FACT SHEET: VELVET TREE

Velvet Tree

Miconia calvescens
Melastome family (Melastomataceae)

NATIVE RANGE
South America

DESCRIPTION
Velvet tree is an evergreen tree that grows to about 50 feet in height when mature. Its large (up to 3 feet long), attractive leaves are dark green above and purple underneath, with three distinct veins that run roughly parallel from the base to the tip of the leaf. Flowering and fruiting begin after four to five years, when trees are about 12 feet tall, and can reoccur several times per year. Flowers are numerous, sweet-scented, white to pink in color, and very short-lived (12-24 hours after opening). The dark purple fruits are about one-half inch in diameter, sweet-tasting, and very attractive to birds.

ECOLOGICAL THREAT
Velvet tree stands create a dense canopy of shade that native plants cannot tolerate, but its own seedlings can. Masses of it ensure very little light reaches the ground. The shallow root system of velvet tree allows for increased soil erosion in previously more stable areas.

DISTRIBUTION IN THE UNITED STATES
Velvet tree is found on four of the eight main islands of Hawaii (Oahu and Hawaii Islands, Maui, and Kauai).

HABITAT IN THE UNITED STATES
The velvet tree occupies neotropical forests. It can be found as high as 6500 feet in elevation but also threatens lower elevations that receive high average annual rainfall of 6 to 7 feet or more.

BACKGROUND
The velvet tree was brought to Hawaii in 1960 as an ornamental plant. Although initially sold at nurseries for its appealing foliage, it was officially named a Hawaii State Noxious Weed in 1992.

BIOLOGY & SPREAD
After four or five years of age, velvet trees can flower and produce seed, which remains viable in soil for five or more years. Each velvet tree plant can produce an estimated three million seeds, several times each year, creating a massive soil seed bank. Birds are the primary vectors for dispersal of velvet tree seeds but, because the seeds stick to shoes, clothing, tires and other materials, humans also contribute to the spread of this noxious tree.

MANAGEMENT OPTIONS
To prevent human dispersal of the seeds, people working in infested areas should change clothes and shoes before departing and thoroughly wash all machinery and other potential dispersing agents. Uprooting young velvet trees (under about 10 feet in height) is an effective method of control. When larger trees are uprooted, adventitious rooting may occur but is unusual.

Plant Conservation Alliance's Alien Plant Working Group
Weeds Gone Wild: Alien Plant Invaders of Natural Areas
http://www.nps.gov/plants/alien/

Velvet trees that are cut down require immediate application of an herbicide like triclopyr (e.g., Garlon® 4) to the cut stump surface to prevent regrowth. Professional aerial spraying of Garlon® 4 had a 70% success rate on fruiting velvet trees, but is costly and requires careful planning to prevent unintentional application to desirable native vegetation.

Several methods of biological control are being investigated and include the potential use of several insects (e.g., lepidopteran larvae) and plant diseases (e.g., leaf spot caused by *Cocostroma myconae* and a canker disease).

USE PESTICIDES WISELY: Always read the entire pesticide label carefully, follow all mixing and application instructions and wear all recommended personal protective gear and clothing. Contact your state department of agriculture for any additional pesticide use requirements, restrictions or recommendations.

NOTICE: mention of pesticide products on this page does not constitute endorsement of any material.

OTHER LINKS

- http://www.invasive.org/search/action.cfm?q=Miconia%20calvescens
- http://www.hear.org/starr/hiplants/images/thumbnails/html/miconia_calvescens.htm

AUTHOR

Andrea Wise and Robert E. Lyons, Horticulture Department, Virginia Polytechnic Institute and State University, Blacksburg, VA

EDITOR

Jil M. Swearingen, National Park Service, Washington, DC

PHOTOGRAPHS

Hawaiian Ecosystems at Risk Project, HI, http://www.hear.org

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