ALASKA PIONEER FRUIT GROWERS NEWSLETTER

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MEETING DATES

MAY 16. 7-9 p.m. Dimond Greenhouse, Anchorage Sell and Exchange fruit trees.

GROWING FRUIT TREES AND MUCH MORE IN TOK

Last winter (89-90) we dropped to -50 F and had a lot of snow. There was considerable damage from snow mold. We occassionally had snow mold in Michigan, but it never seemed to be harmful. Here last winter we lost a lot of our strawberries ('Toklat', 'Pioneer' and an old variety from friends of friends in Fairbanks). It also killed native plants such as the pasqueflowers.

We gave up on the 'Latham' raspberries. Some roots survived but not producing canes. The 'Kiskas' aren't doing good. There's been a lot of winterkill on the larger, most vigorous growing canes and those that survive produce very poorly.

The Siberian crabapple came through good except for some moose browse (the fencing has since been improved). The Ranetka crabapple survived but was under snow.

In the spring of '90 we planted a 'Dolgo' crab. It grew good and had stopped most growth by fall.

We order our nursery stock for delivery as late as possible so hopefully the ground can be dug, although we try to have at least some of the planting holes prepared the fall before. When the 'Dolgo' came, it had considerable blanched growth. I used a piece of old row cover to wrap the tree--a couple of layers loosely draped around it-- for several days. Whatever the reason the growth greened and went on growing--even the buds opened.

The serviceberry, 'Smoky' wintered under the snow. We were given serviceberry roots by a friend in Fairbanks from an old tree that grows good up there. Any idea what it might be? [Ed note: It's hard to say. Could be our native serviceberry or any one of a half dozen Canadian varieties that all grow well here].

The 'Holland Long Bunch' currant survived, but its growth wasn't vigorous.

Our largest chokecherry was moose browsed but still had a few flowers. We were given a rooted branch of a 'Canada Red' cherry 2 years ago. This past summer it grew vigorously. The parent tree has survived several years in this area.

There has been a couple of mentions of a pin cherry. Also saw them

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listed by a nursery in the Palmer area. In Michigan, we had a native pin or bird cherry that made excellent jelly. They were hardy in the coldest areas of the interior of northern lower Michigan-- an area where temperatures were known to drop to -50 F. They were a fastgrowing relatively short-lived tree that could reach 20-30 ft. although they were susceptible to an interior green wood rot. They grew on high, dry sandy or gravelly soil. The fruit was very small and very tart and grew like that of the cultivated sweet and tart cherries-- not like the native black and chokecherries. [Ed note: The pin cherry most likely is Prunus pennsylvanica. We have some growing at the Georgeson Botanical Garden in Fairbanks. They produce a shrubby tree to about 15 feet tall, very pretty, and the fruit does make good jelly. Other growers in the Tanana Valley have told me that they are not reliably hardy, and that seed source is very important. Look for the hardiest strain possible].

Our 'Viking KB3' asparagus has survived for the past several years. It is mulched each fall because we lost the first bed during a very low snow winter. Last summer we had a couple of small pickings.

The <u>Caragana</u>, <u>Cotoneaster</u> and common lilac grow in this area. We also have French and Persian lilacs, but they are still under the snow.

This past winter we had about normal, maybe a little above normal snow pack (20 inches as of March 15), and -53 F has been the coldest we have registered. Last spring we planted the 'Hansen' and Nanking cherries plus a lowbush huckleberry native to the northern lower Michigan sand plains. This year we'll add a few more things and hope for good growing.

-Tom & Lena Clark

SEED EXCHANGE RUSSIA/ALASKA

Over the past three years I have had the opportunity to meet with several delegations from The Russian Siberian Horticultural community. Their mission is to develop fruits vegetables, and grains that can survive winter temperatures as low as -65°F and yield well in latitudes that have a short summer with long cool days. Many Alaskan gardeners have discovered, to their sorrow, that many seeds and cultivars purchased from the Lower 48 do not do well here. Most United States corporate and university agricultural research concentrates on crops that are grown in more moderate climates. In contrast, the Russian research centers are located in Siberia where the climate is similar to Fairbanks.

Russians are a nation of seed savers. They do not have access to commercial producers of seeds, fruit trees, berries, or herbs as we do. Gardeners must raise the crop and then save the seeds which carry the genetic characteristics desired (arctic environment). They have done this for generations.

