

Hydrangeaceae

Species: *Hydrangea quercifolia* Bartr.

Common Name: Oakleaf hydrangea

Species Code: HYQU3

Ecotype:

Outplanting Site: Natchez Trace Parkway 3X section and others.

Outplanting Date: 3X section planted in 1994, other sections of the Natchez Trace Parkway were planted in 1996.

#### TARGET SEEDLING INFORMATION

Stock Type: Containerized.

Height: 0.6 to 1.2 meter (2 to 4 foot)

Caliper:

Root System:

#### SEED PROPAGATION

Propagation Environment: Greenhouse

Seed Propagation Method: Sown in flats or packs.

Source of Seeds: Natchez Trace Parkway, between mile marker 52 and 53.

Collector/Date: B.B. Billingsley, Jr/November 18, 1994, November 4, 1993

Seeds/Kg:

% Germination:

% Purity:

Seed Processing: Seeds were shaken from the capsules and required little cleaning other than limited hand screening to remove some trash.

Seed Storage: Normal cool, dry storage. PMC cooler is maintained at 12.7 °C (55 °F) and 45% relative humidity.

Seed Dormancy: None is apparent (Dirr and Heuser, 1987).

Seed Treatments: No pretreatment required. Seeds germinate readily in two weeks (Dirr and Heuser, 1987).

Container Type and Volume: 2 gallon plastic containers were the final planting container for the 3X section. Plants to be planted on the other sections needed to be held longer so they were moved from a 2 to a 3 gallon in 1995.

Growing Media: Media was mixed by PMC staff and ranged from a 3:1 to 6:1 pine bark to sand medium throughout the production years.

Total Time To Harvest:

Sowing Date: March to April.

% Emergence and Date:

Sowing/Planting Technique: Oakleaf hydrangea seeds are very tiny. Initially, seeds were sown in a planting flat on the surface of the growing medium. However, the small size of the seeds resulted in a planting rate that was too heavy and seedlings quickly became crowded. Attempts to transplant these densely growing seedlings led to a great deal of mortality. However, leaving the crowded seedlings in the flat also led to the same result. Subsequent plantings were made in cell packs, which provided space between clumps of seedlings. Seedlings in each cell were then treated as a single plant. Seedlings also grew better if the planting flats were sub-irrigated, which decreased damping off by keeping moisture off of the leaves and stems.

Establishment Phase:

Rapid Growth Phase:

Hardening Phase:

Harvest Date: Early to mid-November

Storage Conditions:

Storage Duration:

## VEGETATIVE PROPAGATION

Vegetative Propagation Method: Oakleaf hydrangea is fairly difficult to root from cuttings. Cuttings should be taken from May to July (Dirr and Heuser, 1987). Cuttings from the current year's growth taken in July from plants along the Natchez Trace Parkway rooted in very low percentages.

Propagator: Janet Grabowski and B.B. Billingsley, Jr.

Comments: Containerized plants did not overwinter well. Root growth was adversely affected by saturated growing media and diseases, a result of the wet winters characteristically experienced in Mississippi. Seedlings were capable of growing to plantable size in one year and should be planted out without overwintering.

Distribution: Found from Florida and Georgia to Louisiana, north to Kentucky and Tennessee.

References:

Dirr, M.A. and Heuser, C.W, Jr. 1985. The reference manual of woody plant propagation from seed to tissue culture. Varsity Press, Inc., Athens, GA. 239 p.