

***Fraxinus americana* 'Autumn Purple': 'Autumn Purple' White Ash¹**

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Introduction

'Autumn Purple' White Ash is a male tree introduced in 1956, growing 40 to 50 feet tall and perhaps 35 to 50 feet wide, and is a cultivar of the species which is native to moist locations. The tree grows rapidly and is almost pyramidal with a round top when young, but gradually slows down and develops an oval shape. 'Autumn Purple' White Ash prefers a sunny exposure where it will develop its consistently-outstanding deep red, maroon or purple fall color, whereas the species develops yellow or no fall color. Fall color often comes earlier than on other trees. I can not think of another tree with better, long-lasting fall color.



Figure 1. Young *Fraxinus americana* 'Autumn Purple': 'Autumn Purple' White Ash

General Information

Scientific name: *Fraxinus americana*

Pronunciation: FRACK-sih-nus
uh-mair-ih-KAY-nuh

Common name(s): 'Autumn Purple' White Ash

Family: *Oleaceae*

USDA hardiness zones: 3B through 9A (Fig. 2)

Origin: native to North America

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Invasive potential: little invasive potential

Leaf margin: entire, serrulate

Uses: street without sidewalk; shade; tree lawn > 6 ft wide; highway median

Leaf shape: ovate, lanceolate

Availability: not native to North America



Figure 2. Range

Description

Height: 40 to 60 feet

Spread: 35 to 50 feet

Crown uniformity: symmetrical

Crown shape: round, oval

Crown density: moderate

Growth rate: fast

Texture: medium

Foliage

Leaf arrangement: opposite/subopposite (Fig. 3)

Leaf type: odd-pinnately compound

Leaf venation: pinnate

Leaf type and persistence: deciduous

Leaf blade length: 2 to 4 inches

Leaf color: green

Fall color: purple

Fall characteristic: showy

Flower

Flower color: green

Flower characteristics: not showy

Fruit

Fruit shape: no fruit

Fruit length: no fruit

Fruit covering: no fruit

Fruit color: no fruit

Fruit characteristics: no fruit

Trunk and Branches

Trunk/bark/branches: branches don't droop; not showy; typically one trunk; thorns

Pruning requirement: little required

Breakage: resistant

Current year twig color: brown, gray

Current year twig thickness: thick

Wood specific gravity: 0.60

Culture

Light requirement: full sun, partial sun or partial shade

Soil tolerances: sand; loam; clay; acidic; alkaline; well-drained; occasionally wet

Drought tolerance: moderate

Aerosol salt tolerance: unknown

Other

Roots: can form large surface roots

Winter interest: no

Outstanding tree: no

Ozone sensitivity: unknown

Verticillium wilt susceptibility: susceptible

Pest resistance: sensitive to pests/diseases

Use and Management

This is a good tree for large open areas with plenty of open soil space and makes a good shade tree for homesites if shade is needed on the roof. It is somewhat adapted for use as a street tree with plenty

