ALASKA NAFEX NEWSLETTER

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

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MEETING DATES

JUNE 8 , Thurs., 7 P. M.,
National Bank of Alaska lunchroom
Beth Blitz: Pests and diseases of
fruit crops.

GOODBY BOB - WELCOME ERIK

The chapter presented Bob Purvis with a plaque commemorating his 4 1/2 years of work as its co-founder and first president, a book on apples and a gift certificate at Waldenbooks. Bob moves June 3 to Pullman, Washington, to begin work on a M.S. and Ph.D. in horticulture, with emphasis on tree fruits. His address there will be N.W. 248 Sunrise Drive, Pullman, WA 99163, and his home telephone number will be (509) 334-2540, evenings being the best time to call. He would enjoy seeing members of NAFEX who are passing through Spokane, a 1 1/4 hour drive from Pullman. Bob urges the members of the chapter to wholeheartedly support Erik Simpson, the new president, and to keep records of how their fruit trees and berry bushes perform in terms of ripening time, coldest temperatures survived, productivity, and disease or pest problems.

MAY MEETING FEATURES JAMES AND RILEY

By Robert Purvis

The May 10, 1989, meeting of the Alaska Chapter, North American Fruit Explorers (NAFEX), attracted

28 people, who enjoyed a presentation by Dr. Herb James on the growing of asparagus and Julie Riley's discussion of raspberries and strawberries.

Herb obtained unnamed Canadian varieties of asparagus, which have done well for him near the corner of Northern Lights and the New Seward Highway in Anchorage. To prepare his asparagus bed, he tilled the soil to a depth of 12 inches, then added lighter materials and compost. After planting the crowns 2 feet apart, and 6 inches deep he laid down black plastic with holes cut in it so the crowns could grow through. (This allowed the spears to grow with little weed competition initially.) His site had good sun exposure.

The only protection his plants have from the elements is a chain link fence. He stated that the asparagus spears should be cut for the first time in their 3rd growing season and that they could be harvested 3-4 times per season. Some spears must be left to grow into full-sized fronds, however, to provide nourishment to the crowns. Under such a scheme, the crowns should last at least eight years.

He has grown asparagus from seed. The first requirement is rounded (not flat) seed pods. These he collects in November, stores in a sealed jar, and plants the seeds in late January, keeping them in his greenhouse. Herb has typically had 70% germination, beginning at 2-3 weeks and taking up to 2-3 months. This year's crop was 3-8 inches high by May 10. Herb has limited quantities of the plants and sells them at $11.00 per dozen.

Julie Riley described advantages and disadvantages of three systems commonly used in strawberry cultivation. Requiring the least maintenance is the **matted-row** system. Plans should be 20-30 inches apart in rows 42 inches apart, and allowed to runner freely, which offers bird protection. Unfortunately this method requires more water and fertilizer, is difficult to weed, and suffers more from weeds than the others.

The **hill** system involves planting individual plants about 8" apart and cutting off all runners. It's best for the everbearing varieties. The plants have no competition, bear large fruits, and are easy to cultivate and harvest. Unfortunately, the berries are more vulnerable to bird problems and rotting on the soil. The soil will dry out faster, too.

The **spaced-row** system allows 2-4 runners to strike roots but eliminates the rest. It is planted like the matted-row with the exception of elimination of the extra runners.

Until 1968, the only strawberries reliable for the Interior were the **Sitka** hybrids. Dr. Charles Georgeson bred them from wild beach strawberries and first distributed them from the Sitka experimental station in 1910. The Sitka strawberries are tasty, but they are pale pink, not firm, and not extremely productive. NAFEX member Patrick Wright in

Anchorage has lots of them.

