

ALASKA NAFEX NEWSLETTER

A PUBLICATION OF THE ALASKA CHAPTER NORTH AMERICAN FRUIT
EXPLORERS (NAFEX)

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MEETING DATES

June 14, Plant exchange /sale Bring your surplus fruit plants, trees, shrubs, strawberries, vegetable transplants, tomatoes or graftings for sale or exchange NBA lunchroom. 7:00 p.m.

September 13, Victories and defeats of the past season; exchange of member experiences; discussions of how to save and store seeds for future production.

STAKING BENEFICIAL FOR FRUIT TREES

While at the Washington State Hort Association meeting last Dec., I read an article entitled "Reasons for Tree Staking" by R.L. Norton, Extension Associate in the Cornell University Pomology Dept. The article made some points relevant to growing fruit trees in Alaska.

Dr. Norton mentioned that when trees are staked, better growth is noted. "The shaking

effect of wind has always been a major factor in reducing tree growth." Trees allowed to whip back and forth in the wind will develop a greater trunk girth, but the carbohydrates used to increase trunk girth must be diverted from producing shoot growth or setting flower buds. The stake can be used not only to support the central leader, but also as a point to which drooping limbs can be tied up, and upright limbs tied down. Heavy fruit loads can cause bending stress in the central leader and scaffold branches. This stress causes ethylene concentrations inside the tree to rise, which depresses growth. Staking can eliminate this stress.

After heavy rains, strong winds whipping around an unstaked tree can produce a funnel-shaped depression in the soil around the trunk, a problem especially severe in silt or clay soils. When water collects in the funnel, it can

later freeze and form ice. Water and ice standing around the tree can enhance the development of phytophthora root rot.

In addition to Dr. Norton's observations, I have some thoughts on staking. The staking of trees will allow the tree to develop roots without them being disturbed or broken by wind action. Furthermore, the very principle of espaliering fruit trees involves not only training and positioning the limbs, but also keeping them rigid. The result is that espaliered trees generally bear at a younger age than free-standing trees.

In late December 1989, I toured the Sundquist Orchard which adjoins that of Dan Whitney. Gene Cox, the orchard foreman showed me that the pear trees grown with support for the central leader were noticeably taller and broader than those grown without support. He also found that the older supported trees were bearing flower buds and fruit at a younger age than the unsupported ones.

Dr Curt Rom, formerly of the WSU Dept. of Horticulture, began a staking experiment in the WSU Orchard in 1988 with 4 different apple varieties grafted onto "Mark" rootstocks. The trees were given three types of support: none, support for 3 ft, and support for 6 ft of the central leader. During the

second growing season, fruit yields in kg were as follows:

	0	3'	6'
'Nicobel Jonagold'	9	9.6	16.1
'Early Red One'	0	0	0.1
'Imperial Gala'	0.1	0.6	1.6
'Ultragold'	15.4	15.6	16.5

Combining all these numbers together, one finds that the fully staked (6 ft) trees produced 40% more fruit than the unstaked (0) ones.

Gene favors aluminum electrical conduit for staking. It is lightweight, cheap, and easily obtained. He binds the conduit to the leeward side of the tree trunk with horticultural tape and supports the bottom 6 ft of central leader. Unlike wooden 2 x 2's, the conduit will not chafe against the bark. Furthermore, it is rigid and easily inserted between roots and in the root ball. -R. Purvis

EFFECTIVENESS OF READILY AVAILABLE ADHESIVE TAPES AS GRAFTING WRAPS

A variety of materials have been recommended as tape for wrapping grafts including grafting tape, polyethylene strips, parafilm and masking tape. A researcher at West Virginia University conducted a comparison test to determine the usefulness of several tape materials on 'Golden Delicious' apples whip grafted onto 'Antonovka seedling rootstocks.

