

Table 1. Influence of glyphosate timing and rate on volunteer wheat control, Moro, Oregon.

Treatment <sup>1</sup>	Rate	Timing	Volunteer wheat control
	oz product/acre		(%)
glyphosate/glyphosate	8 / 12	fall / spring	100
glyphosate/glyphosate	8 / 16	fall / spring	100
glyphosate	8	spring	81
glyphosate	12	spring	95
glyphosate	16	spring	98
glyphosate	24	spring	99
glyphosate	32	spring	100

<sup>1</sup> All glyphosate treatments made with Roundup Original<sup>®</sup> (a 3-lb/gal product), a non-ionic surfactant at 1 qt/100 gal, and ammonium sulfate at 17 lb/100 gal.

Table 2. Russian thistle control with soil residual herbicides, Morrow County, Oregon, 2003.

Treatments <sup>1</sup>	Rate	Application		Russian thistle control		
		timing	May 7, 2003	June 12, 2003	July 6, 2003	
	oz product/acre		%	%	%	
untreated control	--	--	0	0	0	
sulfentrazone	2.7	Fall	85	80	80	
sulfentrazone	5.3	Fall	96	93	92	
sulfentrazone	2.7	Spring	86	53	37	
sulfentrazone	5.3	Spring	93	72	43	
atrazine	7.2	Spring	68	10	0	
metribuzin	10.7	Spring	72	17	5	
LSD (0.05)			18	17	14	

<sup>1</sup> All treatments were tank-mixed with a 3-lb/gal glyphosate product at 16 oz/acre. Sulfentrazone applied as Spartan<sup>®</sup> 75DF, metribuzin as Sencor<sup>®</sup> 75DF, and atrazine as Aatrex<sup>®</sup> 90DF.

Table 3. Glyphosate rate and ammonium sulfate (AMS) effects on weed biomass<sup>1</sup> reduction in two study years.

Glyphosate rate oz product/acre <sup>4</sup>	AMS <sup>2</sup>	Pendleton 2001	Pendleton 2002
		28 DAT <sup>3</sup>	28 DAT
		----- % <sup>5</sup> -----	
12	WO	97 b	92 c
16	WO	99 a	95 b
24	WO	100 a	99 a
12	W	99 a <sup>6</sup>	95 b
16	W	100 a	96 b
24	W	100 a	98 a

<sup>1</sup> Total weed biomass of volunteer wheat, downy brome, and tumble mustard.

<sup>2</sup> W = AMS added to treatments at 8.5 lb/100-gal spray solution, WO = without AMS.

<sup>3</sup> Days after treatment.

<sup>4</sup> Product rates based on a 3-lb ae/gal glyphosate formulation (ae = acid equivalent).

<sup>5</sup> Percent biomass reduction compared to an untreated control.

<sup>6</sup> Values within the same column followed by the same letters are not significantly different at  $P > 0.05$ .