

VEGETATION MANAGEMENT GUIDELINE

Multiflora Rose (*Rosa multiflora* Thunb.)



Photo by Kenneth R. Robertson, INHS

SPECIES CHARACTER

Description

Multiflora rose is a medium height, thorny, bushy shrub with a more spreading than erect growth form. Leaves are born alternately on the stems and divided into 5-11 leaflets (usually 7-9). Each leaflet is broadly oval and toothed along its margin. Clusters of numerous, white flowers, 3/4" - 1-1/2 inches (1.9-3.8 cm) across, blossom in late spring. The fruits are small, firm, red hips that may remain on the plant well into winter. Older rose shrubs may obtain a height of 15 feet (4.6 meters) or more with a root crown diameter of 8 inches (20 cm).

Similar Species

Multiflora rose can be distinguished from Illinois' native roses by the presence of a feathery or comb-like margin on the narrow stipules (a green, leaf-like structure) found at the base of each leaf stalk. Illinois' native rose species all have stipules at the base of the leaf stalk, but stipules of the native roses do not have feathery margins. Also, the styles (floral structures) of multiflora rose are fused together into

a column, while all native roses except for prairie rose (*Rosa setigera*) have separate styles. Multiflora rose should be accurately identified before attempting any control measures. If identification of the species is in doubt, the plant's identity should be confirmed by a knowledgeable individual and/or by consulting appropriate books.

Distribution

Multiflora rose was introduced into Illinois in the 1950's from eastern Asia for wildlife cover and food. Managers recognized that plantings of this thorny, bushy shrub provided excellent escape cover and a source of winter food. Because of its dense thorny nature, the commercial nursery trade began marketing it as a "living fence" as well. The species soon spread and became a serious invader of agricultural lands, pastures, and natural communities throughout Illinois.

Habitat

Multiflora rose occurs in successional fields, pastures, and roadsides. It also may occur in dense forests, particularly near disturbances such as treefall gaps.

Life History

Multiflora rose is named for the clusters of many white flowers born on this perennial bramble during May or June. The flowers develop into small, hard fruits called hips that remain on the plant throughout winter. The great majority of plants develop from seeds remaining in the soil relatively close to plants from which they were produced. Birds and mammals also consume the hips and can disperse them greater distances. Rose seeds may remain viable in the soil for 10-20 years. Multiflora rose also spreads by layering, i.e., where tips of canes touch the ground and form roots, and by plants that arise from shallow roots.

Effects Upon Natural Areas

Multiflora rose readily invades prairies, savannas, open woodland, and forest edges. It is a thorny, bushy shrub that can form impenetrable thickets or "living fences" and smother out other vegetation. It is a serious pest species throughout the eastern United States.

Current Status

Multiflora rose is categorized as an exotic weed under the Illinois Exotic Weed Control Act of 1987. As such, the sale or planting of this species within Illinois is prohibited.

CONTROL RECOMMENDATIONS

RECOMMENDED PRACTICES IN NATURAL COMMUNITIES OF HIGH QUALITY

Pulling, grubbing, or removing individual plants from the soil only can be effective when all roots are removed or when plants that develop subsequently from severed roots are destroyed. These approaches are most practical for light, scattered infestations.

In fire-adapted communities, a routine prescribed burn program will hinder invasion and establishment of multiflora rose.

Research indicates that 3-6 cuttings or mowings per growing season for more than one year can achieve high plant mortality. Such treatment may need to be repeated for 2-4 years. Increased mowing rates (+6/season) did not increase plant mortality. In high quality communities, repeated cutting is preferred over mowing, because repeated mowing will damage native vegetation as well as multiflora rose.

