Winter Peas *with Vitazyme application*

Researcher: V. V. Plotnikov
Research organization:
Cherkasy Experimental Station of Bioresources, UkAgro Expert International, Kaharlyk, Ukraine, and Plant Designs International, Rochester, New York
Location: FG "Elit," Podilskyi District, Odessa Region, Sergiyevka Village, Ukraine, (southern Ukraine, 270-350 mm of rainfall per year)
Variety: Budzhak, F3
Planting date: November 9, 2023
Seeding rate: 900,000 seeds/ha
Previous crop: winter wheat
Soil type: chernozem (Mollisol; 3.6% organic matter)
Soil preparation: disking to 15 cm, cultivation to 6-7 cm
Experimental design:
A winter pea field was divided into a Vitazyme treated area and an untreated control area to evaluate the effect of this biostimulant on the yield of peas.

1 ***Control*** **2** ***Vitazyme***

Fertilization: 8-34-0 kg/ha of N-P_2O_5-K_2O applied in-furrow at planting
Vitazyme application:
0.5 liter/ha sprayed on the leaves and soil at early bloom (BBCH 59) on May 5, 2024

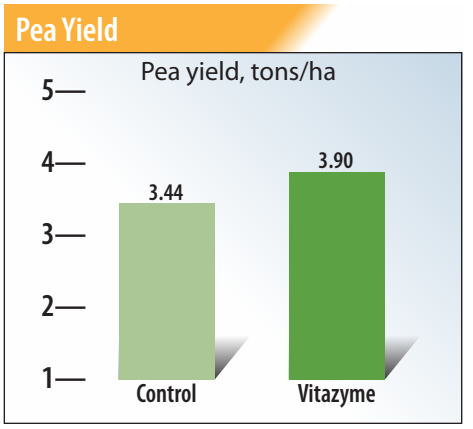
Yield results:

Treatment	Pea Yield	Yield change
	tons/ha	tons/ha
1. Control	3.44	—
2. Vitazyme	3.90	0.46 (+13%)

Increase in pea yield with Vitazyme: 13%

The Vitazyme treated winter peas on the right are obviously growthier, contain more chlorophyll, and have more blossoms than the untreated control peas on the left.

Here is a closeup of the treated and untreated pea plants from the field areas of the other photo. Note the leaf area, leaf color, and pod number. which greatly favor the Vitazyme treatment that yielded 13% more.



Income results: A single 0.5 liter/ha Vitazyme application resulted in an excellent improvement of farm income of $163/ha.
Conclusions: A farm-based winter pea trial in Ukraine, utilizing a single 0.5 liter/ha application at early bloom, resulted in an excellent 0.46 ton/ha (13%) yield increase. This increase boosted the farmer's income by $163/ha, showing the great efficacy of this biostimulant to enhance the yields and profit of winter pea growers in Ukraine.

Vital Earth Resources
706 East Broadway, Gladewater, Texas 75647
(903) 845-2163 FAX: (903) 845-2262

2013 Crop Results

Vitazyme on Winter Peas

Researcher: Jacob Hesseltine
Location: Waterville, Washington
Previous crop: summer fallow
Soil type: high clay with volcanic ash
Planting date: August 30 to September 1, 2012
Planting depth: 2 inches
Farmer: Tom Stahl
Variety: Windham dry yellow smooth
Tillage: discing, chisel plowing, harrowing
Seed treatment: fungicide + molybdenum
Planting rate: 72 lb/acre
Row spacing: 16 inches

Experimental design: A 217.74-acre pea field was divided into a 40-acre Vitazyme treated area and untreated remainder, to evaluate the effect of one application of the product on pea yield.

1. Control **2. Vitazyme**

Fertilization: no mineral fertilizers, but Rhizobium in peat moss added at planting

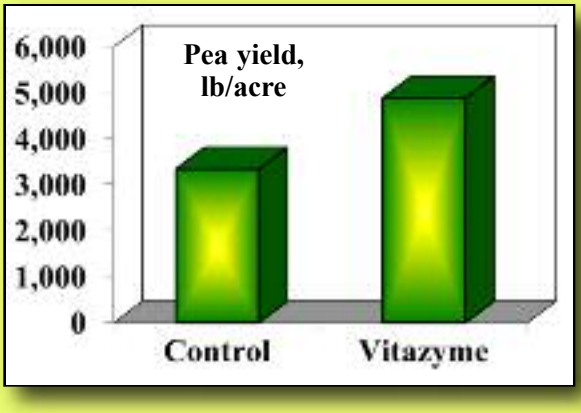
Vitazyme application: 19.2 oz/acre (1.5 liters/ha) on May 8, 2013, by ground sprayer along with Intensity herbicide and Agitent crop oil

Weather for 2013: ample late-season rain, unfavorable for harvest, but severe wind storms arrived after harvest

Yield results:

Treatment	Yield	Yield change
	lb/acre	lb/acre
Control	3,338	—
Vitazyme	4,882	1,544 (+46%)

Increase in yield with Vitazyme: 46%



Income results: The peas sold for $0.187/lb, giving an additional return of $288.64/acre with Vitazyme, or $11,545.60 more on the 40 treated acres, from a $360.00 investment.

Return on investment: 32.07 to 1

Conclusions: This winter pea study in Washington revealed that Vitazyme increased yield by an amazing 46%, using a single spring application of 19.2 oz/acre. Such a high increase shows the product's great efficacy in improving pea yield under these conditions. Income was increased by $288.64/acre, with a Return on Investment of 32.07:1.