

Vital Earth Resources

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2005 Crop Results

Vitazyme on Squash

Location: Monroe County, New York

Variety: buttercup

Soil type: clay loam

Previous crop: soybeans

Planting date: May 31, 2005

Experimental design: A squash field was treated partially with Vitazyme to evaluate effects on crop yield and storability, when applied to the grower's standard program.

1. Control

2. Vitazyme

Fertilizer: 600 lb/acre 6-25-27% N-P₂O₅-K₂O, plowed in before planting; 25 gal/acre of a 30% N solution in July, sidedressed. Total N: 110 lb/acre.

Vitazyme application: 13 oz/acre applied three times during the growing season: July 22 (newly forming fruit), August 8 (very green fruit), and August 24 (some dark green fruit)

Harvest date: September 12, 2005

Yield results: One-acre areas, near each other, were flagged for the treated and control portions of the field near harvest time. Three areas were picked separately and the yields were determined. Forty bushel boxes from each treatment were identified for storage to determine quality later.

<u>Treatment</u>	<u>Yield</u>	<u>Yield change</u>
Control	320 bu/acre	—
Vitazyme	330 bu/acre	+10 bu/acre

Income results: At a price of \$10/bu, the additional yield from Vitazyme provided \$100/acre more income.

Storage results: On December 15, about 3 months after harvest, the treated squash removed from storage boxes and washed were noticeably better than the untreated squash, having fewer bruised and rotten spots and fewer rejections. This improvement with Vitazyme was likely due to stronger cell walls and higher soluble solids in the cell walls of the fruit, a normal response to Vitazyme application.

Conclusions: In this New York squash study, Vitazyme produced a highly profitable yield increase as well as better storability of the fruit, meaning more of the stored squash made it to market to further increase the marketable yield.

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1998 Crop Results

Vitazyme on Squash

Farmers: Alan Perry and Merlin Cronkite

Location: Easton, Maine

Variety: Buttercup (Burgess)

Planting date: Vitazyme area, June 13; Control, May 31

Experimental design: A one-acre field was divided into equal portions of 0.5 acres each, with 12 rows total. Half (6 rows) was treated with Vitazyme, and half (6 rows) was not.

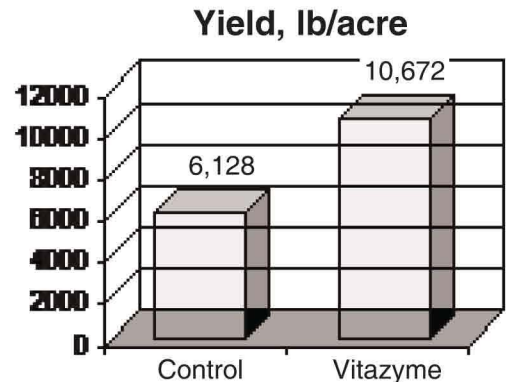
Vitazyme application: Vitazyme was sprayed on the leaves and soil early in the growing cycle.

Fertilizer treatments: All areas received 250 lb/acre $(\text{NH}_4)_2\text{SO}_4$, 250 lb/acre K_2SO_4 , 175 lb/acre NH_4NO_3 , 30 lb/acre ZnSO_4 , and 15 lb/acre borate.

Yield results: About 15% of the control area was washed out by erosion due to heavy spring rains. The final yield is adjusted for this loss by increasing the control yield by 15%. The squash were placed in 4x4-ft wooden potato crates at harvest.

Squash Yield

Treatment	lb/plot	Increase, kg/plot
Control	3,336	6,128
Vitazyme	5,336	10,672 (+74%)



Yield Increase: 74%

Comments: Vitazyme dramatically improved squash yield in this test, showing that cucurbits can be greatly enhanced with Vitazyme's active agents. Only one application was necessary to produce this response. This response was achieved in spite of the fact that the Vitazyme treated squash were planted two weeks later than the control squash.