Each Siberian gardener has at least one coldframe to "jump start" their qarden. It is estimated that 80% of all fruits and vegetables in Siberia are produced in personal gardens whereas in Alaska less than 1% of the vegetables consumed in Alaska are grown by the Alaskan farmers.

(Continued on p 5)

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BREWER, ALICE, 1201 W. 45th Ave., Anchorage, AK 99503. (M) 563-6734 BROOK, SUSAN, BOX 93, Gustavus, AK 99826. (H) 697-2348 BROOW, DEBORAH, 1353 W. 16th Ave., Anchorage, AK 99503. (H) 278-2814 BUSH, ERIC A., HCO1 BOX 6231, Palmer, AK 99645. (H) 376-5664 CARLSON, KERT, 8201 Stratton Circle, Anchorage, AK 99507. (H) 344-1909 CARLSON, VERNON & PATRICIA, 431 Steese Hwy., Fair., AK 99701. (H) CARR, DERALD & MARY, HC 31 BOX 5150, Wasilla, AK 99687-9703. (H) 376-5671 CLARK, THOMAS & LENA, P.O. BOX 146, Tok, AK 99780. (H) 833-5710 CLOUD, JOSEPH & BETTY, HC 01 BOX 875, Kenai, AK 99611. (H) 776-8660 CRUSEY, DAVE, BOZ 871667, Wasilla, AK 99645. (H) 373,7701 DEISER, FRED & DAWN, P.O. BOX 520692, Big Lake, AK 99652. (H) 745-3501 DEISER, FRED & DAWN, P.O. BOX 520692, Big Lake, AK 99652. (H) DIXON, PAUL, 429 W. 11th Ave., Anchorage, AK 99510. (H) 272-1792 ON CHEMICAL CO., INC. P.O. BOX 101246, Anchorage, AK 99510-1246(H) 277-6725 DUFENDÁCH, JON & CAROL, BOX 309, Delta Junction, AK 99701. (H) 344-0925 DUFENDÁCH, JON & CAROL, BOX 309, Delta Junction, AK 99701. (H) 895-4309 EBBEHART, KATHERYN, P.O. BOX 1006, Falmer, AK 99645. (H) 895-4309 EBBEHART, KATHERYN, P.O. BOX 1006, Falmer, AK 99645. (H) 348-3953 DUBLER, J.M. & PATTI, 7011 Genny Circle, Anchorage, AK 99504. (H) 344-0925 DUFENDÁCH, JON & CAROL, BOX 309, Delta Junction, AK 99707. (H) 895-4309 EBBEHART, KATHERYN, P.O. BOX 1006, Falmer, AK 99645. (H) 543-5072 DUFENDÁCH, JON & CAROL, BOX 309, Delta Junction, AK 99707. (H) 895-4309 EBBEHART, KATHERYN, P.O. BOX 1006, Falmer, AK 99645. (H) 378-3953 DUBLER, JUNCTION, AK 90707. (H) 895-6000 DOX 10000	BOSTROM, EDWIN A., P.O. BOX 56822, North Pole, AK 99705(H)	488-3946
BREWER, ALICE, 1201 W. 45th Ave., Anchorage, AK 99503. (II) 563-6734 BROOK, SUSAN, Box 93. Gustavus, AK 99826. (II) 697-2348 BROWN, DEBORAH, 1353 W. 16th Ave., Anchorage, AK 99503. (II) 278-2814 BUSH, ERIC A., HC01 Box 6231, Palmer, AK 99645. (II) 376-5664 CARLSON, KENT, 8201 Stratton Circle, Anchorage, AK 99507. (II) 344-1909 CARLSON, VERNON & PATRICIA, 431 Steese Hwy., Fair., AK 99701. (H) CARR, DERALD & MARY, HC 31 Box 5150, Wasilla, AK 99687-9703. (H) 376-5671 CLAIK, THOMAS & LENA, P.O. Box 146, Tok, AK 99780. (H) 883-5710 CLOUD, JOSEPH & BETTY, HC 01 Box 875, Kenai, AK 99611. (H) 776-8660 CRUSEY, DAVE, Boz 871667, Wasilla, AK 99687. (H) 373,7701 DEARBORN, JASON, HC 01 Box 6124, Palmer, AK 99645. (H) 745-3501 DEISER, FRED & DAWN, P.O. Box 520692, Big