



Nebraska On-Farm Research Network

Steward®, Prevathon®, and Steward® + Stratego YLD + Sugar on Soybeans

Study ID: 026185201503

County: York

Soil Type: Hastings silt loam;

Planting Date: 5/22/15

Harvest Date: 9/29/15

Population: 140,000

Row Spacing (in.) 30

Hybrid: Pioneer 92Y70 & P24T19R

Reps:

Previous Crop: Soybean

Tillage: Ridge-Till

Herbicides: **Pre:** 22 oz/ac Roundup PowerMax and 2/3 pt/ac 2,4-D on 4/13/15;

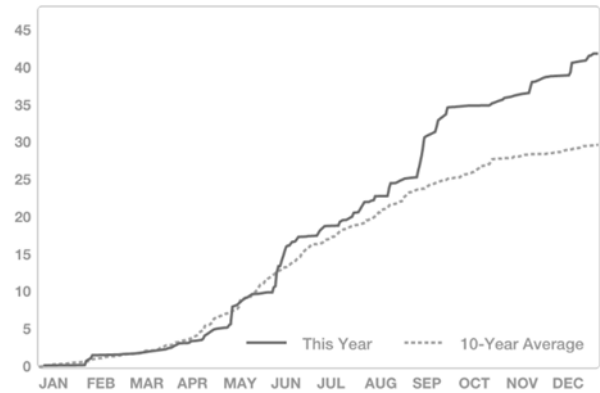
5 oz/ac Authority First on 5/22/15 **Post:** 40 oz/ac

Roundup PowerMax and 0.5 oz/ac Cadet on 6/17/15;

40 oz/ac Roundup PowerMax on 7/8/15

Irrigation: Pivot, Total: 4.4"

Rainfall (in.):



Soil Test Results:

Fertilizer: None

ID	Soil pH	Modified WDRF 1:1 BpH	Soluble Salts 1:1 mmho/cm	Excess Lime Rating	OM LOI-%	FIA Nitrate ppm N	10" Depth Nitrate Lbs N/A	M-P3 ppm P	Ammonium Acetate ppm				Ca-P Sulfate ppm S	DTPA Zn ppm	Sum of Cations me/100g	% Base Saturation				
									K	Ca	Mg	Na				H	K	Ca	Mg	Na
SE Pivot																				
NE40	6.2	6.7	0.38	NONE	3.9	10.1	30	25	431	2260	378	45	12	3.38	18.4	14	6	62	17	1
NW40	6.3	6.8	0.32	NONE	3.4	10.2	31	16	482	2063	330	43	12	2.78	16.6	13	7	62	17	1
SW40	6.2	6.8	0.23	NONE	3.3	3.8	11	19	482	2107	362	44	12	1.81	17.2	13	7	61	18	1
SE40	6.5	6.8	0.31	NONE	3.4	9.6	29	38	557	2139	323	40	14	2.69	16.6	10	9	64	16	1
SW Pivot																				
NE40	6.1	6.6	0.27	NONE	3.2	9	27	18	458	2035	289	42	14	3.53	18.0	23	7	56	13	1
NW40	6.3	6.7	0.25	NONE	3.1	7.3	22	21	552	1995	284	44	14	3.15	17.2	19	8	58	14	1
SW40	6.2	6.7	0.26	NONE	4.0	9.1	27	36	492	1952	251	46	14	4.37	16.5	19	8	59	13	1
SE40	6	6.5	0.24	NONE	3.5	4.2	12	27	503	1683	220	40	16	3.19	16.7	30	8	50	11	1

Introduction: The objective of this study was to look at the impact of Prevathon® and Steward® on soybeans after soybeans for control of stem borer.

There were 4 treatments: (1) Steward® (product ingredients below), (2) Prevathon® (product ingredients below), (3) Steward®, Stratego YLD, Sugar, and (4) Check. Steward is labeled for several key soybean pests, but not currently labeled for decates stem borer.

Prevathon® was applied on 7/4/15 at R1. Steward® was applied on 7/27/15 at R3. There were also 2 varieties used in the study area. This study was conducted on two adjoining pivots. The study was improperly randomized, so results should not be extended beyond this field location.

DuPont™ Prevathon®	
Active Ingredient RynaXypyr®	
Contains 0.43 lb. active ingredient per gallon.	
Active Ingredient	By Weight
Chlorantraniliprole	
3-Bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide	5%
Other Ingredients	95%
TOTAL	100%

Product information from: <http://www.dupont.com/products-and-services/crop-protection/corn-protection/products/prevathon.html>

DuPont™ Steward® EC	
Emulsifiable Concentrate	
<i>Contains 1.25 lbs. Active Ingredient per gallon.</i>	
Active Ingredient	By Weight
Indoxacarb	
(S)-methyl 7-chloro-2,5-dihydro-2-[[[(methoxycarbonyl)[4-(trifluoromethoxy)phenyl]amino]carbonyl]indeno [1,2-e][1,3,4]oxadiazine-4a(3H)-carboxylate	15.84%
Other Ingredients	84.16%
TOTAL	100%

Product information from: <http://www.dupont.com/products-and-services/crop-protection/soybean-protection/products/steward-ec.html>

Results:

The treatments were evaluated at R5.5 for tunneling by splicing the main stem of 20 plants in a row at 6 locations for a total of 120 plants evaluated. These data were not collected in each replication so a statistical analysis could not be performed, however observations are reported.

Prevathon treatment: 9 tunneled plants out of 120

Steward treatment: 41 tunneled plants out of 120

Check: 35 tunneled plants out of 120

Yield data was analyzed using the GLIMMIX procedure in SAS 9.4 (SAS Institute Inc., Cary, NC). Mean separation was done with Fisher's LSD. There was no treatment by variety interaction. Results of the treatments, varieties, and pivots are shown below. Marginal net return was calculated for the treatments.

Pivot:	Yield	Marginal Net Return‡ (\$/ac)
East Pivot	73 B*	-
West Pivot	79 A	-
P-Value	<0.0001	
Variety:		
24T19	75 A	-
92Y70	76 A	-
P-Value	0.2852	
Treatment:		
None	75 A	667.50
Prevathon®	76 A	648.40
Steward®	75 A	636.38
Steward + Stratego YLD +Sugar	77 A	638.37
P-Value	0.3560	

†Bushels per acre corrected to 13% moisture.

*Values with the same letter are not significantly different at a 90% confidence level.

‡Net Return based on \$8.90/bu soybeans, \$1.50/ac sugar, \$14.31/ac Stratego YLD, \$28/ac Prevathon, and \$23/ac Steward. Prevathon was applied with RoundUp, so no application cost is accounted for; Steward was an extra trip at R2-R3, so an \$8.12/ac application rate was accounted for.

Summary: There was no yield difference between the 4 treatments in this study. There was also no yield difference between the 2 varieties used in this study. The 2 pivots had significantly different yields.



In Partnership with:



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