

'Summer Cascade' River Birch

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Nature of Work: River birch (*Betula nigra* L.) are important landscape plants for much of the United States and are valued for their desirable ornamental characteristics (4), heat tolerance (2), tolerance to poor drainage (1), and pest resistance (3). Identification and evaluation of new forms of river birch can expand the utility of this tree for diverse landscape applications.

Results and Discussion: 'Summer Cascade' river birch (PPAF) is a new, weeping form of river birch that was discovered by John and Daniel Allen at Shiloh Nursery in Harmony, NC. The tree is unique in its pendulous habit, with graceful arching branches, that creates an ideal specimen plant or focal point in the landscape (Figure 1). Detailed characteristics of the tree include:

Habit. If untrained, the plant forms a mounded shrub or small tree with successive layers of arching branches. Alternatively, the plant can be staked/trained with a central trunk and pendulous branches. Flexible new growth also makes the tree ideal for use in topiary.

Growth Rate. Growth is fast. A 6 to 8 foot tall branched tree can be produced in one growing season from a rooted cutting.

Size. The original plant, grown free-form, is 6 feet tall and 10 feet wide after 10 years. When staked or trained, it can be grown as a tree to an undetermined height, but could potentially reach 60 feet as is typical for this species.

Adaptability. Typical of river birch, 'Summer Cascade' is extremely adaptable and tolerates a wide range of growing conditions including high temperatures and wet soils.

Pest resistance. As with other river birch, 'Summer Cascade' is expected to have excellent resistance to Bronze Birch Borer and good resistance to Birch Leaf Miner.

Propagation. 'Summer Cascade' is easily propagated by softwood stem cuttings. Terminal and sub-terminal cuttings, from firm wood, can be rooted in high percentages (> 95%) when treated with 3,000 to 5,000 ppm indole butyric acid in 50% isopropyl alcohol.

Licensing. 'Summer Cascade' River Birch PPAF is being released as a joint introduction by Shiloh Nursery, North Carolina State University, and North Carolina Foundation Seed. Funding to assist in developing and releasing this plant was provided by the North Carolina Specialty Crops Program. Parties interested in propagating this tree can contact Thomas Ranney at the following address: Tom Ranney, Professor of Horticultural Science, Department of Horticultural Science, North Carolina State University, Mountain Horticultural Crops Research and Extension Center, Fletcher, North Carolina, 28732. Phone: 828-684-3562. email: tom_ranney@ncsu.edu.

Significance to Industry: River birch is an important native species that is used extensively in landscapes across the country. 'Summer Cascade' is a unique, new weeping form of river birch that has potential for use as a specimen tree, focal point, group plantings, or creative design elements including use in topiary. The adaptability and pest resistance of this species further makes this an excellent candidate as a nursery crop and landscape plant.

Literature Cited:

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4. Weaver, R.E. Jr. 1978. The ornamental birches. *Arnoldia* 38(4):117-131. Figure 1. 'Summer Cascade' river birch.



Figure 1. 'Summer Cascade' river birch.