



Acer rubrum 'Armstrong' 'Armstrong' Red Maple¹

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INTRODUCTION

Unless irrigated or on a wet site, red maple does best north of USDA hardiness zone 9 (Fig. 1). 'Armstrong' Red Maple is a fast-growing, upright tree, reaching a height of 50 to 60 feet with a 15 to 25 foot spread, and has very attractive silver-grey bark. Trees are often shorter in the southern part of its range. This tree is preferred over columnar Sugar Maple or columnar Norway Maple because it much more vigorous and tolerates heat better. The newly emerging leaves and red flowers and fruits signal that spring has come. They appear in December and January in Florida, later in the northern part of its range. The seeds of Red Maple are quite popular with squirrels and birds. 'Armstrong' Red Maple has nice red, orange, or yellow fall color lasting several weeks and is often one of the first trees to color up in autumn.

GENERAL INFORMATION

Scientific name: *Acer rubrum* 'Armstrong'

Pronunciation: AY-ser ROO-brum

Common name(s): 'Armstrong' Red Maple

Family: *Aceraceae*

USDA hardiness zones: 4 through 9A (Fig. 2)

Origin: native to North America

Uses: Bonsai; wide tree lawns (>6 feet wide); medium-sized tree lawns (4-6 feet wide); recommended for buffer strips around parking lots or for median strip plantings in the highway; reclamation plant; screen; specimen; residential street tree

Availability: somewhat available, may have to go out of the region to find the tree

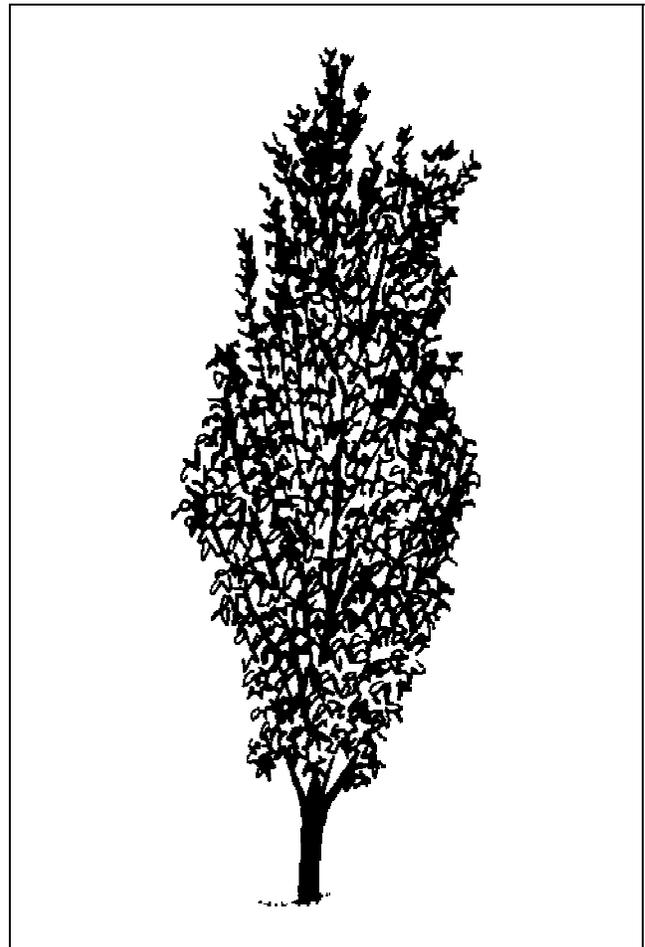


Figure 1. Middle-aged 'Armstrong' Red Maple.

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Figure 2. Shaded area represents potential planting range.

DESCRIPTION

Height: 50 to 60 feet
Spread: 15 to 25 feet
Crown uniformity: symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms
Crown shape: columnar; upright
Crown density: moderate
Growth rate: fast
Texture: medium

Foliage

Leaf arrangement: opposite/subopposite (Fig. 3)
Leaf type: simple
Leaf margin: lobed; incised; serrate
Leaf shape: star-shaped
Leaf venation: palmate
Leaf type and persistence: deciduous
Leaf blade length: 2 to 4 inches
Leaf color: green
Fall color: orange; red; yellow
Fall characteristic: showy

Flower

Flower color: red
Flower characteristics: showy; spring flowering; winter flowering

Fruit

Fruit shape: elongated
Fruit length: 1 to 3 inches
Fruit covering: dry or hard
Fruit color: red
Fruit characteristics: attracts birds; attracts squirrels and other mammals; no significant litter problem; showy

Trunk and Branches

Trunk/bark/branches: bark is thin and easily damaged from mechanical impact; grow mostly upright and will not droop; not particularly showy; should be grown with a single leader; no thorns
Pruning requirement: requires pruning to develop strong structure
Breakage: susceptible to breakage either at the crotch due to poor collar formation, or the wood itself is

