

***Cephalotaxus* Production at Rivendell Nursery®**

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INTRODUCTION

Rivendell Nursery is a wholesale nursery of 200 acres in Southwest New Jersey. We grow a wide range of plant material in ground for B&B sales. When we started in 1988, we purchased 100% of our lining-out stock. This year, 2001, over two-thirds of our lining-out stock is produced by our propagation department. Initially, our aim was to be a deciduous tree grower but we soon realized that we needed to add a line of evergreen trees and shrubs to extend our digging/sales season and produce a more even cash flow. One of the first shrubs we tried to grow was *Taxus*. Due to a large and hungry population of whitetail deer this was a failure. In an attempt to fill this void we then tried to grow *Cephalotaxus* since it is similar in appearance and quite resistant to deer browse. We have only propagated this plant for a short number of years so the information which follows is what we are doing now and may change over the next few years.

CEPHALOTAXUS

There are eight species of *Cephalotaxus* but at Rivendell Nursery we only grow four cultivars of one species, *C. harringtonia*. The cultivars include:

- 'Prostrata'. A good low-growing almost pendulous form reminiscent of *T. baccata* 'Repandans'.
- 'Duke Gardens'. Low-growing upright plant. Similar to *T. ×media* 'Densiformis' but not as strong growing.
- 'Fastigiata'. Upright narrow form.
- 'Korean Gold'. Golden-leaved form of 'Fastigiata'.

Cephalotaxus will grow in full sun to heavy shade, although it seems happiest in sun with afternoon shade. Our first plants were planted, along side the woods and did well and subsequent plantings in full sun also did well. We have grown plants with no irrigation with little to no loss. We have dug plants in soft growth with no problems in the heat of July. *Cephalotaxus* is said to be well suited to grow in the south with good heat and drought tolerance. Overall this seems to be a tough plant that will hold up to B&B production as well as fill a need for landscapers working in areas with a high population of deer.

In six years of growing *Cephalotaxus*, we have not had any pest or disease problems. I have heard a report of mite damage as well as rumors of scale. These will have to be watched for.

PROPAGATION

At Rivendell we propagate *Cephalotaxus* by hardwood cuttings. Cuttings are taken in November-December, treated with 1000 ppm KIBA solution, and stuck in bins of perlite. Heavy wood roots well; avoid soft growth. Mist is applied for 6 sec every 20 min. This is adjusted during rooting due to day length, temperature, ventilation, etc. Bottom heat is run at 75°F in the bins. Once rooting starts cuttings are fertilized

lightly with 20N-20P₂O₅-2K₂O liquid. Cuttings are lifted in May with over 95% rooting.

We have also tried peat and perlite with mist and sand with hand watering. Both will give satisfactory results although the perlite has a better percentage rooting with more and bigger roots. The rooting bins average 10°F warmer than flats or cell packs in the same greenhouse. (i.e., if the bins are 75°F flats will be 65°F). This is why I don't use cell trays.

PRODUCTION

Cuttings are lifted in early May. They are potted in 4-inch band pots using a pine bark, peat, and perlite mix. They are then grown in 55% shade for 2 years. Plants are transplanted in spring on 4-inch rows with 31-inch spacing in row. Target size at harvest is 30 to 36 inches. We have tried fall planting and found winter losses to be high. Plants are hand dug and seem to transplant well.

The plants respond well to average fertility and water. We prune in winter, and cultivate and apply pre-emergent herbicide for weed control.

CONCLUSION

Cephalotaxis is a very handsome and useful plant. Its deer resistance, heat and shade tolerance, and ease of culture make it worth considering for wide spread nursery production. It will thrive under similar conditions that *Buxus*, *Ilex*, or *Thuja* 'Emerald' enjoy in field production. I suspect it will also do quite well in container production.