

**Weed control and crop tolerance with spring applications of Quelex (GF-3313) in winter wheat**

Trial ID: WT03-16      Study Dir.: Sprague & Powell  
 Conducted: Campus H6-8      Investigator: Christy Sprague

**Planting Date:** Oct-1-2015      **Row Spacing:** 7.5 "  
**Variety:** 'Sunburst' soft red      **No. of Reps:** 4  
**Population:** 1800000 seeds/A      **% OM:** 2.7  
**Soil Type:** L loam      **pH:** 7.0  
**Plot Size:** 10 X 30 FT      **Study Design:** Randomized Complete Block (RCB)

**Tillage/Previous Crops:**

**Fertilizer:** Topdressed with 90 lb N 4/20/16 (195 lb/A urea)

**Crop and Weed Description**

Weed	Code	Common Name	Scientific Name
1	POAAN	bluegrass, annual	Poa annua
2	STEME	chickweed, common	Stellaria media
3	LAMAM	henbit	Lamium amplexicaule
4	THLAR	field pennycress	Thlaspi arvense
Crop	Code	Common Name	
1	TRZAW	Winter wheat	

**Application Description**

**Application Timing:** A POST  
**Date Treated:** Apr-20-2016  
**Time Treated:** 3:30 AM  
**% Cloud Cover:** 70  
**Air Temp., Unit:** 70 F  
**% Relative Humidity:** 30  
**Wind Speed/Unit/Dir:** 6 MPH E  
**Soil Temp, Unit:** 58 F  
**Leaf Moist/Dew Presence (Y/N):** 3  
**Soil Moist:** 2

**Crop Stage at Each Application**

**Crop 1 Name:** A TRZAW  
**Height:** 6 "  
**Stage:** Feeke's5

**Weed Stage at Each Application**

**Weed 1 Name:** A POAAN  
**Height:** 1-2 " (1.5)  
**Stage:** 2 lf  
**Weed 2 Name:** STEME  
**Height:** 0.5-1 " (0.5)  
**Stage:** flower  
**Weed 3 Name:** LAMAM  
**Height:** 0.5-1 " (0.5)  
**Stage:** flower  
**Weed 4 Name:** THLAR  
**Height:** 2-5 " (3)  
**Stage:** boltin

**Application Equipment**

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	CUB	3.8 MPH	AIXR	11003	24 "	20 "	100 "	19 GPA	WATER	30 PSI

**Comments:**

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Pest Code			POAAN	STEME	LAMAM	THLAR		
Crop Code	TRZAW	TRZAW						TRZAW
Rating Date	Apr-28-2016	May-4-2016	May-4-2016	May-4-2016	May-4-2016	May-4-2016	May-18-2016	May-18-2016
Rating Type	injury	injury	control	control	control	control	control	injury
Rating Unit	percent	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	8 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	28 DA-A
Number of Decimals	0	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Code							
1	Quelex (GF-3313)	0.75 oz/a	A		0	0	0	64	64	65	0
1	Crop oil concentrate	1 % v/v	A								
2	Quelex (GF-3313)	0.75 oz/a	A		13	6	0	81	86	74	0
2	Surfactant	0.25 % v/v	A								
2	28% UAN (carrier)	100 % v/v	A								
3	Quelex (GF-3313)	0.75 oz/a	A		4	4	0	81	83	81	0
3	2,4-D ester	1 pt/a	A								
3	Crop oil concentrate	1 % v/v	A								
4	Quelex (GF-3313)	0.75 oz/a	A		4	1	0	83	85	80	1
4	2,4-D ester	1 pt/a	A								
4	Surfactant	0.25 % v/v	A								
5	Untreated				0	0	0	0	0	0	0
6	Affinity BroadSpec	0.75 oz/a	A		9	6	0	94	94	84	4
6	Surfactant	0.25 % v/v	A								
7	Affinity BroadSpec	0.75 oz/a	A		8	4	0	90	100	84	6
7	2,4-D ester	1 pt/a	A								
7	Surfactant	0.25 % v/v	A								
8	PowerFlex HL	2 oz/a	A		14	9	74	79	94	71	8
8	Crop oil concentrate	1 % v/v	A								
8	AMS	1.5 lb/a	A								
9	PowerFlex HL	2 oz/a	A		13	7	60	86	99	89	7
9	Quelex (GF-3313)	0.75 oz/a	A								
9	Crop oil concentrate	1 % v/v	A								
9	AMS	1.5 lb/a	A								
	LSD P=.05				3.5	2.9	19.8	6.2	7.1	6.7	3.3
	Standard Deviation				2.4	2.0	13.6	4.3	4.9	4.6	2.3
	CV				33.5	49.03	91.46	5.83	6.21	6.57	80.37

Missing data estimates are included in columns: Average=7,12,13

Could not calculate LSD (% mean diff) for columns 9 because error mean square = 0.

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Pest Code	POAAN	STEME	LAMAM	THLAR	TRZAW	TRZAW
Crop Code						
Rating Date	May-18-2016	May-18-2016	May-18-2016	May-18-2016	Jul-12-2016	Jul-12-2016
Rating Type	control	control	control	control	moisture	yield
Rating Unit	percent	percent	percent	percent	percent	bu/acre
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	28 DA-A	83 DA-A	at 13% M
Number of Decimals	0	0	0	0	1	1

Trt No.	Treatment Name	Rate	Appl Unit	Code	POAAN	STEME	LAMAM	THLAR	TRZAW	TRZAW
1	Quelex (GF-3313)	0.75 oz/a	A		0	100	100	74	14.9	96.5
1	Crop oil concentrate	1 % v/v	A							
2	Quelex (GF-3313)	0.75 oz/a	A		0	100	100	96	15.1	96.2
2	Surfactant	0.25 % v/v	A							
2	28% UAN (carrier)	100 % v/v	A							
3	Quelex (GF-3313)	0.75 oz/a	A		0	100	97	100	15.4	96.3
3	2,4-D ester	1 pt/a	A							
3	Crop oil concentrate	1 % v/v	A							
4	Quelex (GF-3313)	0.75 oz/a	A		0	100	100	99	15.5	91.6
4	2,4-D ester	1 pt/a	A							
4	Surfactant	0.25 % v/v	A							
5	Untreated				0	0	0	0	15.1	90.0
6	Affinity BroadSpec	0.75 oz/a	A		0	100	98	95	15.2	88.8
6	Surfactant	0.25 % v/v	A							
7	Affinity BroadSpec	0.75 oz/a	A		0	100	100	98	14.8	90.5
7	2,4-D ester	1 pt/a	A							
7	Surfactant	0.25 % v/v	A							
8	PowerFlex HL	2 oz/a	A		75	100	100	79	15.0	84.6
8	Crop oil concentrate	1 % v/v	A							
8	AMS	1.5 lb/a	A							
9	PowerFlex HL	2 oz/a	A		84	100	100	94	14.4	84.0
9	Quelex (GF-3313)	0.75 oz/a	A							
9	Crop oil concentrate	1 % v/v	A							
9	AMS	1.5 lb/a	A							
	LSD P=.05				4.2	.	3.4	6.6	0.98	9.41
	Standard Deviation				2.8	0.0	2.4	4.6	0.67	6.36
	CV				16.14	0.0	2.67	5.59	4.42	6.99