, Secretary

PRUNING AND CARE OF FIG TREES

By Helen Chestnut
TIMES-COLONIST

Q. A fig growing in a southeast corner of our house produces hundreds of little figs in April and drops them all in May. Another host of tiny figs appears in July, but most rot before they ripen. The tree also needs pruning. It's grown beyond the house eaves. How do I prune it?

A. Prune your fig in the spring, preferably in late March or early April. This should be done every year to keep the plant compact and to encourage the production of young, fruit bearing shoots

Cut diseased and frost damaged wood, and weak stems crossing the main branches. Take out at their source any stems pointing back toward the wall, and reduce growth generally to fit the space you have for the plant.

The ideal scenario for fruiting in a fig is this: By late summer embryo figs are formed on well-ripened shoots of the current year's growth. These minute fruits overwinter and ripen the following summer.

To persuade the tree to form the embryo fruits at the right time for successful overwintering, keep new growth shortened to four leaves during May and June. This is to encourage hardening and ripening of the new growth.

Then, at the end of August, rub out the largest, earliest formed fruits at the base of the fruit-bearing shoots. The object here is to induce other baby figs to form (smaller ones), with a better chance of remaining on the tree. Fruits large enough in early autumn to show the shape of a fig are not likely to overwinter successfully and should be picked off.

It is helpful to thatch the tree with light evergreen boughs for the December-March period, to protect the embryo fruits at the shoot tips. A winter mulch of straw or bracken over the root area is a good idea too.

It's easy to miss the ripening of figs. And if not picked when ripe, the fruit will quickly rot. Watch for fruit whose stem has collapsed, so that the fig hangs down. A ripe fig will also show a drop of liquid -- a "tear" in its eye -- where stem joins fruit.

Another possible cause of rotting is grey mould (botrytis), which prevails in wet conditions. Keep the tree thinned enough for good circulation of air through it. And try to avoid overhead sprinkling while a fig is carrying a crop.

Train up a fig-tree in the way it should go, and when you are old sit under the shade of it. Charles Dickens



SOME INFORMATION YOU MAY FIND INTERESTING, BUT DON'T NEED TO KEEP SO YOU CAN SEND YOUR ROOTSTOCK ORDER, PRINTED ON THE OTHER SIDE!

A note of general interest. The postal rate increase also applies to the special book rate we have been using. For up to one pound the rate went from \$1.05 to \$1.24, and each pound thereafter was increased also.

For those who asked about "The Apple Book" used by our good friends from Oregon to help identify apples, I have not been able to find it. A letter sent to the publisher of record (noted in the book) has been returned "undeliverable-forwarding order expired" Now that the Holidays are over I will work on it again. None of the larger local bookstores have it. (And I thought University Book Store had everything!)

If you want to keep your paper back books (Fruit, Berry and Nut Inventory for example) from getting dog-eared use clear contact paper to cover them. And it wipes clean so much easier.

**MANY THANKS TO ALL WHO SUBMITTED ARTICLES FOR THIS EDITION - KEEP THEM COMING
PLEASE INCLUDE PUBLICATION AND DATE SO CREDIT IS GIVEN**

1994 WCFS OFFICERS AND BOARD MEMBERS

OFFICERS

CHARLES PARKMAN, President	452-6600	P.O. Box 128	Carlsborg	98324
OREL VALLEN, Vice President	772-2119	P.O. Box 78358	Seattle	98178
JOE ZEPPA, Recording Sect.	524-8943	7014 58th Ave NE	Seattle	98115
T. K. PANNI, Corresponding Sect.	747-4541	4541 130th Ave SE	Bellevue	98006
EVELYN HOYME, Treasurer	485-3835	18709 24th Ave SE	Bothell	98012

BOARD OF DIRECTORS

1995

STEVE JACKSON	868-8344	2330 229th Ave NE	Redmond	98053
LYLE KNUDSON	746-9980	6228 129th Ave SE	Bellevue	98006
PAUL VANDER HOEK	454-4514	9826 NE 25th St	Bellevue	98004

1996

LARRY BARELLO	683-8297	50 Willard Dr	Sequim	98382
BILL DAVIS	771-8978	21102 Summit Lane	Edmonds	98026
DICK TILBURY	723-9009	4916 52nd Ave S	Seattle	98118

1997

PAUL HOYME	485-3835	18709 24th Ave SE	Bothell	98012
ERNIE MAZZIE	943-2504	4427 Boston Harbor Rd	Olympia	
98506				
GIL SCHIEBER	783-8262	7016 Jones Ave NW	Seattle	98117

CHAPTER PRESIDENTS

BILL ROSENBERGER, N Olympic	683-8861	P.O. Box 1865	Sequim	98382
PAM BUCK, Peninsula	674-2604	6835 Old Clifton Rd SW	Port Orchard	98368
RON SCHAEVITZ, Piper Orchard	362-1227	1227 NW 117th St	Seattle	98177
MARLENE FALKENBURY, Seattle	522-2273	7547 32nd Ave NE	Seattle	98115
DAVID DANDURAND, S Puget Sound	288-2722	P.O. Box 23	Amanda Park	98526
LEONARD JESSEN, Tahoma	536-4590	6703 48th Ave E	Tacoma	98443

NEWSLETTER EDITOR

Evelyn Hoyme	485-3835	18709 24th Ave SE	Bothell	98012
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FROM THE EDITOR— We hope you have noticed something new this month. The last page, where the label is affixed, and the membership renewal form are back to back (the Treasurer thinks it would be handy that way). And when you cut off the renewal form to send to the Treasurer, you haven't lost any of the Officers and Board members in case you need to call someone to volunteer. When you are filling out the renewal, offer to give a hand somewhere—many hands make light work and happy hearts. If your dues aren't payable yet, send it in anyway with an offer to help.

And before you even cut the tape, you can see what is inside for you!

When you get inside, and to the back, unless you start at the back as I sometimes do, you'll find out what all those colors mean on the due date section of the label. If you don't have a color, nothing to worry about. If it is green, complete the renewal form and write a check in a couple of weeks or so. If its yellow, in a few days. If its RED, do it NOW. (That red is more like a bright pink, but its the closest we could get.)

NEXT NEWSLETTER EARLY APRIL

NEWS FROM THE CHAPTERS

NORTH OLYMPIC FRUIT CLUB: Bill Rosenberg, President reports their Fall Fruit Tour in October was very successful. 50 people took the tour, including some from Peninsula Chapter and others. The Bandy Farm was good- there were new plantings of Asian Pears. The solar well was expensive to install- the panels rotate-, but operating costs are nil. The Gautschi Orchard impressed everyone, rainfall is the only irrigation. The trees are mulched 18" deep; they were very healthy looking, no powdery mildew or scab seen. The Sundt Orchard had additional plantings of Jonagold, starting damage was a problem.

Their Oct/Nov meeting was taste testing and rating apples ripe at that time, based on the following criteria: texture, looks, storage, scab/mildew, maturity, flavor, uses/comments (tart, sweet, etc) on a scale of 1 - 10 (10 being best).

The varieties tasted:	texture	looks	flavor	variety:	texture	looks	flavor
Arkansas Black	9	9	8	Melrose	8	8	8
Chehalis	8	8	9	Mutsu	9	8	9
Fuji	8	7	9	Northern Spy	6	9	5
Golden Delicious	8	7	8	Old style Red Delicious	6	8	4
Grimes Golden	9	8	8	RedFuji	5	5	5
Hawaii	8	8	7	Red Russian	5	7	5
Hudson Golden Gem	6	4	7	Sinta	7	6	5
Jonagold	9	9	8	Spartan	8	8	8
King	7	9	8	Spigold	8	7	8
King of Tomkin County	7	7	7	Spokane	6	7	7
Macintosh	5	5	5	Winter Banana	6	8	5
Macoun	6	9	6	Winesap	8	6	8

The top ten for FLAVOR first, then TEXTURE, then LOOKS - all apples were from the Olympic Peninsula and were each growers "favorite":

- 1-Mutsu, 2-Chehalis, 3-Fuji, 4-Arkansas Black, 5-Jonagold, 6-Grimes Golden, 7-Melrose, 8-Spartan, 9-King, 10-Spigold

SEATTLE TREE FRUIT SOCIETY had Craig Cogger speak on Soil Mechanics and Fertility at their December 3 meeting. President Marlene Falkenbury passes on the informatin that the Lower Mainland Horticultural Improvement Association is conducting a Growers Short Course in Abbotsford, B.C. on Wednesday February 8, 1995. For more information contact: Bill Peters 33780 Laurel St, Abbotsford, B.C. B2S 1T4.

PENINSULA FRUIT CLUB President, Pam Buck, recently reelected for a second term, reports that their annual Fruit Show which was held October 15 at the West Side Improvement Club in Bremerton had about 300 varieties of apples, apple tasting, apple ID by John Parker, a Master Gardner booth, the Master Food preservers were represented, a display on apple maggot prepared by members, and an orchard bee display. Sadly, it was not well attended; there were several other activities in the area on the same weekend and the publicity was not what it could have been. For next year they will plan better. For their November meeting, Joe Powell of Port Orchard, who contracts bees for orchard pollination, told them all about the bees! He explained the care of bees, setting up of hives, pollentation process. The meeting was very well attended.

TAHOMA CHAPTER President, Leonard Jessen, has had meeting the first Thursday of each month. Subjects covered: Fruit Tree Care, Fall Cleanup, Getting Ready for Winter. On January 5 the subject will be Pruning, showing Gary Moulton's new video on pruning which includes stone fruits.

Tahoma Chapter will be the sponsor of a WCFS booth at the Puyallup Fair in September, 1995. If you wish to volunteer to be there for a four hour shift-you will have free entry for the day, contact Leonard Jessen 536-4590. More details in future editions.

PIPER ORCHARD President Ron Schaevitz say that 600 pounds of apples were harvested at the annual Seattle Adopt-a-Park volunteer appreciation day September 17. Thirty gallons of cider was made. At the Fall Fruit Show, 40 gallons of cider was produced from apples provided by attendees.

At the January 21 meeting they will be moving trees from the nursery to the orchard, and pruning. Scion wood from the pruning will be available at the scion wood sale on March 4, and so labeled for those who want them specifically.

ROOTS: RETURNING TO THE APPLE'S BIRTHPLACE

by Sean Adams, ARS

Agricultural Research, November 1994

The quest for new apple genes takes ARS plant explorers to Central Asia.

Fritz Wafler has been in the apple business since the 1960's. Today he grows 12 popular varieties--including McIntosh, Jonagold, and Empire--on his 250-acre apple orchard in Wolcott, New York, near Lake Ontario. One of his biggest expenses is the chemicals to control insects and diseases. Pesticides cost him about \$200 per acre, per year--an expense he'd rather do without.

"We get a lot of flak for spraying," he says. "Farmers would be the first to admit that they would be happier if they didn't have to spray." Wafler hopes that eventually he'll be able to grow apples that have genetic resistance to insects and diseases, allowing him to reduce or even eliminate pesticide applications.

