

## Vital Earth Resources

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# 2006 Crop Results

## Vitazyme on Petunias

**Researcher:** Paul W. Syltie, Ph.D.

**Location:** Vital Earth Resources Research Center, Gladewater, Texas

**Variety:** pink

**Transplanting date:** November 14, 2006

**Media:** Vital Earth Ultra-Blend (pH 6.0, 200+ ppm N, 75 ppm P, 450 ppm K, 650 ppm Ca, 250 ppm Mg, 200 ppm S, plus B, Cu, Fe, Mn, and Zn)

**Pot size:** 8.5 cm x 8.5 cm x 8.0 cm deep

**Experimental design:** An experiment to evaluate the efficacy of Vitazyme to stimulate early petunia growth with initiated in the greenhouse, using plants of equal size and vitality for each of six replicates. Daytime temperatures were 60 to 80°F, and nighttime temperatures were 50 to 60°F. Watering was on an as-needed basis.

### 1. Control

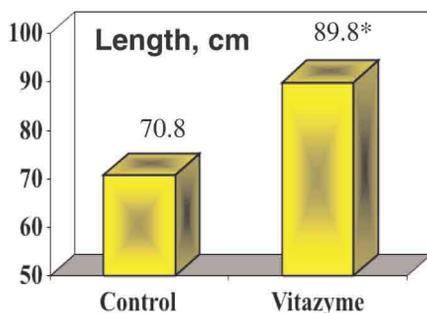
### 2. Vitazyme

**Fertilization:** none (potting soil residual fertility only)

**Vitazyme treatment:** 5 ml of a 0.1% solution applied to the transplants at planting, and again on December 8

**Growth results:** On December 22, each plant was measured for total shoot length (by adding the length of each shoot), shoot number, and chlorophyll content (using a Minolta SPAD meter, with seven leaves measured and averaged per plant).

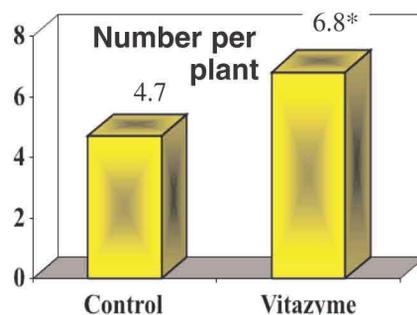
### Shoot Length



\*Significantly greater than the control at  $P = 0.05$  according to the Student-Newmans-Keuls Test.  
LSD<sub>0.05</sub> = 16.9 cm.

**Increase in shoot length: 27%**

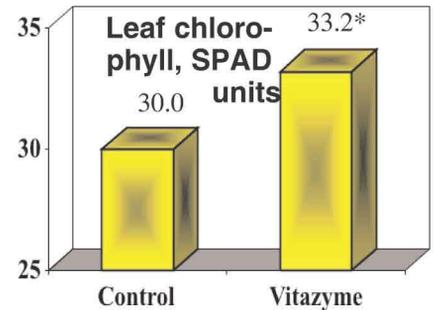
### Branches



\*Significantly greater than the control at  $P = 1.10$  according to the Student-Newmans-Keuls Test.  
LSD<sub>0.10</sub> = 1.8 branches.

**Increase in branches: 45%**

### Leaf Chlorophyll



\*Significantly greater than the control at  $P = 0.11$  according to the Student-Newmans-Keuls Test.  
LSD<sub>0.11</sub> = 3.2 SPAD units.

**Increase in leaf chlorophyll: 3.2 SPAD units**

**Conclusions:** Vitazyme applied to the potting media in this greenhouse transplant study, at only 5 ml of a 0.1% solution per plant, provided excellent increases in shoot length, branch number, and leaf chlorophyll. This treatment is then shown to be highly effective in increasing the plant size and blossoming potential for petunias.

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# **2006 Crop Results**

## **Vitazyme on Flowers**

### ***A Testimonial***

*Researcher:* Ing. Lorena Santafe.

*Location:* Coteg, Cayambe, Ecuador

*Variety:* unknown (“summer flowers”)

*Experimental design:* A field of summer flowers was treated with Vitazyme and compared with other flowers that were untreated.

*Comments by the researcher:* “The effect of the biostimulant upon the height and stem diameter is evident. Our trial has better and higher values than the control (untreated area) where Vitazyme was not used. The same increase situation was observed with the number of flower buds and the flower size.”