

Exploring *Nyssa sylvatica* Cultivars at Urban Forest Nursery

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As a lifelong tree fanatic, I am fascinated by tree cultivars, which provide our landscapes with trees that have improved characteristics and that can be mass-produced for the benefit of our urban forests. Cultivars show favorable and predictable overall form, aesthetic appeal, and pest tolerance. Through the course of serious cultivation and selection efforts, some of these eventual cultivars appeared to be freaks of nature—ones that turned out to offer broader options for various planting niches. >>

Seedling variability is more pronounced in some species and only requires a casually curious eye to see the differences. Perhaps there is no better example of this variability than in *Nyssa sylvatica*, commonly known as tupelo, black tupelo, black gum, tupelo gum, or sour gum. This tree has always been a favorite of mine, but seedling-grown trees can be broadly different in form, leaf, summer and fall color, and other attributes.

Some seedling tupelo trees are full and dense; others are tall and narrow. Some take on a weeping appearance, while others seem to be confused as to what form they want to take. Leaf size, form, and branch orientation vary, and fall color ranges from incredible to spectacular, but is seldom poor. The species form is a slow-growing, medium to large maturing tree about 25 feet (7.6 m) wide and up to 45 feet (13.7 m) tall in an urban location. Helpfully, it's genetically predisposed to deep root growth, making it less likely to heave pavement.

Before tupelo cultivars were widely available, I was involved in a street tree planting project that required more than fifty *Nyssa sylvatica* for a neighborhood planting in Snoqualmie, Washington. Only seedling trees were available, and I had the opportunity to select and tag them at a local nursery. I was wary of the seedling differences; my goal was to select all of the 2-inch (5-cm) caliper trees with as close to the same form as possible. During the selection process, I thought I had found many that were very similar.

However, over the many years following that planting, I observed and confirmed that seedling-grown *Nyssa* trees provided a plethora of canopy structures and forms too wild to describe! Good friend of mine, Snoqualmie, Washington Urban Forester Phil Bennett, can attest. Every fall, he and I inspect these trees to admire, frown, and chuckle at the natural variations that occur in this species. The weepers can be especially challenging to manage as street trees. We both loved *Nyssa sylvatica* for its general attributes for urban planting but were frustrated by the extreme variability of its seedling-grown form (see photos). >>

Tremendous seedling variability of *Nyssa sylvatica* on the streets of Snoqualmie, Washington reinforced the need for cultivar development. Photos by Jim Barborinas



Fortunately, several years ago, observant growers began to select forms that appeared to reflect the best of what *Nyssa sylvatica* has to offer. This selection process has been going on for centuries with all kinds of plants, but it has taken a while for growers to recognize *Nyssa sylvatica* as a tree worth cultivating. Turns out, it has enormous potential as an urban tree because it is tolerant of both wet and dry conditions, has few if any insect or disease issues in most locations, and has bright green shiny leaves that turn the most spectacular red color in the fall. There's wildlife value, too—female cultivars bear the small blue-black fruits that songbirds and many mammals eat.

Cultivars offer consistent form and color—at least, that is the goal, and I believe the cultivars are true to their form for the most part. However, reversions happen and can be frustrating. I have seen at least one of these *Nyssa* cultivars that's supposed to have a strong central leader revert to irregular branching—similar to what I have seen in some of the preferred forms of ginkgo.

Knowing how useful they could be for the urban forest, I am fixated on finding the perfect *Nyssa*, or at least the best ones, for urban use. That is why we are growing and evaluating twelve of the latest available *Nyssa sylvatica* cultivars at Urban Forest Nursery in Mount Vernon, Washington. They are listed with my observations; note F=Female and M=Male:

N.s. 'David Odom' (Afterburner®)
F - Spectacular fall color

N.s. 'Forum' (Forum) F - Excellent form

N.s. 'Green Gable' (Green Gable™)
M - Excellent form and color

N.s. 'Haymanred' (Red Rage®)
M - Still evaluating

N.s. 'JFS-PN Legacy1' (Gum Drop®)
M - Smaller, tighter form with good color

N.s. 'JFS-red' (Firestarter®)
M - Still evaluating

N.s. 'Northern Splendor' (Northern Splendor™) F - Most cold hardy with more fruit

