

Vital Earth Resources

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2014 Crop Results**Vitazyme on Blueberries (Organic)**

Researcher: Jacob Hesseltine, Vital Grow Distribution LLC, Waterville, Washington

Farmer: Zirkle Fruit Company

Location: Pasco, Washington

Variety: Duke

Plant age: 8 years

Plant density: 11 feet between rows, 1 foot in-row

Experimental design: A 13.2-acre block of organically-grown Duke blueberries was split approximately in half, with 53.46 full rows treated with Vitazyme four times during the season to determine the effects of the product on fruit yield and quality. The 58.13 full rows not treated with Vitazyme served as controls.

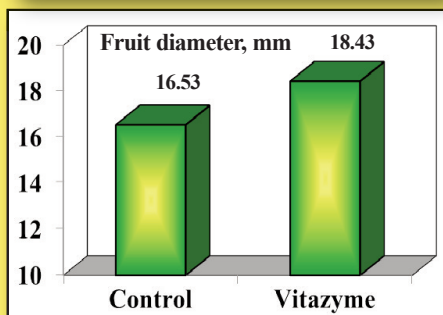
1. Control**2. Vitazyme**

Fertilization: standard nutrient program

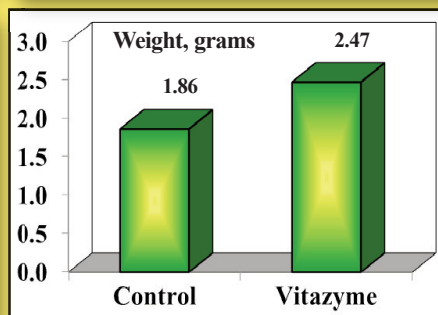
Vitazyme application: (1) 13 oz/acre on March 25; (2) 13 oz/acre on April 2; (3) 13 oz/acre on April 29; (4) 13 oz/acre on May 6. A Power-Blast sprayer was used, delivering 100 gal/acre, driven at 2.75 mph.

Harvest date: June 10 and 11, 2014, for the first picking. Other pickings followed, but this was the only picking that was evaluated.

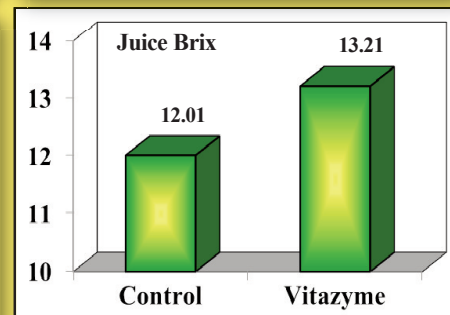
Quality results: On June 10, 50 average berries were collected randomly from both treatments to evaluate the following parameters.

Fruit Size¹

¹Determined by a Cranston fruit sizer.

Fruit Weight¹

¹Determined by a Matrix-500 digital scale.

Fruit Brix¹

Determined by an Atago PAL-1 refractometer.

Increase in fruit size with Vitazyme: 11%

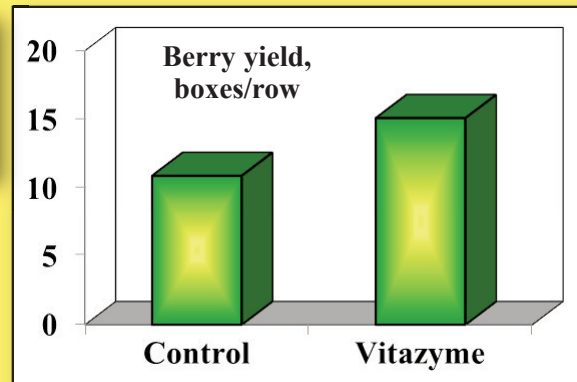
Increase in fruit weight with Vitazyme: 33%

Increase in fruit Brix with Vitazyme: 1.20 %-points

Yield results: Only the first picking results are shown below.

Treatment	Boxes	Rows	Row yield	Yield change
			boxes/row	boxes/row
Control	634	58.13	10.9	—
Vitazyme	807	53.46	15.1	4.2 (+39%)

**Increase in berry yield with
Vitazyme: 39%**



Conclusions: A blueberry trial in central Washington, using four 13 oz/acre applications of Vitazyme, proved that the product greatly improved both the yield and quality of the berries. Fruit diameter was increased by 11%, fruit weight by 33%, and fruit Brix by 1.20 percentage points, indicating the berries were much larger and sweeter than the untreated control berries. A picked yield increase of 39% closely paralleled the 33% heavier fruit. This trial illustrates the pronounced improvement in the yield, quality, and income from blueberries grown with Vitazyme in Washington.