

Russian Olive Control—Basal Bark Treatment

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Introduction

Russian olive (*Elaeagnus angustifolia* L.) is a small, thorny tree that is native to Europe. Russian olive readily invades fence lines, ditch banks, and pastures and displaces native species to form a monoculture in riparian areas. A prolific seed producer, Russian olive also reproduces by root suckers. As with any perennial plant, the tree's root system must be killed to provide effective control. This fact sheet describes the basal bark herbicide method of Russian olive control.

Procedure

In basal bark treatment, the lower 12 to 15 inches of the tree's trunk is sprayed with an herbicide/oil mixture. The oil allows the herbicide to adhere to and penetrate the bark, killing the tree.

The basal bark method is most effective on small to medium-sized trees with trunks that are 6 inches or less in diameter. These trees typically have thin, slick bark that allows penetration of herbicide. Older trees with thick, corky bark may be damaged, but not killed by a basal bark treatment.

Several herbicides are labeled for basal bark treatment of woody species. These include products containing triclopyr, dicamba, and 2,4-D ester. Labels of applicable products provide instructions on how to mix the herbicide with oil, as well as information on application timing, safety, and needed equipment. Always read and follow label directions.

In 2008 a Russian olive basal bark trial was conducted in east-central Utah using triclopyr



This Russian olive tree was killed by a basal bark herbicide treatment.

(Garlon 4 Ultra) mixed with methylated seed oil (MSO) at a ratio of one part herbicide to three parts MSO. Trunks of 24 Russian olive trees of various sizes were sprayed thoroughly, but not to the point of runoff. All trees with trunks 6 inches or less in diameter were killed outright by this treatment. Trees with trunks larger than 6 inches in diameter were not killed, but exhibited damage symptoms, including smaller, sparser-than-normal leaves and/or death of lower branches.

Unless otherwise specified on the herbicide label, basal bark treatments can be applied at any

time of year. Basal bark treatments should not be applied if the bark is saturated with water, or when snow cover prevents application all the way to the ground. It is important to spray all sides of the trunk and every stem in multi-stemmed trees. If a stem or one side of a trunk is left untreated, that portion of the tree may not be killed.

Precautions

Safety glasses, a hard hat, sturdy shoes, long-sleeved shirts, long pants and gloves should be worn when working among Russian olives to protect against injury from thorns. Labels of herbicides or oils may specify additional protective clothing or eyewear.

Oils such as MSO may damage or dissolve gaskets in spray equipment. Check the oil label to determine if special gaskets are needed.



A basal bark triclopyr/Methylated Seed Oil treatment was applied to the Russian olive tree on the right. The tree on the left was untreated.

Conclusion

Basal bark treatment is an effective, convenient method of controlling small to medium-size Russian olive trees. It is not a good control option for trees that have thick bark. Since only a small amount of herbicide is applied directly to the trunk, risk to non-target plants is minimized. Basal bark treatment is much less labor-intensive and time-consuming than methods that require the herbicide applicator to

wound or cut the trunk. It is especially well adapted along fence lines and in other areas where it may be dangerous or impractical to use equipment to cut or remove trees.

References

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