

Liner Bed Production of Boxwood

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With the increased popularity of *Buxus* (boxwood) cultivars in the landscape industry and the corresponding increase in wholesale production, we at Warner Nurseries have an economical production system using field-grown liner beds. There is nothing revolutionary about our system, however, several key processes allow us to gain maximum growth with minimal time and expense.

The first key is cutting size. Cuttings are taken in September and October using a 3- to 4-inch many branched cutting from 2-year liners. When rooted these cuttings already have a well formed habit. Cuttings are dipped in a 2500 ppm KIBA solution for 5 sec. They are then stuck in a 9 inch \times 13 inch \times 3 inch propagation flat into an equal peat and perlite mix (1 : 1, v/v). Flats are given hot-water bottom heat at 70 to 72°F with light mist.

Western Lake County has heavy soils so we utilize raised beds for all liner production. Beds are formed with a standard 5-ft bed maker. All beds are dressed with 2 to 3 inches of a peat and pine-bark mix. This adds organic matter and prevents soil surface drying. The beds are then hand raked and hand planted. The second key item is that we water plants immediately after planting either with overhead irrigation or hand watering with a hose. The third key element is spacing. Ten rows across a 60-inch bed allows 6 inches between rows and plants are spaced 6 inches in the row. This allows 1 ft² per plant which gives us maximum density with no crowding or misshapen plants.

The first winter the boxwood are covered with wire hoops and white poly film. This prevents physical damage from snow or desiccation from wind. The beds are uncovered in the spring, trimmed and fertilized with a season-long slow-release fertilizer. Irrigation occurs twice per week or as needed. By the second winter plants are full enough and have enough roots; they are not covered. After a flush of growth the second spring the liners are ready for transplanting. Most plants will have good root to shoot proportions and will be a full bodied 10 inch \times 10-inch plant. We do not want a skinny liner. The liners are field planted and will be harvested as B&B plants in 2 years or canned into 2-gal containers and shipped after one growing season. We are producing salable B&B within 4½ years from a cutting and a salable 2 gal within 3½ years from a cutting due to these key processes in our production system.