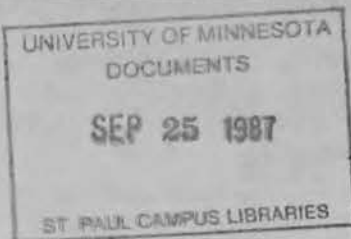


Arboretum Review



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ARBORETUM NO. 10-1971
LEON C. SNYDER

Ash--species and cultivars

Ashes generally are fast growing shade trees that grow well on a wide variety of soils. Most species grow with a central leader and branches that come out at a wide angle, thus producing sturdy trees that can withstand wind damage. Although related to our lilac, most species do not produce showy flowers. A few that do have showy white flowers have not been hardy in our trials. The following species and cultivars have been or are being evaluated in our arboretum plantings.

Fraxinus americana (White Ash)—This species can become a very large tree reaching a height of 100 feet and a diameter of 5 feet or more. It is native from Nova Scotia to Iowa and Nebraska and southward. A few native trees can be found along the Mississippi and St. Croix rivers as far north as Pine County in Minnesota. Planted trees have done well in the Twin Cities area.

The leaves of the white ash are borne opposite each other on the stem, like a feather. The under surface of the leaf is pale green. In fall, the leaves frequently turn a purplish color.

The fruit is a dry samara. The body of the fruit is narrowly elliptical with a terminal flat wing that extends downward along the sides for a short distance.

The wood of the white ash is straight grained, hard, and used in the manufacture of tool handles, furniture, and interior trim of buildings.

Several white ash cultivars recently have been introduced. 'Autumn Purple' was planted in 1970 and 'Rose Hill' in 1971. It is too early to tell just how hardy these will be in this climate. There is some evidence that 'Rose Hill' may be lacking in hardiness.

The white ash should be planted in parks and for street trees. It also makes a desirable shade tree where space permits.

Fraxinus excelsior (European Ash)—This species and several of its cultivars have been tried and found to be lacking in hardiness. The trees may live for a few years but there generally is considerable dieback each year. 'Kimberly Blue,' 'Hessei,' and 'Aurea' are cultivars that have been tried.

Fraxinus holotricha—This species from the east Balkan peninsula failed after 4 years.

Fraxinus mandshurica (Manchurian Ash)—This is a very hardy ash that was first observed growing at the Dominion Experiment Station at Morden, Manitoba. Under their conditions, the tree was very attractive with dark green foliage and a dense upright crown. A small tree planted in 1954 is now about 30 feet tall and has a narrow, upright growth habit. Three trees planted in the Arboretum in 1959 are about 20 feet tall with the same upright habit. The foliage is attractive in the spring but a leaf spot disease and a marginal browning of the leaves in late summer detract from its appearance in late summer and fall. Further testing is needed before this species can be recommended for general planting.



Blue Ash

Fraxinus nigra (Black Ash)—This is a common species in low and swampy ground from Newfoundland to Manitoba and south to Virginia and Arkansas. As with many of our swamp plants, this species has not been planted widely. We know very little of its performance under cultivation or as a lawn tree. The species grows well in the nursery and trees planted in the Arboretum are making satisfactory growth.

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Current information available from University of Minnesota Extension: <http://www.extension.umn.edu>.

The black ash is distinguished by the leaflets that are attached directly to the petiole (stem) without being on a short stalk and by the flaky rather than deeply furrowed bark.

Fraxinus pallasiae—This species from the Balkans was planted this spring. It is too early to tell whether it will prove hardy.

Fraxinus pennsylvanica (Red Ash)—This red ash is widely distributed from Nova Scotia to Manitoba and south to Georgia, Alabama, and Mississippi. It is not as common in this area as its variety *F. p. subintegerrima* (Green Ash).

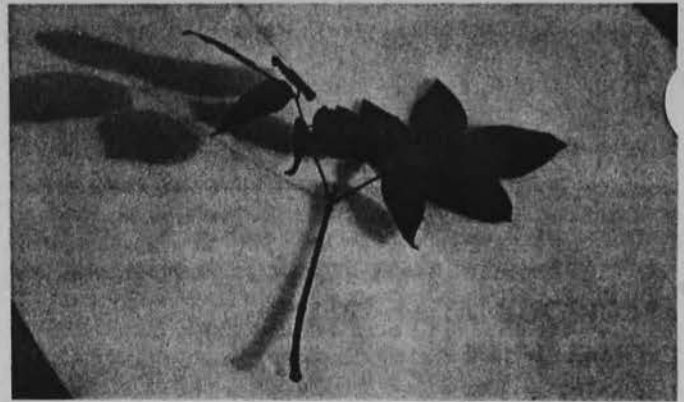
The green ash extends from Maine to Florida and west to Saskatchewan, Montana, and Texas. This is the most widely planted ash in the upper midwest. It is extensively used as a street tree, in shelterbelts, and as a shade tree.

The leaves are smooth and green on both sides. The fruits are long and slender. The terminal wing extends downward along the sides of the fruit. The leaves turn a golden yellow in the fall and the bark is deeply furrowed.

Several cultivars of the green ash are on the market. 'Marshall's Seedless' and 'Summit' have done well in our trials. 'Marshall's Seedless' is a male tree and has good clean foliage and a symmetrical crown. 'Summit' shapes up well in the nursery with a straight central leader. The foliage on the 'Summit' ash has not been as clean and attractive as the foliage on 'Marshall's Seedless.' Other cultivars are making their appearance in the nursery trade. 'Hollywood' and 'Center Point' have recently been planted. It is too soon to rate these cultivars.

Fraxinus pubinervis—This ash from Japan lived for 6 years before dying of winter injury. Based on our experience, this ash does not offer much promise.

Fraxinus quadrangulata (Blue Ash)—This species has a limited natural range from Michigan to Arkansas and Tennessee. Our specimens all have originated in the Morton Arboretum near Chicago. This species is readily identified by the four-angled stem and the attractive dark green foliage. When a cut stem is placed in water, a bluish color develops in the water. This char-



Leaf arrangement on ash

acteristic gives the plant its common name, Blue Ash.

The oldest tree we have was planted in 1954 at the Horticultural Research Center. It is now more than 20 feet tall and has developed a very symmetrical, rounded crown with dark green, clean foliage. Trees planted in the arboretum in 1959 have done well and are now about 15 feet tall. They show the same rounded crown and dark green foliage. This species is recommended for trial in southern Minnesota.

Fraxinus syriacus (Syrian Ash)—This small tree has had only a limited test. Two trees planted in 1962 lived for 4 years with varying degrees of winter injury.

Fraxinus tomentosa (Pumpkin Ash)—This large-leaved ash, native from western New York to Illinois, Louisiana, and Florida has not been hardy in our trials.

Fraxinus 'Emerald'—This cultivar was selected by Marshall Nurseries of Fremont, Nebraska. It was received as a cultivar of the green ash but examination of the foliage indicates that it is probably not a green ash. We received this ash just this spring so have not had a chance to test it for winter hardiness. This selection has done very well in Nebraska.

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