

WEED CONTROL NOTES

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MULTIFLORA ROSE AND ITS CONTROL

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Multiflora rose (*Rosa multiflora* thumb.) has been planted in Virginia for more than forty years. It was grown in large quantities at a U. S. Soil Conservation nursery at Sandy Level, Virginia (near Gretna) from the late 1930's until 1953 when the nursery was closed. The nursery supplied the Civilian Conservation Corps and the Soil Conservation Service with plants for growing "living fences" and wildlife plantings. Plants were grown by the millions and shipped all over the United States. These original plantings have continued to spread resulting in the present widespread distribution.

In recent years, the Virginia Department of Highways has used multiflora rose in medians on interstate and other four-lane highways as crash barriers and for reducing headlight glare. The plants' vigorous growth habits made it ideal for these purposes. Multiflora rose has not been planted by the Virginia Department of Highways near pastures since the late 1960's and in recent years, planting of multiflora rose has been totally discontinued. Nurserymen throughout the country continue to use the tough multiflora rose as rootstocks for cultivated roses. This use has likely been responsible for many infestations by sprouts coming from these rootstocks.

Well-established multiflora rose plants produce enormous quantities of fleshy seed that are eaten by birds and the seeds are spread over wide areas. Young plants produce few seeds and it takes several years for them to become major sources of seed. Heavy infestations usually occur only where a nearby group of seed-producing plants at least ten years of age are present. Unfortunately, there are now enough of these old stands to thoroughly infest the state.

CHEMICAL CONTROL

There are several labeled compounds that will kill multiflora rose when used correctly. These are 2,4-D and 2,4,5-T combinations, dicamba, dicamba-2,4,5-T combinations, silvex, and picloram. As with all herbicides, they must be applied carefully and according to instructions on the label. Much interest has centered around picloram (Tordon 10K) which recently received approval for use in Virginia for multiflora rose control in pastureland. Use of Tordon 10K pellets for multiflora rose control in pastures is legal only by persons who have received special training on its proper usage. The other chemicals mentioned above have been in use for many years and are readily available.

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(METHODS OF APPLICATION)

Summer foliage applications: Broadcast spraying. Broadcast spraying of multiflora rose with a fixed boom is usually very difficult due to varying heights of individual plants and because the heavy growth of thorny stems makes the areas almost impenetrable. Probably the most satisfactory method of broadcast spraying from ground is to use a multiple orifice or "cluster nozzle" that will cover from 20-25 feet. Complete coverage with any ground broadcast spray rig is almost impossible. In heavy infestations, aerial applications will usually give better coverage and consequently better control. Aerial applications should be made with booms equipped with nozzles that deliver 15-25 gallons per acre using droplet sizes that are large enough to penetrate the dense foliage and to prevent drifting to sensitive crops. The liquid formulations of Tordon are not labeled for use on pastures but can be used on non-crop areas.

Spot spraying. Spraying individual plants or clumps of multiflora rose is the most satisfactory method of ground application. A handgun directed on the plants insures good coverage and conserves the chemicals since the total area is usually not infested. Either a power sprayer or knapsack sprayer can be used. Use nozzles that produce large droplets since large droplets are less likely to drift onto sensitive crops or other nearby desirable vegetation.

Summer foliage application should be made with the low-volatile ester or amine formulation. Spraying should be done during the spring or early summer when plants are in full leaf and actively growing. Use 2-4 lbs of actual chemical (2-4 qts of 4 lb/gal formulation) or combinations thereof per acre in enough water to wet the foliage. Usually 50 gallons or more per acre are required to give good coverage. Most other woody plants are also controlled but resprouting may occur and another treatment may be required for complete kill.

Dormant spraying. Certain formulations of 2,4-D + 2,4,5-T and dicamba can be mixed with No. 2 fuel oil or kerosene and applied to the stem and base of multiflora rose during the dormant season. Oil mixtures kill grass and should be applied only as spot treatments where the area sprayed can be carefully controlled. Most of the formulations for use with oil will be designated as "O.S." or oil soluble. This means that they mix freely with oil. With certain oil soluble formulations, up to 85% water can be substituted for fuel oil--but only if designated on the label.

In making dormant applications with oil or oil-water mixtures as a carrier, it is necessary to thoroughly wet the lower third of the stems and the base of the multiflora rose. Oil and oil-water mixtures will drift as far as, or further than, sprays of water alone and care should be exercised when spraying near desirable vegetation.

Dosage rates will vary with the formulation available, but a mixture containing at least four pounds of 2,4-D + 2,4,5-T or 2,4-D + dicamba per 100 gallons of spray mixture is necessary for good results.

