



Texas Mountain Laurel Control Using Basal and Foliar Individual Plant Treatment

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BOTTOM LINE

Stem-spray basal treatment of plants to 5 ft in height produced 67 to 72% apparent plant-kill and 82 to 87% for plants under 3 ft.

Summary

- Stem-spray (low-volume) and streamline basal treatments were tested in 1995 and a stem spray and a leaf spray were tested in 1996.
- The stem-spray basal method was superior to the streamline.
- Concentrating control efforts on small plants appears to provide a higher level of control and should reduce treatment costs.
- The multi-stemmed nature of most Texas mountain laurel make treatment of larger plants difficult and time consuming.
- Differences in cost between the two 1996 stem-spray treatments are due to spray volume applied.
- Leaf-spray treatment was the least expensive approach, but plant-kill was poor. Season of treatment or drought may have been a factor with the leaf spray.
- Additional testing will be conducted with the leaf-spray method.

Introduction

Texas mountain laurel is common to the Hill Country, is a potential poisonous plant problem for livestock, and has a potential to increase in areas cleared for wildlife habitat improvement. Previous control measures appear to have been unsuccessful.

Basal treatments appear to have potential for control of many Texas woody plant problems. However, multi-stem plants are often hard to treat using basal methods. Foliar treatments are generally easier to apply than basal treatments but are sometimes not suitable because of 1) loss of leaves or 2) leaves with heavy wax coatings that make herbicide absorption difficult. This demonstration was established to determine the effectiveness of basal and leaf-spray treatments for control of Texas mountain laurel.

Experimental Approach

Two treatment plots were established south of Rocksprings, Texas in Apr and May, 1995. Both treatments used a mixture of 25% Remedy, 10% Cide-Kick II, and 65% diesel. One treatment used the streamline basal method of herbicide application and the second treatment used the stem-spray basal method. All plants were multi-stemmed, which made basal treatment difficult on the larger plants.

Three treatments were established at the same location south of Rocksprings in Aug, 1996. The 1995 stem-spray basal treatment using 25% Remedy, 10% Cide-Kick II, and 65% diesel was applied in one plot. In a second plot, a stem-spray treatment with 25% Remedy and 75% diesel was applied. A third plot was treated with a leaf-spray of 0.5% Remedy, 0.5% Reclaim, 0.25% emulsifier, and 0.5% HiLite dye in a 1:4 diesel:water emulsion.

Results

1995 Trial

This demonstration was evaluated for plant control level in Jul, 1996. Following treatment in 1995, all plants in both treatments showed 90-100% defoliation. Results from the 1996 evaluation are shown in Table 1. Considering all plants in the treatments, the streamline basal method provided 41% plant-kill compared to 72% for the stem-spray method. Considering plants under 3 ft in height, there were no differences for the stream-line method. However, 87% of plants under 3 ft in height showed no sign of life in the stem-spray plot. Plants varied in size up to 5 ft tall. Treatment cost for the chemicals was about \$0.23/plant.

1996 Trial

Stem-sprays applied in 1996 provided similar control (Table 2) to treatments applied in 1995. There appears to be no advantage to the addition of Cide-Kick. The leaf-spray provided poor control (Table 2). However, timing and weather conditions may have affected this treatment (1996 was a drought year). Leaf-spray cost was \$0.09/plant compared to \$0.18 to \$0.34/plant for the stem-sprays. Cost difference between the two stem-sprays was due to the spray volume used, not to a difference in cost of the spray mixes.

Table 1. Apparent plant-kill 14 months after treatment for basal treatments applied in 1995.

Treatment and Plant Size	Percent Plant-Kill
Streamline basal-all plants	41
Streamline basal-under 3 ft tall	41
Stem-spray-all plants	72
Stem-spray-under 3 ft tall	87

Table 2. Treatment and percent plant kill for Texas mountain laurel plants in 1996 demonstrations.

Treatment	Percent Plant-Kill
Stem-spray w/o Cide-Kick-under 3 ft tall	83
Stem-spray w/ Cide-Kick-under 3 ft tall	82
Leaf-spray	9