

Huma® Zap® Increases Cotton Lint Yield by 125.8 lb/A, With 67% ROI

Research Report

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Huma® Product: Zap®

Background

Application of **Zap®** to soils in combination with other Huma® fertilizers at various locations previously resulted in crops with improved plant growth and higher yields. Applying **Zap®** with grower standard products or as a single product application to soil and plants could also impact results.

Objective

The focus of this study was to observe if **Zap®** can improve cotton yield under field condition.

Materials & Methods

Experimental plots for cotton were established at the Agricenter International research facility in Memphis, Tenn. The experiment was a randomized complete block design with six replications. The cotton was planted on May 26 in a field that did not have any humic products prior to this study. The crop was harvested on November 14.

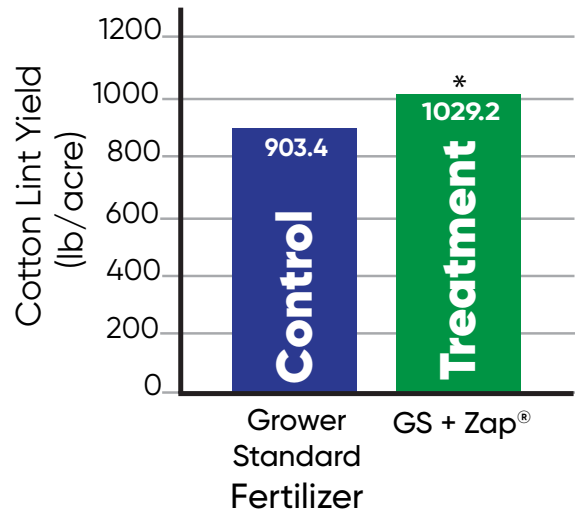
The grower standard (GS) fertilizer program, including the source and application timings, are outlined in Table 1. **Zap®** was applied at planting and again 41 days later during the growing season (Table 1). At planting, **Zap®**, tank-mixed with 10-34-0 fertilizer was applied in-furrow. **Zap®** was then broadcast sprayed on the plants and the soil surface.

Table 1. Grower Standard and Huma® Treatment Fertilizer Programs

	Product	Amount	Method	Timing
GS Control	18-46-0	130 lb/a	Broadcast	Preplant
	0-0-60	100 lb/a	Broadcast	Preplant
	10-34-0	2.5 gal/a	In-furrow	At Planting
	46-0-0	123 lb/a	Side-dress	Pinhead Square
Huma® Treatment	GS Control (all products above)			
	Zap®	2 qt/a	In-furrow	At Planting
	Zap®	2 qt/a	Spray	41 days

Results

The difference between the two treatments was statistically significant ($p \leq 0.05$); adding **Zap®** to GS increased cotton lint by 125.8 lb/acre (Figure 1). This resulted in a return on investment (ROI) of 67%.



* = statistically significance at $p \leq 0.05$.

Figure 1. Cotton Response to Zap® Treatment

Conclusions

This field study confirmed results from previous field trials (follow the QR Code below) that including **Zap®** in crop production can increase yield. The yield bump of 14% and the ROI of 67% resulted in over \$25 per acre net income gain.

Product

Huma® **Zap®**, carbon-complexed with Micro Carbon Technology® is a formulation of nutrients for feeding the native beneficial soil microbial balance. **Zap®** feeds a strong, vigorous soil biology, which indirectly results in the natural improvement of soil health.



For more **Zap®** Research Reports, product documentation, and other information, follow this QR Code.