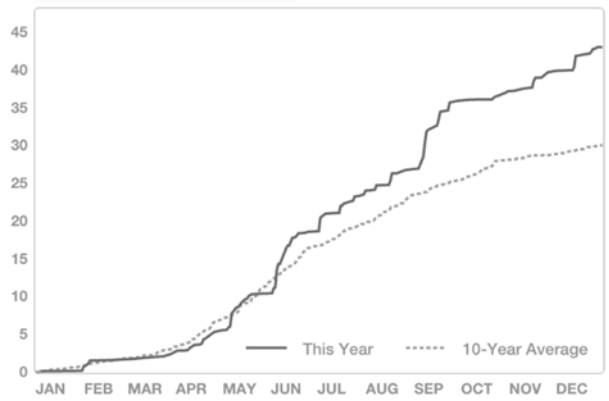
Nebraska On-Farm Research Network

Aegis® ESR on Irrigated Corn at V5

Study ID: 026185201501
County: York
Soil Type: Hastings silt loam;
Planting Date: 4/24/15
Harvest Date: 10/20/15
Population: unknown
Row Spacing (in.) 30
Hybrid: Pioneer P1690 CHR
Reps: 8
Previous Crop: Corn
Tillage: Ridge-Till
Herbicides: ***Pre:*** 32 oz/ac RoundupPowerMax + 2/3 pt/ac 2,4-D LV6 on 4/13/15; 2.1 qt/ac Bicep II on 4/23/15 ***Post:*** 32 oz/ac Roundup PowerMax + 0.5 oz/ac Armezon on 6/9/15
Seed Treatment: unknown
Foliar Insecticides: 6.4 oz/ac Brigade on 4/24/15
Foliar Fungicides: 10.5 oz/ac Quilt Xcel on 7/31/15

Fertilizer: 230 lb/ac Anhydrous Ammonia on 3/20/15; 3 gal/ac 10-34-0 on 4/24/15
Irrigation: Pivot, Total: 5"
Rainfall (in.):



Soil Tests:

					Phosphorus (P)		Ammonium Acetate (ppm)						% Base Saturation				
ID	Soil pH 1:1	OM LOI-%	0-10" Nitrate (ppm)	11-24" Nitrate (ppm)	Weak Bray 1:7 (ppm)	Strong Bray 1:7 (ppm)	K	Ca	Mg	Ca-P Sulfate (ppm S)	Zn (ppm)	Sum of Cations (me/100g)	H	K	Ca	Mg	Na
1	6.4	2.6	6	-	36	69	263	2535	381	11	3.1	18.1	8.8	3.7	70.0	17.5	-
2	6.7	2.6	6	-	24	43	386	2094	342	14	1.6	14.3	0.0	6.9	73.2	19.9	-
3	7.0	2.3	8	-	35	114	553	2834	660	17	3.2	21.1	0.0	6.7	67.2	26.1	-

Introduction: The purpose of this study was to determine if an application of Aegis® ESR plant growth stimulator would increase yield and profitability on irrigated corn. Aegis® ESR was applied with a high clearance applicator at a rate of 5 oz/acre at the V5 growth stage on 6/8/15. This product is expected to be applied with a post herbicide application. Yields were harvested from treated and untreated strips and collected from yield monitor data. Product active ingredients are at right.

Aegis® ESR

- PLANT GROWTH STIMULATOR
- PROTEIN ENHANCER

- AEGIS® ESR INCREASES THE INTAKE OF NUTRIENTS THAT ARE NECESSARY FOR PLANT GROWTH RESULTING IN IMPROVED YIELD
- AEGIS® ESR PROTEIN ENHANCER INCREASES THE UTILIZATION OF PROTEINS THAT ARE NECESSARY FOR PLANT GROWTH
- AEGIS® ESR PROTEIN ENHANCER INCREASES THE SYNTHESIS OF PROTEINS THAT ARE NECESSARY FOR PLANT GROWTH RESULTING IN IMPROVED YIELD

ACTIVE INGREDIENTS:	
Sodium p-nitrophenolate	0.30%
Sodium o-nitrophenolate	0.20%
Sodium 5-nitroguaiacolate	0.10%
OTHER INGREDIENTS:	99.40%
TOTAL:	100.00%

This product contains 0.03 lbs. of sodium p-nitrophenolate, 0.02 lbs. of sodium o-nitrophenolate, and 0.01 lb. of sodium 5-nitroguaiacolate per gallon.

Product information from:
http://www.kellysolutions.com/ok/showproductinfo.asp?Product_Name=Aegis+ESR+Plant+Growth+Stimulator&EPA_Id=64922-1-90441

Result:	Yield (bu/ac)†	Moisture (%)	Harvest Stand Count	Marginal Net Return ($/ac)‡
Check	247 A*	18.5 A	31,063 A	901.55
Aegis ESR	246 A	18.3 A	31,188 A	893.90
P-Value	0.5547	0.1966	0.7849	N/A

†Bushels per acre corrected to 15.5% moisture.
*Values with the same letter are not significantly different at a 90% confidence level.
‡Net Return based on $3.65 corn, $4/acre Aegis ESR cost.

Summary: There was no significant yield difference between the Aegis® ESR treatment and the check. Marginal net return was lower for the Aegis® ESR treatment due to the increased cost of production which was not recovered.

This study was sponsored in part by: LTA Resource Management.

In Partnership with: