

Vital Earth Resources

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2012 Crop Results

Vitazyme on Bananas

A Nursery Study

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Location: La Blanca, Ocos Municipality, San Marcos Department, Guatemala

Variety: Cavendish

Experimental design: In a banana nursery greenhouse, rows of young plants 74 meters long x 1 meter wide, with plants in 1 kg bags, were selected to evaluate the effect of Vitazyme plus Silfact surfactant on banana plant growth. Several beds were used for each treatment.

- 1. Control 2. Vitazyme + Silfact on 4-week plants 3. Vitazyme + Silfact on 5-week plants**

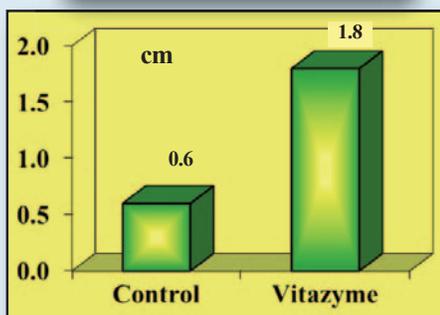
Vitazyme application: **Treatment 2** (4-week plants): (1) 50 ml of Vitazyme in 16 liters of water (0.31%) sprayed with a backpack sprayer on February 20, 2012; (2) 80 ml of Vitazyme in 16 liters of water (0.5%) sprayed with a backpack sprayer about three weeks later on March 13, 2012. **Treatment 3** (5-week plants): (1) 75 ml of Vitazyme in 16 liters of water (0.47%) sprayed with a backpack sprayer on February 20, 2012; (2) 80 ml of Vitazyme in 16 liters of water (0.5%) sprayed with a backpack sprayer about three weeks later on March 13, 2012.

Silfact application: This surfactant of Foragro was applied with all Vitazyme applications at 5 ml/16 liters of water (0.031%).

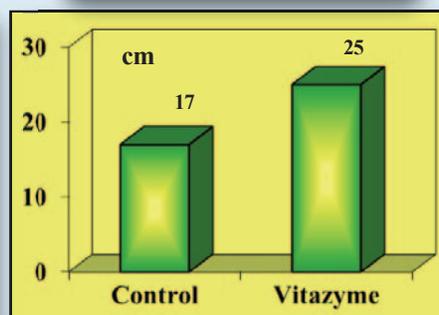
Growth results: Values for all parameters were collected on April 11, 2012, 51 days after the first treatment was made.

Trial With 4-Week Plants (Treatment 2)