The best bet for finding genetic resistance lies in the seeds of the wild apples that Agricultural Research Service scientist Philip L. Forsline and his fellow explorers have found in the mountains of Kazakhstan and Kyrgyzstan. "I really hope the apples they brought back can help us," Wafler says. Forsline is optimistic they will.

In September 1993, he organized and led a collection trip to the two countries in Central Asia. Three other scientists were part of the research team--taxonomist Elizabeth E. Dickson of Cornell University, fruit tree disease expert Gaylord Mink of Washington State University, and breeder Dominique Noiton of Havelock North Research Center in New Zealand. They spent 22 days collecting wild apples in areas where western scientists have never explored before.

Their goal was to scour the rugged foothills for apples in the place where scientists believe the domestic apple (*Malus x domestica*) was born and evolved--its center of origin, as curators say. The expedition was a follow-up to an earlier trip that Dickson, Cornell plant pathologist Herb Aldwinckle, and ARS botanist Calvin R. Sperling made to neighboring areas in 1989. The explorations are part of an ongoing effort by scientists with ARS, universities, and other institutions to preserve valuable genes that may otherwise be lost due to neglect, development, or other factors.

The germplasm--usually cuttings or seeds--is housed in storage facilities where it can be saved for use by breeders to improve agricultural crops. The need to preserve germplasm is immediate, says Forsline, curator for the apple and grape collection of the ARS Plant Genetic Resources Unit at Geneva, New York. In one area of Kazakhstan, near the capital of Almaty, nearly 80 percent of wild fruit forests have disappeared since 1960 because of development. In another area, in Kyrgyzstan, the government has mandated harvesting walnut trees for wood--threatening the diversity of that nut tree.

"We were very fortunate to be able to collect germplasm from these areas, because no one knows how long it will be there," Forsline says. It's too early to tell how valuable the newly collected apple germplasm is. Some of the seeds from the 1993 trip have been planted and have grown into seedlings, but it can take from 5 to 7 years for them to mature and bear fruit. Forsline says 400 trees are now growing outdoors from seed collected during the 1989 trip. But, in their fourth year, only three of them are fruiting. "We are confident that we collected apples in remote places that western scientists have probably never explored before," he says. "We think the germplasm will help us widen the genetic base of our collection. Many of the apples we collected are in the wild species *Malus sieversii*, a major genetic contributor to *M. x domestica*."

In 1989, scientists returned with 114 apple samples--called accessions. During the 1993 trip, they collected 129 more, representing 24 crop species--including apples, pears, hawthorn, hops, walnuts, pistachios, and grapes. They brought back 78 cuttings and 33,000 seeds--including 18,000 apple seeds. Some of the seeds have been planted, have grown into seedlings, and are under evaluation by scientists around the country and world, Forsline says.

Preliminary results are encouraging. Aldwinckle, who chairs the Apple Crop Advisory Committee and is evaluating the germplasm in a cooperative project with ARS, says some of the seedlings from the 1993 trip have resistance to apple scab, based on early greenhouse studies. Apple scab, a fungal disease, is among the most serious problems for apple growers, blemishing fruit and causing millions in losses each year. "Resistant seedlings wouldn't have to be sprayed with fungicides to control the scab," he says. Aldwinckle says he will also test seedlings from the 1993 trip for resistance to rust, fire blight, and powdery mildew diseases. He says germplasm he has screened from the 1989 trip has resistance to scab, fire blight, and rust. "We think apple germplasm from the two trips will be of great interest to breeders looking for resistance to these diseases," he says.

Wild Apple Antecedents

The 1989 and 1993 trips probably wouldn't have come about if not for the initial contact between Aldwinckle and Aimak Djangaliev, a professor of Biological Sciences at the Academy of Sciences in Kazakhstan. The 80-year-old Djangaliev has studied the wild apples of Kazakhstan for much of his career and helped arrange the exploration trips. He also came to the United States in 1992 to study apples native to the United States.

Today the United States is one of the world's leading apple producers. In 1993, U.S. apple production was an estimated 10.7 million pounds. But only 4 of 35 known *Malus* species are indigenous to the United States, and the 4 are

crabapple types that aren't suitable as eating apples. Rather, the apples we eat today--Red Delicious, Golden Delicious, McIntosh, for example--and that make up the bulk of U.S. commercial production are fruit immigrants, spread over the last few centuries by people like John Chapman, the legendary "Johnny Appleseed."

Forsline says that ancient explorers traveled through the Kazakhstan region--nestled between China to the east and Russia to the north--along the silk trade routes. They transported not only silk from the Orient to Europe, but also apples. "This is one of the ways that apples are thought to have been spread to other parts of the world," he says. But Forsline and other researchers say that the traders who carried the apple seeds probably brought only a narrow genetic sampling with them. That could explain why domestic apples grown today in the United States have a fairly narrow genetic base, making them susceptible to scab and other diseases. The typical eating apple of today probably contains genes from only two or three of the known species, Forsline says. "In apple breeding, we've really only scratched the genetic surface, so to speak."

To broaden the apple's genetic base, scientists need to bring in new genes from those areas where apples evolved, for it is there they will find the greatest genetic diversity. And the more out of the way and remote the area, the better the chance of finding rare genes that have never been collected before. Going off the beaten path had its challenges. Many of the remote mountain areas were accessible only by helicopter, hiking, or by taking a jeep down a dusty road for half a day. Sometimes, Forsline says, they were accompanied by aides carrying rifles to guard against a wild bear or boar that might happen to have its eye on the same apple tree.

On a typical day, the scientists collected between 500 and 1,000 apples. Often the apples were small--only about 1 to 2 inches in diameter--because of old age and environmental stresses such as drought and disease. But the fruit were a variety of colors, sizes, and apple shapes--and some, not surprisingly, looked nearly identical to the popular varieties we buy in the local produce section. "We saw some that looked like Golden Delicious, Red Delicious, and like the New Zealand variety Gala that is becoming popular," Forsline says. "You can see that the genetic base came from that area."

Evenings were spent extracting seed from the apples. This usually took place in a yurt, a circular tent made from animal hides and decorated with Persian rugs. The scientists and their hosts would score the apples around their perimeters, just below equator, and twist the two halves apart so they could extract undamaged seeds. Each apple yielded from 2 to 10, depending on its size and other factors.

When it was time for sleep, they slept in bunkhouses that were built years earlier for Khazakh Ministry of Forestry personnel and others exploring the fruit-filled mountains. Forsline says there was a flurry of activity in the bunkhouses each night, as rodents scampered around, lured by the smell of the extracted seeds.

To increase the apple germplasm collection's diversity even further, Forsline wants to return to other areas of the region. Perhaps he will go in 1995 or 1996, as part of a 4-year follow-up project on apples with Kazakhstan funded by ARS and USDA's Foreign Agricultural Service. He says a trip to nearby China would also be helpful, since researchers believe the wild apples there may contain useful genetic material as well.

Meanwhile, apple-grower Wafler hopes the potential becomes reality. "This is the future of apples," he says.

Ed note: Our thanks to Van Bobbitt, WSU State Master Gardener Coordinator, for bringing the above article to our attention and providing a copy of the magazine.

BUDS FROZEN TO CONSERVE RARE FRUIT

San Francisco Chronicle-December 14, 1994

Hundreds of rare apple varieties--some dating to ancient Roman times--are being frozen in liquid nitrogen so they won't be lost to future generations, the Agriculture Department says.

Scientists have preserved in suspended animation 250 of the 2,500 apple varieties grown at the national apple orchard in Geneva, N.Y. "Eventually, we'll have the entire collection backed up at the national seed storage lab at Fort Collins, Colo.," said plant geneticist Philip Forsline, one of the scientists involved in the work.

It's the first time the USDA has frozen rare fruit buds as a backup for frozen and cold stored seeds. Among the cuttings frozen so far are the "Esopus Spitzenberg," which dates to the American Revolution, and "Lady," among the oldest apple samples on record, dating to Roman times.

Previously, only seeds were safeguarded to preserve genetic traits of plants. But in crops such as apples, genes must be protected by saving vegetative cuttings, like buds. Forsline's team plans to freeze about 10 percent of the apple archive each year. The buds are stored at the seed storage lab in temperatures as low as minus 150 degrees Celsius.

Liquid nitrogen vapor keeps the clippings in a suspended state from which most can later be reanimated if necessary. Forsline says the samples are better preserved on ice than out in the elements.

POMONA-EXCHANGE PAGE-FALL 1994

Can anyone help these people out?

WANTED: Seeds or seedlings of *Vaccinium myrtillus* (bilberry) C. Calissendorff, 1111 Myrtle Dr., Burlington, WA 98233
Phone (206) 757-2400

WANTED: Scions of Bob Harper's orange apple. Does anyone know about Milo Gibson's Oregon crabapple (*malus fusca*)? Anyone exploring for superior seedling apples, pears or plums. If you have a superior seedling please write. Ken Priddy, 4888 Silverton Rd. N.E. Apt 2, Salem, OR 97305

AVAILABLE: Orchard bees (*Osmia cornifrons*), by the tube, average 16 bees/tube. \$1.60/tube plus shipping and handling at the rate of: \$2.50/1 - 8 tubes; \$3.00/9 - 14; \$4.25/15 - 28; \$6.50/29 - 57 tubes. Ronald Smith, 9935 N.W. Cornell Rd., OR 97229 Phone (503) 292-3764 Ed. note: error in omission of city is Pomona's.

AVAILABLE: Bush walnut seed from trees producing large nuts. 8 nuts \$5.00; 24-\$10.00; 100-\$35.00. Scions \$3.00 for one, \$2.00 each for more. All postpaid, US only. Trees withstood lowest winter and late spring frost better than any other in area. Garfield Shults, Rt 1 Box 1315, Honedale, ID 83628

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RECIPE CORNER

Edited by Andy Anderson
from The Cider Press, Spring 1994

GORDY'S APPLE RUM CAKE

Gordy Partridge of North Vancouver was the Grand Prize winner in a Vancouver Sun competition a number of years ago and this is the best apple dessert I've ever baked.

CAKE:

2	eggs, well beaten	3	apples, peeled, cored and thinly sliced
1	cup butter	1/2	tsp. lemon peel, finely grated
3/4	cup brown sugar, finely sifted	1	tsp. cinnamon
1 1/4	cup all-purpose flour, sifted	1/2	tsp. ginger
1	tsp. baking soda	1	tsp. vanilla
1/2	tsp. salt	1	cup coarsely chopped nuts (walnuts, pecans, almonds)

RUM SAUCE

1	cup milk or cream	1/2	cup unsalted butter
1/2	cup white sugar	1/2	cup dark rum
1/2	cup brown sugar		

Make the sauce first since it must simmer for an hour! Combine milk or cream with the sugars in a medium saucepan and cook over low heat for one hour, stirring frequently. Add the butter and cook over low heat for a further 30 minutes. Stir in the rum just before serving.