The **Matared** produces large, deep-red, good tasting berries with a moderate tendency towards ever-bearing. They have no disease problems. Although strawberry patches are ripped out every three years in the lower 48, Julie said this was not necessary for Alaska, where healthy plants can remain productive for up to 6 years. The **Susitna** is a June bearer, ripening slightly later than Matared. **Pioneer**, a 1968 release, has dull foliage, oblong leaves, and is hardy and vigorous. Its fruit is medium sized, with a wild aroma, but the quality is said to be rather low. **Toklat**, released in 1977, has a calyx that is difficult to remove. **Quinalt** keeps poorly, but the fruits are large, sweet, and juicy. It is productive although less hardy than Pioneer or Toklat. **Jewel**, a release from the NY State Fruit Testing Association, produces large, deep red, firm berries with a tangy-sweet flavor as grown in Bob Purvis's strawberry patch.

Julie's dissertation on raspberries was brief, but several points deserve mention. Rows should be allowed to grow no more than 15-18 inches wide. Thin the canes to no more than 4-5 per foot of row, and do not head back more than the top fourth of the fruiting canes.

Latham and **Boyne** are examples of summer bearing raspberries popular in Alaska. **Heritage** and **Redwing** are everbearing, meaning specifically that as primocanes, they fruit on the upper portion of the cane the first summer. They fruit on the lower portion the second summer and then die.

1988-89 WINTER HARDINESS REPORT

By Robert A. Purvis

The winter of 1988-89 was a "test winter" in both Southcentral Alaska and in the Interior, with temperatures dipping into the -30 to -40°F range in Southcentral and into the -50 to -70°F range in Fairbanks and vicinity. As such, this past winter can provide valuable information on how well various varieties of tree fruits and berries survive extreme cold, specifically during the three weeks from approximately January 15 to February 6, 1989.

The 63-year-old sweet cherry tree in Homer, owned by Fred W. and Margaret Anderson, suffered no winterkill. I was able to get a "take" on a branch tip grafted to a **GM** rootstock. Delmore Schmidt's **Parker** and **Clapp's Favorite** pear trees, planted in Homer in 1985, had suffered only slight winterkill on 1988 growth based on observations March 19 (By "slight" I mean that 0 to 25% of the 1988 growth was killed; by "moderate," 25 to 50%; by "significant," 51 to 75%; by "severe," 76 to 100%.) Delmore moose-fenced his orchard area successfully; furthermore, he put up cages with burlap around the tops and around the trees themselves. There was at least a foot of snow on the ground when Homer had its near record low of -27°F.

In Hope, the low for the winter was -35°F as recorded at the home of David and Sheila Hanson. Their **Scout** apricot on a **Manchurian** apricot rootstock, planted in 1988, had poor, weak growth in 1988. Although the cambium was alive under the bark in March 1989, the entire tree was dead by May when I inspected it. The **Scout** was about 4 years old. Hank Mori's 5-year-old **Manchu** apricot, like my **Scout** (acquired in 1987 from Gurney's), survived the -35°F and was leafing out well by May 20. This tree was planted on a gravelly, well-drained terrace that slopes southwestward from Henry's One Stop, his store--the Hanson's were on a mound on level ground. There was slight to moderate winterkill on the **Manchu**, which also was on a **Manchurian** understock.

All the apple trees which the Hanson's, Hank Mori, and Chuck and Linda Graham had bought from Whitney's Orchard & Nursery and planted in June 1988 were alive. At Hanson's, their **Vista Bella** on *Ranetka* was leafing out on the tips of many of the branches. **Glenorchie** and **Geneva Early**, also on *Ranetka*, suffered a few inches of winter-kill. There was significant winterkill on the **Oratia Beauty**, which lost all of the branches it grew in 1988. There was, however, little winterkill on the central leader. Inasmuch as this cultivar is a **Gravenstein** sport from New Zealand, it is not surprising that it suffered more winter-injury than the others. There was at most 1.5" of winter-kill on the **Mantet** and the **Flurry** apples trees they'd planted in 1988. The Hanson's provided adequate moose, rodent and sun-scald protection for their trees.

Growing on the terrace with the **Manchu**, Henry Mori's **Flurry**, **State Fair**, and **Norland** had negligible winter-injury. At Graham's, the same situation applied for their **Geneva Early**, **Summerred**, **Flurry**, and **Whitney's Earlygold**. The latter is a **Golden Delicious** seedling which ripens much earlier than that commercial apple. The Graham trees are in an open field a few hundred yards from Turnagain Arm. Most of the Hope apple trees had flower buds on them and were beginning to leaf out as of May 20.