The tapes tested were grafting tape, masking tape, electrical tape, duct tape and polyethylene strips. These products ranged in price from \$0.12 per meter for grafting tape to \$0.02 per meter for masking tape. The duct tape was cut in half before wrapping, and polyethylene strips were prepared by cutting clear poly film into a 1-inch wide ribbon. To prevent wraps from constricting the growth of the union, vertical cuts were made through the wraps on opposite sides of each graft union 42 days after grafting.

All grafts were successful, indicating that no tape had a bad effect on the graft union formation. Trees grafted with masking tape were significantly smaller than those wrapped with either duct tape or polyethylene strips when comparing shoot length of the scion. The researcher attributed the poor tree growth with masking tape to the poor adhesion of this tape and its tendency to unravel early. Although there was no measurable growth differences in stem diameter at the end of the season, the researcher recommended the use of electrical tape or duct tape because of their ease of usage, effectiveness in protecting the developing graft union, and ready availability.

Excerpted from an article by S. Singha, HortScience 1990, 25(5):579.

RUSSIAN EXPEDITION PLANNED

Cathy Wright of the Alaska Plant Materials Center and Pat Holloway of the Agricultural Experiment Station will travel to Siberia on a scientist exchange, August 5 -25. They will be visiting research stations and botanical gardens in Novosibirsk, Lake Baikal and Yakutsk. They will establish contacts with fellow horticulturists and fruit growers, and hopefully bring back some samples of hardy fruit species for testing. If you have any recommendations on plant materials that they should collect, contact either person before August. Any plant materials obtained will be grown at either the Plant Materials Center or Fairbanks Experiment Station to evaluate disease or insect problems and hardiness and eventually released for commercial propagation.

PRUNING RASPBERRIES

I just finished pruning my raspberries. If there is one job I hate more than anything else in my garden, it is pruning raspberries. Invariably, I pick the hottest day in spring so I am constantly debating whether the discomfort of a few

scratches from the raspberry prickles would be worse than the streams of sweat rolling down my face from the long-sleeved shirt, heavy gloves and long pants. The sweat wins out because I know from years of experience that those little scratches can be extremely painful. By the way, those nice white goatskin or pigskin gloves that are sold in gardening catalogs just don't make it when pruning raspberries. Those little prickles will manage to find their way through the thin covering into that nice soft skin between your fingers in no time.

Of course, I could have pruned my raspberries in fall, but I am usually so busy trying to harvest everything else from my garden before the snow flies, that there is little time for pruning. I could also brave the snow flurries and prune in winter, but I prefer to wait and see what the moose prune before I finish the job.

I also could do like most gardeners and not prune at all, but the thought of picking raspberries in a tangled mass of dead and live canes in mid summer nixes that idea.

I usually prune my rows three times. I go through first and take out all the floricanes that fruited last year and are now dead. Sometimes it's hard to distinguish between living and dead canes, so I look for a

gray to black bark color; papery, shedding bark, and well-branched canes with some fruiting stalks still hanging on. At this time, I also take out any cane that is pencil-sized or smaller in diameter and any broken or damaged canes. I then start back at the beginning and thin out the remaining canes to about 8-10 per foot of row. This reduces competition and promotes large-sized fruit. Finally, I top the canes so that they are no more than 5 ft tall. The most productive part of a raspberry cane is the middle 50% of the stem. The top 25% can easily be removed without sacrificing yield. Topping the canes makes them easier to pick because they tend to be more upright and the fruit is at a good height.

Now that my pruning chore is completed I can look forward to a bumper crop of sweet, juicy, aromatic fruit for another year. And now I see my five 'Pixwell' gooseberry bushes that desperately need pruning. Anyone know a good source of armor-plated gardening gloves?

-P. Holloway

DON'T FORGET WHILE YOU ARE GARDENING THIS SUMMER TO JOT DOWN SOME NOTES TO SHARE WITH US IN NEXT FALL'S NEWSLETTERS.

HAPPY SUMMER!