

Kim Rossiter — Winfield, IA: Field Plot Evaluation of Agri-Gro vs. Grozyme as oz. to oz. comparison (Corn)

Control Plot received 3 oz. of Grozyme + 3 gal/a 8-19-3 + 3 lb/a Kickoff micronutrient applied in-furrow on seed followed by 12 oz. of Grozyme applied post planting pre-emerge with herbicide application.

The Comparison Plot had a planned 8 oz. Agri-Gro + 3 gal/a 8-19-3 + 3 lb/a Kickoff to be applied in-furrow on seed followed by 16 oz/a of Agri-Gro applied post planting pre-emerge with herbicide application. However, due to a pump setting problem a half rate of Agri-Gro / 8-19-3 / Kickoff was actually applied in-furrow. An 8 oz/a rate of Agri-Gro was included in the nitrogen band. The post application received the full 16 oz/a. The two respective total input costs of the two programs "Control" vs. "Comparison" are given below.

Input Costs for Control Plot:	3 gal/a 8-19-3	\$3.06/gal. = \$9.18
	3 lb/a Kickoff	1.78/lb. = \$5.34
	3 oz./a Grozyme	0.6445/oz. = \$1.9335
	12.8 oz/a Grozyme	0.6445/oz = <u>\$8.2496</u>
	TOTAL COST PER ACRE	\$24.7031

Input Costs for Comparison Plot:	1 1/2 gal/a 8-19-3	\$3.06/gal. = \$4.59
	1 1/2 lbs/a Kickoff	1.78/lb. = \$2.67
	4 oz. Agri-Gro	0.2656/oz = \$1.0624
	8 oz. Agri-Gro	0.2656/oz = \$2.1248
	16 oz. Agri-Gro	0.2656/oz = <u>\$4.2496</u>
	TOTAL COST PER ACRE	\$14.6968

Hybrid: P 34N44 **Population:** 34,000 **Tillage:** Min-till non-irrigated **Planting Date:** 4/12 **Harvest Date:** 9/15
Other fertility: Hog manure applied / No preplant dry N-P-K Corn following beans

RESULTS: A 1 bpa advantage was shown (weigh wagon) by the Comparison Plot over Control Plot and a 2 bpa advantage was shown (yield monitor) by the Comparison Plot over the Control Plot. If a \$2.50/bushel corn price is used plus the product cost difference noted above the Comparison Plot (Agri-Gro) with a 1 bpa greater yield provided a profit advantage of \$12.51 per acre and the 2 bpa greater yield provided a net profit advantage of \$15.01 per acre.

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Control plot received 12.8 oz. of Grozyme (broadcast soil applied) + 3 oz/a Grozyme + 3 gal/a 8-19-3 + 3 lb/a Kickoff micronutrient applied in-furrow on seed. Comparison plot had the same rate of 8-19-3 and Kickoff but had a near equal dollar equivalent of Agri-Gro (32 oz.) applied with 8 oz/a placed with starter on seed in-furrow, 8oz/a placed with the planter banded nitrogen and 16 oz/a broadcast soil applied. The total input costs of the two programs were near equal i.e. "control" vs. comparison" as outlined below.

Input Costs for Control Plot:	3 gal/a 8-19-3	\$3.06/gal. = \$9.18
	3 lb/a Kickoff	1.78/lb. = \$5.34
	3 oz./a Grozyme	0.6445/oz. = \$1.9335
	12.8 oz/a Grozyme	0.6445/oz = <u>\$8.2496</u>
	TOTAL COST PER ACRE	\$24.7031

Input Costs for Comparison Plot:	3 gal/a 8-19-3	\$3.06/gal. = \$9.18
	3 lbs/a Kickoff	1.78/lb. = \$5.34
	8 oz. Agri-Gro	0.2656/oz = \$2.1248
	8 oz. Agri-Gro	0.2656/oz = \$2.1248
	16 oz. Agri-Gro	0.2656/oz = <u>\$4.2496</u>
	TOTAL COST PER ACRE	\$23.0192

Hybrid: P 34N44 **Population:** 34,000 **Tillage:** Min-till non-irrigated **Planting Date:** 4/12 **Harvest Date:** 9/15
Other fertility: No hog manure applied & no preplant dry N-P-K Corn following beans

RESULTS: RESULTS: A 10 bpa advantage was shown (weigh wagon) by the Comparison Plot over Control Plot and a 12 bpa advantage was shown (yield monitor) by the Comparison Plot over the Control Plot. If a \$2.50/bushel corn price is used the Comparison Plot (Agri-Gro) increased profits \$26.68 to 31.68 per acre. This includes the yield increase factor plus a small difference in input costs (\$1.68) for the Control Plot.