Lake, AK 99652. (H) DIXON, PAUL, 429 W. 11th Ave., Anchorage, AK 99501. (H) 272-1792 ON CHEMICAL CO., INC. F.O. Box 101246, Anchorage, AK 99510-1246(H) 277-6725 ON CHEMICAL CO., INC. F.O. Box 101246, Anchorage, AK 99510-1246(H) 277-6725 DUFENDACH, JON & CAROL, Box 309, Delta Junction, AK 99737. (H) 456-5363 DUBLER, J.M. & PATTI, 7011 Genny Circle, Anchorage, AK 99501. (H) 344-0925 DUFENDACH, JON & CAROL, Box 309, Delta Junction, AK 99737. (H) 895-4309 EBERHART, KATHERYN, P.O. Box 1006, Palmer, AK 99645. (H) ELLIOTT, DANIEL, 8200 Northwind "B", Anchorage, AK 99504. (H) 338-3953 EMMONS, DOROTHY, 3206 Woodland Park Dr., Anchorage, AK 99517. (H) 243-2001 ENGLE, AUGUST W. 4709 Malibu, Anchorage, AK 99517. (H) 243-2572 FYFE, KAY M., P.O. Box 288, Willow, AK 99688. (H) 479-0288 FOX, ROBERT, 627 Gaffney St., Fairbanks, AK 99701. (H) 337-7632 GREEN, DICK, 4711 Kupreanof, Anchorage, AK 99507. (H) 377-7632 GREEN, DICK, 4711 Kupreanof, Anchorage, AK 99507. (H) 688-1156 HANSON, MICHAEL, P.O. Box 671769, Chugiak, AK 99507. (H) 688-1156 HANSON, MICHAEL, P.O. Box 671769, Chugiak, AK 99507. (H) 694-7358 HANSON, ROBERT E., Box 105, Haines, AK 99645. (H) HENDERSON, ROBERT E., Box 105, Haines, AK 99645. (H) HENDERSON, ROBERT E., Box 105, Haines, AK 99645. (H) HENDERSON, ROBERT E.,	DOILE, MR. & MRS. ROBERT, P.O. Box 9-1376, Anchorage, AK 99509.(H)	561-2885
BROWN, DEBORAH, 1353 W. 16th Ave., Anchorage, AK 99503	DDENED BYTOM 1901 W ACED By (W)	344-3511
BROWN, DEBORAH, 1353 W. 16th Ave., Anchorage, AK 99503	BREWER, ALICE, 1201 W. 45th Ave., Anchorage, AK 99503(H)	563-6734
ENUSH, ERIC A., HC01 Box 6231, Palmer, AK 99645	BROOK, SUSAN, BOX 93, Gustavus, AK 99826(H)	697-2348
CARLSON, KENT , 8201 Stratton Circle, Anchorage, AK 99507. (H) 344-1909 CARLSON, VERNON & PATRICIA, 431 Steese Hwy., Fair., AK 99701. (H) CARR, DERALD & MARY, HC 31 Box 5150, Wasilla, AK 99687-9703. (H) 376-5671 CLARK, THOMAS & LENA, P.O. Box 146, Tok, AK 99780. (H) 883-5710 CLOUD, JOSEPH & BETTY, HC 01 Box 875, Kenai, AK 99681. (H) 373,7701 DERATBORN, JASON, HC 01 Box 6124, Palmer, AK 99645. (H) 373,7701 DEISER, FRED & DAWN, P.O. Box 520692, Big Lake, AK 99652. (H) DIXON, PAUL, 429 W. 11th Ave., Anchorage, AK 99501. (H) 272-1792 ON CHEMICAL CO., INC. P.O. Box 101246, Anchorage, AK 99510-1246(H) 277-6725 DUEER, PAUL & DIANE, 204 Eureka Ave., Fairbanks, AK 99701. (H) 456-5363 DUBLER, J.M. & PATTI, 7011 Genny Circle, Anchorage, AK 99507. (H) 344-0925 DUFENDACH, JON & CAROL, Box 309, Delta Junction, AK 99737. (H) 895-4309 EBERHART, KATHERYN, P.O. Box 1006, Palmer, AK 99645. (H) ELLIOTT, DANIEL, 8200 Northwind "B", Anchorage, AK 99517. (H) 243-5572 FYFE, KAY M., P.O. Box 288, Willow, AK 99688. (H) 495-0845 FOX, ROBERT, 627 Gaffney St., Fairbanks, AK 99701. (H) 243-5573 GLEERT, JIM, 28696 S. Cramer