

How We Root *Taxus baccata* 'Repandens'

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Over the past 25 years we have successfully rooted *Taxus* × *media* cultivars. However, *T. baccata* 'Repandens' has been a real challenge for us. We were producing inconsistent numbers from year to year and never caught up with our production or marketing goals, which have been on the increase.

Taxus baccata 'Repandens' is a consistent performer not only for the grower, but the landscaper and owner as well. Even though not extremely cold tolerant, it is shade and drought tolerant, and is one of the finest low-growing taxus for the landscape. We like growing this plant in the field to its perfect form.

For about the last 3 years we have made a switch from raised benches with bottom heat, to ground beds with root-zone heat. We have been very pleased with this change for our hardwood production. Along with our *T. × media* production, our *T. baccata* 'Repandens' were included in our new rooting beds.

Timing and Preparation. After several hard frosts, usually between November and December in our area, cuttings are taken and collected into poly bags and stored at 35 to 40F. Handwork includes removal of 3 to 4 in. of green from the stem, bottoms recut, and tops trimmed for uniformity. We then place cuttings in plastic lined flats in preparation for sticking.

Hormone. Prior to sticking we use Woods Rooting Compound 1% IBA, dilute (1 : 5, v/v) with water, as a 2-sec dip.

Rooting Environment. Our propagation houses are 16 ft × 100 ft and covered with 4-mil clear poly. We try to shade sometime after April 1st and water only as needed for a damp, dry environment. The ground beds are 42 in. wide and 8 in. deep, and are filled with #300 concrete sand. Temperature is kept at 60 to 65F and may be lowered to 55 to 60F after callusing. The heat is provided by circulating water from a 50-gal water heater (50,000 btu) with a circulating pump controlled by a remote bulb thermostat. Pipes are 1/2 in. PVC spaced 6 in. apart and 8 in. under the medium.

Comments. As noted previously, with our old raised bench method, we targeted May as our planting date for lining out our cuttings into field beds. But, our *T. baccata* 'Repandens' never seemed to be ready. We felt there were many pre-finished cuttings not suitable for open field production.

As our *T. baccata* 'Repandens' progressed in our new production beds, we were pleased to observe earlier callousing on all cuttings—usually after 3 weeks, and when rooting progressed—full root development.

Even though this new process missed our May planting schedule, we had increased our rooting to the 85% to 90% range from about 60%. So we are now using a fall planting schedule for all taxus—not only for a bit less to do in May, our busiest month, but to further develop the roots and tops.

We are also taking a closer look at a small cross section of *T. baccata* 'Repandens' we rooted with reduced amounts or no added rooting hormone. This avenue showed

great potential for expanded work in the current year's crop of taxus cuttings.

This combination of new and old have helped us to produce some of the nicest 2 and 3 year *T. baccata* 'Repandens' liners. Along with them, we have higher quality plants for our other taxus production.