

References

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TARBUSH (*Flourensia cernua* DC.)

Description and Occurrence

Tarbush, a member of the composite family (sunflower tribe), is a common deciduous shrub, usually less than 3 feet tall, that grows on an estimated 13,250,000 acres from western Texas to southeastern Arizona. It generally invades on the more productive flood plain sites and spreads from seed. As it gains dominance, forage production is greatly reduced. Tarbush is practically worthless for browsing.

Chemicals

Individual plant treatments with fenuron pellets, monuron powder, fenuron-trichloroacetate (TCA) granules, and monuron-TCA granules have consistently given plant kills in excess of 90 percent. Trichlorobenzoic acid granules have been less effective.

Rate

An effective rate is an individual plant treatment of 2 grams active ingredient of fenuron pellets, monuron powder, fenuron-TCA granules, or monuron-TCA granules. The materials should be scattered around the base of the plant.

Time of Application

Since these materials are desensitized by light and high temperatures, it is important that they be applied just before, or early in an expected rainy season.

General Considerations

This method is economical in controlling sparse stands of tarbush. It would be especially beneficial in areas where tarbush is invading grassland. The work reported was done on a silt loam soil in southern New Mexico.

Carlton H. Herbel

WILLOWS (*Salix* spp.)

Description and Distribution

Probably no other angiosperms are more commonly associated with water than the willows. Several hundred species are found in the north temperate and subarctic regions. They are generally distributed over the United States wherever there is enough water. Commercially, the willows are of little importance. They can help prevent streambank erosion, however, and have some horticultural use in parks and gardens. They are also browse for big game animals in winter range and to some extent for domestic livestock. However, willows encroach on hay meadows, and where water is short, become a problem. Elsewhere, they are a brush problem and are often controlled in a general brush control program.

Chemicals

An ester of 2,4-D is effective as a foliage spray for both aerial and ground equipment (1, 2, 4). For cut surface treatment, an amine salt of 2,4-D (4), or a mixture of 2,4-D and 2,4,5-T available as a commercial "brush killer" may be used. For basal treatment, ester formulations of 2,4-D or "brush killer" is recommended (4). Early reports of picloram indicate that it is effective on willows, but no recommendations have been made. Picloram has not been approved for use on grazing lands.

Rate of Application, Volume, and Carrier

Foliage spray.—As a treatment for individual plants, 2 to 3 lb. of an ester of 2,4-D per 100 gallons of water or water plus 1 percent oil applied in an amount to wet foliage has been found satisfactory. For aerial application, 2 to 4 lb. of an ester of 2,4-D in 5 to 10 gallons of water or fuel oil is recommended. At the higher gallonage, water plus 2½ percent diesel oil has proven satisfactory.

Basal sprays.—One lb. of ester of 2,4-D or "brush killer" in 6 gallons of diesel oil should be applied near the ground to the point of runoff.