Preheat oven to 350° F. Mix the eggs with the butter and the brown sugar. Add the flour, baking soda and salt. Set aside. In a medium bowl, place two of the apples, reserving the slices from the third apple for garnish. Sprinkle on the lemon peel, cinnamon, ginger and vanilla. Toss to coat. Stir the apple mixture into the butter mixture along with the coarsely chopped nuts. Mix well.

Spoon the mixture into an 8 inch square or round pan. Spread evenly. Place the pan in the oven for two to three minutes. Remove from the oven and place the remaining apple slices in a circle or rows on top of the mixture. Bake for 40 to 45 minutes, or until a cake tester inserted in the centre comes out clean.

Remove from the oven and let stand a few minutes. Cut into squares and serve with (warm) rum sauce.

Are you interested in having unusual recipes printed? Do you have one you would like to share? Send it in. Please note where you found it, so credit can be given.

DID YOU KNOW? A squeeze of lemon juice will perk up tired, end of season apples for pies and crisps.

GROWING ANTIQUE APPLES IS AVOCATION FOR RETIREE

by Jim Black

Good Fruit Grower, October 1994

Pretty it is not, though the visitors at Harvey Wederspahn's orchard don't seem to mind. The motley one-third acre of mismatched apple trees grafted to over 400 antique varieties has an appeal unique in the Pacific Northwest, attracting both commercial apple growers with impressive credentials and neighborhood elders who can still taste the Esopus Spitzenburg that grew on their parents' homestead when they were children.

Wederspahn really isn't a grower as much as he is a historian, and his orchard is nothing less than a laboratory of living history - a laboratory he believes holds great promise for future growers.

Although first inspired as a youth by a backyard tree that had been grafted to grow both red and yellow apples, he and his wife Frances didn't begin tinkering with antique varieties - apples that have been grown for over 100 years - until 1976.

"The more you know, the more fascinating it becomes," he said, trying to explain why a retired insurance agent would give up much of his leisure time to tending trees. "In the sixties, my daughter Linda worked at the Washington State Fruit Commission under Fred Westerberg," he said, "and she would bring home *The Good Fruit Grower* for me. In one issue was an article by Bill Luce on fourteen different varieties that he was growing on his place on the Ahtanum. A tree with red and yellow apples was interesting, but fourteen was fascinating!"

Inspired, Wederspahn met with Luce to learn what he could about grafting and growing multiple varieties. A decade later, in 1976, and still interested in varieties, he and his wife returned to the Yakima Valley, buying a small place near Selah, complete with a frost pocket and four fruit trees.

"I bought a place on Spires Station, which is the coldest spot in this entire area," he said, shaking his head. "I didn't know that until I started to grow fruit." Although he occasionally may have regretted the selection, he learned to adapt.

He read, he listened and he researched sources of information on both growing techniques and particularly old varieties no longer commercially available. "I got in touch with Bill Luce again and he steered me to the North American Fruit Exporters which Bill had had a hand in forming. The Home Orchard Society (another organization benefiting from Luce's direction) also was of help. "I started writing and calling people who had different old varieties that had been written about. Everyone had something to offer, whether it was just good advice or scion wood."

But it was Luce's guidance that had the most lasting impact on Wederspahn. "You have to meet Bill Luce - he's fascinating," he said, using that adjective repeatedly to describe both the apple varieties and the people who appreciate them. From the beginning, Luce functioned as a willing and knowledgeable mentor to Wederspahn. Not limiting his tutelage to variety names and origins, Luce made the research enjoyable. "Bill challenged me to find a variety that his family had growing in their yard when he was child," said Wederspahn. Luce described the apple and Wederspahn used the description and what he could learn about apples grown at the turn of the century near Boston, Massachusetts, to identify the variety. Wederspahn harvested the first of that variety, the Lyscom, in 1993, rewarding his friend and mentor with the first of the small crop.

Understandably, Wederspahn has gained a reputation for knowing old varieties. "People would bring them in and I would get together with Bill and go through books until we could identify them." Some of the most popular of these old varieties have been grown in his orchard, and scion wood given to a local nursery for use in a limited nursery program. "It's important that the old varieties be kept alive," he said.

At 73, and having undergone triple-bypass heart surgery, Wederspahn is at an age where he needs assurance that someone will carry on with his project. He clearly remembers that the Luce orchard that so intrigued him was destroyed when the property was later sold. "I wouldn't want that to happen to mine," he said. "I would like to see my inventory of varieties added to a new breeding program," he admitted. Building a program in eastern Washington, he believes, should be a priority. "Since growers are paying a dollar a tree for new varieties, some of that money could be spent on a breeding program instead of sending it out of the country.

"Why can't we have a Yakima apple that fits this environment?" he asked. "Someday, we may have a disease that will be impossible to handle. We need something in our back pocket, something we can go back to keep this industry up and going." He referred to changing environmental legislation that, he believes, eventually may make newer varieties commercially impractical. "I have no real problem with disease and little mildew on my varieties," he said. "That's becoming more significant."

Although the U.S. Department of Agriculture operates a repository of apple germplasm for over 1,000 varieties at the Geneva, New York, research station, Wederspahn believes a collection in his region is desirable. He emphasizes that location should be one of the most critical factors in selecting varieties and that local researchers may be more interested in developing new varieties from old stock that had proven itself in local growing conditions.

For the past two decades, Wederspahn has encouraged others to become "fascinated" with apples, too. "The apple originated in Russia," said Wederspahn, citing the area of what is now Georgia and often credited as the site of the original apples. The reference is the beginning of a spiel that he has repeated hundreds of times to visitors. "People go there (Russia) to research. My parents were both born in Russia, Germans of Russian descent, and someday I would like to go," he added, further explaining his interest in the apple's origin. "At one time or another, maybe six thousand varieties have been named. What else could the settlers coming West have carried that they could have fresh, baked, or dried?" he asked.

Currently, most of Wederspahn's production is saved for the Central Washington State Fair in Yakima, where thousands of fairgoers have stopped over the years to look at his dramatic display. "I try to keep production to about six apples of each variety for the fair," he said, proud of the attention he receives.

"People can't get a box of apples, but they can walk through and see the variety of shapes and colors," he said. And they can spend a few minutes chatting with a man who has made a "fascinating" avocation from what our readers do as a vocation. That others can experience even a little of the thrill makes his effort satisfying.

"If I were forty years younger, wouldn't this be a hell of a thing to be doing!" he exclaimed.



GOOD FRUIT GROWER --SPECIAL GROUP RATE

Once again WCFS members may take advantage the group rate offered by the publishers of Good Fruit Grower, a monthly magazine published in Spokane and containing articles by Bob Norton, Bob Stebbins and other experts we have come to respect. This newsletter and STFS "Urban Scion Press" often reprint articles originally published in it. The usual subscription rate is \$30.00 per year, our rate is \$15.00. The only condition is that one check cover all the subscriptions. To subscribe or renew your subscription, send a check payable to WCFS to the Treasurer . Please note on your check "Good Fruit Grower Subscription". Renewal deadline is May 1, 1995. You may also order at the Annual Spring Meeting.

OTHER GROUP PURCHASES

Regarding "The Delectable Apple" from the Fall Fruit Show. My apologies to all who ordered for the delay in getting them to you. I hope that if they were for Christmas gifts they arrived in time. There was a problem in communication with the publisher, but it was finally resolved. There are seven which will be available at the Spring meeting, (some who ordered did not send a check.) The price is \$7.50, picked up.

FRUIT, BERRY AND NUT INVENTORY There are four copies available, they will be at the Annual Meeting, if you have suddenly realized you can't live without one. (Many members know how valuable this book is.) The price is \$13.20.

Call if you want to reserve either one of these books. Add \$1.24 to have either book mailed if you don't want to wait to pick it up.

"**ORCHARD PEST MANAGEMENT**" is available as a group purchase. Regular price is \$35.00, our price is \$30.75 (includes shipping to Treasurer), plus \$1.74 to mail to you after I receive it, for a minimum order of 10. Send your check for \$30.75, if there are not enough orders it will be returned to you. If there are 10 orders by February 10, the books can be here for the Spring meeting for you to pick up. Designate "Orchard Pest Management" on the check please.

HATS-HATS-HATS we still have some. You can buy one at the Annual Meeting \$10.00--such a buy-keep your head warm this winter. Get them out of my house!

IF BREAD IS THE STAFF OF LIFE, SURELY FRUIT MUST BE THE BANNER THAT ADORNS IT
by Valle Lunzmann

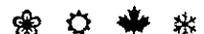
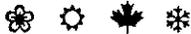
A world without fruit would be a desert of humdrum tastelessness. Just think, no jams or jellies, no fruit pies bubbling with hot juices and heavenly aroma. No Christmas cakes, cookies and fruit bars, no maraschino cherry chocolates, raisin clusters and jellied fruit candies. What would we do in a world where there was no strawberry shortcake, no plum pudding, no apple pan dowdy or apple crisp. The fruit salads could not exist, and all the various juices would be unknown.

In the dormant season the fruit trees stand stark and bare, only to burst forth with profuse blooms, tempting every honey bee in the surrounding area with their fragrance, the pale green leaves unfurling in the warm spring breezes. Winter's weak sun shines through the bare branches, while in summer the leafy boughs give much appreciated shade from the hot sun.

Delectable edibles, from small cherries and crabapples, to plums, apples and pears of every size and description, yellow, red and green, smooth and rough, soft and crisp. Ground level fruit like strawberries, to gooseberries, most with thorny stems, thimble shaped raspberries tied to wires, and above all the glory of a fruit tree in full bloom, or heavily loaded with luscious goblets of glowing color.

The ladies of fashion, as far back as the 1800's, carried in their pockets the tiny 'Lady' apple to sustain themselves, and it was also used to decorate Christmas wreaths. Much further back, bowls of apples were used to decorate the tables of ancient Rome. Scurvy and other vitamin deficiencies the early sailors and pioneers were prone to cannot survive the onslaught of the fruit kingdom. Remember the saying "an apple a day keeps the doctor away". The more medical science finds out, the more credence is given just that!

Valle Lunzmann is a member of B.C. Fruit Testers Association. The above article appeared in the Fall, 1994 issue of their newsletter, The Cider Press, and is used with the author's permission.



NEW APRICOT MAY MAKE MORE PLEASING PIE

by Kimberly A. C. Wilson
of the Associated Press

Don't pull out your pie tins and canning jars just yet, but the Agriculture Department has developed a new breed of apricot that could make tomorrow's tarts tastier. Helena is a new apricot with a more colorful skin, plumper flesh and sweeter taste.

"Helena apricots," said Craig Ledbetter of the Agricultural Crops Research Laboratory in Fresno, California, "are big and juicy with deeper orange skin than most apricots. The flesh is firm and sweet, not mealy, so Helena is ideal for eating fresh for adding to summer salads. We expect this apricot will also make a delicious pie, cobbler, tart or jam, though we haven't tested it yet for baking or preserving."