Rd., Molalla, OR 97038. (H) 479-2028 GLEERT, JIM, 28696 S. Cramer Rd., Molalla, OR 97038. (H) (MORTHWOODS NURSERY). (H) 256-6000 GLEERT, JIM, 28696 S. Cramer Rd., Molalla, OR 97038. (H) (MORTHWOODS NURSERY). (H) 261-3938 HANSON, DAVID & SHEILA, P.O. Box 34, Hope, AK 99605. (H) 688-1156 (H) 541-4938 HANSON, DAVID & SHEILA, P.O. Box 34, Hope, AK 99605. (H) 688-1156 HARGER, Katheryn D., HC2 Box 7460, Palmer, AK 99645. (H) 694-7358 HANSON, MICHAEL, P.O. Box 671769, Chugiak, AK 99507. (H) 561-4938 HANSON, ROBERT E., Box 105, Haines, AK 99827. (H) 457-1599 HARGER, Katheryn D., HC2 Box 7460, Palmer, AK 99645. (H) 688-1156 (H) 674-7358 HARGER, Katheryn D., HC2 Box 7460, Palmer, AK 99645. (H) 676-8827 MES, DR. HERBERT, 1000 E. 28th Ave., Anchorage, AK 99504. (H) 272-3828	BROWN, DEBORAH, 1353 W. 16th Ave., Anchorage, AK 99503(H)	278-2814
CARLSON, VERNON & MARY, HC 31 Box 5150, Wasilla, AK 99687-9703. (H) 376-5671 CLARK, THOMAS & LENA, P.O. Box 146, Tok, AK 99780. (H) 883-5710 CLOUD, JOSEPH & BETTY, HC 01 Box 875, Kenai, AK 99681. (H) 776-8660 CRUSEY, DAVE, BOZ 871667, Wasilla, AK 99687. (H) 373,7701 DEARBORN, JASON, HC 01 Box 6124, Palmer, AK 99645. (H) 745-3501 DEISER, FRED & DAWN, P.O. Box 520692, Big Lake, AK 99652. (H) DIXON, PAUL, 429 W. 11th Ave., Anchorage, AK 99501. (H) 272-1792 ON CHEMICAL CO.,INC. P.O. Box 101246, Anchorage, AK 99510-1246(H) 277-6725 (W) 279-4519 DOZIER, PAUL & DIANE, 204 Eureka Ave., Fairbanks, AK 99701. (H) 456-5363 DUBLER, J.M. & PATTI, 7011 Genny Circle, Anchorage, AK 99507. (H) 344-0925 DUFENDACH, JON & CAROL, Box 309, Delta Junction, AK 99737. (H) 895-4309 EBERHART, KATHERYN, P.O. Box 1006, Palmer, AK 99645. (H) ELLIOTT, DANIEL, 8200 Northwind "B", Anchorage, AK 99504. (H) 338-3953 EMMONS, DOROTHY, 3206 Woodland Park Dr., Anchorage, AK 99517. (H) 243-2001 ENGLE, AUGUST W. 4709 Malibu, Anchorage, AK 99517. (H) 243-5572 FYFE, KAY M., P.O. Box 288, Willow, AK 99688. (H) 495-0845 FOX, ROBERT, 627 Gaffney St., Fairbanks, AK 99701. (H) 479-2028 (M) 456-6000 GILBERT, JIM, 28696 S. Cramer Rd., Molalla, OR 97038. (H) 479-2028 GREEN, DICK, 4711 Kupreanof, Anchorage, AK 99507. (H) 377-632 GREEN, DICK, 4711 Kupreanof, Anchorage, AK 99507. (H) 561-4938 HANSON, DAVID & SHEILA, P.O. Box 34, Hope, AK 99605. (H) 688-1156 (W) 694-7358 HANSON, MICHAEL, P.O. Box 671769, Chugiak, AK 99507. (H) 688-1156 (W) 694-7358 HANSON, ROBERT E., Box 105, Haines, AK 99827. (H) 447-758 MEDICAN, PAT, 1170 Bilmore Trail, Fairbanks, AK 99712. (H) 477-1599 MEDICAN, PAT, 1170 Bilmore Trail, Fairbanks, AK 99712. (H) 477-1599 MEDICAN, PAT, 1170 Bilmore Trail, Fairbanks, AK 99704. (H) 272-3828 MES, DR. HERBERT, 1000 E. 28th Ave., Anchorage, AK 99504. (H) 272-3828	BUSH, ERIC A., HCO1 Box 6231, Palmer, AK 99645(H)	376-5664
