

Comptonia peregrina ‘Blue Sea’: A Compact Sweet Fern with Blue-green Foliage

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Comptonia peregrina is typically 60 to 120 cm tall and produces leaves that are 5 to 12 cm long and 1.2 to 2.5 cm wide (Dirr, 2011). *Comptonia peregrina* ‘Blue Sea’ (PP) exhibits a more compact, dense, and uniform habit than is typical for the species. It produces uniformly dark-green foliage with a blue cast (Fig. 1A). The leaves are narrower and finer in texture than the wild *C. peregrina* (Fig. 1B). ‘Blue Sea’ is like the wild plants in that its foliage produces a sweet fragrance, most noticeably on warm, sunny days. These characteristics make ‘Blue Sea’ more desirable than the straight species for the nursery industry, which is seeking cultivars of North American native species for the ornamental landscape plant market.

C. peregrina is native to eastern North America from Nova Scotia to North Carolina, western South Carolina and northern Georgia, and west to Saskatchewan, Minnesota, Illinois, and Tennessee (Hightshoe, 1988). Plants are cold hardy to the U.S. Department of Agriculture’s hardiness zone 4. The shrub is valued for its ability to grow in dry, sandy, and infertile soils with full-sun exposure (Dirr, 2011). In the wild, it occupies dry coniferous woods, exposed gravelly slopes, abandoned pastures, barrens, road cuts, highway embankments, and cut-over forested land (Hightshoe, 1988). *C. peregrina* can fix nitrogen and form nodules in association with an Actinomycete fungus (Dirr, 2011).

Origin

‘Blue Sea’ originated from an open pollination of an unnamed maternal plant of *C. peregrina* of northeastern Connecticut origin in Spring 2010 at the University of Connecticut Plant Science Research and Education Facility in Storrs, CT. Seedlings were evaluated from 2012 to 2016 and ‘Blue Sea’ was identified during Spring 2016.

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Description

‘Blue Sea’ grows 60 to 90 cm tall, with similar spread. Plants are densely branched, with a mounded habit. The alternate, fine-textured, simple leaves are linear (5 to 10 cm long and 1 to 1.5 cm wide), with coarsely toothed margins. Leaves are uniformly dark green with a blue tint (Royal Horticultural Society 135A; Royal Horticultural Society and Flower Council of Holland, 1986). Fall color can sometimes be a mixture of red, orange, and yellow, but also can be brown. Plants are monoecious, but the inflorescences are small and not

ornamentally significant. *C. peregrina* grows well in container nursery production (Lubell and Brand, 2011). Plants spread slowly by underground rhizomes. Until recently, rhizome division, which is labor intensive and yields relatively few plants, was the only viable propagation method for sweet fern, because it is difficult to produce from seed and traditional stem cuttings. Griffith Gardner et al. (2019) made stem propagation feasible by reporting a method using young, recently expanded shoots with $\geq 80\%$ success. Using this method, salable 2-gallon plants of ‘Blue Sea’ (Fig. 1C) can be produced in three growing seasons.

There is a high demand for *C. peregrina* for native landscaping and habitat restoration. Sweet fern can be used in mass plantings or in repetition in the landscape. It is an excellent foundation plant, and its fine-textured foliage can be used to complement coarse-textured plants. This shrub should be planted in areas where people can appreciate its unique aroma and placed so plants get afternoon sun to release aroma maximally. Due to its rhizomatous growth habit and size, plants can be used to stabilize gravel or sand banks, or along roadways and driveways. Lubell (2013) demonstrated that sweet fern is adaptable to challenging landscape sites such as parking lot islands that feature

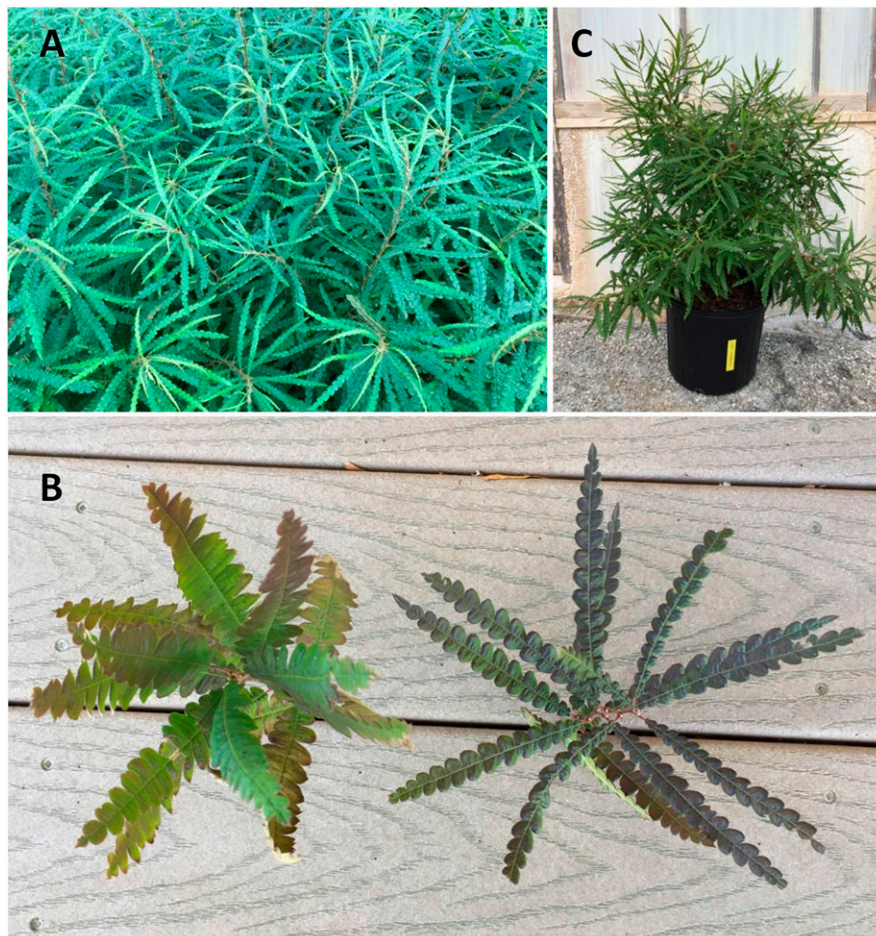


Fig. 1. Photographs of *Comptonia peregrina* ‘Blue Sea’ showing (A) blue-tinted foliage, (B) foliage of wild *C. peregrina* (left) and the narrow-leaved foliage of ‘Blue Sea’ (right), and (C) a two-gallon container plant.

infertile, compacted soil, reflected sunlight, high heat, wind, road salt, piled snow from plows, and pedestrian foot traffic.

Availability

'Blue Sea' is patented by the University of Connecticut. It will be marketed as Native-Star® Blue Sea sweet fern. It is currently licensed to Prides Corner Farms, Lebanon, CT. 'Blue Sea' has an open license, and licensing inquiries should be made to Jessica

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