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Dogfennel Control at Different Heights

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Although tropical soda apple has received much of the attention over the past decade, dogfennel is our number one broadleaf weed in pastures. Most ranchers simply mow their pastures to suppress dogfennel seed production. However, a timely herbicide application can not only suppress seed production, but increase forage production by eliminating shading from tall dogfennel plants. Furthermore, increased fuel costs are making herbicide applications more attractive economically.

An experiment was initiated in 2005 near Ona to determine the impact of dogfennel size on control with various herbicides. Dogfennel plants were sprayed when they were 15, 30, or 60 inches tall. Herbicides (Table 1) were applied on June 8 (15" timing), June 21 (30" timing) and September 2 (60" timing) in a spray volume of 30 gallons per acre. A non-ionic surfactant was included in all spray mixtures. Dogfennel control was visually evaluated 30, 60, 90 days after application.

After the 90 day evaluation, the entire experiment was mowed to visually assess the performance of the herbicide treatments the next growing season. Visual control was rated one last time approximately 280 days after the last application. For simplicity, only data collected 280 days after the last application will be presented, but data from the other evaluation dates will be mentioned.

When applied to 15" dogfennel, all herbicides performed equally (> 84%) 30 days after treatment (DAT), with the exception of WeedMaster at 2 pt/A and Outlaw at 1.75 pt/A, which provided <80% control. By 60 and 90 DAT, all herbicides provided >90% control. Approximately 1 year after treatment, all herbicide treatments provided >90% control except for the low rates of WeedMaster and Outlaw (Table 1).

Applying these herbicide treatments to 30" dogfennel resulted in similar trends as seen with 15" dogfennel. At 30 DAT, at least 2.5 pt/A of Pasturegard or 2 pt/A of Remedy were needed for >90% control. However, by 60 DAT, all herbicide treatments provided >90% control except when Outlaw was applied alone. By 90 DAT, Outlaw at 1.75 and 2.75 pt/A were the only treatments that failed. Outlaw alone was the only herbicide treatment that resulted in less than 80% control 280 days after treatment (Table 1).

Herbicide applications to 60" dogfennel took longer for adequate control to occur. For example, all herbicide treatments provided <90% control 30 DAT. By 60 DAT, WeedMaster at 2 pt/A and Outlaw at 1.75 pt/A had the poorest control of only 64 and 61%, respectively, while all other herbicide treatments provided at least 80% control. This same trend was observed 90 DAT, with all Outlaw treatments and WeedMaster at 2 pt/A providing the poorest dogfennel control. The only treatments that provided >90% control approximately 1 year after treatment of 60" dogfennel were Pasturegard at 3 and 4 pt/A, Remedy at 2 pt/A, WeedMaster at 3 pt/A, Remedy + WeedMaster, and Outlaw + Remedy (Table 1).

Results from this study show that applying herbicides early in the growing season will enhance dogfennel control. Waiting until dogfennel are greater than 30" tall will result in increased herbicide costs to achieve the same amount of control with less herbicide when dogfennel is only 15" tall.

Point to ponder: These results were from last year, under good rainfall conditions. This same study has been repeated this year. It appears that the early season drought experienced by many of us in 2006 has impacted the results of this study. Stay-tuned as we will be updating this information as time progresses. For complete data sets and new information, please go to the Range Cattle REC website (http://rcrec-ona.ifas.ufl.edu).

Table 1. Control of dogfennel 280 days after treatment as influenced by application timing. Dogfennel Size at Application 30 15 60 Cost^a Herbicide Rate Inch Inch Inch (pints/acre) (\$) control - - - - - -2 Pasturegard 13.75 91 90 66 Pasturegard 2.5 17.25 97 96 86 3 20.75 98 99 Pasturegard 96 4 Pasturegard 27.75 98 99 94 2 WeedMaster 7.00 87 10 93 Remedy 25.00 99 92 89 3 WeedMaster 10.50 98 98 89 WeedMaster + 1 + 116.00 98 86 92 Remedy Outlaw 1.75 6.50 69 40 30 Outlaw 2.75 10.00 93 63 81 Outlaw + 18.00 97 1.5 + 190 92 Remedy

^a Herbicide costs are approximate and do not include application costs or cost of the additional surfactants.