Low in calories and a good source of vitamin A and potassium, about \$10 million worth of apricots were sold last year for the fresh-fruit market, according to an article in the October issue of USDA's Agriculture Research magazine.

Ledbetter has worked with about two dozen farmers in California, the nation's biggest producer of apricots. In their San Joaquin Valley orchards since 1987, he has tested more than 2,000 pounds of the Helena apricots. Although only tested there, the trees may thrive in Washington and Utah and other states where the fruits also grow, Ledbetter said.

The new variety can self-pollinate, meaning it can bear fruit without needing another variety nearby to provide pollen. That's especially important because it ripens between two other popular varieties in early June, before Patterson and after Katy. Helena is larger and more flavorful than the Patterson type, Ledbetter said.

All cuttings of the Helena variety, formerly known only as K210-35, originate from a single tree. A now-retired USDA stone fruit and grape breeder, John Weinberger, chose to test this small tree out of hundreds of others in a research orchard in the 1970's. Ledbetter's development continues Weinberger's research.

But don't look for Helena in your neighborhood supermarket just yet. That will take another few years, Ledbetter said.

To obtain clippings from the limited number of Helena budwood available, contact Ledbetter at his Fresno laboratory, For details call (209) 453-3064.

Editor's Note: Jacky King said that Helena has been put on the list of varieties they want to add to their trial next spring at Mount Vernon. It will be 3 or 4 years at least before they have any records on it.

APPLE BUFFS TOUR 1994

The group consisted of 19 people; three from Canada, one from California, two from Arizona and the balance from Washington, including Bob and Carol Norton, leaders. The following excerpts are from Dick Tilbury (Seattle Tree Fruit chapter member) and Derek Bisset's (B.C. Fruit Tester Association member) accounts. After reading Dick's 8 page account, I am convinced HE should be the editor. He writes beautifully. Derek also writes so that one feels as if experiencing the tour rather than reading about it. Derek wrote of the last stop on the tour, Brogdale, Dick wrote of all the tour. I wish there was space for both articles in their entirety, but I'll do the best I can, omitting the extraneous descriptions of the side trips and experiences, giving you the details of the orchard/research station/nursery tours.

"The first stop was Wilhelminadorp Experimental Station, Netherlands where we were shown some of their experimental apple plantings to study light penetration; e.g., planting density, multi-rows vs single row and angled plantings, etc. We were told that most European shoppers do not like oversize (large) apples; therefore most Jonagolds grown in the Netherlands are on M27 rootstock which results in a smaller fruit.", Dick writes.

The next stop was Velm Research Station in the Sint Truiden area of Belgium. Dick continues, "As I remember this is a private research station run by a grower cooperative for tree fruit variety selection and training systems. They have two hectares in cherries, one in pears, and six hectares in apples. Some 40 varieties of scab resistant apples are under test. They mentioned Coop 26 (a PRI selection), Florina and Elise as showing promise. In pears they mentioned the new Conference/Comice cross named Concorde from the East Malling station in England as looking good.

Planting system trials are conducted by cooperative members with one grower assigned each planting system. The systems are analyzed for fruit quality versus cost of production. They stated that some of their research funding is being diverted to marketing studies. They are also conducting some apple rootstock trials looking for something between M27 and M9 in size. The Polish series P22 and P16 were mentioned."

Jeff DeCoster, apple/pear research coordinator in Europe led the group on a tour of the huge fruit warehouse and auction facility at Glabbeck. As there was not an auction in process, they were able to go onto the main auction room with all its computerized bidding stations that are connected by satellite to take bids from other European stations. Dick writes, "Their big market is Eastern Europe, but the best prices are obtained in England, Sweden, France and Germany.

One of their priorities is developing an instrument to measure fruit quality, i.e. sugar, acid, pressure and aromatics easily. Belgium is a big Jonagold producer with that variety and some of its sports accounting for 60-70% of their production. Jeff also took us on a tour of his son's low oxygen storage facility at his orchard."

The group next visited the Johan Nicolai nursery and orchard, 400 hectares of apples, pears, cherries and plum rootstock are grown, 1.5 to 2 million trees per year are sold and they also grow fruit--apples, pears, cherries, plums and strawberries. It was Nicolai who introduced the Jonagold apple to Belgium and Europe from the NY Cornell-Geneva Research Station in 1970, which now accounts for roughly 10% of European apple production. Other varieties they market are Delcorf, Sunrise, Cox's Orange Pippin, Elstar, Gala, Schone Van Boskoop, Braeburn, Delbard Jubilee, Fuji, Golden Delicious and Merlijn. Pears include Concorde and Conference.

"I was really impressed with the quality of their beautifully feathered trees. They use Promalin to stimulate flatter branch angles. The trees are dug in early November and on their way to growers in one to two days for planting. We were shown one experimental planting where they are comparing Jonagold size, quality and yield on M9, M27 and M9 with M27 interstem rootstocks," writes Dick. He writes that it is for the same reason as at Wilhelminadorp; the preference for a smaller apple and they are looking for the right rootstock to reduce the Jonagold fruit size..

The next Belgian nursery visited was Jos Morren's near Halen. Dick writes, "This is the originating point of the Jonagored apple variety, a Jonagold mutation that occurred in their orchard in 1980 and is now planted throughout Europe. This visit was truly a female hosted affair. Jos Morren does not speak English and after welcoming us, quickly disappeared to join his crew setting up a new fruit packing line. His wife, Ruth Morren-DeCoster, their daughter, Hilda, and their business agent Mrs. Fredericks took charge in a very competent fashion. We were later joined by a young woman horticultural student from England who is working for the Morren's to gain on-the-job experience. They have a 100 acre nursery, 80 acres in orchard, 14 low oxygen storage rooms and a new packing line.

Hilda is a graduate pomologist and now supervises the orchard. The orchard contained single row plantings on M9 rootstock. The Jonagored blossoms about one week earlier than Jonagold and they reported Idared, Gloucester, Elstar and RubINETTE were good pollenizers. Varieties available from their nursery include Morren's Jonagored, Jonagold 2000, Red

Elswout (an Elstar mutation), RubINETTE, Boskoop S-Hubsch, Boskoop SHS, Gloster and Idared apples; conference and Durondeau pears; Wovi-Kirsche, a new sour cherry from Germany."

In France the group visited the Cider Research Station in Sees. Dick continues, "In Europe the word cider or cidre means hard cider--juice squeezed from a blend of cider apples (having names most of us are unfamiliar with) of bittersweet and bittersharp flavor, high in tannin, and then fermented to an alcohol content in the range of 3-8% by volume. The research station is private but depends somewhat on government subsidies. They explained that there has been a big decline in standard tree (seedling rootstock) cider apple orchards in France while bush tree orchards on MM106 rootstock have increased from 500 hectares in 1980 to a projected 10,000 hectares in 1996. Production of cider and juice apples in France is about 140,000 metric tons for (hard) cider, 80,000 metric tons for Calvados (apple brandy), and 60,000 metric tons for juice and concentrate. They are currently growing 2400 seedlings for new variety selection. They are looking for improvements in disease resistance, non alternate bearing, a good blend of tannin, and one apple per blossom cluster to reduce the need for thinning."

Next stop was the Davodeau-Ligonniere Nursery, one of the largest in Europe, 300 hectares, producing 1.5 million trees (apple and pear) per year and about 3 million rootstocks. The group was told that a number of French growers were in bankruptcy due to overproduction and they are looking for new markets; that in the early 1980's a new breeding program was begun to hopefully develop new scab and mildew resistant varieties; reduction of pesticide use is advocated, with Germany having the strictest conditions.

Dick wrote, "During our tour of their demonstration orchard the question of pruning came up and someone questioned the position of a branch on an apple tree. Guy (Ligonniere, owner) responded by saying "You don't like this branch? I'll fix it", and proceeded to tear it off with his hands. We all stood there aghast. He went on to explain that this was their method of pruning, and that they have less cankering and the wounds heal just fine. I still don't know whether to believe him or whether he was pulling our leg. I suspect they are getting less cankering because they have removed the pruning shears as an infection vector.

Guy also took us over to see their living catalog area. This to me was a marvelous service for their customers. Within an area covering a little over one hectare all the possible combinations of growing techniques were demonstrated. All the varieties they sell were there, different rootstock effect were represented, all the various systems of high density planting, irrigation systems and for the drainage problem area, plantings on a berm using different soil mixes. An on-s living catalog for on the spot discussions with their customers to help them make their own informed decisions."

At the Institute Nationale de la Recherche Agronomique (INRA) the group learned about the French apple breeding program: disease and pest resistance to scab, mildew, fire blight and rosy apple aphid; fruit attractiveness, taste and storage; trees adaptable to easy training systems, good productivity and regularity (not prone to biennial bearing), good fruit/cluster balance. They are concerned about a new race of scab showing up in Germany and Great Britain.

On the way to LeHavre they stopped at a private 80 hectare cider making farm for a tour. Dick continues, "I was surprised to find their orchard trees spaced so far apart (roughly 30-40 feet). It was explained that they were all on seedling rootstock and grafted at a six foot height. This allows multiple use with cows grazing the orchard floor until a couple weeks before harvest begins. The trees are physically shaken with a tractor mounted hydraulic shaker to drop the fruit. They demonstrated a brand new harvesting machine that swept up the apples and loaded them into tractor drawn trailers. We got a tour through their cidery, distillery and cellar. The huge oak casks in their cellar were impressive. This farm made and bottled all three drinks: cider, pommeau and Calvados. Calvados is an apple brandy, made from cider aged in caasks for one to two years, then distilled in two stages and then further aged in oak casks. Adrink containing roughly 42% alcohol by volume results. Pommeau - this is a mixture of Calvados and "wort" or "must of cider (the sweet prefermentation stage) using time honored recipes. Avery nice aperitif containing about 17% alcohol by volume results. I didn't record the amount of cider and pommeau they made each year but my notes indicate 6000 liters of Calvados per year. I was surprised when the owner stated that approximately 80% of his income came from the dairy operation. I suspect government subsidies for dairy and beef production accounted for part of this.

In England the group visited three cider mills in the Somerset area on their way to the Royal Horticultural Society garden at Wisley and Brogdale Horticultural Trust at Faversham: Perry's Cider Mill, which used Yarlinton Mill, Dabinett, Kingston Black, Sweet Coppin, Crimson King and Somerset Redstreak in their cider. Somerset Royal Cider Brandy Co., using Kingston Black, Taylor's, Dabinett, and the "Golden" of the cider world, Michelin. The Sheppy's Cider Mill "was a very modern and clean operation. The orchard consisted of bush trees on MM106 rootstocks spaced much closer than the old seedling rootstock orchards, mowing is used to control the grass under the trees and the apples are machine harvested off the orchard floor. This company was really geared up for tourists with a museum, excellent signage explaining each step of the cider making process, and a nice restaurant facility where we were treated to tastes of all their cider blends. The Sheppy's are in their seventh generation as cider makers."

explaining each step of the cider making process, and a nice restaurant facility where we were treated to tastes of all their cider blends. The Sheppy's are in their seventh generation as cider makers."

