VEGETATIVE PROPAGATION OF *ACACIA ITEAPHYLLA*

BARRIE COATE

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In October, 1978, two especially attractive *Acacia iteaphylla* F.J. Muell specimens (Figure 1) were observed in an insect tolerance test planting at the Deciduous Fruit Field Station of the University of California in San Jose.

Since this species had proven to be comparatively resistant to Acacia psyllid, *Psylla uncatoides* Ferris & Klyver in these tests and the species has so many attractive characteristics, it was decided to attempt vegetative propagation of these especially attractive individuals.

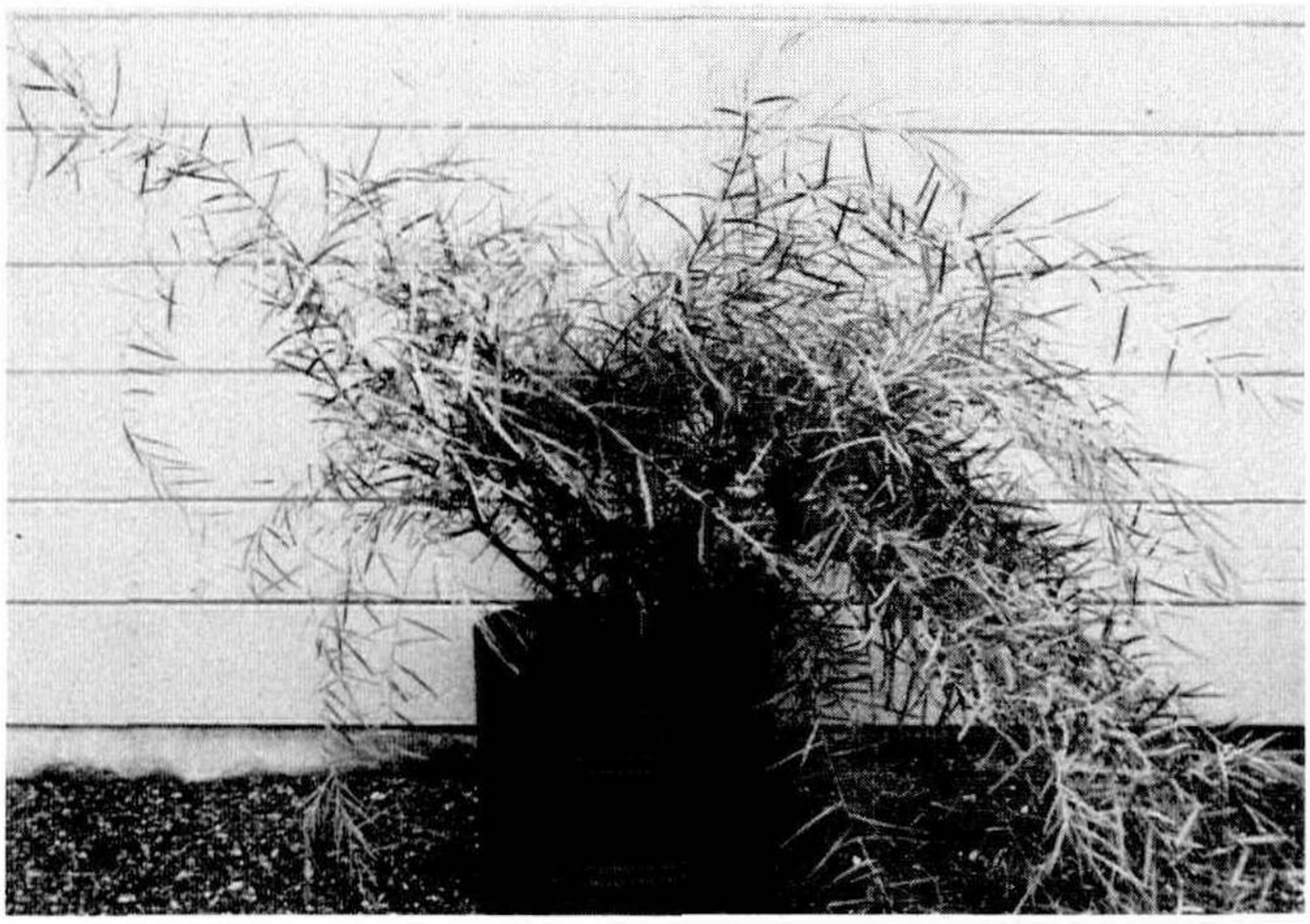

Figure 1. Appearance of *Acacia iteaphylla* cultivar.

On October 20, 1978, 3 to 4 in. long tip cuttings were collected and segregated into soft tips and semi-hard tip cuttings, each containing nine to eleven nodes, and placed in a greenhouse with 68° to 70°F bottom heat and intermittent mist at 5 sec every 20 min.

During these first trials, cuttings of one parent yielded significantly higher success than the other. The second clone has been dropped in subsequent trials.

During 1979 and 1980, plants of clone 78-60 were grown on in 1-gal, then 5 gal and finally into 15 gal containers. In order to create the desired stock plant condition, the following steps were followed:

January 19, 1982. Two 15-gal plants of 5 ft by 5 ft dimensions were placed in a heated plastic house and pruned to 18 × 18 in.

January 27 and February 3, 1982. Cut stumps and base of the trunks were painted with 500 ppm benzylaminepurine (BAP).

February 5, 1982. Latent buds were observed swelling along all old wood surfaces. A 20-20-20 liquid fertilizer was applied in sufficient quantity to drench soil ball.

March 9, 1982. Extensive sprout generation occurred.

March 24, 1982. Three to four inch terminal cuttings with soft terminal portions removed were pulled, with heels, from the old wood, dipped in Hormex #8, and stuck in a mix of 8 parts perlite and 1 part peat moss; 68° to 70°F bottom heat and a mist cycle of 5 sec in 20 min was provided.

April 20, 1982. A few leaves had dropped. The cuttings were judged to be rooting well at this point. The flat was moved to a plastic house without heat or mist. Hand watering was provided when considered necessary.

May 14, 1982. Ninety percent of the cuttings were judged to have excellent roots and top growth and they were potted to 2¼ in peat pots.

In summary, spring-collected heel cuttings from vigorous new wood near the ground produced healthy cuttings with excellent roots in 50 days (Table 1).

Subsequent work in late September, 1982, by Dr. Choong Lee, University of California at Davis, on this clone, using the same mother plants still in the greenhouse as a source of cuttings, produced similar results.

Table 1. Results obtained in the rooting of leafy cuttings of *Acacia iteaphylla*.

Clone #78-60	Clone #78-61	Type of cutting	No. of cuttings taken	Hormone treatment	Number potted	Date of potting	Percent rooting
Date Taken	Date Taken						
Sept. 20, 1978		Soft tips	98	Quick dip in 50% alcohol + Hormex #3 (IBA 3000 ppm in talc)	27	Dec. 28, 1978	28%
Sept. 20, 1978		Firm tips	89	Quick dip in 50% alcohol + Hormex #3 (IBA 3000 ppm in talc)	19	Dec. 28, 1978	21
	Sept. 20, 1978	Soft tips	49	Quick dip in 50% alcohol + Hormex #3 (IBA 3000 ppm in talc)	2	Dec. 28, 1978	4
	Sept. 20, 1978	Firm tips	45	Quick dip in 50% alcohol + Hormex #3 (IBA 3000 ppm in talc)	6	Dec. 28, 1978	13
Mar. 24, 1982		2nd cutting	88	Hormex #8 (IBA 8000 ppm in talc)	79	May 14, 1982	90