HRS wheat variety tolerance to Trifluralin granules

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Tolerance of recently-released hard red spring (HRS) wheat varieties to trifluralin granules has not been documented. Currently, preplant incorporated (PPI) trifluralin granules may be spring applied at 3.5 to 4 lb/ac for foxtail suppression in HRS wheat in North Dakota west of Hwy 3 only. A trial was conducted at Carrington and Prosper, ND in 1997-98 to determine tolerance of selected HRS wheat varieties to PPI, spring-applied trifluralin granules. PPI Treflan granules were applied at 4 lb/ac 1 to 2 weeks before planting. Wheat was planted at 1.2 to 1.3 million pure live seeds/ac (28 to 30 seeds/ft^2). Stand counts were taken at the 1.5- to 2-leaf stage. Stands were reduced 25 to 43% with trifluralin granules compared to the untreated check.

Stands of AC Cora, Hamer, and Lars were reduced 25 to 28% while Butte 86, Trenton, and Verde stands were reduced 40 to 43% with trifluralin. While substantial stand reduction occurred with trifluralin, grain yield was generally unaffected among HRS wheat varieties tested across locations and years.

HRS wheat variety tolerance to spring applied, PPI trifluralin granules

	Trifluralin Rate (lb granules/ac)			
	0	4	0	4
Variety	Stand		Grain Yield	
	plt/ft^2		bu/ac	
2375	21	13	47.7	46
AC Barrie	21	14	39.2	40.2
AC Cora	20	15	36	41.7
Butte 86	20	12	43.1	45.5
Gunner	22	14	39.8	43.2
Hamer	18	13	45.9	47.3
Keene	19	13	43.7	44.2
Kulm	20	14	44.5	46.3
Lars	18	13	41.9	43.9
Oxen	20	14	45.3	44.9
Russ	19	13	47.8	47.8
Trenton	22	13	44.1	46.2
Verde	21	12	39.9	38.6