

ALASKA PIONEER FRUIT GROWERS' NEWSLETTER

A Publication of the Alaska Chapter, North American Fruit Explorers (NAFEX)

July, August, and September 1993

Volume 8/Number 3

President: **Erik Simpson**, 7225 Blackberry Street, Anchorage, AK 99502. Phone 243-3058.
Vice President: **Bob Boyer**, P.O. Box 9-1376, Anchorage, AK 99509. Phone 561-2885.
Secretary: **Pam Neiswanger Warner**, 7000 Viburnum Drive, Anchorage, AK 99507.
Treasurer: **Del Simpson**, 7225 Blackberry Street, Anchorage, AK 99502. Phone 243-3058.
Fifth Board Member: **River Bean**, HC 04, Box 9043, Palmer, AK 99645. Phone 746-1087.
Editor: **Pam Neiswanger Warner**, 7000 Viburnum Drive, Anchorage, AK 99507. Phone 344-9749.

In This Issue:

*1993 Apple
Tasting Results
(Anchorage and
Mat-Su)*

*Bob Purvis on
Fruit Growing
in Alaska vs.
Washington*

*A Report From
Robert Fox, in
Fairbanks*

*The Western
Cascade Fruit
Society*

MEETING SCHEDULE

Thursday, October 21, 1993,

7:00 p.m., at the Dimond Greenhouses,
1050 West Dimond Boulevard (between
Arctic Boulevard and Minnesota Drive),
Anchorage. **Bob Boyer** will be sharing
some of the invaluable information he
gained this summer from Professor
Loren D. Tukey, the master of Penn State's
espalier orchards.

Since we are publishing on a quarterly
basis this year, please mark your calendars
now and set aside **November 18,**
January 20, February 17, March 17,
April 21, and May 19, 1993 (the **third**
Thursday of each month—and remember,
no meetings in June, July, August, or
December), 7:00 p.m., for our meetings and
plan on attending. This may be the only
notice you receive for October and
November, so don't let meeting night slip
by without you!

FRUIT TREES IN INTERIOR ALASKA

By Robert Fox

Back when I was five years old, my
grandmother would send me out to the old
peach tree to pick the makings of a
wonderful peach cobbler pie. How I loved
those pies!

Many years later, I found myself in
Fairbanks, Alaska, wondering what it
would be like to grow some fruit trees. I
remember going to one of the local
greenhouses and asking about fruit trees
that could survive in our harsh climate. I
didn't get much in the way of
encouragement, but would find myself
ordering apple trees from catalogs, all of
which would be completely dead by the next
spring.

Several years later, I heard of a group
called **North American Fruit Explorers**
(NAFEX). I heard that they were looking
for people interested in a grafting
workshop, and I was quick to call **Bob**
Purvis and tell him to count me in. The
workshop was set for mid-April of 1988.

Bob arrived in Fairbanks with a box full of apple and pear rootstocks, scionwood, wax, knives, and a genuine desire to help others master the art of grafting. I had been practicing grafting on birch limbs for a month, and was ready. Even then, I was amazed to see nine out of 10 grafts take and bud out.

My grafts were all planted in pots that summer, and that was the way I left them for winter. For some of my first trees, moose found them to be irresistible. Others were girdled by voles and, come spring, I had two trees alive.

In the spring of 1989, I ordered 10 apple trees from St. Lawrence Nurseries, ordered rootstocks and scionwood from Bear Creek Nursery, and was set to try again. Bob Purvis had planned another workshop, and I signed up. Most of my grafts were successful, but by late spring of 1989, only a few were still alive.

What had survived the winter were all of the *Malus baccata* (Siberian crabapple) seedlings that I had started the previous spring. I started using some of these seedlings for rootstocks, and found that my success rate for winter survival improved (except for moose, mouse, and rabbit predation).

I also found that several of my friends were interested in fruit trees, and we were able to compare problems and solutions along the

way. Clair Lammers was having fairly good success with several varieties of fruit, and it was a real joy to visit at his place. I also met another gentleman that had been enjoying some great success with apples, and had started his orchard in 1958! Carroll Phillips had some really beautiful trees, just loaded with ripe fruit. I remember that several of his trees had so much fruit that he had to prop the branches up with birch poles. Carroll gave me several varieties to try, and what a joy it was to eat fruit from trees grown right here in Fairbanks.

