

Needle Evergreen Alternatives

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Leyland cypress, *×Cupressocyparis leylandii*, continues as the unchallenged leader for screening and hedging in the southeast. Diseases, specifically *Seridium* and *Botryosphaeria* species, have been associated with branch dieback. Few monocultures survive over time, therefore our Georgia Plant Introduction Program has been accessioning and evaluating needle evergreen taxa as possible alternatives. To date, *Chamaecyparis thyoides*, *Thuja plicata*, *Calocedrus decurrens*, *Taxus chinensis*, *Cryptomeria japonica*, and *Cephalotaxus* species have shown promise.

Plants are grown under greenhouse conditions, outside in containers, and in field plots to more holistically evaluate suitability for the nursery and landscape industries. Significant commercial application resides with *C. thyoides* and *T. plicata* clones.

***Chamaecyparis thyoides* – Atlantic white cedar**

- Over 50 clones under evaluation.
- Roots readily from cuttings, especially in November-March.
- Easy to grow in containers.
- Great range of foliage colors and growth habits.
- Drops needles in second year.
- May turn off-color in winter.
- Best clones to date – Webb #2 ('Rachel'), 'Okefenokee', 'Blue Sport', 'Webb Gold'.

***Thuja plicata* – Western arborvitae**

- Twenty-seven clones collected.
- Roots readily after cold weather.
- Easy to grow in containers.
- May discolor in winter.
- Not as fast growing as Leyland cypress.
- Best clones to date with rather incomplete evaluation information include: 'Hoyt', 'Spring Grove' (same as 'Green Giant').

***Calocedrus decurrens* – California incense cedar**

- Grows in Georgia, Oklahoma (Stillwater), Cincinnati, Boston, yet not commonly used.
- Now have 7 clones with an easy-to-root clone from Longwood Gardens.
- Best rooting with 5000 ppm K-NAA.
- Not terrifically happy in containers.
- Good dark green foliage year-round.
- Appears to require well drained soil slightly on dry side.

***Taxus chinensis* – Chinese yew**

- J.C. Raulston promoted the species and featured a handsome specimen by the shade house at Raleigh.
- More heat tolerant than any *Taxus* with perhaps the exception of *T. floridana*.
- Easily rooted from December-February cuttings with 5000 ppm K-IBA.
- Does well in container culture.

***Cryptomeria japonica* – Japanese cryptomeria**

- Widely hailed as a Leyland cypress alternative.
- Considerable tip blight (*Pestalotia* spp.?) on container-grown, overhead-watered plants; even field producers have had problems.
- Several good clones in our plant introduction program that are clean and hold good green winter color.
- 'Gyokuryu', 'Taisho Tama', and 'Winter Mint' show promise.

***Cephalotaxus* species – plum-yew**

- Forty-five clones collected during Dr. Zhang's (now at University of Maine) Ph.D. work at Georgia.
- Too slow growing to compete with Leyland cypress.
- Several outstanding shrub types as well as upright-growing forms hold dark green needle in winter.
- More growers producing it as a standard item.

×*Cupressocyparis* taxa

- Twenty-three described in new edition (5th) of *Manual of Woody Landscape Plants*.
- Nuances of each are unknown.
- Principal cultivars in southeastern nursery production are 'Haggerston Grey' and 'Leighton Green'.
- ×*Cupressocyparis ovensii* is the fastest growing of the 17 clones we have assessed.
- Leylands will not disappear so we might as well learn all that is possible about culture, diseases, and growth characteristics.