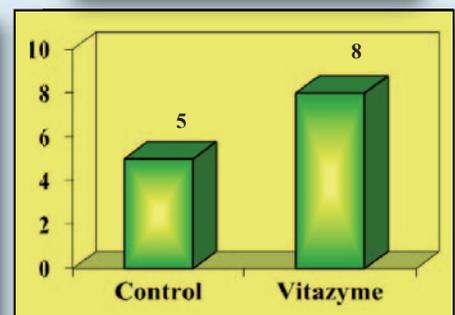
Trunk Diameter



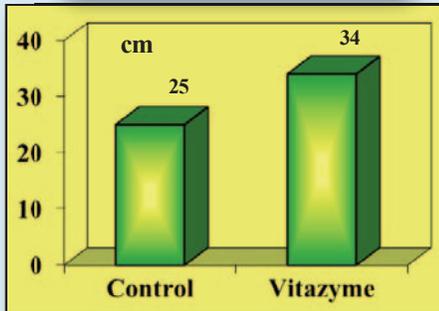
Plant Height



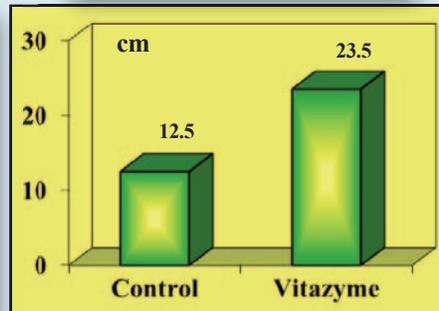
Leaf Number



Leaf Length

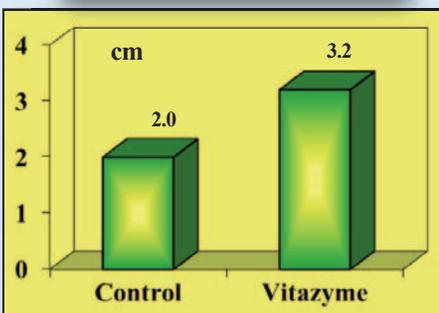


Leaf Width

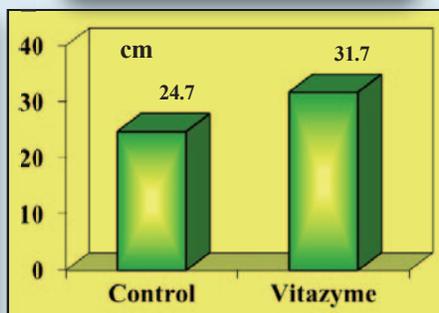


Trial With 5-Week Plants (Treatment 3)

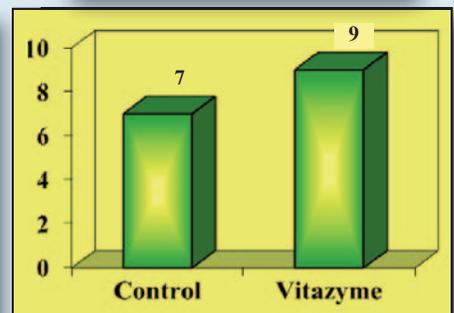
Trunk Diameter



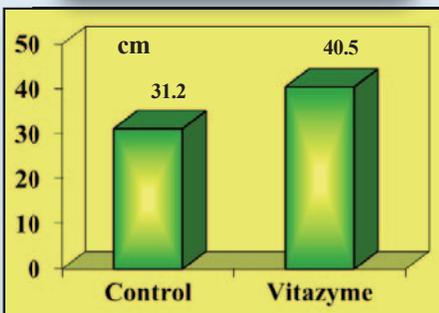
Plant Height



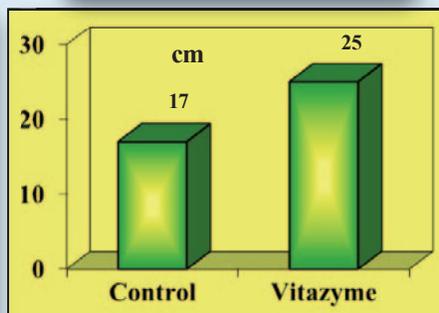
Leaf Number



Leaf Length



Leaf Width



Increases with Vitazyme

	<u>4-week plants</u>	<u>5-week plants</u>
Trunk diameter	1.2 cm (+200%)	1.2 cm (+60%)
Plant height	8 cm (+47%)	5 cm (+20%)
Leaf number	3 (+60%)	2 (+29%)
Leaf length	9 cm (+36%)	9.3 cm (+30%)
Leaf width	11 cm (+88%)	8 cm (+47%)

Note that every parameter was increased with Vitazyme applications, especially trunk diameter (200% and 60% for Treatments 2 and 3, respectively). Plant height, leaf number, and leaf length and width were also markedly improved, by 20% to 88%.

Conclusions: The researchers stated the following:

- “1. Plants treated with Vitazyme in both treatments showed a better growth versus plants that did not receive treatment.
 2. The plants that received the application of Vitazyme had a larger diameter [of stem] than the control.
 3. Both treatments that received the application of Vitazyme had a larger diameter than the control.
 4. In the variables leaf number, length, and width [of leaves] all treatments that received Vitazyme application gave better results than the untreated control.
 5. The root system showed thicker roots in the Vitazyme treated plants.
- The use of Vitazyme in nursery plantain banana by two foliar sprayings at 0.5% v/v (1 liter/200 liters of water), 5 and 8 weeks from planting, is recommended.”