

OBJECTIVE

To assess the yield response of adding Excelis Maxx nitrogen stabilizer to different rates of 30% UAN at V5 side-dress application in grain corn.

Site Location:

Clinton, NC

Researchers:

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North Carolina State University

STUDY INFORMATION

Planting Date	16-April-2019
Harvest Date	12-Sept-2019
Variety	P1870 YHR
Population	34,000

KEY FINDINGS

+30 bu/ac

when Excelis Maxx applied with 37.5 Gal/UAN

ROI: \$100.29/ac

+18 bu/ac

when Excelis Maxx applied with 56.25 Gal/UAN

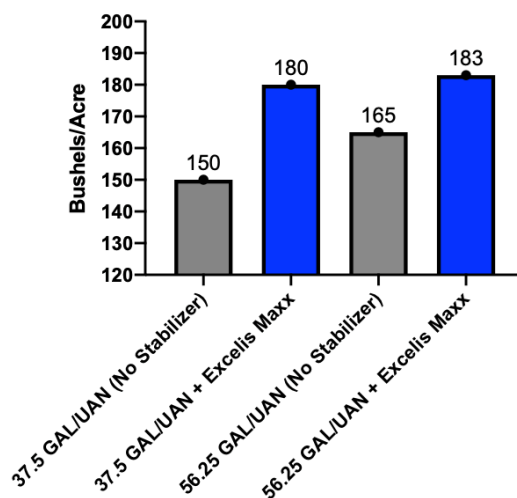
ROI: + \$49.17/ac

Graph: Excelis Maxx added. The Gross Revenue was calculated at \$3.75/bushel for corn with Excelis Maxx retail cost of \$240/gallon.

TIMAC AGRO PRODUCT



Yield Response from Addition of Excelis Maxx in UAN Application at V5 Growth Stage (Clinton, NC)



APPLICATION

Treatment	Application Rate
30% UAN @ 75% Rec. Rate	37.5 Gal/A
30% UAN @ 75% Rec. Rate treated w/ Excelis Maxx	37.5 Gal/A + 1 Quart/Fluid Ton
30% UAN @ 100% Rec. Rate	56.25 Gal/A
30% UAN @ 100% Rec. Rate treated w/ Excelis Maxx	56.25 Gal/A + 1 Quart/Fluid Ton

MATERIALS AND METHODS

Trial ID: RT-19-SE-COR-EM-3

This study was conducted in a grower field with conventional tillage practices on a Norfolk sandy loam soil type. Soil test taken in the early spring pre-plant indicated high to very high soil nutrient levels with excess amounts of P and Zn, with a soil pH of 6.3. Additional fertility application were followed according to recommendations generated from the North Carolina Department of Agriculture. The experimental design was a randomized complete block with 4 replications. Plots consisted of four 30-inch rows that were 40' long. Seeding rate was 34,000 seed an acre, and Pioneer '1870 YHR' was planted on April 16. All plots received 20 gal acre of 10-27-0 with Rotech (Zn & S micronutrient mixture) applied in the 2 x 2 bands on both sides of the row at planting. Acetachlor plus atrazine (2 qt/ac) were applied at planting and Steadfast Q (0.5 oz/ac) with atrazine (1 qt/ac) and Status (2.5 oz/ac) were applied at layby on May 16 using drop nozzles to control weeds. Excellent season long control on weeds was observed. Irrigation was used to prevent water stress, and temperatures during the last week of June and first week of July were 4-5 degrees F above 5-year average. Plots were allowed to mature and harvested on September 12. Total weight of grain from the center 2 rows of each replicate was used to calculate moisture, test weight, and yield.

RESULTS AND CONCLUSIONS

UAN treated with Excelis Maxx improved corn yield at both 37.5 GAL/A and 56.25 GAL/A rates over the same rates of UAN applied at V5 without a nitrogen stabilizer. This resulted in an ROI from treating the UAN with Excelis Maxx of \$100.29/ac and \$49.17/ac, respectively.

RETURN ON INVESTMENT

Treatment	Yield (bu/ac)	Gross Revenue @ \$3.75/bu	Change from Control	Added Costs/ac	ROI
30% UAN, 37.5 GAL/A	150	\$562.50	-	\$0.00	-
30% UAN, 37.5 GAL/A + Excelis Maxx (1 Qt/Ton)	180	\$675.00	\$112.50	\$12.21	\$100.29
30% UAN, 56.25 GAL/A	165	\$618.75	-	\$0.00	-
30% UAN, 56.25 GAL/A + Excelis Maxx (1 Qt/Ton)	183	\$686.25	\$67.50	\$18.33	\$49.17

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