Aesculus hippocastanum ‘Baumannii’: ‘Baumannii’ Horsechestnut

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Introduction
If horsechestnut is to be planted, this is the one to plant. Horsechestnut can grow 60 or 70 feet tall, but is often seen 40 to 55 feet with a spread of 40 to 50 feet. The trunk grows to three feet thick and is covered with dark, somewhat exfoliating bark. The prominent double white flowers, occurring in panicles at the branch tips, are the main ornamental feature of horsechestnut. The large brown nuts so characteristic of the species are missing from this fruitless cultivar, which makes this a better choose for urban landscapes than the species.

General Information
Scientific name: Aesculus hippocastanum
Pronunciation: ESS-kew-lus hip-oh-kass-TAY-num
Common name(s): ‘Baumannii’ horsechestnut
Family: Hippocastanaceae
USDA hardiness zones: 4A through 7B (Fig. 2)
Origin: not native to North America
Invasive potential: little invasive potential
Uses: tree lawn 4–6 feet wide; tree lawn > 6 ft. wide; urban tolerant; street without sidewalk; shade; specimen; screen; highway median
Availability: somewhat available, may have to go out of the region to find the tree

Figure 1. Mature Aesculus hippocastanum ‘Baumannii’: ‘Baumannii’ Horsechestnut

Figure 2. Range
Description
Height: 50 to 80 feet
Spread: 40 to 50 feet
Crown uniformity: symmetrical
Crown shape: oval, round
Crown density: dense
Growth rate: slow
Texture: coarse

Foliage
Leaf arrangement: opposite/subopposite (Fig. 3)
Leaf type: palmately compound
Leaf margin: double serrate
Leaf shape: obovate
Leaf venation: pinnate
Leaf type and persistence: deciduous
Leaf blade length: 4 to 8 inches, 8 to 12 inches
Leaf color: green
Fall color: yellow
Fall characteristic: not showy

Flower
Flower color: white/cream/gray
Flower characteristics: very 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 droop; showy; typically one trunk; thorns
Pruning requirement: needed for strong structure
Breakage: resistant
Current year twig color: brown
Current year twig thickness: very thick
Wood specific gravity: unknown

Culture
Light requirement: full sun
Soil tolerances: clay; sand; loam; acidic; alkaline; well-drained
Drought tolerance: moderate
Aerosol salt tolerance: moderate

Other
Roots: not a problem
Winter interest: yes
Outstanding tree: yes
Ozone sensitivity: unknown
Verticillium wilt susceptibility: resistant
Pest resistance: sensitive to pests/diseases

Use and Management
The growth rate is rapid while the tree is young but slows down with age. Horsechestnut is weak-wooded and some branches break from the trunk under ice or snow loads. The tree usually develops leaf scorch in dry soil, and powdery mildew during the summer, causing leaves to drop. Leaf blotch is also prevalent. This limits its wide use in any one area, but any landscape would benefit from a horsechestnut or two. It is also very tolerant of city conditions and does well in small, restricted root zone areas such as along streets. Sensitivity to air pollution injury makes it unsuited for downtown areas—best in the suburbs.

Horsechestnut prefers a sunny exposure sheltered from wind but casts dense shade with coarse-textured leaves. The tree is easily transplanted and grows in almost any urban soil, including alkaline. The large leaves and dropping twigs create litter that is considered by many to be objectionable. The species is probably best located away from hard surfaces due to dropping nuts, but this cultivar produces no nuts, making it a more versatile tree. Only moderately drought-tolerant. Will grow in calcareous soil.

Several other cultivars may be grown but will still have leaf scorch problems: ‘Pendula’—has drooping branches; ‘Pyramidalis’—upright; ‘Rubicunda’—flowers salmon red; ‘Tortuosa’—contorted growth.

Pests
White-marked tussock moth is a fuzzy caterpillar. The insect has black marks and four tufts of hair on its back.

Japanese beetle eats the leaves down to the veins. Leaves at the top and south side of the plant are often most affected and attacks can be quite sudden.
Diseases

Leaf blotch causes diseased areas of variable size on the leaves. The diseased areas are at first discolored and watersoaked, later turning light reddish-brown with bright yellow margins. If the entire leaf is affected it will dry, turn brown, and fall off. Leaf stalks may also be attacked. This disease looks very much like scorch from dry soil. Rake up and destroy old leaves.

A leaf spot disease will cause small brown circular spots on the leaves.

Powdery mildew covers the undersides of the leaves with white mold.

Anthracnose may infect terminal shoots several inches from the tip. The infected area is shrunken and the outer layers of tissue may be ruptured.

Leaf scorch is a physiological problem but will not kill the tree. The leaf margins turn brown, and then browning moves progressively inward between the veins. Eventually the entire leaf turns brown. The condition occurs in mid-summer. Keep the plant well-watered during dry weather.