At my orchard in south Anchorage, elevation 610', the low this winter was -34°F, with about two feet of snow on the ground at the time. There was no winter injury whatsoever on my **Norland** (planted 1988), **Oriole**, **Yellow Transparent**, and **Whitney Crab** (planted 1986), **Wealthy** and **Red Duchess** (planted 1983). These trees are all on *Antanovka*, except the **Whitney** and a **Hazen** which are on *Malus sargentii*. There was loss of perhaps 2-5% of the 1988 growth on my **Hazen** and **Mantet** (rootstock unknown), both planted in 1986.

I over-wintered some pears, plums, and apples in pots behind by greenhouse. They were mulched with leaves and snow, but there was still a lot of wood exposed to the elements. I was surprised and pleased to find that a **Superior** Plum

I'd grafted to a **Manchurian** root-stock in 1987 had no winter-kill. By contrast, the **Superior** on *P. americana* in the yard, planted in 1985, lost 52% of its 1988 growth to winter-kill. The **LaCrescent** Plum on *P. americana*, enduring its second winter outdoors, lost about 10% of its new growth.

My potted trees of **NY 394** (ripens before **Yellow Transparent**) and **NY 652**, both on *Antanovka*, suffered no winter injury. The **Lyman's Large Summer** on a **Beautiful Arcade** stock had slight winter-kill. A **Merton Beauty** on *Ranetka*, a 3-year-old tree, lost 50% of its new growth, however.

There was no winter-injury whatsoever on my **Meteor** pie cherry, planted in June 1988 (good drainage and early cessation of growth probably explains that.) In fact, it began breaking dormancy before any tree in the yard, on April 18. A **Rainier** sweet cherry, planted in Sept. 1986 as a 2-year-old tree, lost approximately 15-20% of its significant 1988 growth to winter-kill, based on the amount of wood that had not leafed out as of May 30. I put a rubber trash barrel over the tree hours before we had our -34°F, but I don't believe it was any warmer inside the barrel than outside.

My **Tyson** pear on **Old Home x Farmingdale 333** had slight injury to the tips of a few branches and that was all. The same applied to a **Ure**, **Nova** and **Pioneer #3** pears on *P. communis* root stocks. The biggest disappointment was the **Hudar** pear acquired from St. Lawrence Nurseries in 1987. It grew vigorously in 1988, but the cambial tissue died in 40% of the new growth (80" of 208"). The tree went into deep dormancy, unlike all the other pear, apple, and plum trees, and it took four days of sweating out the tree (swathed in wet burlap, encased in a plastic bag, held at 60-65°F in the garage) to make green buds start popping out of it.

In Doug Tryck's Orchard on Rabbit Creek Road, the low was -20°F. This was no challenge for his **Summer Crisp** pear, planted in 1987. Moreover, **Summer Crisp** withstood -34° to -38°F for Dick Green, also, in midtown Anchorage, with only a bit of tip burn. At Joe and Alice Brewer's home in Spenard, -30°F caused slight amounts of winterkill on the **Sauvignac** pear they planted in 1988 and moderate amounts on the **Waterville** pear (I bought the trees from St. Lawrence in 1987 and overwintered the **Waterville** outdoors, the **Sauvingnac** indoors, that winter.) Both trees were wrapped in burlap. the Brewer's **Goldcot**, on a **Manchurian** apricot, had live buds 21" above the ground, which was also the snow depth. It, too, was fully swathed in burlap. It goes without saying that I couldn't find any winterkill on their 23-year-old **Yellow transparent** and 13-year-old **North Star** cherry trees.

Chapter co-founder Rich Raynor has been growing and keeping records on fruit trees since 1983. I gave Rich an 8.5' high, healthy, blossoming **Toka** plum on *P. ameri-*

cana in 1988. The tree, acquired from Alaska Greenhouses in June 1987, lost about 30% of its 1988 growth after -38°F. This was its second winter outdoors in a pot, now the tree is in Delmore Schmidt's orchard in Homer.