CARR, DERALD & MARY, HC 31 Box 5150, Wasilla, AK 99687-9703. (H) 376-5671 CLARK, THOMAS & LENA, P.O. Box 146, Tok, AK 99780. (H) 883-5710 CLOUD, JOSEPH & BETTY, HC 01 Box 875, Kenai, AK 99611. (H) 776-8660 CRUSEY, DAVE, Boz 871667, Wasilla, AK 99687. (H) 373,7701 DEARBORN, JASON, HC 01 Box 6124, Palmer, AK 99645. (H) 745-3501 DEISER, FRED & DAWN, P.O. Box 520692, Big Lake, AK 99652. (H) DIXON, PAUL, 429 W. 11th Ave., Anchorage, AK 99501. (H) 272-1792 ON CHEMICAL CO., INC. P.O. Box 101246, Anchorage, AK 99510-1246(H) 277-6725 (W) 279-4519 DOZIER, PAUL & DIANE, 204 Eureka Ave., Fairbanks, AK 99701. (H) 456-3563 DUBLER, J.M. & PATTI, 7011 Genny Circle, Anchorage, AK 99507. (H) 344-0925 DUFENDACH, JON & CAROL, Box 309, Delta Junction, AK 99737. (H) 895-4309 EBERHART, KATHERYN, P.O. Box 1006, Palmer, AK 99645. (H) ELLIOTT, DANIEL, 8200 Northwind "B", Anchorage, AK 99504. (H) 338-3953 EMMONS, DOROTHY, 3206 Woodland Park Dr., Anchorage, AK 99517. (H) 243-2001 ENGLE, AUGUST W. 4709 Malibu, Anchorage, AK 99517. (H) 243-2572 FYFE, KAY M., P.O. Box 288, Willow, AK 99688. (H) 495-0845 FOX, ROBERT, 627 Gaffney St., Fairbanks, AK 99701. (H) 479-2028 (H) (M) 786-1629 FYFE, KAY M., P.O. Box 288, Willow, AK 99688. (H) 495-0845 FOX, ROBERT, 627 Gaffney St., Fairbanks, AK 99701. (H) 479-2028 (H) (M) 786-3512 GREEN, DICK, 4711 Kupreanof, Anchorage, AK 99516. (H) 337-7632 GREEN, DICK, 4711 Kupreanof, Anchorage, AK 99507. (H) 561-4938 HANSON, MICHAEL, P.O. Box 34, Hope, AK 99605. (H) 688-1156 HARGER, Katheryn D., HC2 Box 7460, Palmer, AK 99645. (H) 688-1156 HARGER, Katheryn D., HC2 Box 7460, Palmer, AK 99645. (H) 688-1156 HARGER, Katheryn D., HC2 Box 7460, Palmer, AK 99645. (H) 688-1156 HARGER, Katheryn D., HC2 Box 7460, Palmer, AK 99645. (H) 688-1156 HARGER, Katheryn D., HC2 Box 7460, Palmer, AK 99645. (H) 688-1156 HARGER, Katheryn D., HC2 Box 7460, Palmer, AK 99645. (H) 457-1599 FAX 474-7439 (W) 276-8827 HMES, DR. HERBERT, 1000 E. 28th Ave., Anchorage, AK 99504. (H) 272-3828	CARLSON, KENT , 8201 Stratton Circle, Anchorage, AK 99507(H)	344-1909
CLARK, THOMAS & LENA, P.O. Box 146, Tok, AK 99780.	CARLSON, VERNON & PATRICIA, 431 Steese Hwy., Fair., AK 99701(H)	
CLOUD, JOSEPH & BETTY, HC 01 Box 875, Kenai, AK 99611	CARR, DERALD & MARY, HC 31 Box 5150, Wasilla, AK 99687-9703(H)	376-5671
CRUSEY, DAVE, BOZ 871667, Wasilla, AK 99687	CLARK, THOMAS & LENA, P.O. Box 146, Tok, AK 99780(H)	883-5710
DEARBORN, JASON, HC 01 Box 6124, Palmer, AK 99645	CLOUD, JOSEPH & BETTY, HC 01 Box 875, Kenai, AK 99611(H)	7 76- 8660
DEISER, FRED & DAWN, P.O. Box 520692, Big Lake, AK 99652	CRUSEY, DAVE, Boz 871667, Wasilla, AK 99687(H)	373,7701
ON CHEMICAL CO., INC. P.O. Box 101246, Anchorage, AK 99501	DEARBORN, JASON, HC 01 Box 6124, Palmer, AK 99645(H)	745-3501
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(W)	264-2631

