

Chemical control of roughleaf dogwood

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Roughleaf dogwood (*Cornus drummondii*) is a native shrub found throughout the eastern two-thirds of Kansas. It is commonly found along fencerows, the edge of trees, on streambanks, and in open prairies. The plant does provide wildlife cover and nesting sites for birds. Roughleaf dogwood blooms with white flowers in late May and early June and produces white, round fruit in September and October.

Roughleaf dogwood is rarely grazed and invades grassland in the absence of prescribed burning. The species continues to spread on the Konza Prairie, especially on sites with a 4-year burning frequency. Pastures that are frequently burned usually do not have a roughleaf dogwood problem. Once established, roughleaf dogwood is difficult to remove with fire alone as the plant usually leafs out after the burning season. Long-term late spring burning may gradually reduce roughleaf dogwood stands.

As of early June this year, roughleaf dogwood is in full bloom. The optimum time to spray roughleaf dogwood is between the flower bud state and early seed production. This time frame corresponds to increasing food reserves in the root/crown of the species.

A number of foliar-applied herbicides including triclopyr (Remedy Ultra), dicamba (Banvel), and picloram (Tordon 22K), used alone or in combination with 2,4-D, will defoliate roughleaf dogwood, but actual mortality is usually less than 25%. Roughleaf dogwood can be difficult to control. High-volume treatments providing greater than 50% mortality include 1% PastureGard (triclopyr + fluroxypyr), 0.5% Surmount (picloram + fluroxypyr), and 1% Grazon P+D + 0.5% Remedy Ultra (picloram + 2,4-D + triclopyr). All these herbicides are applied with water. Adding a 0.25 to 0.5% v/v non-ionic surfactant may enhance control.

Aerial applications should be applied in a minimum 3 gallons per acre total spray solution to insure adequate coverage. Broadcast rates for roughleaf dogwood control would include 3-6 pints/acre Surmount or combinations of picloram + 2,4-D + triclopyr, e.g. 1 pt/acre Tordon 22K + 2 pt/acre 2,4-D + 1 pt/acre Remedy Ultra or 4 pt/acre Grazon P+D + 1 pt/acre Remedy Ultra.

A single application of any herbicide does not completely eliminate roughleaf dogwood, but may open up the stand enough to carry a fire. In subsequent years, a combination of prescribed burning in the late spring followed by a herbicide application 4-6 weeks post burning should provide good control.

Soil-applied materials such as Spike 20P (tebuthiuron) and Pronone Power Pellets (hexazinone) can provide control of roughleaf dogwood. Spike 20P should be applied during the dormant season at 0.75 ounces product per 100 square feet. This is equivalent to 20 pounds of product per acre. Pronone Power Pellets should be applied when the soil is moist and rainfall is expected within 2 weeks of application. For plants 3-6 feet tall apply 2-4 pellets at the base of the plant. Expect to see grass damage following use of Pronone Power Pellets. These dry soil-applied products may be useful in areas where spray drift may cause considerable non-target damage.