

Title: Evaluation of Talinor for Crop Safety and Weed Control in Spring Wheat - 2016

Objective: To evaluate the crop safety and efficacy of Talinor and standard herbicide products in spring wheat.

Materials and Methods:

Eight treatments were evaluated for weed control efficacy and crop tolerance in spring wheat. The experimental design was a randomized complete block with three replications. Egan was planted on a 7.5 inch row spacing to a depth of two inches on April 22, 2016. Common lambsquarters, canola, wild oats and wild buckwheat seed were planted in the center of each plot on April 28. Herbicide treatments were applied using a CO₂ backpack sprayer with Teejet XR11002 nozzles in 20 GPA of water. The treatments were applied on May 18 when the wheat was at the two-leaf stage.

Results:

Crop injury was minor and was primarily associated with waterlogged soil condition, the symptoms of which worsened throughout the growing season. The predominant weed species present was volunteer canola. All treatments, except Widematch, provided excellent season-long control of canola. Nevertheless, there were no significant differences in yield or test weight.

Summary:

Excellent weed control was achieved with all herbicide treatments except Widematch. The rate of Talinor and Coact did not affect weed control or yield.

Table 1. Materials and Methods.

Seeding Date: 4/22/2016	Harvest Date: 9/1/2016
Julian Date: 113	Julian Date: 245
Seeding Rate: 120 lb/A	Soil Type: Creston SiL
Previous Crop: NT WW	Soil Test: 104-24-652-154
Tillage: Conventional	Fertilizer: BC: 235-40-60 DR:3-14-0

Table 2. Effect of varying rates of herbicides on agronomic performance of spring wheat, Kalispell, MT 2016.

Treatment	Rate	Crop injury				Percent control						YLD ¹ bu/A	TWT ¹ lb/bu
		Percent				BRARA	CHEAL	POLCO	BRARA	CHEAL	POLCO		
		5/28	6/3	6/9	7/1	6/9		8/4					
Check		0.0	6.7	8.3	16.7	0.0	0.0	0.0	0.0	0.0	0.0	55.0	61.1
Talinor + Coact + COC	2.74 fl oz/a 13.70 fl oz/a 1.00 % v/v	0.0	5.0	6.7	16.7	95.0	95.0	93.3	99.0	99.0	92.0	70.9	61.7
Talinor + Coact + COC	3.20 fl oz/a 16.00 fl oz/a 1.00 % v/v	6.7	3.3	8.3	16.7	95.0	95.0	93.3	99.0	99.0	98.3	74.2	61.6
Talinor + Coact + COC	3.60 fl oz/a 18.20 fl oz/a 1.00 % v/v	0.0	3.3	8.3	10.0	95.0	95.0	95.0	99.0	99.0	90.0	70.7	61.4
Huskie 2.07 EC + NIS	11.00 fl oz/a 0.25 % v/v	0.0	0.0	6.7	10.0	95.0	95.0	95.0	99.0	99.0	89.7	75.5	61.2
Widematch 1.5EC	1.00 pt/a	0.0	8.3	8.3	26.7	66.7	86.7	90.0	61.7	79.7	87.7	56.5	61.6
Affinity Tankmix 50 SG + MCPA Ester 3.7 EC	0.60 oz wt/a 0.75 pt/a	0.0	3.3	8.3	18.3	95.0	95.0	93.3	99.0	99.0	81.7	70.2	61.2
Orion	17.00 fl oz/a	0.0	3.3	10.0	15.0	95.0	95.0	95.0	99.0	99.0	90.7	72.5	61.2
Mean		0.8	4.2	8.1	16.3	79.6	82.1	81.9	82.0	84.2	78.8	68.2	61.4
CV		489.9	114.1	83.7	89.9	9.3	2.5	1.8	13.0	11.0	13.1	20.4	0.5
LSD		ns	ns	ns	ns	12.9	3.6	2.6	18.7	16.1	18.1	ns	ns
Pr>F		0.4706	0.5713	0.9990	0.8945	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.4936	0.1466

BRARA: canola, CHEAL: common lambsquarters, POLCO: wild buckwheat, YLD: yield, TWT: test weight, ns: nonsignificant.

¹ adjusted to 13% moisture.