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They grow many of the same vegetables and berries we do but have a larger variety of fruit trees. I believe the Russians have many plant varieties that are yet to be discovered. One plant they have developed which could flourish here is the Oblepeka thornbush berry. This berry is high in Vitamin C. The juice from the berry is used as an ointment for the treatment of burns and as a drink to improve digestion. Extensive research is being conducted to improve yields and to develop a mechanical harvestor.

They also have a thornless gooseberry that is sweet and produces fruit the size of a dolf ball; a tree that produces small lemons; many

varieties of Actinidia Kiwi; and early maturing tomatoes. These hardy tomatoes are started in a greenhouse and then transplanted to a sunny protected area of the garden to ripen. The tomatoes are full sized, rich in flavor, and acclimate to the harsh arctic environment.

In the spring of 1989, several varieties of tomatoes (59-65 days) were brought back from the Siberian Institute of Horticulture in Novosibirsk. I have obtained eight varieties of these tomatoes and have a limited quantity of each for sale.

Dick Green
Natural Garden Supplies
Master Gardener
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Establishing Tissue Cultured Red Raspberries

Most of the following information was gleaned from the 1991 Proceedings of the Illinois Small Fruit and Strawberry Schools and the North American Bramble Growers Association meeting in St. Petersburg. We

thought a quick review would be worthwhile.

Tissue culture (TC) is a system whereby small portions of a plant, normally buds, are grown on an artificial medium. Most tissue cultures are grown in glass or plastic containers, hence, the process is referred to as in vitro ("vitro" is a Greek word that means glass). When grown in vitro, plant parts can be induced to grow as unorganized masses of cells (callus), to continue to develop shoots and/or roots. The type of development that occurs is primarily a function of the components of the TC medium. Components of the medium include sugar, hormones, vitamins, minerals, and water. Agar is usually added to thicken the solution for support of the tissue in the container. The cultures must be established and grown in hospital-like sterile (aseptic) conditions. Ahrens Nursery has reported that an operating room nurse helped them to obtain these conditions (Wengard, 1990).

When growing points are placed on the correct medium, the dormant axillary buds will elongate to form several side shoots. As these shoots develop, they can be cut from the mother culture and either transferred

(subcultured) to fresh propagation medium to make more plants or rooted to make a whole plant.

In general, after rooting, TC plants are further grown in plugs in a shaded greenhouse with high humidity and/or fogging facilities. The plants will be grown in these conditions until they are large enough to be transplanted, sold directly, matured in a nursery, or placed in cold storage. Some nurseries overwinter their plants in a greenhouse and begin to deliver the plants as soon as possible in the spring. TC plants are small, lightweight, and easy to ship in cartons.

TC-propagated small fruit plants are now being sold directly to the public. These plants become established

quickly and grow more rapidly than traditionally propagated plants.

Receiving TC plants: Upon receipt, open the cartons immediately, especially if in midsummer. Keep the root mass and growing medium cool and moist at all times. Plant as soon as possible. Cloudy days, just before rain, or late afternoon and evenings are always the preferred times to transplant. It also may be necessary to plant after langer of hard frost has passed.

-AHRENS NURSERY Reprinted from NASGA Newsletter 16(1) 1991 p 23