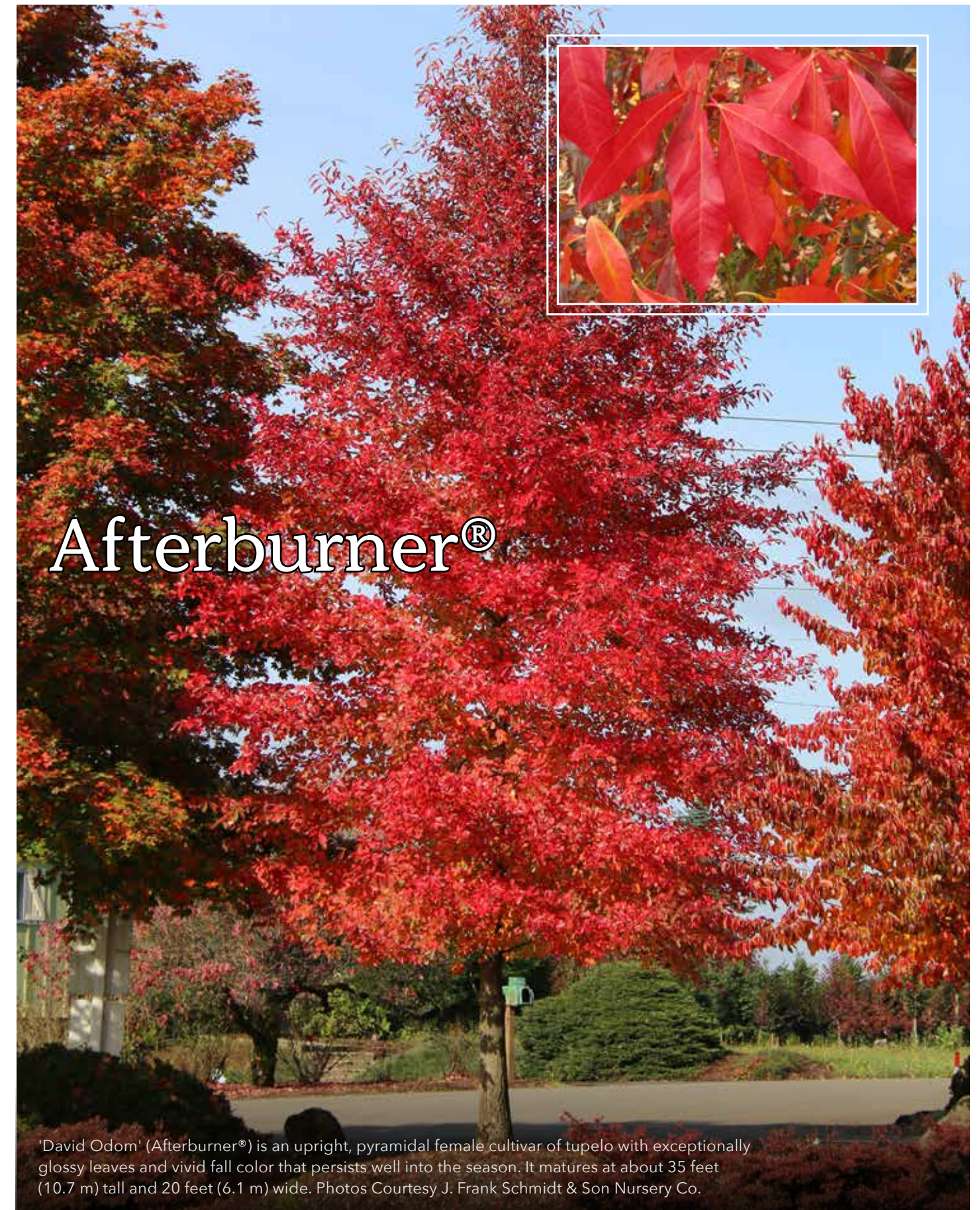
N.s. 'Red Splyndor' (Red Splyndor®)
F - Still evaluating

N.s. 'The James' (Forest Fire™)
Still evaluating

N.s. 'Tupelo Tower' (Tupelo Tower™)
F - Most narrow upright form

N.s. 'Wildfire' (Wildfire)
M - Red tipped leaves throughout the summer

N.s. 'Zydeco Twist' (Zydeco Twist)
M - An ornamental specimen with twisting curling twigs



'David Odom' (Afterburner®) is an upright, pyramidal female cultivar of tupelo with exceptionally glossy leaves and vivid fall color that persists well into the season. It matures at about 35 feet (10.7 m) tall and 20 feet (6.1 m) wide. Photos Courtesy J. Frank Schmidt & Son Nursery Co.

Firestarter®



'JFS-red' (Firestarter®) is a narrow male cultivar that colors up early in the fall. Photos Courtesy J. Frank Schmidt & Son Nursery Co.

Red Rage®



'Haymanred' (Red Rage®) is a broadly pyramidal cultivar with dark green, glossy summer foliage and bright red fall color. Photos Courtesy J. Frank Schmidt & Son Nursery Co.

Green Gable™



Upward-curving branches and a strong central leader create a gable-like canopy shape that inspired the name of this male cultivar, 'Green Gable™'. Photos Courtesy J. Frank Schmidt & Son Nursery Co.

In our quest to increase species diversity in the urban forest, *Nyssa* cultivars are a very worthy addition. As the cultivars are grown and distributed throughout the country, we will be able to gather more data on their performance. I would appreciate any comments or additional information that you might have on your experience with the growth and performance of *Nyssa sylvatica* cultivars in your region. 🍁

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