First off, if you are inclined to grow tree fruit, you must understand that we are fairly near the limits of how far north you can expect to succeed. Siberian and several other varieties of crabapple, as well as chokecherries, seem to be well-suited to our growing conditions. Chokecherries are one of the very first fruits to bloom in Fairbanks, while the Siberian crabapple and other apples will usually not bloom until the first of June.

In planning an apple or other fruit tree for Fairbanks, there are several factors to consider. As I mentioned, there are crabapple varieties well-suited to Fairbanks--Siberian, Columbia, Ranetka, and Wien, to name a few. Look to these for your rootstock. There are many others used on trees to be grown in the Lower 48, but most are longer-season and less hardy.

The scionwood or variety of apple tree that you select is also important. Northern Spy is said to be hardy to 40° below zero, but it is a long-season apple; even if it were to survive in Fairbanks, the fruit would never ripen in our short season. Grafted to a short-season rootstock, the tree would likely get more tolerant of a short season, but probably not enough to make the effort worthwhile for Fairbanks. Ideally, at least for your first tree or two, stick to a variety that has proven itself fairly hardy for others. These would include Heyer 12, Rescue (both apple-crab crosses), Norland, Norcue, and other Nor-series, and crabapple varieties such as Dolgo, Trailman, and Kerr.

When producing a grafted tree, try to obtain at least two good branches fairly early and as low as possible on the trunk. It appears that many of the apples produced on some varieties are located low on the tree . . . usually below the snow line, indicating that fruiting buds are more tender than growth buds. In the northern part of Russia and in Siberia, the trees are staked to hold growth to about 30" high, and planted on south slopes for maximum solar exposure.

For those of you interested in growing and grafting your own fruit trees, I would certainly encourage you to join the **Alaska Pioneer Fruit Growers (APFG)**, the Alaska chapter of NAFEX.

Also, you will want to join the nationwide NAFEX organization to take advantage of the quarterly journal *Pomona*, the R. W. Daniels library exchange service, and the *Handbook for Fruit Explorers*.

Part of the handout I usually distribute at talks and slide presentations includes several sources for rootstocks, scionwood, and nursery stock, along with applications for NAFEX and the APFG. I think you will find everyone willing to give you plenty of support and helpful hints. You will also certainly enjoy touring established orchards and attending the fall apple tasting party. I am sure that you will share with me the joy that I experienced in growing your own fruit trees in Alaska.

(Editor's note: Please see pages 7-8 for copies of Robert's handout).

FRUIT GROWING IN ALASKA vs. WASHINGTON

By Bob Purvis

Alaska members of the Alaska Pioneer Fruit Growers may sometimes feel that, compared to Washington State, they have few advantages and many disadvantages in growing tree fruits. As one who has grown fruit trees in Anchorage, then in Pullman (near the Washington-

Idaho border, elevation 2350'), and now in Selah (five miles north of Yakima, elevation 1200'), I'd like to compare the three locations.

With respect to soils, Pullman was probably the most favorable location. The pH of the soils in our yard there was close to neutral; the soils were fertile, with no mineral elements in short supply and few rocks. The soils were rather heavy, with a high clay content, but the apple, pear, cherry, apricot, and plum trees I planted there grew quite well. There was sufficient rainfall (22" per year) such that only in July, August, and sometimes September was supplemental irrigation needed. In Anchorage, the soils are acidic, cold, and often poorly drained.

