

COTTON TRAIL

Researcher: University Pretoria Year: 2006 - 2007
Variety: Delta - Pine Location: Centre for Soil & Crop Science
Soil type: Silt Sandy Loam Plant Rate: 24,500 Seed /ha
Row Spacing: 100cm In-Row spacing: 1 plant ever 30cm

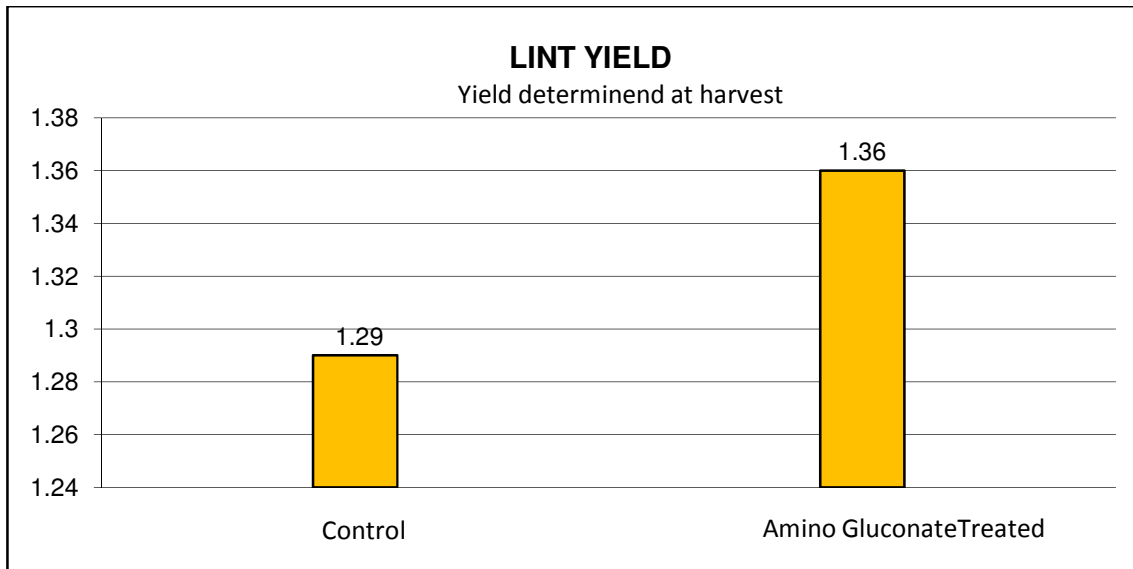
Experimental design: A plot at the university research centre was allocated for this study. The plots used in the study were 4 x 10 meters. Two rows were used, one as a treated plot and one as a control plot. Amino Gluconate range was tested on the trail plot to evaluate quality and lint yield influences with Amino Gluconate application and without Amino Gluconate application.

Fertilization: Both fields received an application of 100Kg/ha Nitrogen, applied as Urea.