"The organized part of our tour at Wisley involved the fruit field area. The fruit field is 16 acres, half taken with apples comprising over 670 cultivars on M7 and MM106 rootstocks. There was also a block of disease resistant apple cultivars on M26 rootstock. The rest of the fruit field was comprised of a pear block containing about 90 different pear cultivars on Auince A rootstock, a similar block of plums on St Julian A rootstock, strawberries, black currants, quinces, blackberries, loganberries, various hybrid berries and nuts, a small vineyard and many displays of fan, espalier and cordon trained fruit trees."

Dick writes of Brogdale, "It was a marvelous experience to accompany Joan (Morgan) and Brian (Self) through the apple collection. Any apple variety that our group expressed an interest in seeing, Joan would look up the row and location in her catalog of cultivars and lead us to a tree. Joan is probably the only person alive to have tasted and catalogued almost every one of the world's apple varieties. It was truly a memorable visit."

It is at this point I regretfully admit that the beautiful descriptions of the countyside, towns, food, the gardens seen and visited on the way to Brogdale are omitted, (no space) and go to Derek Bisset's marvelous tale of Brogdale. And I quote:

Approximately 2300 different varieties of apples, planted in blocks according to fruiting order, with each tree clearly labeled. That's Brogdale! Following expert pomologists Joan Morgan and Brian Self as they walked through the orchard, talking about the trees in a way that showed they know them all, individually and personally. That was Apple Buff Nirvana!

The experience was the climax of the Apple Buffs tour which saw Dr. Bob Norton lead members of the Western Cascade Fruit Society with President Charles Parkman plus two members of BCFTA and including Dean of NAFEX Fred Jansen from Ontario in an 18-day trek across the Netherlands, Belgium, France and England - looking at the newest and best in apple growing, and the oldest and most historical in cider production.

Brogdale is a living library of apple varieties, located near Faversham, Kent, England, and Joan Morgan is "probably the only person alive to have tasted and annotated every one of the world's apple varieties".

Valle Lunzmann asked her as we walked, "do you have 'Oaken Pin'?" She smiled and said, "It's over there. How do you know about it?"; clearly surprised about being asked about such an obscure variety. And sure enough, a minute's walk later we were standing looking at the oddest-shaped apple, which Joan thought had received its name for its resemblance to the kind of large peg made from oak which would have been used in place of bolts in earlier times. Did she know 'Harry Pring', a relatively unknown cooking variety we had met the previous day at Wisley which had attracted us with its glowing yellow ripeness. "It's like 'James Grieve'"; again no hesitation. The group walked, looked, listened with close attention.

'Fenouillet Gris' is a striking variety with small, dark red crab apple-like fruit. She likes it for its ornamental qualities and uses it tied into wreaths. 'Dumelow's Seedling' is her favorite cooker. "Much better than 'Bramley'." 'Catshead' is probably the nearest apple in the collection to the medieval Costard, the origin of the name of the sellers 'Coster mongers'. 'Easter Orange' is very prone to bitter pit but a good keeper.

'Alfa 68' is a superior 'Boskoop' that didn't make it. 'Ananas Reinette' develops a definite pineapple flavor in storage. 'Maglemer' is an old dual-purpose variety also used for cider in Denmark. 'St. Edmund's Pippin' is an amateur favorite in England. 'Cutler Grieve' is also a favored garden variety. 'River's St. Martin's' is probably the sweetest apple in the collection. "Becoming more like sugar-soaked cotton wool than an apple". Some affectionate comment for every tree we passed with scarcely a glance at the label to identify it.

The 'Ballerina' series developed at East Malling out of the 'Wicjik McIntosh' sport from our own Okanogan got a bad press in England after being exploited by unscrupulous promoters too early. It still has promise as a form which may yet produce varieties the world is waiting for. 'Milton' is another 'Mac' derivative which Joan loves. She likes 'Spartan'. It went on. Hastily scrambled, random notes. But you can get it all in organized form. You can get all the information about Brogdale and its varieties by referring to THE BOOK OF APPLES by Joan Morgan and Alison Richards published in association with the Brogdale Horticultural Trust.

If you are able to pay a visit, you can take a guided tour through the orchard from Easter through the end of November. You can get an associate membership, including a newsletter, edited by Joan Morgan by writing to:

Dr. Joan Morgan, Brogdale Horticultural Trust, Brogdale Road, Faversham, Kent, England GU23 6QB

AMATEUR FRUIT ORGANISATIONS IN EUROPE

by Howard Stringer

In Great Britain there are two major organisations which cater for the amateur fruit enthusiast, the Royal Horticultural Society's Fruit Group and the Friends of Brogdale. To understand their background one must go back into history a little.

We are indeed fortunate that many years ago, good people laboured to ensure that our rich heritage of fruits would not become extinct. Steps were taken in the 1920's by the Ministry of Agriculture and the Royal Horticultural Society (RHS) to gather together a comprehensive collection of our fruits at Wisley Village in the county of Surrey. The aim was not so much as to create a living museum, but rather to conduct comparative variety trials to find improved commercial varieties, and was called the National Fruit Trials. This collection was built up steadily over the years, samples of scionwood being received from all over the country.

There was a conservation element, too. During the war years, Mr. P. Morton Shand, whose earliest memories were of rich Victorian banquets where, over their claret, men might discuss learnedly the differences between the Ribston Pippin and the then new Cox's Orange Pippin, campaigned tirelessly for the rescue of ancient varieties by writing articles, broadcasting on the radio, asking people to send him sample fruits from ancient trees on their properties, which he would attempt to identify.

Unfortunately, the site selected for the trials was not suited to its purpose, being in a frost pocket, and the 30's saw the onset of a damaging cycle of Spring frosts, which wiped out many crops. Hence after the war the decision was made to move to a site near Faversham in Kent, called Brogdale Farm, which opened in 1952. Here, in good fruit growing soil and a benevolent climate the trials prospered. A selection of the most garden worthy varieties was taken by the RHS, repropagated and planted on a new site on high ground at Wisley Gardens, where late Spring frosts would be less damaging.

In 1945 the RHS formed a Fruit Group, open to all its members. Among its goals were: "The desirability of a re-examination of old varieties as, with our present knowledge of stocks, nutrition and pest control, they might get a much higher rating.....drawing attention to the merits of little-known varieties.....encouraging the great desire for knowledge of fruit growing among the owners of small gardens". The collection at Brogdale, which was now solely the responsibility of the Ministry of Agriculture, remained virtually closed to amateurs, whilst the fruit at Wisley could be looked at by the RHS members or the paying public. Since 1990, however, the Government has withdrawn from funding Brogdale, which has had to find other sources of income to continue its existence. With the help of Prince Charles, the Duchy of Cornwall and the local authority Swale Borough Council purchased the site and the Brogdale Horticultural Trust was formed; (the Government, through the Ministry of Agriculture, still owning and paying for the upkeep of the existing top-fruit collection), and an organisation, the Friends of Brogdale, was set up to enlist the support and cater for the needs of all fruit lovers, The Worshipful Company of Fruiterers kindly agreed to support this project by leading a fundraising campaign. It is hoped to develop the site into a national display centre, constructing demonstration and historical gardens and including conference facilities.

On the continent, however, although there are many collections belonging to Universities and Schools of Horticulture, there is nothing like the magnificent collection at Brogdale (2150 apples, 510 pears, 344 plums, etc.). The marketing revolution of the 70's, which resulted in orchards of a multiplicity of old and tried local varieties being grubbed and replaced by relatively few standardised ones such as 'Golden Delicious' and 'Jonagold' appears to have been the common spur for enthusiasts in Europe to try to preserve their heritage, whilst the old varieties were still around to be rescued. First it was necessary to make contact with other like-minded people, then to form organisations. Then, land had to be purchased in order to plant trees, and the establishment of orchards necessitated finding volunteer helpers willing to maintain them. All things which are an accomplished fact of life in the UK.

The need for communication between members resulted in the founding of newsletters; in almost all cases, quarterly, and all vibrant with interest. Knowing this history, it is perhaps understandable that the difference, as I see it, between our continental fruit growing friends and ourselves is the high priority given to preservation of the old varieties and the emphasis on growing them in the traditional way; that is, as standard trees.

To be continued: In April, The Amateur Fruit Organisations on the Continent.

Howard Stringer, now retired, has been a long time member of the Royal Horticultural Society and is an authority on English apple varieties. Dr. Norton and the group met Mr. Stringer at the Earl of Selbourn's Blackmoor Estate at his Apple Open Day. Mr Stringer gave the above information to Dr. Norton, who submitted it to share with WCFS members.

BAGGING APPLES AND OTHER FRUITS -- A CRAZY IDEA?

by Robert A. Norton, Ph.D.
Horticulturist Emeritus
Washington State University

In the Northwest (Washington and British Columbia), between 15 and 20 million bags were applied to individual apples (mostly Fuji, but some Jonagold and Mutsu) in 1994. When properly done, the system accounted for price increases of \$20 to \$40 per box, for a total wholesale price of up to \$60 per box. Most of the bagged fruit was exported, but some was sold domestically to upscale markets.

I don't know the originator of the concept, but bags have been used on fruits in Japan for at least 20 years, perhaps a lot longer. Japan is a rather difficult place to grow temperate-zone fruit. The climate in spring and summer tends to be warm and humid, ideal for insects, diseases, and fruit-finish destroying elements. The Japanese use a comprehensive array of pesticides and fungicides to control pests, but many of the chemicals are detrimental to fruit finish. So someone had the idea of putting a paper bag over the fruit in the early stage of development and allowing the fruit to grow within the bag's protective environment until near harvest or, with some fruits, right up to harvest. I have seen bags on apples, peaches, pears, nectarines, grapes, and even on melons.

There may be more than a hundred sizes and types of bags in Japan. Some are opaque, some translucent; some made with waxed paper and others of newspaper; still others are a cellophane-type material that allows light on the fruit but keeps the rain off. They are like little umbrellas for individual bunches of grapes, which otherwise would rot from the excessive moisture. Some bags are impregnated with fungicides and, possibly, insecticides, but this subject gets into company secrets, although there are only two major bag manufacturing companies in Japan: Kobayashi and Hoshino Yoshiten. (Incidentally, no bags imported into the United States are impregnated with pesticides.)

Although the primary purpose for bagging in Japan is to improve fruit finish and to reduce pest and disease problems, there is another technique used on apples to enhance their value substantially. Let's take the Mutsu (Crispin) variety, for example. The fruits are grown in opaque paper bags until perhaps three weeks before harvest. When the outer bag is removed, a decal is applied to the fruit. The decal may say (with a Japanese character) "Good Luck!", "Happy Birthday!", or something else. The bleached-out, or etiolated, Mutsu apple, then exposed to sunlight, becomes an iridescent-pink color, except where the decal has been applied. At harvest, the decal is removed, leaving the creamy white character etched onto the skin of the apple. I have seen such fruits in the Tokyo wholesale market, where they were selling for \$180 per box wholesale--perhaps twice that at the retail level. That is about \$5 to \$10 per apple.

