Persicaria perfoliate, Mile-a-minute



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Common Name:	Mile-a-minute vine
Scientific Name:	Persicaria perfoliata
ID Description:	Mile-a-minute weed is an herbaceous annual vine. Its leaves are alternate, light green, 4 to 7 cm long and 5 to 9 cm wide, and shaped like an equilateral triangle. Its green vines are narrow and delicate, becoming woody and reddish with time. The vines and the undersides of leaves are covered with recurved barbs that aid in its ability to climb. When the small, white, inconspicuous flowers are pollinated they form spikes of blue, berry-like fruits, each containing a single glossy, black seed called an achene. Seeds can remain viable for up to 6 years.
Current Distribution in US and VT:	Connecticut, Delaware, Massachusetts, Maryland, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Virginia, West Virginia, and Washington, DC. This area comprises an estimated 20 percent of its likely potential range. One confirmed report in Chittenden County in 2023. Staff from VAAFM, FPR and F&W collaborated to eradicate detected population (follow up monitoring planned).
Habitat:	This vine colonizes open and disturbed areas with a preference for very wet soil. Typical infestation areas include stream banks, open fields, roadsides, forest edges, and fence lines. Mile-a-minute weed thrives with abundant sunlight and uses its recurved barbs to attach to and climb over other plants.
Regulated/restricted in these Northeastern states:	CT, MA, ME, NH, NY
Concern:	Can grow up to 25' in six to eight weeks. Dense, prickly thickets overtake native vegetation. Christmas tree farms, orchards, reforestation and restoration areas are at risk because of the vine's propensity to smother tree and plant seedlings. Seeds may survive in the soil for up to six years.
Means of Introduction and Spread:	Mile-a-minute is native to Asia and was first introduced to the US in the early 1900s, possibly by seeds in nursery stock. It has been found growing in root balls in an adjacent New England state nursery. It reproduces primarily through seeds; each fruit contains a single seed, and vines can produce up to 3,500 seeds per year. Fruits are eaten by birds, deer and small mammals which can spread seeds miles away from the original plant.

Plant Pest Designation Rationale

Ecological Threat:

Mile-a-minute weed grows rapidly, scrambling over shrubs and other vegetation, blocking the foliage of covered plants from available light, and reducing their ability to photosynthesize, which stresses and weakens them. In addition, the weight and pressure of the vine causes distortion of stems and branches of covered plants. If left unchecked, reduced photosynthesis can kill a plant. Large infestations of mile-a-minute weed eventually reduce native plant species in natural areas. Small populations of extremely rare plants may be eliminated entirely. Because it can smother tree seedlings, mile-a-minute weed has a negative effect on Christmas tree farms, forestry operations on pine stands and reforestation of natural areas. It has the potential to be a problem or nursery and horticulture crops that are not regularly tilled as a cultivation practice.

Economic Impact:

The economic impact of Mile-a-minute vine (*Persicaria perfoliata*) in the northeastern United States is significant, affecting various sectors including agriculture, forestry, and horticulture. This invasive weed grows rapidly, scrambling over shrubs and other vegetation, blocking their access to light and reducing their ability to photosynthesize. This reduction in photosynthesis can weaken and stress affected plants, leading to decreased crop yields in agricultural settings and reduced forest productivity in forestry operations.

The weight and pressure of the vine can cause distortion of stems and branches, further compromising the health of covered plants. In Christmas tree farms and pine stands, Mile-a-minute vine poses a threat by smothering tree seedlings and inhibiting reforestation efforts, thereby impacting the productivity and profitability of these operations. Additionally, the potential for Mile-a-minute vine to invade nursery and horticulture crops that are not regularly tilled exacerbates its economic impact by posing challenges to production and management practices. The elimination of small populations of extremely rare plants due to Mile-a-minute vine encroachment further underscores its economic impact by diminishing biodiversity and jeopardizing conservation efforts.

Feasibility of control and spread prevention:

As an annual, mile-a-minute weed can be controlled by regular tilling or mowing to prevent flowering or seeding. Young and mature plants can be removed manually before fruits ripen. It can be weed whacked at ground level, and there is a biocontrol agent available; a weevil called *Rhinocominus latipes*. Pre- and post-emergence pesticides can be used, with additives. See <u>https://extension.psu.edu/mile-a-minute</u> for more details on this technique. Triclopyr or a combination of triclopyr and glyphosate can be applied to foliage. Shading out the plants is possible too, by planting trees and ensuring that they grow unimpeded by the vines until they are large enough to survive on their own.

Mile-a-minute vine: infestation



Photo Credit: Ambrose Clancy

Mile-a-minute vine infestation



Photo credit: Cornell Cooperative Extension of Suffolk County



Reported US distribution of *Persicaria perfoliata*in EDDMaps

EDDMapS. 2024. Early Detection & Distribution Mapping System. The University of Georgia - Center for Invasive Species and Ecosystem Health. Available online at http://www.eddmaps.org/; last accessed February 16, 2024.

References:

<u>Vtinvasives.org</u> <u>NH Department of Agriculture: MAM Factsheet</u> <u>Penn State Extension</u> <u>Cornell Cooperative Extension</u> <u>USDA-National Invasive Species Information Center</u>

VA Natural Heritage

*This content was edited with the assistance of a generative artificial intelligence, ChatGPT. The content has been reviewed and verified to be accurate and complete and represents the intent of the Plant Health Section of the VT Agency of Agriculture, Food and Markets.

Other References:

Penn State Extension Purdue Extension North Carolina Department of Agriculture