



# Invasive Plants in Pennsylvania

## White Mulberry

*Morus alba*



John M. Randall, The Nature Conservancy  
[www.forestryimages.org](http://www.forestryimages.org)

### Background:

White mulberry was introduced into the United States during colonial times in a failed attempt to establish a silkworm industry in the New World. Although the climate was not conducive to silkworm operations, the white mulberry tree thrived and spread throughout much of North America. Today, cultivars still exist in horticulture.

### Range:

A native of northern China, white mulberry now ranges from southern Canada south throughout the contiguous United States. It occurs in every state except for Nevada.

### Description:

White mulberry is a small deciduous tree with low branches and a wide spreading crown. Its roots are a distinctive, obnoxious orange, a color that is lightly reflected in its ridged, brown bark. A glossy sheen is obvious on the upper surface of its variably-lobed leaves. White mulberry flowers are green-yellow and occur in dense spikes. The aggregate fruits, which ripen from May to August, turn from green to white to red to black.



Ohio State Weed Lab Archive  
[www.forestryimages.org](http://www.forestryimages.org)

### Habitat:

White mulberry is most common in disturbed, sunny areas such as fields, forest edges and roadsides, although it tolerates part shade. It is adaptable to a variety of soil types, and can handle flooding and droughty conditions.

### Biology and Spread:

The fruit is relished by wildlife, which spread white mulberry to new locations. This tree can also expand locally through root sprouting.

### Ecological Threat:

A quick-growing species, white mulberry easily outcompetes native plants, especially in disturbed locations. The most dire threat posed by white mulberry is the hybridization and possible replacement of our native red mulberry (*Morus rubra*). To add insult to injury, it may also transmit a harmful root disease to its native relative.



Chris Evans, River to River CWMA  
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## How to Control this Species:

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### Physical

White mulberry seedlings can be easily pulled by hand, especially when the soil is moist.

Trees can be controlled through cutting and herbicide applications. During the growing season, trees should be cut near ground level, followed by an immediate application of herbicide to the stump in order to destroy the root system.

### Look-A-Likes:

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White mulberry may be confused with the exotic paper mulberry (*Broussonetia papyrifera*), as well as our native red mulberry, an issue complicated by the presence of hybrids between the two species.



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### Chemical

Apply a 25 percent solution of glyphosate mixed with water to cut stumps or girdle wounds.

If cutting is not feasible and the tree is less than six inches in diameter, herbicide may be applied to the lower trunk. From late winter to late summer, a solution of 20 percent triclopyr mixed in oil may be applied in a 12-inch band around the base of the tree.

Foliar applications of two percent glyphosate mixed with water may be considered in areas where the risk to non-target species is minimal.

## References:

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Center for Invasive Species and Ecosystem Health:

<http://www.invasive.org/browse/subinfo.cfm?sub=6050>

The Nature Conservancy: <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/journeywithnature/white-mulberry.xml>

USDA Forest Service: [http://www.invasive.org/weedcd/pdfs/wow/white\\_mulberry.pdf](http://www.invasive.org/weedcd/pdfs/wow/white_mulberry.pdf)

## For More Information:

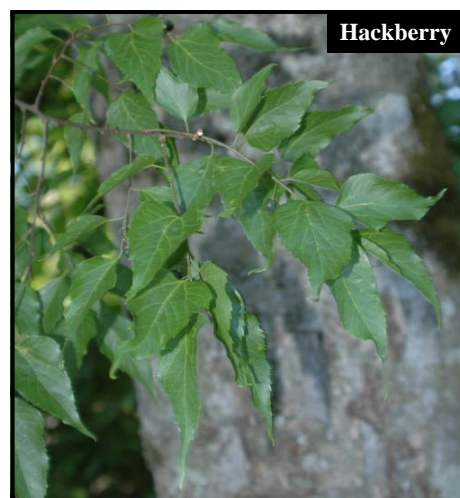
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DCNR Invasive Species Site: <http://www.dcnr.state.pa.us/conservationscience/invasivespecies/index.htm>

## Native Alternatives:

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There are many native trees that make great alternatives. Some include red maple (*Acer rubrum*), hackberry (*Celtis occidentalis*), black gum (*Nyssa sylvatica*) and sassafras (*Sassafras albidum*).



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