So, what about bagging for the fruit enthusiast here in the U.S., for pest control and/or for cosmetics? Could we achieve control of scab, codling moth, oriental fruit moth, apple maggot? Could we use bagging to avoid, or at least dramatically reduce, spraying for the rest of the season? Are there some disadvantages to bagging, other than the obvious time-consuming aspect of the job?

Pest Control. The old saw applied to computers, "Garbage in, garbage out," fits very well for the practice of bagging fruit. If the fruit is infected already (codling moth egg laid, scab infection already occurred but perhaps not visible), then that organism will continue to develop within the bag. Otherwise, it is unlikely that pests or diseases will attack the fruit for the remainder of the season. In areas of high insect and disease risk, spraying up to the time the bag is placed on the fruit may be advisable. In the case of apples, the bags generally are applied in late May and early June, when the fruitlets are about one inch in diameter. If one is able to select fruit and do the bagging earlier than that, so much the better. Such early bagging is more difficult, however, because the stem is smaller and more readily broken in the bagging process. Apples and pears with rather long stems are easiest to bag. Stone fruits, e.g., peach or nectarine would be more difficult.

Some insects, such as earwigs, may crawl into the bags, but damage from this source generally is rare. I have had no experience with the control of apple maggot with bagging, but I suspect that this practice would be extremely effective for that purpose, provided that the bags were applied prior to egg laying.

Cosmetics. Bagging will affect different fruit varieties in different ways. With the Red Delicious apple, color development is not totally inhibited, as it is with the Fuji variety. The fruit of all varieties will be smoother, but final color will vary. Golden Delicious will not turn the gorgeous, iridescent-pink color characterized by bagged Mutsu. We don't yet know the effect on members of the McIntosh family (McIntosh, Empire, Spartan, Cortland, Liberty). I have yet to see an apple whose appearance was not improved by bagging, however.

Quality. Quality is composed of many things, primarily appearance, flavor, and texture. Bagging should improve appearance, slightly reduce flavor intensity, and have little or no effect on juiciness, crunchiness, or sweetness. If the

general appeal were not typically enhanced, I doubt if consumers in Japan or Taiwan would be paying the premium price for bagged fruit.

Disadvantages of Bagging? It's not just a lot of work putting the bags on fruit. The grower also must thin the fruit to singles, or even go so far as to select for bagging specific fruits that are growing at the end of short shoots, sometimes known as bourse shoots, or dards. If a variety such as Macoun or Cox's Orange Pippin produces much of its fruit on spurs, or if the fruit stem is very short, bagging will be extremely difficult.

As mentioned earlier, pre-bagging pest management may be very important in certain locations. A spray (organic or otherwise) at approximately the second cover stage might be advisable just before bagging.

Bagging won't turn little apples into big apples, so select only well-developed, large-size fruits for the special-quality treatment that bagging is.

Would you like to try bagging in 1995? If so, the major commercial importers of the bags have authorized them to be sold in small quantities (in multiples of 100), by AppleCorps, 700 - 13th Street N.E., East Wenatchee, WA 98802. The price is \$8.00 per hundred plus postage.* The bags come with application instructions.

*Estimated Postal Rates

If first three letters of your ZIP Code are:	NUMBER OF BAGS				
	100	200	400	800	1,000
Above 800	\$2.50	\$3.50	\$4.50	\$7.00	\$8.00
Below 800	\$3.00	\$4.00	\$5.00	\$8.00	\$10.00

Editor's note: Dr. Norton will be at the Spring Meeting with a supply of the bags for members who may be interested in trying them.



NORTHWEST FLOWER AND GARDEN SHOW

Western Cascade Fruit Society is chartered as a non-profit educational organization. In keeping with that we will have a booth at the Flower Show this year, February 22-26. Hours are 9:00 a.m. - 9:30 p.m., Sunday, 9:00 a.m. - 7:00 p.m. Your help is needed as a volunteer for 3 to 4 hour shifts, three per shift. (That's 45 to 57 of us!) You will have a pass to enter and may see the rest of the exhibits for free! Call Marlene Falkenbury by January 31 to be scheduled, 522-2273. Details will be sent to volunteers prior to February 20.



OOPS!

A couple of omissions (a nice way of saying mistakes!) have been noted in the Fall edition: underlined is correct text.

WORMY APPLES page 14-4) 4th line: THEN begin counting degree days (50° F base) til 150° have accumulated, spray with diazanon or Imidan.

DOGS CAN CONTROL DEER DAMAGE page 8-2nd paragraph, 4th line--a 60-foot shock zone (30 feet on each side of the wire) that the dog would have to go through. Believe me, they do not like being shocked. I've seen dogs chasing a rabbit or a deer come up short as soon as they reach the boundary. The typical fence you can buy at the discount store generally has a total shock zone of about 7 feet (3.5 feet on each side of the wire) that the dog would have to go through.

IN PURSUIT OF THE PERFECT FRUIT

They came from far and near, those we know of: Arlington, Bellevue, Bellingham, Bothell, Bow, Carlsborg, Custer, Edmonds, Enumclaw, Federal Way, Langley, B.C., Lynnwood, Mountlake Terrace, Mercer Island, Oak Harbor, Port Orchard, Port Townsend, Poulsbo, Redmond, Renton, Salt Spring Island, B.C., San Juan Islands, Seattle, Sequim, Snoqualamie, Tacoma, Woodinville; but not enough came.

The 1994 Fall Fruit Show attendance was down - 546 paid admissions for the two days. Where was everyone? Where were You?

The **good news** is we heard many positive statements: about the venue - lots of space under one roof, good parking; and the program: the exhibitors were varied, the speakers interesting and informative.

More **good news** - 356 varieties of apples displayed, up from last year, plus pears, grapes, kiwi, nuts, persimmon, quince and medlar--see complete listing Dave Battey has prepared on pages _____. Our thanks and gratitude to Dave for his time and dedication taking the inventory and preparing this report for us.

More **good news** - we welcome nineteen new members and three rejoining members to bring our total paying membership to 486 as of December 31, 1994. But the **bad news**: this includes 107 whose dues are delinquent (through December, 1994). Check your label to see if you are one of "them". (Yellow -93 and Red -14 highlights.)

And more **good news** - we didn't go into the red, but way down from 1993. (Complete report at the Annual Spring meeting on March 4.)

Winner of the drawing for the Correll Cider Press was Dean Kelley of Tacoma, a member at large. Congratulations! Dean was not present for the drawing--he had been at the Show on Saturday. When called with the good news he was unsure how he could make it back to Edmonds to pick it up before the building had to be vacated. Carl Nelson, an employee of Raintree Nursery, one of the exhibitors, was kind enough to offer to take it with him on his way back to Morton and made arrangements to meet Dean in Tacoma. Many thanks for helping all of us out.

Thanks to Bob Correll for his contribution at cost of the cider press we raffled. If you were not the lucky winner, you may wish to contact him to check out the several sizes and models he has available: Correll Cider Presses --24791 Warthen Rd. Elmira, OR 97437. Or call (503) 935-3825.

And of course, the Fall Fruit Show could not have happened without YOUR help. Walt and Hazel Lyon, without whom there would have been precious few apples to taste, Steve Jackson, Bill Davis, Joan Hamilton, Ben Van Deren, Hal Fardahl, Margaret Luehe, Lyle Knudson. Ralph and Louise Luce, Phil Swanberg, Hildegard Hendrickson, Nancy Lewis, Ray Elder, Linda and Milton Piatok, and Gerry Fardahl. Seig Kiemle, Paul Donaldson, Chuck Holland, and John Davey. Marlene Falkenbury, Sally Mussetter, Bob Hansen. Dick and Marilyn Tilbury, Chris Melgard and John Parker. (I was advised by one whose wisdom I admire, not to name names, just a general THANK YOU TO ALL WHO HELPED, lest someone is overlooked. He is right, but each of you who helped is special and should be recognized. So please forgive me for poor record keeping--on paper and in my head--if you were omitted, and let me know so I can make amends.)

Thanks also to Loren Mills, Morris Smith, John Walker, and Wayne Huffstutter, members of Home Orchard Society, who traveled north to do the apple identifying. Many people are grateful for your expertise.

So last, but not least, the Committee who made all this possible: Chuck Parkman-general chairman, publicity, speakers; Joe Zeppa-show manager, commercial exhibitors; Bill Davis-setup, apple tasting; Orel Vallen-apple I D, setup; Marlene Falkenbury-raffle, food; Dick Tilbury-education; Ron Schaevitz-cider press; Evelyn Hoyme-membership, printing.

There were eight votes cast for a name for this newsletter. The names submitted by members were: Back Yard Fruit Grower, The Bee Line, The Fruit Garden, The Fruit Garden Newsletter, The Graft Union, Home Fruit Growers, Home Fruit News, The Pollinator, Pomes and Stones, Sticks and Stones. The two underlined were suggested after the Fall newsletter. The Bee Line-3, Home Fruit Growers-2, The Pollinator-1, Pomes and Stones-1 and a write-in "Mallus"-1. You will have a last opportunity to vote at the Annual meeting. (I'm wondering why the person who suggested "The Graft Union" didn't cast a vote!!) More names to consider: Limb and Vine; The Fruit Basket, The Fruit Line, Fruitful Times. Call the newsletter editor if you think of a name that should be considered. **And vote at the Spring Meeting!**

1994 FRUIT SHOW INVENTORY

The following list is an inventory of the number of "plates" of a specific variety that were displayed at our 1994 show. An asterisk (*) denotes a variety that was not shown in 1993 (It may very well have been shown in a previous year). **The high number of plates (356) and number of new varieties this year (125) speak to a superior apple growing climate in 1994.**

For comparison, There were 276 varieties (including "sports") shown in 1993 included 80 varieties not shown in 1992. There were 333 varieties shown in 1992 included 140 varieties not shown in 1991. There were 218 varieties in the 1991 show, 47 of which were "new" varieties. There were 94 "new" varieties in 1990 and 75 "new" in 1989.

