ROOTING OF CUTTINGS FROM SECOND-GROWTH REDWOOD TREES AND SPROUTS MAY BE PRACTICAL

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Redwood *(Sequoia sempervirens* (D. Don) Endl.) is noted for its many unique features, including unusual sprouting ability. Metcalf (1) reported on early studies of the artificial reproduction of the species by vegetative means, and several investigators are now working in this area. However, there are few published results. The study reported here was conducted to compare the rooting ability of cuttings from basal sprouts and branches of second-growth trees.

Materials and Methods

Five second-growth trees displaying basal sprouts were selected for the study. The trees were approximately 50 years old and were from the Arcata, Calif., area. Forty cuttings, 4 to 6 inches long, were taken from each clone in October, half from tree branches and half from basal sprouts. Ten cuttings from each source were dip-treated with Rootone. Cuttings were placed in sand flats in a randomized block design in a greenhouse. Rooting success after 5 months was evaluated.

Results

Data were tested with an analysis of variance after arc sin transformation. Significant differences were found between different clones and sources of cuttings; cuttings from sprouts rooted better than those from branches of the parent trees (table 1). These findings may have application in the propagation of "plus" trees, since abundant material for cuttings can be obtained after sprouting is induced by artificial injury.

Literature Cited

TABLE 1.—*Summary of average rooting by cutting source and treatment*

Source	Treatment [1]	
	Rootone	Control
	Percent	*Percent*
Branch	16	12
Sprout	34	24

[1] Treatment with Rootone did not produce significantly more rooting.

(1) Metcalf, W.
1924. Artificial reproduction of redwood. J. Forest. 22: 873-893.

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