

Table 3. Effect of rye and termination timing on select weed populations and soybean yield, 2021.

Site	Rye/ Termination	Weed Population						Soybean		
		At Treatment ⁽¹⁾			At Harvest			Yield (bu/a)	Moisture (%)	Test wt. (lb/bu)
		MT ⁽²⁾ (p/acre)	GRW (p/acre)	Other (p/acre)	MT (p/acre)	GRW (p/acre)	WH (p/acre)			
S2	No rye	1,202 <i>a</i>		71 <i>a</i>	1 <i>a</i>		0	29.4 <i>a</i>	12.1	52.1
	Preemergence	574 <i>ab</i>		90 <i>a</i>	12 <i>a</i>		0	31.2 <i>a</i>	12.2	53.2
	Postemergence	30 <i>b</i>		9 <i>b</i>	455 <i>b</i>		620	23.3 <i>b</i>	11.8	51.9
	LSD(0.05)	888		41	362		<i>ns</i>	3.8	<i>ns</i>	<i>ns</i>
	<i>p>f</i>	0.049		0.007	0.035		0.153	0.005	0.407	0.098
S3	No rye	985 <i>a</i>		74 <i>a</i>	0 <i>a</i>			42.2	13.1	52.8
	Preemergence	76 <i>b</i>		63 <i>b</i>	0 <i>a</i>			44.2	13.2	53.0
	Postemergence	31 <i>b</i>		10 <i>b</i>	921 <i>b</i>			33.8	13.1	53.5
	LSD(0.05)	421		51	439			<i>ns</i>	<i>ns</i>	<i>ns</i>
	<i>p>f</i>	0.002		0.045	0.003			0.074	0.137	0.112
S4	No rye	2,302 <i>a</i>	4,318 <i>a</i>		292	230		38.1 <i>a</i>	10.2 <i>a</i>	54.7
	Preemergence	960 <i>b</i>	2,166 <i>ab</i>		512	187		34.5 <i>b</i>	10.1 <i>a</i>	55.2
	Postemergence	31 <i>b</i>	44 <i>b</i>		1,054	190		20.9 <i>c</i>	10.5 <i>b</i>	54.1
	LSD(0.05)	1,062	2,588		<i>ns</i>	<i>ns</i>		3.3	0.2	<i>ns</i>
	<i>p>f</i>	0.006	0.019		0.571	0.970		<0.001	0.023	0.150
Combined Analysis										
Source	<i>df</i>	<i>p>f</i>			<i>p>f</i>			<i>p>f</i>	<i>p>f</i>	<i>p>f</i>
Site	2	0.004			0.174			<0.001	<0.001	<0.001
Tmt	2	<0.001			0.008			<0.001	0.785	0.038
Site x Tmt	4	0.026			0.975			0.054	0.076	0.064
Rate	1	0.116			0.786			0.155	0.558	0.846
Site x rate	2	0.463			0.928			0.122	0.383	0.614
Means	Treatment									
	No rye	1,496 <i>a</i>			98 <i>a</i>			36.5 <i>a</i>	11.8	53.2 <i>b</i>
	Preemergence	537 <i>b</i>			175 <i>a</i>			36.6 <i>a</i>	11.8	53.8 <i>a</i>
	Postemergence	31 <i>c</i>			810 <i>b</i>			26.0 <i>b</i>	11.8	53.1 <i>b</i>
	LSD(0.05)	407			521			3.0	<i>ns</i>	0.5
	Site									
	S2	602 <i>a</i>			156			28.0 <i>c</i>	12.0 <i>b</i>	52.4 <i>a</i>
	S3	364 <i>a</i>			307			40.1 <i>a</i>	13.1 <i>a</i>	53.1 <i>b</i>
	S4	1,098 <i>b</i>			619			31.1 <i>b</i>	10.2 <i>c</i>	54.6 <i>c</i>
	LSD(0.05)	407			<i>ns</i>			3.0	0.2	0.5

⁽¹⁾ Postemergence herbicide application, measured June 17, 2021.

⁽²⁾ Weed species: MT, marestalk; GRW, gaint ragweed; WH, waterhemp; Other, other broadleaf, unspecified. Soybean yield reported at 13% moisture.