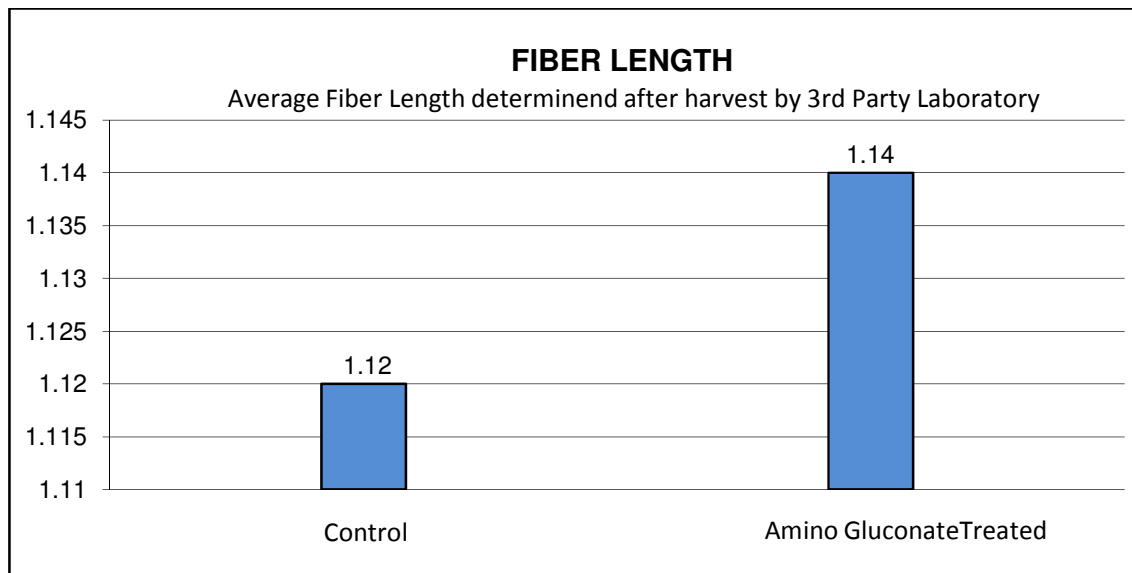
Amino Gluconate Application: 2Lt/ha Amino Gluconate Zn with 200gm/ha Boric Acid applied 4 weeks after emergence and another applications of 2Lt/ha Amino Gluconate Zn with 3Lt/ha Amino GluconateCa and 200gm/ha Boric Acid applied at the onset of flowering. This application was repeated 2 weeks later.

Results:

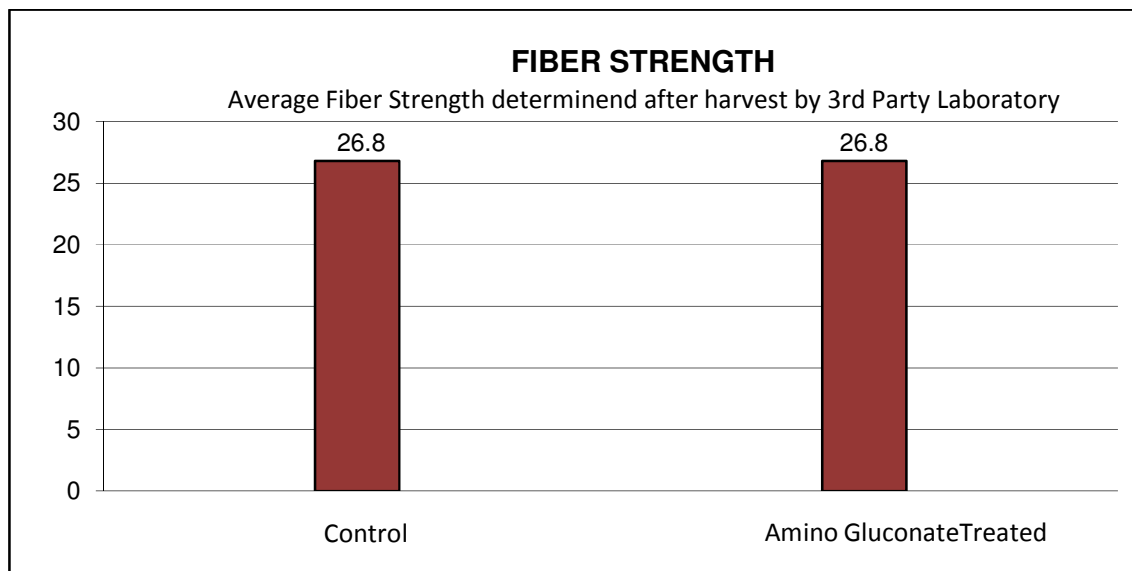
Lint Yield (Kg/ha):



