

LITERATURE CITED

1. Lagerstedt, H.B. 1981. The hot callusing pipe, a grafting aid. *Ann. Rpt. Northern Nut Growers' Ass'n.* 72:27-33.
2. Lagerstedt, H.B. 1981. A device for hot callusing graft unions of fruit and nut trees. *Proc. Inter. Plant Prop. Soc.* 31:151-159.

WINTER GRAFTING OF CEDAR, SPRUCE, AND ORNAMENTAL CHERRY

LANCE LYON

Femrite Nursery Company
13193 Arndt Road N.E.
Aurora, Oregon 97002

At Femrite Nursery we graft cedar and spruce in the greenhouse, and cherries in the field.

Production of the grafted conifers begins with the harvesting of the seedling understock. The roots are trimmed and they are potted into 4 in. pots. This is done a year before the grafting is to take place. The understock is left outside until late October and then it is brought into the greenhouse and prepared for grafting.

By December the understock is producing new roots and the scionwood is dormant and is ready to be taken for grafting. We use a side veneer graft for both the cedar and the spruce. First the cuts are made and one edge of the scion is matched to the understock. Then the graft is wrapped with a budding rubber to hold the scion in place and the sides are painted with Tree Heal. The grafts are then placed back on the bench and covered with poly to keep the humidity high until the graft union has time to heal. After about two weeks the poly is removed and the grafted plants are maintained until late spring. At that time the grafts are moved out into shade houses until fall when they are planted in the field.

The Atlas cedar cultivars we graft are *Cedrus atlantica* 'Glauca,' *C. atlantica* 'Glauca Pendula.' Spruce includes *Picea pungens* 'Moerheimii,' *P. pungens* 'Monterey,' and *P. abies* 'Pendula' (weeping Norway spruce). These are generally grown in the field for 4 or 5 years before harvesting.

The ornamental cherries are harvested after a much shorter growing cycle. Mazzard seedlings are planted in the field in April or May, grown through the summer, and some cultivars are budded in September. The following spring the plants are all cut off 6 to 8 in. above the ground. Once the buds begin to grow in the spring a single bud is selected and

allowed to grow. The cultivar bud is selected on those budded the previous fall. This selected bud growing on a well established root system will give a strong straight standard for grafting in February or March the following year.

We use a whip and tongue graft on the cherries. The understock is cut and the backcut made, then the scion is cut in the same manner and the scion is pushed into place on the understock. The graft union is then covered with masking tape and painted with Tree Heal.

At the end of the first growing season we have a salable tree. The standards that grow to 5½ ft. or larger are grafted with *Prunus subhirtella* 'Pendula Plena Rosea' (weeping double rosebud cherry). The shorter standards are grafted at 42 in. to an upright growing cultivar. We also graft any of our budded trees in which the bud did not take. These are grafted at 42 in. except for some of the *Prunus serrulata* 'Kwanzan' (Kwanzan cherry) which are grafted high for street tree use. We expect to get 3 to 4 ft. of growth on our grafts the first year and we usually sell the trees the winter after grafting.

Winter grafting of conifers is the most common method of propagating those special cultivars which do not reproduce true from seed. The ornamental cherries are winter-grafted to get the weeping cultivars up on a high standard and to pick up the misses from budding.

VOICE: This is for Lance Lyons. What time of year do you do your grafting of cedar and spruce and, over the years, what percent take do you get?

LANCE LYONS: We start in December on the spruce, pine, and cedar, and we average over 80% take. On *Acer palmatum* grafts we do not do nearly as well.

VOICE: How large a scion do you use?

LANCE LYONS: For cedar we use an 8 to 10 in. scion. On spruce we use 6 in. — one year growth.

VOICE: Have you had any experience on spruce with smaller scions not wanting to push in the spring?

LANCE LYONS: No, we have not had this problem.