The soils in our part of Selah were nearly ideal for fruit growing in 1900, but the heavy use of lead arsenate as a broad-spectrum pesticide before 1950, plus the use of this site as an apple orchard until 1972, have caused some problems in establishing fruit trees, especially for the stone fruits. Arsenic tends to inhibit root growth, it appears, especially at the levels tested here (84 ppm in the top foot of soil). The soils here are alkaline (pH 7.5 to 8.0), and the water is high in calcium carbonate (free lime), a problem rarely seen in Alaska or Pullman. Furthermore, the annual rainfall here is only 8". The consequence of having alkaline

soils and calcium carbonate in the irrigation water is that under certain conditions, lime-induced iron chlorosis appears in the leaves near the shoot tip. The interveinal areas of the leaf turn yellow, then white, while the veins remain green. If allowed to continue, the leaves thus affected will die, and ultimately the tree also. I learned during 1993 that of the rootstocks on which my apple trees were grafted, the Siberian crabapple (*Malus baccata*) was most susceptible to lime-induced iron chlorosis, although it could be corrected within several days' time with a watering of Miracid liquid fertilizer. *Malus ranetka* was also somewhat susceptible, Antonovka seedlings much less so, and the clonal Malling rootstocks and "Mark" rootstock have not suffered from it at all. Evaporation of irrigation water on the leaves of the trees results in deposits of calcium carbonate, which can burn the leaves and reduce their ability to photosynthesize.

Boron and sometimes zinc are oftentimes present in marginal or deficient amounts here, but this was not the case in Pullman and is probably not in Alaska's largely virgin soils.

The pest problems are much different in Washington than in Alaska. Here, there is a well-established population of insect pests. Codling moth, the worst enemy, is a real scourge of apples in Selah, requiring sprays of

Guthion (a restricted-use pesticide) or diazinon at least two and usually three times during the growing season. Leaf miner is also a problem, sometimes a very serious one in commercial orchards, and the powerful pesticides such as Vydate used to control it wipe out the predators of not only leaf miner, but of other pests as well. Pear slugs, which also feed on the leaves, were a problem both in Pullman and here, and sometimes aphids can be troublesome. Leaf rollers are a problem, too, especially in late springs. Lastly, during 1992, I had some problems with San Jose scale on my "Seneca" prune plum. Few of these pests are ever a problem in Alaska.

Vertebrate pests in Alaska were primarily moose, rabbits, and voles. While moose are not a problem here, gophers are both in Pullman and in Selah (and, for that matter, most of the Yakima Valley). Mice can be a problem in winter, and birds are a major problem for growers of cherries, and even apricots and peaches in our neighborhood.

With large numbers of fruit trees nearby, there are lots of hosts for disease organisms, but the dry climate tends to create a less favorable environment for most diseases. The main disease I have seen on my apple trees here, in Selah, is powdery mildew, especially on cultivars such as "Jonagold". I have not seen apple

scab nor perennial canker, nor fireblight on my pear trees, thus far, although 1992 was one of the worst years the Yakima Valley has seen in a while for fireblight outbreaks. On stone fruits, the main disease I have seen is coryneum blight on my apricots. Its main symptom is small purplish spots on the fruits (I have not seen this) and later, small red spots on the leaves. If the leaves are seriously affected, Coryneum can also make apricot trees defoliate earlier in the fall, and can cause girdling cankers and even death on peach trees if it gets well established.

The growing season is much longer here than in Anchorage (about 170-180 days vs. 123), and temperatures can get quite hot (we recorded four days in the summer of 1992 with 100-105°F, although this is unusual). Furthermore, we occasionally have weather warm enough in winter to de-harden the flower buds of peaches and apricots; and if it is followed quickly by subzero cold, that can wipe out the following season's crop. April frosts are a hazard to growers of stone fruits both here and in Pullman, but we had a bumper crop of both peaches and apricots here at our house this year and in 1992. The low relative humidity and the elevation results in 35-40° temperature swings from day to night most clear days from March through September. In July, the warmest

month of the year, the average high is 88°F, with an average low of 53°F, vs. 65°F and 50°F, respectively, for Anchorage. Pullman's July temperatures run a few degrees cooler than Yakima's. The average temperature for January, the coldest month in Yakima, is 36°F for the high and 18°F for the low. During my time in Pullman (1989-1992), I recorded temperatures as low as -19°F at our home, and during our first winter (1992-1993) in Selah, a low of -6°F with about 16" of snow on the ground.

Central and eastern Washington have a great advantage over Alaska in terms of good weather for fruit growing after the frost season is past, and in length of growing season and amount of clear sky. We can grow a far greater diversity of fruits here than Alaska can ever hope to, but in terms of insect pests and diseases, and soil fertility and water management, Alaskans can be thankful they have simpler problems to solve than we do here for the tree fruits they can grow. Am I glad to be growing fruit here rather than in Alaska? Yes—the opportunities are much greater, and while the problems are more complex, they can be solved with time and perseverance.