1994 — Varieties with five plates or more (including "sports"):

Jonagold (12)	Northern Spy (8)	Golden Delicious (6)	Bramley (5)
Gala (11)	Hudson's Golden Gem (7)	Idared (5)	Chehalis (5)
Liberty (10)	Karmijn de Sonneville (7)	Macoun (6)	Elstar (5)
Fuji (9)	Arlet (6)	McIntoch (6)	Golden Russet (5)
Cox's Orange (8)		Opalescent (6)	Keepsake (5)
Melrose (8)		Spartan (6)	Tompkin's King (5)
Mutsu (8)			

1993 — Varieties with five plates or more (including "sports"):

Spartan (10)	Belle de Boskoop (7)	Liberty (6)	Macoun (5)
Cox's Orange (8)	Gala (7)	Spigold (6)	Melrose (5)
Jonagold (8)	Tomkin's King (7)	Arlet (5)	
		Gravenstein (5)	

1992 — Varieties with five plates or more (including "sports") were:

Gala (14)	Elstar (8)	Liberty (6)	Pink Pearl (5)
Jonagold (13)	Tomkin's King (8)	Northern Spy (6)	Spencer (5)
Melrose (12)	Bramley (7)	Opalescent (6)	Summerred (5)
Gravenstein (11)	Fuji (7)	Arlet (5)	Sweet Sixteen (5)
Macoun (10)	Idared (7)	Black Gilliflower (5)	Winter Bannana (5)
Spartan (10)	Akane (6)	Calville Blanc (5)	Wolf River (5)
Ashmead's Kernel (9)	Belle de Boskoop (6)	Criterion (5)	
Hudson's Golden Gem (9)	Brock (6)	Freyberg (5)	
Mutsu (9)	Cortland (6)	Golden Russet (5)	
	Cox's Orange (6)	Jonamac (5)	
	Golden Delicious (6)	New York 429 (5)	

1991 — Varieties with five plates or more (including "sports") were:

Jonagold (10)	Liberty (6)	Elstar (5)	Spartan (5)
Tompkin's King (7)	Macoun (6)	Esopus	
Gala (6)	Melrose (6)	Spitzenburg (5)	<i>Dave Battey</i>
Gravenstein (6)	Belle de Boskoop (5)	Northern Spy (5)	<i>Snoqualmie</i>

1994 WCFS FRUIT SHOW VARIETY LIST

NUMBER FOLLOWING VARIETY NAME IS NUMBER OF PLATES DISPLAYED
(* = NOT ON 1993 LIST)

APPLES

ACEY MAC 2	COLLAMER 1	FIRESIDE 1
AKANE 3	COLORA YORK 1*	FLORINA 1*
AKIN 1*	CORNISH GILLIFLOWER 1	FORTUNE SEEDLING #5 1 (BRIAN MULLIGAN)
AKERO 1*	CORTLAND 4	FOXWHELP 1
ALASKA 1*	COURT PENDU PLAT 2	FREYBERG 3
ALKMENE 2	COX, CHERRY 2	FUGI YATAKA 1*
ALKMENE (RED) 1*	COX'S ORANGE PIPPIN 4	FUJI 3
ALLINGTON PIPPIN 1	COX, QUEEN 1	FUJI (RED) 4
AMANASHIKI 1	COX (RED) 1*	FUJI REDSPORT 2
ANNIE ELIZABETH 1*	CRAWLEY BEAUTY 1*	GALA 4
ARLET 6	CRITERION 2	GALA (FULFORD) 1*
AROMA 1*	DALITER (ELSTAR SPORT) 1	GALA (RED) 1
ASHMEAD'S KERNEL 4	DALIEST (ELSTAR SPORT) 1*	GALA REGAL 1
ATLAS 1*	DAVEY 1	GALA (ROYAL) 4
AUNT LUCY 1*	DAVID (CRAB) 1*	GALOR 1*
BACCATA V. JACKII (CRAB) 1	DAYTON 1*	GARLAND 1*
BALDWIN 1	DELBARD JUBILEE 1	GEEVESTON FANNY 1
BALLY FATTEN 1*	DELCON 1	GEORGE CARPENTER 1
BARRY 1	DELICIOUS 1*	GINGER GOLD 3
BELLE DE BOSKOOP 4	DEMOCRAT 1	GLEN MILLS (CRAB) 1*
BEN DAVIS 1	DEXTER 1	GLORIA MUNDI 1*
BENHAM 1*	DISCOVERY 1	GLOSTER 2
BIETIGHEIMER 1*	DONALD WYMAN (CRAB) 1*	GOLDEN DELICIOUS 4
BLACK GILLIFLOWER 1	DUCHESS OF OLDENBURG 2	GOLDEN DELICIOUS (LYSGOLDEN) 1*
BLACKJON 1	DUKAT 1*	GOLDEN NOBLE 1
BLAXSTAYMAN 1	DUKE OF DEVONSHIRE 1	GOLDEN NUGGET 2
BLLENHEIM ORANGE 3*	DYER (POMME ROYALE) 1	GOLDEN RAINDROPS (CRAB) 1*
BLUE PEARMAIN 1*	EARLIGOLD 2	GOLDEN RUSSET 5
BLUSHING GOLDEN 1*	EARLY HARVEST 1*	GOLDRUSH 1*
BOGO BOSKOOP 1	ECHO 1	GOLDEN SUPREME 1
BRAEBURN 2	EGREMONT RUSSET 1	GOLDGEB 1*
BRAMLEY SEEDLING 5	ELAN 1	GOUDREINETTE (SEE BELLE DE BOSKOOP)
BROCK 3	ELMER 1	GRANNY HURST 1
BROWN RUSSET 1	ELSTAR 3	GRAVENSTEIN 2
BROWN SIAMESE 1*	EMPIRE 1	GRAVENSTEIN (RED) 2
BURGUNDY 3	EMPRESS (NY 651) 1	GREENSLEEVES 2
CALVILLE BLANC D'HIVER 3	ENGEL'S FAVORITE 1*	GRIMES GOLDEN 1
CANADA RED 1*	ENTERPRISE (COOP30) 1	GREEN KEEPER 1*
CHEHALIS 5	EPICUREAN 1	GROVE 1
CHENANGO STRAWBERRY 1	ERWIN BAUER 1	HARALSON 2
CHESAPEAKE 1	ESOPOS SPITZENBURG 4	HARRY MASTER'S JERSEY 1*
CHESTNUT 1*	ETTER'S GOLD 1*	HATSUAKI 1*
CHESTNUT CRAB 1	EVERESTE (CRAB) 1	HAWAII 4
CHISEL JERSEY 1	FALL PIPPIN 1	HENER-20 1
CHRISTMAS HOLLY (CRAB) 1*	FALL RUSSET 2	HIME KAMI 1
	FAMEUSE (SNOW) 3	HOLIDAY 1
	FARMER SPY 1	
	FIELD SPY 1	
	FIESTA 3	

HOLLY 1
HOLSTEIN 4
HONEYCRISP 1
HONEYGOLD 3
HOWGATE WONDER 1
HUBBARDSTON NONESUCH 2
HUDSON'S GOLDEN GEM 7
IDARED 6
INDIAN MAGIC (CRAB) 1
JAMES GRIEVE 1
JANARED 1*
JEFFERIS 2
JESTER 1*
JEWETT RED 1
JONAFREE 1
JONAGOLD 10
JONAGOLD (DECOSTER) 1*
JONAGOLD (JONAGORED) 1
JONLICIOUS 1*
JONAMAC 2
JONATHAN 1
JONWIN 3
JORDAN RUSSET 1*
KARMIJN DE SONNEVILLE 7
KATJA 1
KEEPSAKE 5
KENDALL 1
KENT 1
KERR 1*
KERRY PIPPIN 1
KESTREL 1
KIDD'S ORANGE RED 3
KING (SEE TOMPKIN'S KING)
KING DAVID 1*
KINGSTON BLACK 1
KLAMATH RIVER 1*
KYOKKO 2
LADY 1
LATE STRAWBERRY 1
LAXTON'S SUPERB 1*
LIBERTY 10
LODI 1
LORD LAMBOURNE 1*
MABUTO 1*
MACOUN 6
MACFREE 1
MAIDEN BLUSH 1
MAIGOLD 1*
MALINDA 1*
MCINTOSH 4
MCSHAY 1
MARY POTTER (CRAB) 1
MEDINA 1
MELROSE 8

MERTON DELIGHT 1*
MERTON NAVE 1
MERTON PROLIFIC 1*
MERTON WORCESTER 1
MICHELIN 1*
MICHINOKU 2
MILO GIBSON 1*
MINJON 1*
MONROE 1
MORNING SUN (CRAB) 1*
MOSA-64 1
MOTT PINK 1*
MULTNOMA 1*
MURASAKI 1
MUTSU 8
NEW HAMPSHIRE-9 1*
NEWTON WONDER 1
NEWTOWN PIPPIN
(SEE YELLOW NEWTOWN)
NEWTOWN SPITZENBURG 2
NEW YORK-315 1
NEW YORK-316 2
NEW YORK-347 1
NEW YORK-415 1
NEW YORK-428 2
NEW YORK-429 2
NEW YORK-529 1
NEW YORK-543 2
NEW YORK-614 1*
NEW YORK-723 1*
NEW YORK-44408-11 1
NEW YORK-61345-2 1
NEW YORK-74828-12 1*
NIAGARA 1
NITTANY 1
NORFOLK ROYAL 1
NORTHERN SPY 6
NORTHERN SPY (EARLY) 1
NORTHERN SPY (HALL) 1*
NORTHERN LIGHTS 1*
NOVA EASYGRO 1*
NOVAMAC 1*
OGDEN 1*
OHIO NONPAREIL 2
ONTARIO 1
OPALESCENT 6
OREI 1
ORENCO 1
ORIN 2
ORIOLE 1
ORLEANS REINETTE 2
ORTLEY 1
OZARK GOLD 1
PACIFIC PRIDE 1*

PALMER 1*
PALOUSE 1
PAULARED 1*
PEACE GARDEN 1*
PEPIN SHAFRANNYI 1*
PERRY RUSSET 1
PINEAPPLE SALAD 1*
PINK PEARL 3
PITMASTON PINEAPPLE 3*
PORTER 3*
PRAIRIFIRE (CRAB) 1*
PRIMA 2
PRISCILLA 1
PURPLE PRINCE (CRAB) 1*
RAMBO 1*
RED BARON 1*
REDCORT 1*
REDFREE 1*
REDGOLD 2
REDJUNE 1*
REDMAX 1*
RED SPLENDOR 1*
REDSKY 1*
REGENT 1
REINE DES POMMES 1
REINETTE GRISE DU
CANADA 1*
RHODE ISLAND GREENING 1
RIBSTON PIPPIN 2
ROSA DE CLUJ 1*
ROSS NONPAREIL 1*
ROXBURY RUSSET 1
SAINT CECELIA 1*
SAINT EDMUNDS PIPPIN 1*
SALTCOTE PIPPIN 1
SALOME 2
SANDOW 1
SAYAKA 1*
SCHOHARIE SPY 1*
SEKAI-ICHI 2
SENSHU 1
SENTINAL (CRAB) 1*
SHAMROCK 2
SHAY 1
SHENANDOA 1
SHINKO 1
SHIZUKA 1*
SIERRA BEAUTY 1*
SIMERENKO 1*
SINTA 2
SIGNE TILLISCH 3
SIR PRIZE 1*
SLIPPERY CIDER 1*
SMOKEHOUSE 3

