**Maclura pomifera**  
Osage-Orange

Edward F. Gilman and Dennis G. Watson

**INTRODUCTION**

This deciduous North American native tree rapidly grows 30 to 40 feet tall with a spread of 20 to 40 feet and creates a dense canopy, making it useful as a windbreak (Fig. 1). Young trees can develop an upright, pyramidal habit. The large, three to six-inch-long by two to three-inch-wide, shiny, dark green leaves turn bright yellow in fall before dropping, although this color change is not quite as noticeable on trees grown in the southeastern United States. The bark is deeply furrowed and has an orange tinge to it, and the strong, durable wood is bright orange in color.

**GENERAL INFORMATION**

- **Scientific name:** *Maclura pomifera*  
- **Pronunciation:** muh-KLOO-ruh poe-MIFF-er-uh  
- **Common name(s):** Osage-Orange, Bois-D’Arc  
- **Family:** Moraceae  
- **USDA hardiness zones:** 5 through 9A (Fig. 2)  
- **Origin:** native to North America  
- **Uses:** reclamation plant; tree has been successfully grown in urban areas where air pollution, poor drainage, compacted soil, and/or drought are common  
- **Availability:** somewhat available, may have to go out of the region to find the tree

**DESCRIPTION**

- **Height:** 30 to 40 feet  
- **Spread:** 20 to 40 feet  
- **Crown uniformity:** irregular outline or silhouette  
- **Crown shape:** round; spreading  
- **Crown density:** open  

**Foliage**

- **Leaf arrangement:** alternate (Fig. 3)  
- **Leaf type:** simple  
- **Leaf margin:** entire; sinuate; undulate  
- **Leaf shape:** lanceolate; oblong; ovate  
- **Leaf venation:** pinnate  
- **Leaf type and persistence:** deciduous  
- **Leaf blade length:** 4 to 8 inches; 2 to 4 inches  
- **Leaf color:** green  
- **Fall color:** yellow  
- **Fall characteristic:** showy

1. This document is adapted from Fact Sheet ST-368, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: October 1994.

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Flower

**Flower color:** white  
**Flower characteristics:** inconspicuous and not showy; spring flowering

Fruit

**Fruit shape:** round  
**Fruit length:** 3 to 6 inches  
**Fruit covering:** fleshy  
**Fruit color:** green  
**Fruit characteristics:** attracts squirrels and other mammals; fruit, twigs, or foliage cause significant litter; showy

Trunk and Branches

**Trunk/bark/branches:** droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; routinely grown with, or trainable to be grown with, multiple trunks; showy trunk; thorns are present on the trunk or branches  
**Pruning requirement:** requires pruning to develop strong structure  
**Breakage:** resistant

Current year twig color: brown  
Current year twig thickness: thick

Culture

**Light requirement:** tree grows in full sun  
**Soil tolerances:** clay; loam; sand; acidic; alkaline; extended flooding; well-drained  
**Drought tolerance:** high  
**Aerosol salt tolerance:** moderate

Other

**Roots:** surface roots can lift sidewalks or interfere with mowing  
**Winter interest:** no special winter interest  
**Outstanding tree:** not particularly outstanding  
**Invasive potential:** little, if any, potential at this time  
**Ozone sensitivity:** tolerant  
**Verticillium wilt susceptibility:** susceptible  
**Pest resistance:** no pests are normally seen on the tree
It is reported that the Osage Indians made their hunting bows from this beautiful and hard wood, and it is also used to make furniture. From April to June, Osage-Orange puts out its inconspicuous green flowers but these are followed by the very conspicuous fruits. The fruits are four to five-inch-diameter, rough-textured, heavy green balls which ripen to yellow-green and fall in October and November. These fruits are inedible, the juice acid and milky, but squirrels relish the small seeds buried inside the pulp. When the fruits drop, they can be very messy and, for this reason, male, fruitless trees should be selected if you plant this tree. Osage-Orange is thorny, just like true citrus trees, and forms thickets if left to grow on its own. However, there are thornless cultivars available.

Osage-Orange should be grown in full sun on well-drained soil. This tough, native plant can withstand almost anything once established - heat, cold, wind, drought, poor soil, ice storms, vandalism - but appreciates regular watering when young until it is established.

Thornless, fruitless cultivars include ‘Witchita’, ‘White Shield’, and ‘Park’.

Propagation is by seed, cuttings, and root-cuttings. Young trees are easily transplanted.

**Pests and Diseases**

No pests or diseases are of major concern.