

SWAMP TUPELO

Nyssa biflora Walt.

plant symbol = NYBI

Contributed by: USDA NRCS Plant Materials Program



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Alternate Names

Nyssa sylvatica Marsh. var. *biflora* (Walt.) Sarg.,
blackgum, swamp blackgum

Uses

Wildlife: Its foliage and twigs are widely browsed by white-tailed deer. Fruits are highly nutritional and eaten by a variety of birds and small mammals. Additionally, provides cavity and nesting sites for a wide variety of birds and mammals. Its flowers are a source of nectar for bees kept by commercial honey producers.

Timber: Used mainly for lumber, veneer, paper pulp, and to some extent railroad ties. It is also used for flooring, rollers in glass factories, blocks, gunstocks, and pistol grips.

Recreation and Beautification: Excellent ornamental plant for its straight bole, shapely crown and attractive autumn foliage.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Description

Nyssa biflora (Walt.), swamp tupelo, is limited to Coastal Plain swamps and estuaries from Maryland and southeastern Virginia south to southern Florida. It grows on the east side of the Mississippi River to western and southern Tennessee. A moderately large tree, it can grow to over 100 feet in height and 3 to 4 feet in diameter; it has a narrow, oblong crown and spreading root system which commonly produces vigorous sprouts. Bark is light brown, deeply furrowed with scaly longitudinal ridges. Leaves are alternate, simple, dark green and shiny above, paler and often hairy below.

Adaptation and Distribution

Swamp tupelo grows well on a variety of wet bottomland soils including organic mucks, heavy clays, and wet sands. Best growth is achieved on sites where the soil is continuously saturated with very shallow moving water such as banks of swamps, ponds, and estuaries of the Coastal Plain, and in low coves and seepages which remain wet year-round.

Swamp tupelo is distributed throughout the Southeast. For a current distribution map, please consult the Plant Profile page for this species on the PLANTS Website.

Establishment

Stump sprouting is common following logging. It is classed as intolerant to shade and will not develop unless released.

Swamp tupelo is a prolific seed producer. Seed viability averages 60 percent, increasing as the season progresses. Seeds are disseminated primarily by gravity and birds, others generally fall to the ground and remain dormant in the litter or are carried by water.

Seed overwinters on cool, damp soil and germinates the following spring. It requires nearly full sunlight for optimum early growth. Seedlings tolerate more competition but are much less adaptable than black tupelo. Prechilled seeds must be sown in spring. Seeds are drilled at the rate of 15 per foot of row and covered with ½ - 1 inch of soil. A mulch of pine needles is recommended. Beds must be kept moist.

It sprouts from the stump following disturbance. Sprouts arise from suppressed buds and are concentrated near the top of the stump. Stump sprouts can produce seeds at 2 years of age.

Management

Seedling establishment is best accomplished by shelterwood method. Regeneration can also be accomplished by clearcutting if prior to a good seed fall or if advanced regeneration already exist. Due to the high palatability of seedlings and sprouts, swamp tupelo must be protected by controlling deer populations. It often competes with loblolly and shortleaf pine for water and light, reducing its growth and development. Basal tree injections with approved herbicides are effective control methods for crown kill.

Pests and Potential Problems

The forest tent caterpillar (*Malacosoma disstria*) defoliates swamp tupelo causing growth loss and mortality. Tupelo lesion caused by *Fusarium solani* results in swelling and roughened bark. *Fomes spp.*, *Polyporus spp.*, *Daedalea ambigua*, *Hydnum erinaceum*, *Lentinus tigrinus*, and *Pleurotus ostreatus* fungi cause heartrot. It is highly susceptible to sapsucker and easily damaged by salt spray and sulfate-enriched water.

Cultivars, Improved, and Selected Materials (and area of origin)

No cultivars are recommended at this time. Seeds are extracted from ripe fruits picked from the ground, from standing or felled trees.

Prepared By & Species Coordinator:
USDA NRCS Plant Materials Program

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