Rich's **Hudar** and **Parker** pears survived their fourth winter under snow in west Anchorage. I was pleased that the portion of his **Pioneer #3** on *P. communis* above the snow had survived the -38°F. With no winterkill—I'd grafted the tree in April 1987. A **Giffard** pear I'd grafted to *P. communis* in April 1988 had grown vigorously (about 18" of new growth) in Rich's yard in a pot in 1988. After -34°F in west Anchorage in his mother's yard, it was budding out and had perhaps 1" of winterkill on each of its two branches. Another **Giffard** I'd grafted on **OH x F333** and given to Erik Simpson also survived the winter outdoors with no winterkill.

Among the plums Rich had was an **Ember**, which I'd acquired from Stark Brothers in 1987. The -34°F (its first winter outdoors, second in Alaska) killed 30-50% of the **Ember's** 1988 growth, but it was leafing out as of May 29. **Pembina**, as usual, had no winter injury for Rich in west Anchorage. His 6-year-old Toka in that spot had severe winterkill and only a few green buds as of May 29. His **Superior** plum survived by virtue of being completely under the snow, but his **Stanley** plum had only slight winterkill above the snow line, and likewise his **Compass** cherry-plum.

Of the apricots Rich has tried in west Anchorage, only **Moongold** is alive today after four winters, and that by a thread, there being extensive injury to its trunk. We were surprised to find nothing more than slight (5%) winterkill on his **Montmorency** pie cherry. His **North Stars** likewise did very well, but there was much injury to an **Early Richmond** pie cherry above the snow line. His **Stella**, **Sam**, and **Van** sweet cherries all had a number of blossom buds on them May 29, but in every case they were alive only to a height of about 2-2.5' above the ground. The **Hardy Giant** sweet cherry survived but has no flower buds.

Rich's **Hazelbert** survived only below the snow, but his **Chamberlain** butternut trees brought most of their wood through the winter above the snow line. We found no winterkill on his **Oriole**, **Red Duchess**, **State Fair**, **Norland**, **Yellow Transparent**, and **Mantet** apples after -34° to -38°F, but his Beacon was still dormant, as of May 29.

What conclusions can be drawn from this winter? One is that trees which stop growing well before fall arrives have a much higher likelihood of bringing their new growth through the winter, because the growth is fully hardened off. The winter showed that the hardiest pears, in approximate order of decreasing hardiness, to be **Summercrisp**, **Pioneer #3**, **Ure**, and **Sauvignac**. It appears that **Waterville**, a Vermont pear, is significantly less winter-

hardy than **Sauvignac**, a Quebec City pear. **Giffard** shows considerable hardiness and it ripens about the same time as **Summercrisp**, probably about September 15 in Anchorage. **Tyson** will be later, but it too is well worth planting if they're all as healthy and hardy as my tree was. **Hudar**, in spite of its good qualities of precocity and early ripening, will probably need more winter protection, a vigorous rootstock (*P. communis*), and strict regulation of fertilizer and water application. I recommend that **Ure** be grafted on *P. ussuriensis* rather than *P. communis*. It should enhance the tree's already noteworthy hardiness, improve its vigor, and should get it leafing out sooner in the spring. **Summercrisp** also, on **Ussurian**, might even work in sheltered locations in the interior.

On plums, **Ember** appears to be well worth trying, but **Pembina** has performed the best, over four winters' time. **Toka** and **Superior** need strict regulation of fertilizer and water and would be best grown on *P. salicina manchurica*.

Concerning apricots, it appears that **Goldcot** will not survive below -30°F above the snow line, but under some conditions **Manchu** can—it seems significantly hardier.

Most of the apples appear to be hardy down into the -35°F to -40°F range with the exception of **Merton Beauty** and possibly the **Oratia Beauty**. Because of the statistically insignificant numbers of trees of each cultivar observed, however, these conclusions can only be regarded as tentative.