Granular applications. The only granular material labeled for control of multiflora rose in pastures is picloram (Tordon 10K).

Caution! Picloram is a highly mobile compound and may be moved with surface or underground water for several hundred feet from the point of application. Minute quantities will kill large trees and other desired vegetation. It is especially harmful when washed into ponds used for irrigation. Tobacco, tomatoes, and potatoes are extremely sensitive and may not grow for several years in contaminated soil. Severe injury to tobacco has occurred from right-of-way application of granular picloram.

Picloram is highly effective because of the following properties: It (1) is water soluble and highly mobile, (2) is absorbed by both top and roots of plants, (3) is translocated both upward and downward to growing points, (4) decomposes slowly and, (5) is highly toxic to woody plants at very low concentrations. These characteristics also contribute to the injury of non-target plants. Tobacco has been injured by the material getting into irrigation water and even from animal excretions after the animal grazed in treated areas. Tulip poplar and other trees growing 100' from area of treatment have been injured when roots growing into treated areas absorbed the chemical. Damage to trees or sensitive vegetation may occur at much greater distances when the material moves down a slope with surface or underground water. The label Restrictions for Pasture and Range Land Use and Use Precautions are especially important.

The label states "for use where training of applicators by state personnel or other state supervised programs are conducted in cooperation with the Dow Chemical Company." Proper training is extremely important because of the high degree of potency and extended soil persistence of picloram. Use of Tordon 10K for multiflora rose control in pastures is not considered a legal or recommended practice until the training has been completed.

Trade and brand names are used only for the purpose of information and the Virginia Cooperative Extension Service does not guarantee nor warrant the standard of the product, nor does it imply approval of the product to the exclusion of others which may also be suitable.

KEYS TO PROPER USE OF PESTICIDES

1. Read the label on each pesticide container before each use. Follow instructions to the letter; heed all cautions and warnings, and note precautions about residues.
2. Keep pesticides in the containers in which you bought them. Put them where children or animals cannot get to them, preferably under lock and away from food, feed, seed, or other material that may become harmful if contaminated.
3. Dispose of empty containers in the manner specified on the label.

SEE YOUR DOCTOR IF SYMPTOMS OF ILLNESS OCCUR DURING OR AFTER USE OF PESTICIDES.

Summary of Chemical Treatments for Use in Pastures

Method of Application	Chemical and Application Rate Active Ingredient	Application Techniques and Precautions
Foliage spray	2,4,5-T 2-4 lbs/A or 2,4-D 2 lbs + 2,4,5-T 2 lbs/A or	Ground Applications: Wet foliage thoroughly in spring or early summer using 50-100 gal water/A. Aerial applications: Use 15 gallons of water with drift control nozzle. <u>Do Not</u> graze dairy animals for 6 weeks or meat animals for 2 weeks before slaughter after treatment with 2,4,5-T.
	dicamba (Banvel) 1 lb + 2,4,5-T 2 lbs/A	Application same as above: <u>Do not</u> apply near desirable plants or in locations where chemical may move and come in contact with roots of desirable plants. <u>Do not</u> graze meat animals within 30 days before slaughter or dairy animals as follows: 7 days if 1/2 lb/A is used 21 days if 1 lb/A is used 40 days if 2 lb/A is used Hay harvesting intervals appear on the label.
	silvex 2-4 lbs/A	Use in same manner as 2,4,5-T.
Dormant spray	2,4,5-T 4 lbs/A + oil	Mix with No. 2 fuel oil or kerosene as designated on label. Apply as directed with handgun on lower stems and base of plants. Grass will be severely injured or killed by this treatment.
	dicamba (Banvel OS) + 2,4,5-T 2 lbs + 2 lbs/ 100 gal oil	Apply as above - same precautions apply with dicamba as with foliage spray.
Granular applications	picloram 2-4 lbs/A overall (20-40 lbs of 10% Tordon 10K pellets)	<u>Caution</u> - Picloram is very mobile. <u>Do not</u> apply within 1/2 mile where runoff is likely to reach ponds used for irrigation. Do not apply within 100 feet of desired vegetation. It will kill plants located above the treated area if their roots extend into the treated area.
	(Individual bush up to 6')	<u>Read special instructions on label for safe and effective use.</u> Do not overapply as multiflora rose is very susceptible.

The above treatments have label clearance for use in pastureland. They may also be used in other non-crop areas by following the label directions. Make sure the area where you want to apply pesticides is indicated in the directions of this label.