Foliar Spray at Fourth Node

Cotton

OBJECTIVE

To assess the yield response of a foliar spray of Fertiactyl GZ at fourth node with herbicide on crop of upland cotton.

Site Location:
Saint Joseph, LA

Researcher:
H. Randall Smith, Ph.D.
Mississippi State University

STUDY INFORMATION

Variety	Phytogen 333 WRF
Population	52,000
Planting Date	June 1, 2016
Harvest Date	November 12, 2016

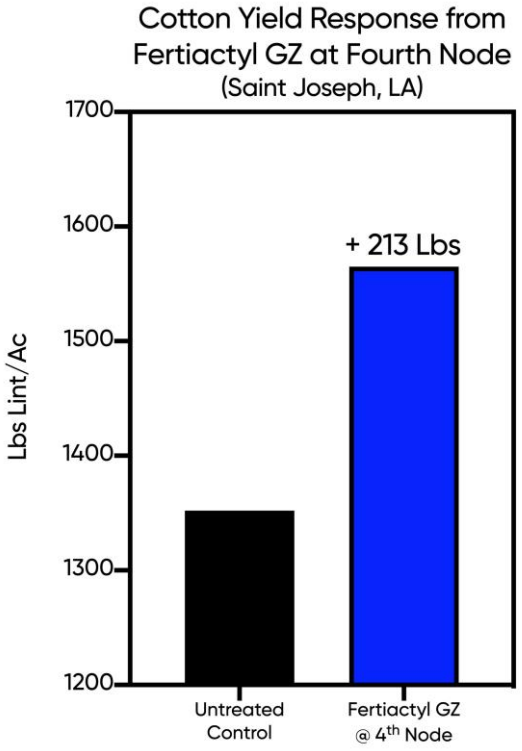
TIMAC AGRO PRODUCT

FERTIACTYL® GZ

KEY FINDINGS

+213 lbs lint/ac
More than untreated control

ROI: $118.19/ac



Graph: Foliar spray of Fertiactyl GZ improved yield 213 lbs lint/ac for cotton crop. The Gross Revenue above was calculated at $0.60/lb cotton lint with Fertiactyl GZ retail cost of $51.25/gallon.

APPLICATION

Treatment	Application Rate
Control	N/A
Fertiactyl GZ	1.5 pint/A

Trial ID: RT-16-DL-COT-GZ

MATERIALS AND METHODS

The study was conducted at Northeast Research Station of Louisiana State University in Saint Joseph, Louisiana on a high CEC (26) soil type possessing very high clay level . Soil tests were conducted prior to planting and analysis processed at the Waypoint Laboratories in Memphis Tennessee. 'Phytogen 333 WRF' was planted on June 1, 2016 into a trial consisting of bio-nutritional treatment in a Randomized Block Design consisting of four replications to determine effects on cotton growth and development and yield. Individual plot length consisted of four-row plots of 30' with 10' alleys. Row spacing consisted of a solid planting pattern planted on 40" centers with a seeding rate of 4 seed per row foot and planted to a depth of 0.50". Border effects were reduced utilizing border rows with additional cotton and using a solid planting pattern where evaluations were only conducted on plants in the middle two rows. All fertilizer applications were based on soil test recommendations and Mississippi State University guidelines and were consistent among treatment and untreated control. IPM measures including weed control and pest pressures were managed the same for both treatment and control plots. Fertiactyl GZ was applied at a rate of 1.5 pint/ac at fourth node with herbicide spray. Defoliation was conducted based on visual assessments of 60% open boll with harvest aids applied using high clearance ground equipment. Harvest was conducted November 12 on the two middle rows using a small plot machine harvester equipped with a weighing system to measure seed cotton of individual plots during harvest. Seed cotton weights were converted to lint pounds per acre using historical lint percentages established via University Official Variety Trials at Mississippi State University.

RESULTS AND CONCLUSIONS

Foliar spray of Fertiactyl GZ (1.5 pint/A) at fourth node improved upland cotton yield over untreated control by 213 lbs lint/acre. This resulted in a ROI of $118.19/Acre.

RETURN ON INVESTMENT

Treatment	Yield Lbs int/ac	Gross Revenue @ $0.60/lb	Change from Control	Added Costs/ac	ROI
Control	1352	$811.20	-	$0.00	-
Fertiactyl GZ (1.5 pt/A @ 4th Node)	**1565**	**$939.00**	**$127.80**	**$9.61**	**$118.19**

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