SNOW (SEE FAMEUSE)
 SOPS-OF-WINE 2*
 SPARTAN 6
 SPENCER 2
 SPIGOLD 4
 SPIJON 1
 SPLENDOUR (RED) 1
 SPOKANE BEAUTY 1*
 STARK JUMBO 1*
 STATE FAIR 1
 STAYMAN WINESAP 2
 STEARNS 3
 STURMER PIPPIN 1
 SUGAR TYME (CRAB) 1
 SUMMERLAND 1*
 SUMMERLAND 362F 1*
 SUMMERRED 2*
 SUNCRISP (NJ-55) 1*
 SUNRISE 3
 SUNSET 1*
 SUNTAN 3
 SWAAR 2
 SWEET ALFORD 2
 SWEET SIXTEEN 4
 TOKO 1
 TOMPKIN'S KING 5
 TRANSCENDENT CRAB 1*
 TSUGARU HOMEI 1*
 TSUGARU NATSUKA 1*
 TURLEY 1*
 TWENTY OUNCE 3
 TYDEMAN'S LATE ORANGE 2
 VANDERPOOL RED 1*
 VANDEVERE 2
 VICTORY 1
 VIKING 1
 VIRGINIA GOLD 1*
 WAGENER 4
 WALTANA 1*
 WASHINGTON STRAWBERRY 1
 WAYNE 1
 WEALTHY (RED) 1
 WESTFIELD SEEK-NO-
 FURTHER 1*
 WHITE ANGEL (CRAB) 1
 WHITE WINTER PEARMAN 3
 WICKSON (CRAB) 1
 WIJCIK (MCINTOSH) 2
 WILLIAM'S EARLY 1*
 WILLIAM'S PRIDE 3*
 WINCHESTER 1
 WINTER BANANA 4
 WINTERSTIEN 2
 WOLF RIVER 1

WORCESTER PEARMAN 1
 X-ELLENT 1
 YELLOW BELLFLOWER 2*
 YELLOW NEWTOWN 2
 YELLOW TRANSPARENT 1
 YORK IMPERIAL 1
 ZABERGAU REINETTE 2*

P E A R S

ABBE FETAL 1*
 ALEXANDER LUCAS 1*
 ANJOU 1
 A-RI-RANG 1
 ATLANTIC QUEEN 1*
 BARTLETT 2
 BARTLETT (RED) 1
 BEURRE LE BRUN 1*
 BOSC 3
 CASCADE 1*
 CHOJURO 2
 CLAPP FAVORITE 1*
 COLLETTE 1*
 COMICE 5
 CONFERENCE 2
 DUCHESS D'ANGOULEME 1*
 DUMONT 2*
 ELDORADO 2
 FLEMISH BEAUTY 2*
 FORELLE 1*
 GIESER WILDMAN 1
 HAMESE #1 1
 HIGHLAND 2
 KOREAN GIANT 1*
 MERICOURT 1*
 NEW YORK-10274 2*
 ORCAS 1
 OREI 1*
 PACKHAM'S TRIUMPH 1
 PASSE CRASANNE 1*
 RED SENSATION 1
 RESCUE 4
 ROOSEVELT 1*
 SEURI 1*
 SHINKO 1
 SHINSEIKI 2
 SHINSUI 1*
 SINGO 1
 SIRRINE 1*
 SPALDING 1
 STARKRIMSON 1
 ST. REMY 1*
 TWENTIETH CENTURY 1
 (NIJISSEIKI)

YALI 1*
 YOINASHI 1
 YONGI 1

G R A P E S

CAMPBELL'S EARLY 1*
 INTERLAKEN 1*

K I W I

ANNA NASNAJA 1*
 HAYWARD 3
 ISSAI 1

N U T S

BACELONA FILBERT 1
 CANBY CHESTNUT 1*
 CASCADE WALNUT 1
 CHEPAKA WALNUT 1
 COLOSSAL CHESTNUT 1*
 DAVIDIANA FILBERT 1*
 EUROPEAN CHESTNUT 1
 FRANQUETTE WALNUT 1
 HOLIDAY KING CHESTNUT 1*
 MADELINE CHESTNUT 1*
 SPURGEON WALNUT 1
 UCD MONSTER CHESTNUT 1*

P E R S I M O N

FUYU 2
 HACHIYA 1*

Q U I N C E

PINEAPPLE 2*
 ORANGE 2*
 VAN DEMAN 1

M E D L A R

BREDA GIANT 1*

REPORT ON THE UBC APPLE FESTIVAL

by Linda Wright
The Cider Press, Fall 1994

Ideal weather on the weekend of October 15 and 16 enticed an enthusiastic crowd, estimated by University of British Columbia's (UBC) David Tarrant to be in excess of 5000 people, to the Fourth Annual Apple festival at UBC in Vancouver.

Anne Gartshore, a BCFTA member and Friend of the UBC Garden, is the organizer of this event which for the first time allowed BCFTA to join with the Friends of the Garden (FOG) in welcoming the public to this annual event.

The BCFTA had a large area in the Pavilion for their display. Members of the BCFTA arrived at 9:30 am to assist Rex Welland and Bob Duncan in setting up the display. Rex is so organized and well-prepared that the set-up was a breeze, and his hard work made us all look good when the doors opened at 11 am.

The public thoroughly enjoyed the presentation of so many varieties of apples, collected and labeled by Bob Duncan, Rex Welland, Dick Eldridge, Brian Becker, Pem Van Heek, and Chuck Ford; also the display by LeVerne Hawken which showed the sequence of ripening of some of these varieties - all perfectly labeled. A lot of work went into the display and it was much appreciated.

Over the weekend, 29 new members joined BCFTA, due to the encouragement of our membership director Diane Perry, with Al Chorley and Bill Morley.

Many people brought in apples from their backyards for identification. Rex was able to send many of them away satisfied, but we vowed never to let Valle Lunzmann (one of our best apple identifiers) take vacation in October again. But as Rex said: "So long as she writes an article for the BCFTA newsletter on her trip....."

There was an area set aside for viewing the pruning video "Easy Steps To Fruit Tree Pruning" by Gary Moulton.

Grafting demonstrations were given on Saturday by Bruce MacDonald and David Tarrant (UBC Botanical Gardens), and on Sunday by Pem Van Heek (BCFTA and UBC FOG). Jim Walton also demonstrated grafting techniques. On Saturday, Pem Van Heek, and on Sunday, Derry Walsh, answered questions at the main Apple Festival information booth.

There were dwarf apple trees for sale, but the trees were sold out by 1:00 pm Saturday. The apples were sold out by mid-afternoon Sunday.

Next year we will be better prepared with a list of growers who sell apple trees, as well as orchardists that sell apples on the Lower Mainland, but most of all we need BCFTA members who can identify apples on sight!

It was so nice that BCFTA members came from Vancouver Island to boost the association. Many thanks to Rex Welland, Bob Duncan, Ted Fleischer, Diane Perry, Jim Walton, Michelle and Andy Anderson.

The mainland members were Pem Van Heek, Terry Hadford, Rob Mills, Derry Walsh, Lenn Basaraba and Linda Wright, Bill and Susan Morley, Tish Davis, Anne Gartshore and Al Chorley.

LEVERNE HAWKEN'S APPLES, IN SEQUENCE OF RIPENING

July 10 Sumac	Sep 15 Golden Pippin	Oct 18 Rome Beauty
July 15 Vista Bella	Elstar	Oct 20 Idared
July 18 Yellow Transparent	McIntosh	Oct 25 Jonagold
Aug 4 Discovery	Sep 25 Cox's Orange Pippin	Oct 28 Granny Smith
Aug 5 Jersey mac	Sep 30 Jonamac	Oct 30 Fuji Nagafu
Aug 14 Melba	Oct 1 King	Nov 10 Fuji
Aug 16 Carrol	Oct 2 Spartan	
Aug 18 Tydeman Red	Oct 4 Courtland	
Aug 29 Paula Red	Oct 12 Golden Delicious	
Sep 1 Red Gravenstein	Oct 14 Winter Banana	
Sep 5 Summerred	Oct 15 Gala	
Sep 10 Akane	Oct 18 Liberty	

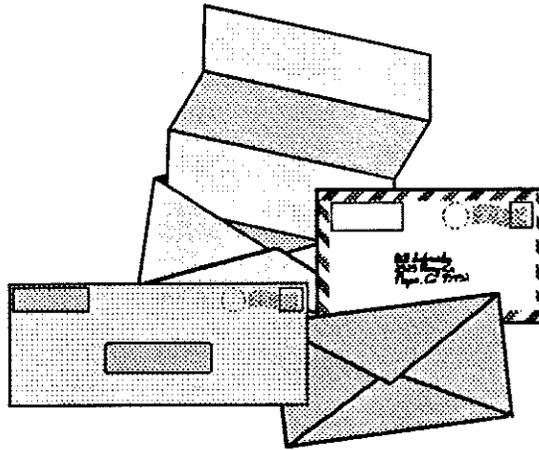
NEW COLOR CODING FOR YOUR DUES REMINDER

If the DUE DATE on your mailing label is highlighted in **green**, your dues are payable between the current month and the next newsletter.

If it is highlighted in **yellow**, your membership dues are past due.

If it is highlighted in **RED**, this is your last newsletter. **DON'T LET IT HAPPEN TO YOU, WE'LL MISS YOU.** Send your dues to the Treasurer on the form below.

THE NEW POSTAL RATES HAVE BEEN APPLIED TO BULK MAILING ALSO. (AND WE PAID AN INCREASE JUST LAST OCTOBER.) SO IT IS VERY IMPORTANT THAT YOU LET US KNOW OF YOUR CHANGE OF ADDRESS AS THE POST OFFICE CHARGES FULL RATE FOR EACH NEWSLETTER RETURNED AND FULL RATE TO SEND IT TO YOUR NEW ADDRESS.



WESTERN CASCADE FRUIT SOCIETY MEMBERSHIP INFORMATION

Please indicate standard WCFS membership or affiliation with a chapter. Dues are as noted.

Name(s) _____ New
 Renewal

Street Address _____

City, State, Zip _____

Phone _____ PLEASE SPECIFY ONE CATEGORY BELOW

Standard \$10.00 North Olympic \$10.00 Peninsula-Kitsap \$10.00

Piper Orchard \$10.00 Seattle Tree Fruit \$18.00 Tahoma \$10.00 South Puget Sound \$10.00

ENCLOSED FIND \$5.00 EXTRA FOR WESTERN WASHINGTON FRUIT RESEARCH

HOW CAN YOU HELP THIS YEAR? PLEASE CIRCLE AS MANY AS POSSIBLE

BOARD MEMBER FALL FRUIT SHOW PUBLICITY FIELD TRIPS SPRING MEETING SPEAKER
COMMITTEE CHAIR ARRANGING FOR SPEAKERS

TELL US YOUR FRUIT INTEREST, SO WE CAN PUBLISH ARTICLES OF INTEREST FOR ALL

Apples Pears Peaches Plums Cherries Kiwis Nuts Berries Other: _____

Make checks payable to WESTERN CASCADE FRUIT SOCIETY and mail to:
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