

## Discussion Group: Propagating Plants Outside the Greenhouse

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### DIRECT STICK

**Pots.** Unrooted cuttings can be stuck in 2¼-inch pots filled with standard rooting medium, placed in flats and arranged on beds made of concrete or gravel. Fifty-percent shade is used. Bottom heat is required in the winter (Southern California). Mist intervals were set from 1 to 60 min depending on weather conditions. A 30-inch wind barrier helps prevent the mist from drifting. Animal control is necessary. Success has been achieved with a select group of plants: *Berberis*, *Camellia*, *Buxus*, *Euonymus*, and *Juniperus*. Increased airflow was credited when *Bougainvillea* cuttings, stuck in summer in outdoor beds, resulted in increased rooting success.

**Field Beds.** Semi-ripe cuttings of plum, poplar, and willow can be stuck in raised beds in November, providing the soil is still warm. Rooting hormone is applied to the base before sticking and the cutting is inserted to its mid-point. The raised beds are covered with sawdust to prevent heaving.

Alternatively, cuttings (6 to 8 inches) can be collected in November and December, dipped in both liquid and powdered rooting hormone, packed in perlite, boxed, and placed in cold storage (35°F) until spring. The cuttings are checked for callus in mid-April and stuck in beds as soon as the soil is warm. The stuck cuttings are covered with white plastic for the first 6 to 8 weeks. The plastic is sliced to increase air movement after this initial period every 3 to 4 weeks until it is finally removed.

**Seed.** Seed can be directly sown in prepared beds in fall or stratified indoors and sown in spring. Beds are mulched with either sand or sawdust.

Weed control is a big concern for outdoor seedling production. With the imminent disappearance of methyl bromide, alternative methods were discussed. Vapam works well if used in summer. Beds are kept clean until seeding. Round-up or Gramoxone can be used just before seeding the beds. Flaming off weeds was suggested, but is not generally practiced. Steaming raised beds has been attempted, but the amount of water required was excessive and the depth of penetration inadequate for control. Manure should not be used to improve the organic matter content of beds because of weed seed contamination. Instead, crops of hybrid sorghum, rye, or red clover varieties were suggested. Any green manure should not be allowed to set seed and must be killed prior to cultivation into the soil.

Rodent control was another concern raised for outdoor propagation. Inverted flats with mesh bottoms, fine chicken wire buried under flats, and placement of shade cloth both underneath and over the top of flats then stapled along the side, were suggested methods. Mouse bait in lengths of pipe or bamboo had general approval from the discussion group.