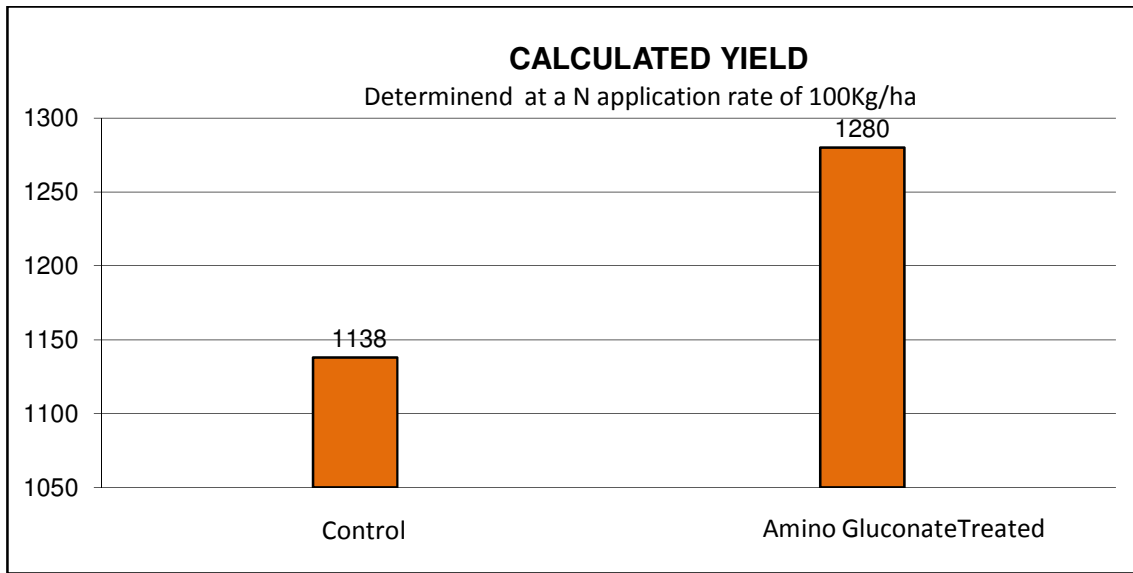
Average Fiber Length (cm):



Average Fiber Strength (g/tex):



Calculated Yield (Kg/ha):

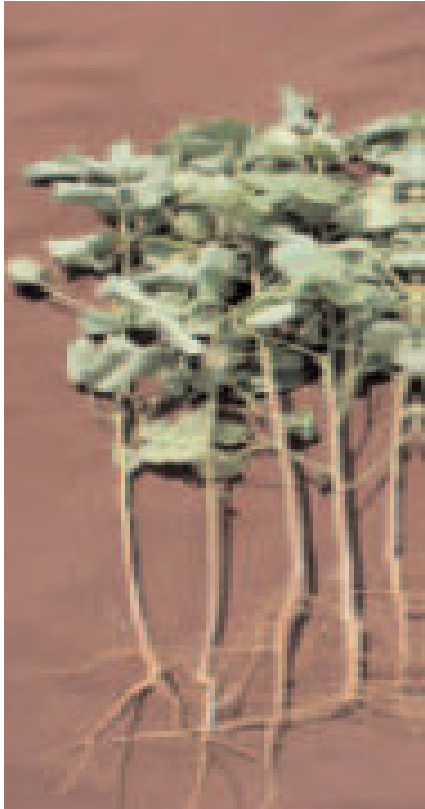


Effects on the plants at 50 days after planting (1st Flowering)

	Plant Height (cm)	Average Nodes per Plant (Count)
Control	69.2	14.6
Trail	76.1	15.4

Effects on the plants at 70 days after planting (Peak Flowering)

	Plant Height (cm)	Average Nodes per Plant (Count)
Control	78.7	18.3
Trail	86.4	18.9



Control



Trail



Control

Trail

Observations:

- Increase in lint yield = 5% , Calculate yield increase per ha = 11%
- Increase in fiber length = 2%
- Increase in fiber strength = None
- Increase in height (Early Bloom) = 9%, Full Bloom = 9%
- Increase in nodes per plant (Early bloom) = 5%, Full Bloom = 3%