TORONTO MASTER GARDENER

# INVASIVE PLANTS FACT SHEETS

## WHITE MULBERRY

SUPPORTED BY
THE INVASIVE SPECIES CENTRE

Invasive Species Centre


# WHITE MULBERRY

*(Morus alba* L.*)*

## WHAT IS WHITE MULBERRY

White mulberry is a tree, native to East Asia. It was first introduced in an effort to establish a silkworm industry and later used as salt resistant and adaptable ornamental and fruit tree.

## WHY IS WHITE MULBERRY A PROBLEM

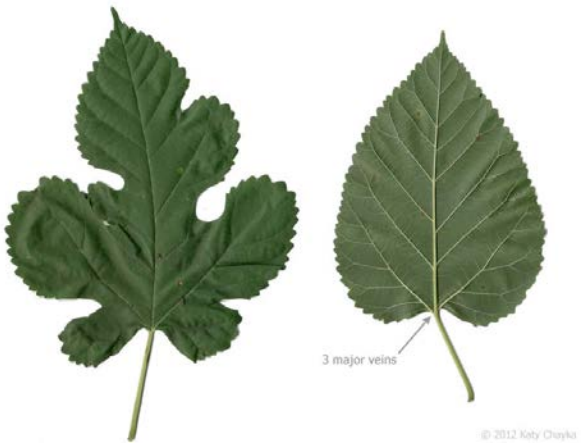
White mulberry aggressively colonizes disturbed areas and forest edges where it outcompetes and displaces native plants.

Seeds are spread widely by birds and other wildlife which eat the fruit and seedlings are vigorous with a deep and spreading root system.

However, of greatest concern is that it is the primary threat to the endangered red mulberry (*Morus rubra* L.). The white mulberry outcompetes and hybridizes with the red mulberry, which is native to the Carolinian forests of southern Ontario (only 217 known individuals remain in Ontario).

## IDENTIFICATION

**Leaves** are alternate. Leaves are simple, vary in shape from ovate to broadly ovate and range from un-lobed to many lobed. Leaves are glossy dark green on top, paler, smooth and slightly hairy along three prominent veins on the base. Leaf margins are coarsely toothed.



**Bark** is grey and rough with irregular furrows; an orange tint may be seen between bark ridges.



**Fruit** range from white to black and are ovoid or cylindrical and resemble blackberries. Fruit are edible when ripe (June to July).


## MANAGEMENT FOR THE TORONTO GARDENER

Do not plant white mulberries. Pulling or digging is recommended for removing small trees. Use caution: the milky sap contained in all parts of the white mulberry except fruit contains latex which is toxic to humans if ingested and may cause skin irritation. Waterproof gloves, protective clothing and eye protection are recommended. Contact an arborist and confirm local by-laws to assess the feasibility of removing trees. Stumps left in the

ground should be monitored for re-sprouting and sprouts removed until carbohydrate reserves are exhausted. **If you see white mulberry** or other invasive species in the wild, please contact the Invading Species Hotline at 1-800-563-7711, or visit EDDMapS Ontario to report a sighting.

## SIMILAR NATIVE PLANTS AND ALTERNATIVES

The native **red mulberry** can be difficult to distinguish from the white mulberry and may be impossible to distinguish from white mulberry hybrids. Genetic testing is necessary where identification is difficult. Most notably when comparing to the white mulberry, the upper sides of red mulberry leaves are dull, rough, and pale yellowish green and the underside is hairy and fuzzy. There is no orange tint on the inner bark.

Red mulberries may be difficult to source when looking for alternatives, although some nurseries do offer seedlings these may be hybrids unless parentage is confirmed through genetic testing.


# RED MULBERRY

*(Morus rubra)*

## OTHER SIMILAR ALTERNATIVES TO CONSIDER INCLUDE


### AMERICAN BASSWOOD
*(Tilia americana)*


### HACKBERRY
*(Celtis occidentalis)*

## FOR ORNAMENTAL FRUITING TREES, ALSO CONSIDER


### SERVICEBERRY
*(Amelanchier* spp.*)*


### PAWPAW
*(Asimina triloba)*

## REFERENCES


Burgess, K. S. and B. C. Husband. 2006. Habitat differentiation and the ecological costs of hybridization: the effects of introduced mulberry (*Morus alba*) on a native congener (*M. rubra*). Journal of Ecology. 94: 1061-1069.

Environment Canada. 2019. Species at risk public registry – Red Mulberry (*Morus rubra*). Accessed April 15, 2021 at: https://species-registry.canada. ca/index-en.html#/species/228-184#threats

Warne, Amanda. 2020. White Mulberry: Best Management Practices in Ontario. Ontario Invasive Plant Council. Accessed April 15, 2021 at: https://www.ontarioinvasiveplants.ca/wp-content/uploads/2021/01/OIPC_BMP_WhiteMulberry_June032020_WEB-1-J26.pdf


## PHOTO CREDIT

Photos courtesy of :

Peter M. Dziuk and Katy Chayka (Minnesota Wildflowers: https://www.minnesotawildflowers.info)

Helen Battersby and the Toronto Master Gardeners (as marked in individual copyright information)