EVALUATION OF VARIOUS PRODUCTS FOR CONTROLLING GREEN FLATSEDGE

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SUMMARY:

With the extensive rains experienced in 2004, ranchers have noticed an increased infestation of Green Flatsedge (*cyperus virens*). Green Flatsedge is a sedge that thrives in damp, moist conditions and ultimately takes over rangeland and consequently, reduces grazable acres. It was first noticed in Victoria County in 1994. Its distribution continues to grow across the area causing havoc among the ranching community. If Green Flatsedge can successfully be controlled, ranchers will experience a significant increase in forage availability and quality.

Our goal is by the fall of 2006, to have a better handle on fall versus spring treatments. At the present, it appears Grazon P+D and Cimarron Max would be the products of choice for a fall application. Weedmaster and Cimarron Max currently look the most promising as far as a spring application is concerned.

Its interesting to note that in 1998 a similar demonstration was conducted. Results showed that 7 months following application Grazon P+D at 2 qt/ac yielded 95 percent control on shredded stands and 80 percent on undisturbed stands. Weedmaster at 2 qt/ac followed closely at 94 percent (shredded) and 85 percent (undisturbed) respectively.

OBJECTIVE:

To evaluate various herbicide treatments and rates for their efficacy in controlling dense, undisturbed stands of Green Flatsedge in rangeland.

MATERIALS and METHODS:

Five adjoining ½ acre plots of undisturbed green flatsedge were treated on September 24, 2004. 8004XR nozzles were used to apply 20 gallons of water per acre at 30 psi. Travel speed at application was 4 mph. The following treatments are calculated on an acre basis.

Grazon P+D – 2 qt.
1 pt. Remedy + 1 pt. Tordon 22 K
Redeem – 3 pt.
Cimarron Max (2 qt. Weedmaster + 0.6 oz. Ally)
Surmount – 3 pt.

RESULTS and DISCUSSIONS:

Victoria County Data:

Table 1. Evaluation of various products for controlling Green Flatsedge. Stephen Diebel, Cooperator, Victoria County, TX 2005.

Fall Treatments	Rate/Ac	Year 1		Year 2
		Evaluated 12/10/04		Evaluated 11/17/05
		% Burnback	% Kill	% Kill
Grazon P+D	2 qt.	70	0	10
Remedy + Tordon 22K	1 pt. Remedy 1 pt. Tordon 22K	50	0	5
Redeem	3 pt.	50	0	5
Cimarron Max	2 qt. Weedmaster 0.6 oz Ally	50	0	70
Surmount	3 pt.	30	0	5

Two-and-one-half months after treatment all plots showed initial signs of burnback. It was very difficult to determine percent kill at that time so after discussing my observations with Dr. Wayne Hanselka, Extension Range Specialist, we decided to look at the treatments one year after application to get the best and most accurate assessment of what was happening. Consequently, 14 months later he and I evaluated the plots. The only treatment that yielded measurable results was Cimarron Max (70 percent control). The other treatments showed little to no results. Again, these treatments were on large (3-4 feet tall), dense, undisturbed stands of green flatsedge.

Jackson County Date:

In northern Jackson County, these same treatments were applied to shredded stands as well as undisturbed stands of green flatsedge in September 2004. The application was made 2 ½ weeks after shredding. On November 17, 2005 the plots were rated yielding the following results. See Table 2.

Table 2. Evaluation of various products for controlling Green Flatsedge. Clarence Schomburg, Cooperator, Ganado, TX, Jackson County, TX.

		% Control	
Fall Treatments	**Rate/Ac**	**Shredded**	**Undisturbed**
Grazon P+D	2 qt.	98	60
Remedy + Tordon 22K	1 pt. Remedy 1 pt. Tordon 22K	50	20
Redeem	3 pt.	50	20
Cimarron Max	2 qt. Weedmaster 0.6 oz Ally	98	75
Surmount	3 pt.	50	20

Obviously there is a substantial difference in efficacy of control on plants that have been shredded. This could be due to more uniform plant coverage with a ground rig and better translocation of chemical through fresh tender plant growth. The question still arises, is it better to treat in the fall or spring? We still don't have a good answer, thus another series of treatments were put out June 8, 2005 on thick undisturbed stands of green flatsedge adjacent to the September 2004 treatments. The products and rates on an acre basis were:

1. Grazon P+D 2 qt.
2. Weedmaster 2 qt.
3. Redeem 2 qt.
4. Cimarron Max 2 qt.
5. Surmount 2 qt.
6. Pasture Guard 2 qt.

The following table illustrates the chemical cost comparison between the fall and spring treatments. See Table 3.

Table 3. Evaluation of various products for controlling Green Flatsedge. Spring Treatment results for June 8, 2005 spraying. Stephen Diebel, Cooperator, Victoria County, TX 2005.

Spring Treatments	**Rate/Ac**	**Year 1**	**Year 2**
		Evaluated 11/17/05	**Evaluated 5/11/06**
		% Kill	**% Kill**
Grazon P+D	2 qt.	60	60
Weedmaster	2 qt.	75	80
Redeem	2 qt.	0	0
Cimarron Max	2 qt.	75	65
Surmount	2 qt.	0	0
Pasture Guard	2 qt.	0	0

It's interesting to note that 5 months after treatment, Grazon P+D, Weedmaster, and Cimarron Max were the only treatments that showed results with Weedmaster and Cimarron Max at 75% control. Nearly a year later, under drought conditions Weedmaster unquestionably did the best job at 80% control.

In summary, Cimarron Max looks the best for a fall application while Weedmaster yielded the highest results for a spring application. Additionally, results in 2005 from Jackson County indicated that more control can be achieved if the plant is shredded and then sprayed. Grazon P+D and Cimarron Max both yielded very high results at 98% control under these circumstances. Treatments were applied 2 weeks after shredding.

Table 4. Cost comparison of chemical only on spring and fall treatments of Green Flatsedge. Victoria County, TX.

Fall 2004 Treatments			Spring 2005 Treatment		
Cost Comparison (Chemical Only)					
Treatment	**Rate/Ac**	**Cost/Ac**	**Treatment**	**Rate/Ac**	**Cost/Ac**
Grazon P+D	2 qt.	$14.70	Grazon P+D	2 qt.	$14.70
Remedy + Tordon 22K	1 pt. 1 pt.	$23.32	Weedmaster	2 qt.	$13.70
Redeem	3 pt.	$24.19	Redeem	2 qt.	$32.25
Cimarron Max	2 qt. Weedmaster + 0.6 oz Ally	$26.80	Cimarron Max	2 qt.	$26.80
Surmount	3 pt.	$20.70	Surmount	2 qt.	$27.60
			Pasture Guard	2 qt.	$26.50

Unquestionably, this is a challenging weed to control. It is important to note that treatments will likely need to be continual (year after year).

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