

# ALASKA NAFEX NEWSLETTER

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

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## MEETING DATES

**Mar 9** Thurs., 7 p.m. NBA lunchroom.  
Tomatoes and greenhouses. Speakers:  
Julie Riley and Ruth Edmondson.

**Apr. 13** Thurs., 7 p.m. NBA  
lunchroom. Grafting workshop.

**May 11** Thurs., 7 p.m. NBA  
lunchroom. Tentative topic: pests and  
diseases of fruit crops.

**June 8** Thurs. 7 p.m. NBA  
lunchroom. Growing raspberries and  
strawberries.

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## DON'T FORGET-- GRAFTING WORKSHOP IN FAIRBANKS

April 8, 1989, 1 p.m. 301 O'Neill  
Resources Building, University of Alaska  
Fairbanks, West Ridge.

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## KIWIS: FOCUS OF FEBRUARY MEETING

NAFEX member Leslie Toombs gave a thorough and very interesting presentation on hardy kiwis at the Feb 9 meeting. Leslie began growing hardy kiwis in her yard not far from the intersection of Northern Lights Blvd and the New Seward Hwy, Anchorage, in 1987. She reported that her Actinidia arguta (Arguta kiwi) and A. x anananasnaja (arguta x kolomikta)

plants showed vigorous growth in 1987. In 1988, she planted several A. kolomikta plants which became dormant very quickly this past fall. Although her plant have not yet fruited, she mentioned that Fairbanksan, Vic Johansen, had gotten ripe fruit from his kolomikta vines this past year.

The hardy kiwis originated in southeast Asia. They are woody, deciduous, twining vines with a lifespan of 50 years or more. Like grapes, they have a central trunk with numerous fruiting laterals.

Argutas include the 'Meader', which is early ripening, the 'M.S.U.', the 'Issai' (hardy only to zone 5 but self-fertile and precocious), and the purpurea, which is purple-fruited, but not very hardy.

The kolomikta or Arctic Beauty kiwis are supposedly hardy to -40 F. Many of the cultivars for this species originated in the Soviet Union.

The argutas typically grow 8' per year; the kolomiktas, 3-8'. The argutas bloom early to mid June in Oregon; the kolomiktas, earlier. The fruit of kolomikta is about 1/2 - 3/4" across; the argutas, 1 - 1 1/2". The kolomikta leaves are larger (5-6" long) than those of the arguta. Both do best in partial shade. Up to 60% is good for either species.

The arguta fruit ripens in late Sept. in California, but the plants seem to respond well to increased daylength and less heat intensity. They ripen at the

same time in Victoria, B.C. The fruit attains full size by mid summer and can be ripened off the vine with the ethylene produced by ripe apples. Argutas have been known to yield up to 110 lb of fruit per plant.

Early to mid August is the ripening time for kolomikta in Oregon. Fruit size is dependent upon the quality of the pollination which is by bees and wind. The fruit may contain up to 20% sugar and 890 mg of Vit C per 100 g of fruit.

From cuttings kiwis take 2-5 years to fruit. From seeds, that time is 5-8 years. The fruit is useable fresh, dry, in preserves, or in liqueurs and is low in sodium, high in Vit C, potassium, sugar, and pectin. Pot culture can speed up the initiation of fruit.

Kiwis grow best in well drained slightly acid (pH 5-6.5) soils. They should be planted 10-18 ft apart with one male plant to every 4-8 females and not more than 35' away. For support, wires and pergolas have been employed; in the Soviet Union, mulberry trees.

Kiwis may be damaged by wind, fast-acting fertilizers which burn the roots, and herbicides. Crown rot may be a problem. Because the plants contain the same active ingredient as catnip, they may be browsed by cats if left unprotected. Plants are sensitive to spring or fall frosts. For this reason it is a good idea to pinch the tops in late August. The main trunk of the plant should be protected from sunscald in winter.

Besides the argutas, kolomiktas and issai, there is Actinidia polygama, better known as silver vine. Polygama bears 1 1/2 flowers, followed by orange fruit which is highly astringent. This astringency is reduced by frost. The kiwis imported from New Zealand or California are usually A.chinensis and A. deliciosa, and being hardy to zone 7, they are not suitable for Alaska.

