

## Vital Earth Resources

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# 2003 Crop Results

## Vitazyme on Potatoes

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Location: El Ranch "Cerro de agua", Saltillo, Coahuila, Mexico

Variety: Frito Lay variety

Soil type: high-calcium stony clay (desert soil); very compact

Previous crop: unknown

Experimental design: Two potato fields under separate center pivot irrigation were divided into sections having Vitazyme treatments and controls. Each field had a separate treatment regime. Vitazyme applications were made with a field sprayer.

### 1. Control

### 2. Vitazyme

Fertilization: N-P-K plus certain micronutrients

Vitazyme applications: Field 9: three soil/foliar sprays at 1 l/ha, beginning 45 days after planting

Field 8: three soil/foliar sprays at 1 l/ha, beginning 30 days after planting

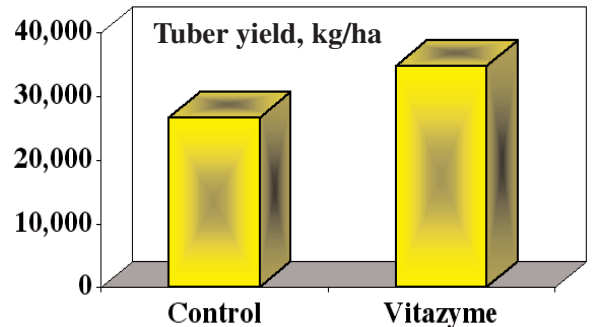
Harvest date: unknown

Yield results:

### Field 9

Treatment	Area	Yield	Area yield	Change
	ha	kg	kg/ha	kg/ha
Control	8.0	211,970	26,496	—
Vitazyme	10.0	345,890	34,589	8,093(+31%)

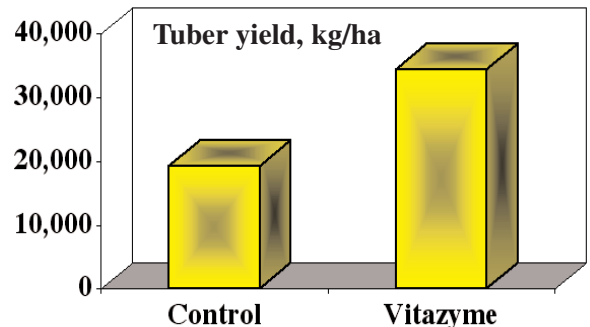
**Increase in yield: 31%**



### Field 8

Treatment	Area	Yield	Area yield	Change
	ha	kg	kg/ha	kg/ha
Control	4.5	86,754	19,279	—
Vitazyme	10.0	342,564	34,256	14,977 (+78%)

**Increase in yield: 78%**



Income results: The price of potatoes is 3.4 pesos/kg, and the cost of Vitazyme is 231 pesos/liter.

Field 9: 8,093 kg/ha increase x 3.4 pesos/kg = 27,516.2 pesos/ha increase

Field 8: 14,977 kg/ha increase x 3.4 pesos/kg = 50,921.8 pesos/ha increase

Vitazyme cost: 3 applications x 231 pesos = 693 pesos/ha

Income – Cost ratio:

Field 9: 27,516.2 pesos/693 pesos =  $\boxed{39.7 : 1}$

Field 8: 50,921.8 pesos/693 pesos =  $\boxed{73.5 : 1}$

Conclusions: In this potato study near Saltillo, Mexico, Vitazyme applied three times produced remarkable increases in yield of 31% when applied fairly late in the growth cycle, and 78% when applied earlier. Increases may have been even greater if the product had been applied at or near planting as well. These very high yield increases translated into income increases of over 27,00 to nearly 57,000 pesos per hectare, with remarkable income:cost ratios of 39.7 to 73.5:1.

These two studies show the potential of Vitazyme to substantially increase the yields of potatoes grown in northern Mexico under the typically stressful conditions of high heat, compaction, low organic matter, and high calcium and mineral imbalances. This product enables plants to overcome many environmental stresses, as evidenced well in these tests.