

SWEETGUM GRAFTING

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Bench grafting of sweetgum during spring and summer months has been relatively successful. Grafts were made using 1-year-old seedlings as rootstock and 1-year-old branchwood of a dwarf sweetgum as scion material.

Scions were collected in winter and stored in closed polyethylene bags in a refrigerator for up to 140 days without apparent harm. Seedlings, growing in 1-gallon cans, which had broken dormancy in the greenhouse in March or were in full leaf in July, were decapitated and scions were grafted by the cleft, whip-and-tongue, or T-bud method. Stock and scion diameters were equal in the former two methods to assure cambial contact on both sides of the cut. Graft unions were wrapped with rubber bands and the entire, dormant scion and the wrapped graft union were coated with lanolin.

A total of about 60 grafts were made in 1966, half in March and half in July. Scions broke dormancy within 2 weeks of grafting. Budding was unsuccessful, probably largely because of the inexperience of the grafter. About 50 percent of the cleft grafts were successful. Whip-and-tongue grafting was successful more than 80 percent of the time and equally good or better percent of "takes" have been achieved in the 1967 and 1968 seasons. Whip-and-tongue grafts made in early April 1969 with rootstocks in full leaf and buds just beginning to swell on the scion had only about 50-percent success. Grafts made by the same method in mid-April, however, when the first leaf was just being pushed out of the buds of the scion had no takes. The dormant or near-dormant state of the scion increases the success of whip-and-tongue grafting of sweetgum.

Healthy, 3-year-old dwarf sweetgum grafts are growing in the field. When grafted high on the stem of the normal rootstock, they have a unique, pom-pom like appearance (fig. 1). Vigorous grafts suppress the growth of laterals on the normal stem of the rootstock. But unthrifty grafts lose this apical control over their rootstock and will eventually be cast off by it.



Figure 1.—Three-year-old dwarf sweetgum graft in the field. Graft union just below the crown.