ALASKA PIONEER FRUIT GROWERS AND THE WESTERN CASCADE FRUIT SOCIETY

By Erik Simpson

On April 18, 1993, I introduced a resolution designed to poll our members and determine if there were any objections to our becoming a chapter of the Western Cascade Fruit Society ("WCFS") of western Washington State, a recognized nonprofit organization. A few people did express concern--and the concerns all had to do with losing the "local news" contained in our own newsletter.

We have two options which would allow us to keep our local newsletter, both of which involve raising our dues:

1. We can join the WCFS, form our own Alaska chapter, and continue to offer a "local" newsletter in addition to the WCFS newsletter (there are other chapters of WCFS who do this). The WCFS charges dues of \$10.00 per year per family; a local newsletter would require an additional assessment of \$8.00, for a total of \$18.00 per year, or

2. We can continue on our own and raise our dues to \$16.00-\$18.00 per year to cover the increased cost of publishing and distributing our newsletter.

There is another consideration, however. Due to current federal banking regulations, we must have a nonprofit status in order to utilize our bank account after **Erik Simpson** moves Outside next fall. If we do not want to affiliate with an existing nonprofit corporation (such as WCFS), we will have to form a nonprofit corporation of our own, with all its attendant legal requirements and paperwork.

Please come to the October meeting prepared to discuss this matter and vote on it. If you have strong feelings one way or the other, **please be there or contact one of us so that we can voice your concerns, your opposition, or your support of this contemplated move.**

Here, then, for the purpose of discussion and consideration, is our proposed resolution:

WHEREAS, the **Alaska Pioneer Fruit Growers** could benefit from being affiliated with a nonprofit educational organization for the purpose of promoting research, distributing a newsletter, financially benefitting from a larger membership, sharing common interests and resources with other chapters, and having common maritime climate conditions,

NOW, THEREFORE, BE IT RESOLVED that the **Alaska Pioneer Fruit Growers** shall amend its bylaws to authorize its affiliation as a chapter of the Western Cascade Fruit Society

effective January 1, 1994, while still retaining its identity as the **Alaska Pioneer Fruit Growers**.

1993 APPLE TASTING RESULTS

By Pam Neiswanger Warner

Many thanks to **Jay Dearborn** and **Dearborn Farms** for their bountiful support of our 1993 Anchorage-area apple tasting!! And thanks also to **Tom Marshall, Elmer Jeske, Hugh Harris, Erik Simpson, Don Cox, Arvid Miller, and Bob Boyer** for sharing their summer harvest with everyone! Once again, the weather was awful and the apples were delicious! There were over 20 varieties of apples available to taste (and one green Compass cherry plum), and 18 people turned in their evaluation sheets so that I could report their opinions here. As in past years, the apples from the Valley were a couple of weeks ahead of Anchorage, which means some of the apples were overripe and some were still green--and some were big, beautiful, and delectable!

I have compiled the results of 18 individual taste ratings (based on a scale of 1-10, with 10 being best), and the key to reading the table is as follows: take this year's highest rated apple, Summerred; one person did not rate it, one rated it as a "5", one as a "6", etc.

ALASKA PIONEER FRUIT GROWERS

Alaska Chapter, North American Fruit Explorers (NAFEX)