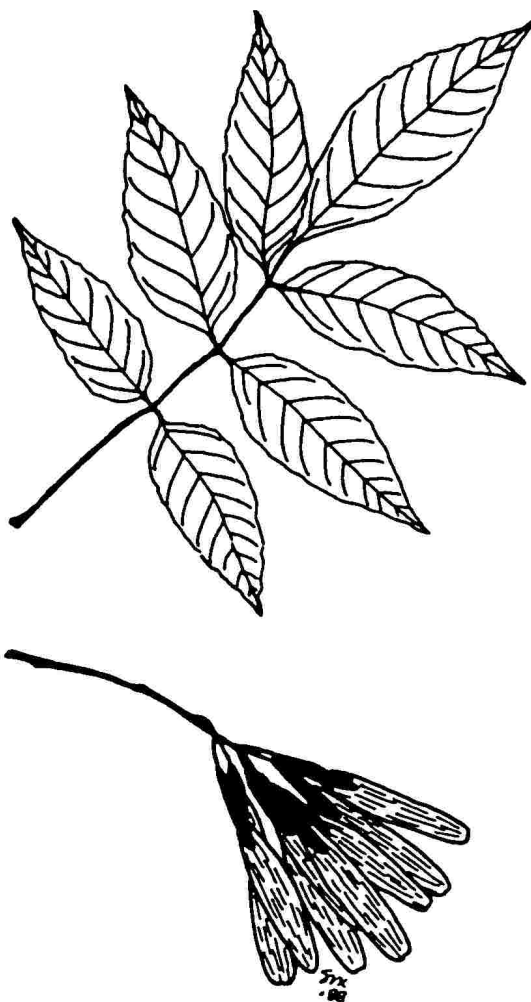


Figure 3. Foliage

of soil space but extensive use may be unwise because of potential insect and disease problems as the tree gets older and because of its sensitivity to extreme drought. Ash decline is one of its major problems and is probably caused by a complex of conditions, including a mycoplasma-like organism. It has taken out many trees in some locations. However, one advantage of 'Autumn Purple' is the lack of seeds. Seeds are a constant nuisance on the species and can limit the species' usefulness as a street tree.

Ash which have not been properly pruned can break apart in wind storms, but White Ash has better branch structure than seedling Green Ash. 'Autumn Purple' reportedly has better structure than the species with many closely-spaced branches. Be sure to space major branches along the trunk and remove those which are vigorously growing upright with narrow branch crotches. Ash also has a tendency to produce vigorous main scaffold branches opposite

each other on the trunk. Remove one so there is only one at each position on the trunk. Some problems with graft incompatibility have occurred with cultivars of White Ash causing tree failure and breakage as the tree grows. Select trees propagated on their own roots and avoid those grafted or budded to Green Ash.

Grow Ash in the full sun or partial shade preferably in a moist site although the tree does withstand some drought. Growth will be best in slightly acidic, neutral or slightly basic soil pH.

Pests

Borers can kill trees. The most common borers infesting Ash are Ash borer, lilac borer and carpenterworm. They can infest and ruin even vigorously growing trees but are most common on recently transplanted and trees stressed from other problems. Ash borer bores into the trunk at or near the soil line causing tree dieback. Lilac borer causes swellings on the trunk and limbs where the insect enters the tree. The carpenterworm larvae bore into the heartwood but come to the outside of the tree to push out frass and sawdust. Heavily infested trees can be severely weakened. Keep trees as healthy as possible by fertilizing regularly and watering during dry weather.

Aphids are often seen but are usually not serious.

In late summer, fall webworm covers branches with webbing. The nests in branches close to the ground can be pruned out when first noticed.

The Ash flower-gall looks like a disease but is actually a mite problem. The mites feed on the flowers causing abnormal growth. The galls dry out and persist on the tree into winter.

Diseases

The most serious problem is Ash decline or dieback which has a variety of causes, some poorly understood. The rest of the diseases listed below are usually not serious.

A rust disease causes distorted leaves and swollen twigs. Small, yellow, cup-like structures,

producing yellow spores, appear on the infected areas. Controls are usually not needed.

A number of fungi cause leaf spots on Ash. The disease is worse in wet years and is partially controlled by gathering and disposing of diseased, fallen leaves.

Anthracnose is also called leaf scorch and leaf spot. Infected parts of the leaves turn brown, especially along the margins. Infected leaves fall prematurely. Rake up and destroy infected leaves. Chemical controls are not practical or economical on most large trees.

Canker diseases cause branch dieback and death of the tree when the trunk is infected. Try to keep trees healthy with regular fertilization.

Powdery mildew makes a white coating on the leaves.

Ash ring spot virus causes chlorotic yellow or reddish spots or rings on the leaves. Infected trees may be stunted and dieback but this usually does not happen.

Verticillium wilt causes branches of infected trees to wilt and die, eventually the entire tree may die. Keep trees healthy and fertilize infected trees with high nitrogen fertilizer to suppress disease symptoms.