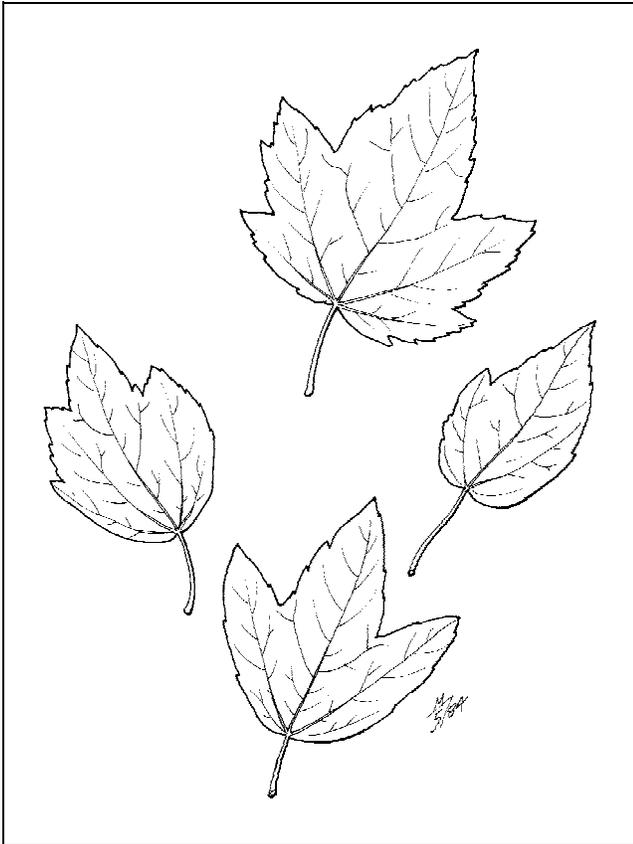


Figure 3. Foliage of 'Armstrong' Red Maple.

weak and tends to break

Current year twig color: gray; reddish

Current year twig thickness: medium

Wood specific gravity: 0.54

Culture

Light requirement: tree grows in part shade/part sun; tree grows in full sun

Soil tolerances: clay; loam; sand; acidic; extended flooding; well-drained

Drought tolerance: moderate

Aerosol salt tolerance: low

Soil salt tolerance: poor

Other

Roots: surface roots can lift sidewalks or interfere with mowing

Winter interest: tree has winter interest due to unusual form, nice persistent fruits, showy winter trunk, or winter flowers

Outstanding tree: tree has outstanding ornamental features and could be planted more

Invasive potential: little, if any, potential at this time

Verticillium wilt susceptibility: susceptible

Pest resistance: long-term health usually not affected by pests

USE AND MANAGEMENT

Having strong wood, it is well-suited as a street tree in northern and mid-southern climates in residential and other suburban areas. Probably not suited for many downtown areas due to poor, dry soil. However, the narrow crown width makes it suitable for areas with limited horizontal space such as a planting site close to a building. The upright-oriented branches and multiple trunks can develop embedded bark, creating a weak crotch which could split causing the branch to break out from the tree. Be sure to prune the tree to prevent this problem from developing by removing or pruning aggressive upright trunks so they do not become larger than about half the diameter of the main trunk. Thin bark is easily damaged in transport to the landscape and by lawn maintenance equipment.

The tree makes the best growth in wet or moist places and has no particular soil texture preference. However, chlorosis may develop on alkaline soil. The tree grows rapidly and has a moderately dense canopy in the sun but opens up in the partial shade. Irrigation is often needed to support street tree plantings in well-drained soil in the south. However, it appears to adapt to no irrigation in the south on a site where roots can explore on unlimited soil space. Roots raise sidewalks less often than silver maples do because of a slower growth rate and less aggressive root system. 'Armstrong' red maple is easily transplanted but can develop surface roots in soil ranging from well-drained sand to clay. 'Armstrong' red maple is moderately drought tolerant, benefitting from occasional irrigation, particularly in the southern part of the range.

Propagation is by grafting or cuttings, but own-root cuttings are preferred to avoid graft incompatibilities.

Pests

'Armstrong' is susceptible to leaf hoppers.

Aphids infest maples, usually Norway Maple, and may be numerous at times. High populations can cause leaf drop. Another sign of heavy aphid infestation is honey dew on lower leaves and objects beneath the tree. Aphids are controlled by spraying or they may be left alone. If not sprayed, predatory insects will bring the aphid population under control.

Scales are an occasional problem on maples. Perhaps the most common is cottony maple scale. The insect forms a cottony mass on the lower sides of branches. Scales are usually controlled with horticultural oil sprays. Scales may also be controlled with well-timed sprays to kill the crawlers.

If borers become a problem it is an indication the tree is not growing well. Controlling borers involves keeping trees healthy. Chemical controls of existing infestations are more difficult. Proper control involves identification of the borer infesting the tree then applying insecticides at the proper time.

Diseases

Some scorch occurs during periods of high temperatures accompanied by wind. Trees with diseased or inadequate root systems will also show scorching. When trees do not get enough water they scorch. Scorch symptoms are light brown or tan dead areas between leaf veins and along the leaf margins. The symptoms are on all parts of the tree or only on the side exposed to sun and wind. Scorching due to dry soil may be prevented by watering. If scorching is due to an inadequate or diseased root system, watering will have no effect.

Nutrient deficiency symptoms are yellow or yellowish-green leaves with darker green veins. The most commonly deficient nutrient on maple is manganese. Implanting capsules containing a manganese source in the trunk will temporarily alleviate the symptoms. Test soil samples to determine if the soil pH is too high for best manganese availability. Plants exposed to weed killers may also show similar symptoms.