1993 APPLE TASTING RESULTS

Taste Rating, 1-10, with 10 Being Best

Apple Variety	N	1	2	3	4	5	6	7	8	9	10	Comments/Description
Yellow Transparent				4	4	2	3	4			1	17th of 21 Mushy, dry, but tasty (overripe)
Geneva Early	1					1	4	4	2	3	3	2nd
Yellow Jay				1	1	3	3	3*	5	2		9th Mildly tart, very nice texture, distinctive
Westland			1	4	2	3*	3	5				18th
Oriole (Tom Marshall)					1	2	1	4	5	3	2	3rd Firm, juicy, very good
Summerred	1					1	1	2	2	5	6	1st Rated best tasting
Quality Crab	1		4	4		6	1		2			21st
Oriole (Elmer Jeske)	4				1	2	2	2	5	1	1	7th
Mantel	1			1	2	2	4	3	4	1		11th Needed 1-2 more weeks
Canada Red				2	2	3	5	3	2		1	12th
Norda						1	7		5	3	2	4th
Parkland					1	2	3	3	3	5	1	5th
Mantel	3	1	1	1	4	1	4	3				19th Not yet ripe
Northland			2	1	3	5*	1	4	1		1	14th
Rescue Crab	3				3	3	1	5		2	1	10th
Chinese Golden Early	2	2	1	2	5	1	1	2	1	1		20th Overripe
Ginger Gold		1	1	2	2	2	4	1	3	1	1	13th Overripe
Summer Rambo	2		1	1	2	1	4	2	2	2	1	16th
Dolgo Crab (Don Cox)	4	1	1	1	3	2		3	2		1	15th
Unknown (Hugh Harris)	3				1		3	4	5	2		6th Tart, but with very nice texture (not ripe)
Unknown Crab (Arvid Miller)	6				2	1	4		2	1	2	8th Nice, sweet, slightly distinctive

Entries in the "N" column indicate individuals who did not assign a score to the apple in question.

* In each instance, the asterisk represents one person who scored at +.5 (7.5, 5.5, 5.5, respectively).

SOURCES OF ROOTSTOCKS, SCIONWOOD AND NURSERY STOCK

In Fairbanks:

CLAIR'S CULTIVATIONS
1364 ESRO ROAD
FAIRBANKS, AK. 99712
907-488-6446

Many varieties of apple, pear, and stone fruits. Flowering, ornamentals, etc. some other varieties such as Kiwi.

CARROLL PHILLIPS
1061 SUMMIT DR.
FAIRBANKS, AK. 99709
907-457-7448

Primarily apple trees proven hardy for the interior.

FOX TREES & NURSERY
P.O. BOX 82249
FAIRBANKS, AK. 99708
907-479-2028

Primarily apple and crabapple varieties for interior and other Alaska locations.

In Palmer:

WASHBURN FARM NURSERY
P.O. BOX 823
PALMER, AK. 99645
907-645-3479

Apples and many other nursery products.

Lower 48:

WHITNEY'S NURSERY
c/o ROBERT A. PURVIS
641 Hoffman Road
Selah, WA 98942-9532
(509) 697-9765

Good outside source for North-Hardy apples, stonefruits, and pears.

BEAR CREEK NURSERY
P.O. BOX 411
NORTHPORT, WA. 99157

Excellent source for scionwood, apple trees, nuts, pears, etc.

ST. LAWRENCE NURSERIES
R.D. 2
POTSDAM, NEW YORK 13676
315-265-6739

Northern Climate fruit and nut trees. Also good source for blueberries.

**SOURCES OF SCIONWOOD-
USDA NATIONAL CLONAL GERMPLASM REPOSITORIES**

APPLES

PHILLIP L. FORSLINE
USDA, ARS
HORTICULTURIST/CURATOR
PLANT GENETIC RESOURCES UNIT
NEW YORK STATE AGRICULTURE EXPERIMENTAL STATION
GENEVA, N.Y. 14456
315-787-2390

PEARS

DR. KIM HUMMER
USDA, ARS
RESEARCH LEADER, CURATOR
NATIONAL CLONAL GERMPLASM REPOSITORY
33447 PEORIA ROAD
CORVALIS, OR. 97333
503-757-4448

(Editor's note: Robert's list is not a complete list, and some of the information may be dated. I have updated Bob Purvis's address.)

STONE FRUIT

DR. KATHLEEN RIGERT
USDA, ARS, CURATOR
NATIONAL CLONAL GERMPLASM REPOSITORY
UNIVERSITY OF CALIFORNIA
DAVIS, CA. 95616
916-752-6504

Alaska Pioneer Fruit Growers
NAFEX
c/o 7000 Viburnum Drive
Anchorage, AK 99507



Forwarding and Return Postage
Guaranteed
Address Correction Requested

Complimentary
Dwight Bradley
22008 Voyles Boulevard
Peters Creek, AK 99567