Kiwis are currently a 'hot' item in the nursery trade. Prices for individual

plants range from \$9.00 to \$17.50. All varieties cross pollinate one another. The nursery offering the largest selection of kolomiktas is Northwoods Nursery, 28696 S. Cramer Rd. Molalla, OR 97038. The owner, Jim Gilbert, is a member of the Alaska Chapter. Both Bear Creek Nursery (P.O. Box 411 Northport WA 99157) and Raintree Nursery (391 Butts Rd. Morton, WA 98356) offer both argutas and kolomiktas. -R. Purvis

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### JANUARY - BRRR ! A REAL CHALLENGE FOR FRUIT GROWERS

The Interior experienced two weeks of -40 F and lower temperatures which will certainly have all fruit tree growers anxiously observing spring budbreak. Even the hills surrounding Fairbanks which are usually quite balmy because of inversions that leave temperatures 10 to 20 degrees above the Valley floor, were not immune to the cold. Temps as low as -55 were recorded at 1000 ft. elevations for several days. Delta minimum temperatures were in the -60's. Very cold temps have also been reported by NAFEX members in Southcentral. Palmer reportedly had -39 F temperatures.

Apples and crabapples are considered the hardiest of all tree fruits, but many of the most desirable cultivars will not survive this latest cold spell. On the next page is a table listing the lowest survival temperature for the major fruit crops that have been bred in the 'Lower 48'. This information was compiled by researchers at the U of Minnesota.

The number of chilling hours refers to the number of hours of chilling temperatures that a plant must be exposed to in order to break dormancy. When a plant goes dormant in the fall, it must be exposed to a certain number of hours of above-freezing temperatures (usually between 0 and 7°C [32-45 °F]) in order to break bud again the following spring. If those chilling hours

## PRUNING, GRAFTING CLASS IN JULY?

are not met, the plant either does not grow at all, or most likely, it grows poorly, has deformed shoots and leaves, and may not flower properly. In Alaska, some of our native plants require approximately 600-800 hours of chilling temperatures in order to break bud in the spring. Plants that require substantially longer periods of chilling may be perfectly hardy as far as minimum temperature goes, but they don't get exposed to enough above-freezing temperatures during the winter to fulfill the chilling requirement. Consequently, they grow poorly or break bud very late in the growing season, they never harden off properly, and are killed the following winter.

Winters like the one we are experiencing now really weed out the marginal plant materials, and we are anxious to hear from all NAFEX members on what made it and what didn't. Please send a note to the newsletter, and share your observations with others. -PSH

NAFEX member Dan Whitney of Cowiche, WA came to Alaska last July and conducted grafting workshops in Anchorage and Fairbanks. He also visited NAFEX members in Delta Junction and Hope, examined their fruit trees, and did some budding and bridge grafts. Dan recently indicated his interest in giving another series of workshops on pruning as well as grafting some time after the July 4 weekend. The Chapter members would need to pay his way which would mean a minimum of 25 people signing up at \$20.00 per person. If you're interested, contact Erik Simpson, River Bean or Bob Purvis as soon as possible. Money will be collected in June.

### FRUIT SEMINAR IN HOPE

Bob Purvis will conduct a fruit growing seminar in Hope on Mar 18, 10 a.m. to 3 p.m. at the home of Sheila Hanson. Cost is \$2.00 which includes copies of "Fruit Growing in Alaska" by Purvis. Contact Sheila if you would like to attend: 782-3109.

Critical Tissues, Times and Low Temperatures

Fruit Crop	Critical Tissue	Critical Time	Lowest Survival T°	Chilling Hrs#
Apples	trunk, xylem blossoms	late winter full bloom	-35° to -40°C -17° to -2.0°	800-1500 or 200-500**
Pears	fruit spurs flower buds	mid-winter mid-winter	-25° to -30° -30° to -35°	900-1500
Apricots	flower buds blossoms	late winter full bloom	-30° to -35° -3.0°	700-900
Cherries, sour	flower buds	mid-winter	-30°	1200-1300
Cherries, sweet	flower buds blossoms	mid-winter full bloom	-20° to -25° -2.0°	1000-1200
Peaches	trunk & flower buds blossoms	late winter full bloom	-20° to -25° -3.0°	800-1200 50-500**
Pears, European	flower buds	mid-winter	-30° to -35°	800-1200
Plums, hybrid	flower buds	mid-winter	-35°	700-1000
Cherry-plums	flower buds	mid-winter	-35° to -40°	
Blueberries	flower buds blossoms	early winter mid-winter full bloom	-25° -30° -3.0° to -4.0°	high
Grapes	blossoms	full bloom	-3.0°	high
Raspberries	canes and buds	mid-winter	-18° to -20°	low
Strawberries	crown blossoms	fall, early spring full bloom	-8° to -9° -3.0°	800

\*Chilling requirements, total number of hours at T° below 7.0°C

\*\*Subtropical cultivars