

TIMELY INFORMATION

Agriculture & Natural Resources

Macartney rose (*Rosa bracteata*) control update

Macartney rose is a troublesome weed especially in pastures where cattle strongly avoid grazing within or around the thorny stems. Macartney rose is similar to Cherokee rose (*Rosa laevigata*) as both have large, white solitary flowers. However, Cherokee rose leaves are generally ternately compound (3 leaflets) and Macartney has five to nine leaflets. Both are serious pasture weed problems in Alabama but are often more problematic on Blackbelt soils. There has been very little research on Macartney rose control since the early 1980's and there are several new herbicides that have not been tested. Our overall goal is to develop a long-term management system for Macartney rose. However our initial objective was to evaluate the efficacy of several of the newer herbicides on Macartney rose.



Methods: A study was initiated in August 2009 on two pastures in Greene County near Eutaw, AL. Pastures were mixed Bermuda/bahia grass and were actively grazed throughout the study. Individual rose clumps were categorized according to size based upon their estimated diameter (<1 m, 1-2m, 2-3m, 3-4m) and randomly assigned to herbicide treatments. Herbicide treatments are listed in table one. Additionally, a non-ionic surfactant at 0.25% v/v was added to each treatment. These herbicides represent much of the new chemistry available for use in pastures, the older commercial standards such as Grazon P+D, and commonly used rose treatments including Remedy and Cimarron. Herbicides were broadcast applied on August 18, 2009 to individual rose clumps with an ATV side mounted boom sprayer at 35 gal/A. Visual evaluations of herbicide efficacy were recorded in July 2010 at 11 months after treatment. Treated clumps were evaluated against untreated rose clumps within a similar size class.





Results: Rose clump size did not significantly influence herbicide efficacy in either pasture. However, the herbicides performed differently between the two pastures with control being slightly better in pasture 2 than pasture 1. At 11 months after treatment, there were differences in herbicide efficacy. However, all herbicide treatments provided 35% or less control in pasture 1 and 47% or less control in pasture 2. Mowing provided no control as rose plants regrew and actually appeared more vigorous than the untreated controls. The newer herbicides such as Chaparral,

GrazonNext, Milestone, and Surmount were not consistently better than Grazon P+D. Also, the addition of Remedy to Chaparral or GrazonNext did not improve rose control compared to either herbicide alone. These results indicate that Macartney rose is extremely difficult to control in pastures and that a single herbicide application with any of the newer products is not sufficient for any meaningful long-term control. In August 2010, we retreated each rose clump with the same herbicide treatments and will evaluate their performance in spring 2011. We will also incorporate mowing into the experiment to determine if mowing after treatment influences the outcome.

Table 1. Control of Macartney rose 11 months after treatment with pasture herbicides.

Treatment	Rate	-----Control (%) ¹ -----			
		Pasture 1		Pasture 2	
Chaparral	2.5 oz/A	15	cde	24	cdef
Chaparral	3.3 oz/A	20	bcde	44	abc
Cimarron	0.5 oz/a	9	ef	28	abcde
GrazonNext	2.6 pt/A	24	abcd	35	abcd
Milestone	7 fl oz/A	17	cde	47	a
Grazon P+D	4 pt/A	16	cde	40	abc
Grazon P+D	8 pt/A	35	a	36	abcd
Surmount	3 pt/A	31	ab	18	defg
Surmount	4 pt/A	25	abcd	45	ab
Remedy Ultra	1 pt/A	11	def	11	efg
Remedy Ultra	2 pt/A	8	ef	10	efg
Chaparral+Remedy Ultra	2.5 oz/A + 1 pt/a	24	abcd	26	bcdef
GrazonNext+Remedy Ultra	2.6 pt/A + 1 pt/A	14	cdef	27	abcde
Mowing alone	none	0	f	0	g
LSD (0.05)		14		21	

¹Means within columns followed by the same letter are not significantly different at P<0.05).