

Study Name: No-till Safflower tolerance to Spartan (0709 – Field Xs)

Objectives: Evaluate no-till safflower tolerance to Spartan applied preemergence in a loam soil.

Results:

Approximately 13 inches of rain fell in May and June causing very wet soil conditions following the preemergence herbicide applications. However, this study did not receive hail as did study 0709 – Field S. Also, heavy rain did not have a negative impact on safflower stand establishment. Crop injury observed from Spartan occurred mostly in Rep 1, which was on a hill where soil pH is as high as 7.7. Safflower injury increased with rate and was as high as 21% with 4.5 fl oz on June 22. However, by July 7, safflower injury was 10% or less. Safflower height, yield, and test weight were not affected by any herbicide treatment. Spartan is not currently labeled for use in safflower.

Treatment	Rate	Timing	Safflower					
			-----% injury-----			Height (in)	Yield	Test wt.
			Jun 22	Jul 7	Aug 9	Jul 6	lb/A	lb/bu
Spartan	1.5 fl oz	PRE	3	3	0	26.8	3089	45.8
Spartan	2.25 fl oz	PRE	4	3	0	26.5	3407	46.1
Spartan	3 fl oz	PRE	10	3	0	27.2	3604	45.1
Spartan	3.75 fl oz	PRE	11	3	0	26.6	3444	46.0
Spartan	4.5 fl oz	PRE	21	10	0	26.7	3556	45.7
Handweeded check ^a			3	0	0	27.4	3217	46.1
Untreated			0	0	0	27.3	3342	45.9
LSD (0.05)			11.6	NS	NS	NS	NS	NS
CV			86.8	118	0	2.5	17.4	1.3

^a Prowl H2O at 2.6 pt was applied PRE to aid hand weeding.