



Multiflora Rose

Rosa multiflora Thunb.
Rose family (Rosaceae)

NATIVE RANGE

Japan, Korea, and eastern China

DESCRIPTION

Multiflora rose is a thorny, perennial shrub with arching stems (canes), and leaves divided into five to eleven sharply toothed leaflets. The base of each leaf stalk bears a pair of fringed bracts. Beginning in May or June, clusters of showy, fragrant, white to pink flowers appear, each about an inch across. Small bright red fruits, or rose hips, develop during the summer, becoming leathery, and remain on the plant through the winter.



ECOLOGICAL THREAT

Multiflora rose is extremely prolific and can form impenetrable thickets that exclude native plant species. This exotic rose readily invades open woodlands, forest edges, successional fields, savannas and prairies that have been subjected to land disturbance.



DISTRIBUTION IN THE UNITED STATES

Multiflora rose occurs throughout the U.S., with the exception of the Rocky Mountains, the southeastern Coastal Plain and the deserts of California and Nevada.

HABITAT IN THE UNITED STATES

Multiflora rose has a wide tolerance for various soil, moisture, and light conditions. It occurs in dense woods, prairies, along stream banks and roadsides and in open fields and pastures.

BACKGROUND

Multiflora rose was introduced to the East Coast from Japan in 1866 as rootstock for ornamental roses. Beginning in the 1930s, the U.S. Soil Conservation Service promoted it for use in erosion control and as "living fences" to confine livestock. State conservation departments soon discovered value in multiflora rose as wildlife cover for pheasant, bobwhite quail, and cottontail rabbit and as food for songbirds and encouraged its use by distributing rooted cuttings to landowners free of charge. More recently, multiflora rose has been planted in highway median strips to serve as crash barriers and to reduce automobile headlight glare. Its tenacious and unstoppable growth habit was eventually recognized as a problem on pastures and unplowed lands, where it disrupted cattle grazing. For these reasons, multiflora rose is classified as a noxious weed in several states, including Iowa, Ohio, West Virginia, and New Jersey.

BIOLOGY & SPREAD

Multiflora rose reproduces by seed and by forming new plants that root from the tips of arching canes that contact the ground. Fruits are readily sought after by birds which are the primary dispersers of its seed. It has been estimated that an average multiflora rose plant may produce a million seeds per year, which may remain viable in the soil for up to twenty years. Germination of multiflora rose seeds is enhanced by passing through the digestive tract of birds.





MANAGEMENT OPTIONS

Mechanical and chemical methods are currently the most widely used methods for managing multiflora rose. Frequent, repeated cutting or mowing at the rate of three to six times per growing season, for two to four years, has been shown to be effective in achieving high mortality of multiflora rose. In high quality natural communities, cutting of individual plants is preferred to site mowing to minimize habitat disturbance. Various herbicides have been used successfully in controlling multiflora rose but, because of the long-lived stores of seed in the soil, follow-up treatments are likely to be necessary. Application of systemic herbicides (e.g., glyphosate) to freshly cut stumps or to regrowth may be the most effective

methods, especially if conducted late in the growing season. Plant growth regulators have been used to control the spread of multiflora rose by preventing fruit set.

Biological

Biological control is not yet available for management of multiflora rose. However, researchers are investigating several options, including a native viral pathogen (rose-rosette disease), which is spread by a tiny native mite, and a seed-infesting wasp, the European rose chalcid. Rose-rosette disease, native to the western U.S., has been spreading easterwardly at a slow pace and is thought to hold the potential for eliminating multiflora rose in areas where it grows in dense patches. An important drawback to both the rose rosette fungus and the European rose chalcid is their potential impact to other rose species and cultivars.

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.

CONTACTS

For more information on multiflora rose management, please contact:

- Robert J. Richardson, Aquatic and Noncropland Weed Management, Crop Science Department, Box 7620, North Carolina State University, Raleigh, NC 27695-7620, (919) 515-5653, Rob_Richardson@ncsu.edu

SUGGESTED ALTERNATIVE PLANTS

Using native shrubs and trees for land restoration and landscaping purposes is one way to prevent invasions by multiflora rose.

OTHER LINKS

- <http://www.invasive.org/search/action.cfm?q=Rosa%20multiflora>
- <http://www.lib.uconn.edu/webapps/ipane/browsing.cfm?descriptionid=29>

AUTHORS

Carole Bergmann, Montgomery County Department of Parks, Silver Spring, MD
Jil M. Swearingen, National Park Service, Washington, DC

PHOTOGRAPHS

John M. Randall, The Nature Conservancy, Davis, CA
Barry A. Rice, The Nature Conservancy, Davis, CA
John M. Randall, The Nature Conservancy, Davis, CA

REFERENCES

Albaugh, G.P., W.H. Mitchell, and J.C. Graham. 1977. Evaluation of glyphosate for multiflora rose control. Proceedings of the New England Weed Science Society, vol. 31, pp. 283-291.

Amrine, J.W., Jr. and T.A. Stasny. 1993. Biological control of multiflora rose. Pp. 9-21. In McKnight, B.N.(ed.). Biological Pollution. Indiana Acad. Sci., Indianapolis. 261 pp.

- Evans, J.E. 1983. A literature review of management practices for multiflora rose (*Rosa multiflora*). *Natural Areas Journal* 3(1):6-15.
- Fawcett, R.S. 1980. Today's weed--multiflora rose. *Weeds Today* 11: 22-23.
- Szafone, R. 1991. Vegetation Management Guidelines: Multiflora rose (*Rosa multiflora* Thunb.). *Natural Areas Journal* 11(4):215-216.
- The Nature Conservancy. Multiflora Rose: Element Stewardship Abstract. In: *Wildland Weeds Management & Research Program, Weeds on the Web*.
- Wyman, D. 1949. *Shrubs and vines for American gardens*. New York: MacMillan Co., 613 pp.