Utilizing Fargo in a Direct Seed System

085-0202-H-SWSW-T

Location:	McGregor Research Station	Seeding Date:	April 21, 2002
Rainfall (Ave.):	18 inches	Soil Texture:	Silt loam
Crop:	Spring wheat	% Organic Matter:	2.18
Variety:	Alpowa	pH:	5.6
Rotation:	2001 Spring barley	Residual N: 4'	42 lbs.
	2000 Spring wheat	Residual S: 3'	7 ppm
	1999 Winter wheat	Residual P: 1'	4.8 ppm (acetate)
	1998 Chem fallow	Residual Cl: 2'	17 lbs.

Application Conditions

Date Treated	April 21, 2002
Air Temperature	57°
Soil Temperature	53°
Weather	Clear
Wind	0-3 mph
Gallons/ac	20
Pressure	25
Nozzle	8002
Stage of Growth	Pre-Plant

	Weather		
April	Max ^{0}	Min ^{0}	Precip.
19	53	32	
20	60	31	
21	**60**	**38**	
22	59	40	
23	61	30	
24	49	26	T
25	55	32	
26	60	33	
27	60	34	
28	50	40	0.05
29	60	36	

Treatments	Rate	% Wild Oat Control
1. Fargo	1 qt.	85
2. Check	--------	

Comments:

This trial was initiated in cooperation with the Pacific Northwest Direct Seed Association to determine if Fargo can be of benefit in a direct seed system where incorporation in heavy residue is compromised. Liquid Fargo was applied directly to standing over-wintering spring barley stubble (5000 lb/ac). The site was then fertilized with a Ripper-Shooter™ and followed with a five bar harrowing in two blocks and a ten bar harrow in the other two blocks. The site was then seeded with a Great Plains minimum-till drill. The fertilizing, harrowing, and seeding was all done on the same day.

This site was heavily infested with wild oats in the untreated area. Applying the liquid Fargo just prior to fertilizing, harrowing, and seeding provided enough incorporation of the herbicide to prevent volatilization and move the herbicide into the soil where it was adequately intercepted by the emerging wild oats, sufficient enough to provide 85% control. We did not see a significant difference in control between a 5 bar harrowing and a 10 bar harrowing.

The level of success in using liquid Fargo in this manner is going to be dependent on how soon after application the incorporation occurs. Fargo is a volatile compound and needs to be in contact with soil to be tied up. Also, the level of incorporation largely dictates the amount of wild oat control with Fargo. Due to the heavy amount of spring barley residue present at this location, it was somewhat surprising how well the Fargo worked.

This method of using liquid Fargo in a direct seed system does have a fit in areas of fields where wild oat populations are expected to be very heavy. Rarely will this method of minimal incorporation provide adequate control of wild oats, but there are times when the oat population is so heavy, waiting for the proper application window for postemergence herbicides is too late to prevent early season crop competition and yield is compromised. By applying liquid Fargo, followed by fertilizing, harrowing, and seeding, suppression of the population can decrease the crop competition to a level where a properly timed postemergence application will clean up the remaining wild oats and maximize the yield potential.