Cutting stems and either painting herbicide on the stump with a sponge applicator (sponge-type paint applicators can be used) or spraying herbicide on the stump with a low pressure hand-held sprayer

kills root systems and prevents resprouting. Roundup herbicide (a formulation of glyphosate) has been effective in controlling multiflora rose when used as a 10-20% solution and applied directly to the cut stump. Although the Roundup label recommends a higher concentration for cut-stump treatment (50-100%), this lower concentration has proven effective. With this technique, herbicide is applied specifically to the target plant, reducing the possibilities of damaging nearby, desirable vegetation. Cut-stump treatment is effective late in the growing season (July-September), and also during the dormant season. Dormant season application is preferred because it will minimize potential harm to nontarget species. Glyphosate is a nonselective herbicide, so care should be taken to avoid contacting nontarget species. In addition, Triclopyr (tradename Garlon 3A) can be applied to cut stems or canes for selective control of multiflora rose. Garlon 3A diluted in water at a rate of 50% can be sprayed, using a hand sprayer, to the cut surface. Application should be within a few hours of cutting. Use of Garlon 3A is best done in the dormant season to lessen damage to nontarget species. Great care should be exercised to avoid getting any of the herbicide on the ground near the target plant since some nontarget species may be harmed. Avoid using Triclopyr if rain is forecast for the following 1-4 days; otherwise runoff will harm nontarget species. By law, herbicides only may be applied according to label directions and by licensed herbicide applicators or operators when working on public properties.

RECOMMENDED PRACTICES ON BUFFER AND SEVERELY DISTURBED SITES

Repeated cutting, as discussed above, is effective. For large populations on severely disturbed areas, mowing can be substituted for cutting individual plants. However, mowing multiflora rose can result quickly in flat tires. On mowers, filling tires with foam is recommended.

Fosamine (tradename Krenite) can be applied as a foliar spray in a 2% solution plus 0.25% surfactant (2-1/2 ounces of Krenite plus one-half ounce surfactant per gallon of water). The Krenite S formulation contains the appropriate amount of surfactant. Coverage of foliage should be complete. Krenite should be applied only in July-September. No effects will be observed during the autumn season following application. Slight regrowth may occur the following season but canes will die during summer. Fosamine kills only woody species and is non-volatile, therefore it is the preferred foliar spray treatment.

Dicamba (tradename Banvel) is an effective foliar spray that is less preferred than Krenite. Banvel is selective against broadleaf plants, so care must be taken to avoid contacting desirable, broadleaf vegetation. It can be applied as a foliar spray in a 1% solution (1 ounce of Banvel per gallon of water). Though this solution can be applied any time during the growing season, best results are obtained during May and June when plants are actively growing and flowering, following full leaf-out. One-half ounce of a surfactant should be added when treating dense foliage and, to enhance control in late season applications, complete coverage of all green leaves should be achieved. **Do not spray Krenite or Dicamba so heavily that herbicide drips off the target species. Foliar spray of herbicides should only be used in less sensitive areas because of problems with contacting nontarget species.** By law, herbicides only may be applied according to label directions and by licensed herbicide applicators or operators when working on public properties.

Glyphosate (tradename Roundup) is an effective foliar spray when applied as a 1% solution to multiflora rose plants that are flowering or in bud. Roundup is not a preferred chemical treatment, however, because it is nonselective and the selective herbicides mentioned above are effective. Nevertheless, Roundup can be used as a foliar spray during the growing season on severely disturbed sites if care is taken to avoid contacting nontarget plants. Roundup should not be used as a foliar spray during the growing season in high-quality natural areas because it can result in damage to nontarget species. Roundup is useful as a foliar spray for alien plants that remain green and retain their leaves after native vegetation is dormant or senescent. Multiflora rose does not fit this description adequately and is controlled most effectively when treating during the growing season.

FAILED OR INEFFECTIVE PRACTICES

No effective biological controls that are feasible in natural communities are known. Rose rosette disease is a sometimes fatal viral disease that attacks multiflora rose and other roses. This disease is not considered a useful biological control at this time because it may infect native roses and plums, as well as commercially important plants in the rose family such as apples, some types of berries, and ornamental roses.

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PERSONAL COMMUNICATIONS

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Laurie, Dennis. 1989. Lake County Forest Preserve District, Libertyville, Illinois.

Schwegman, John E. 1989. Division of Natural Heritage, Illinois Department of Conservation, Springfield, Illinois.

Written for the Illinois Nature Preserves Commission by:

Bob Szafoni
Illinois Department of Conservation
R.R. 2, Box 108
Charleston, Illinois 61920

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