

Vital Earth Resources

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

2001 Crop Results

Vitazyme on Oats

Farmer: Judd and Greg Hemphill

Location: Presque Isle, Maine

Variety: unknown

Soil type: gravelly loam

Experimental design: An oats field was divided into two areas:

1. Control

2. Vitazyme

Fertilization: equal throughout the field

Vitazyme treatment: 13 oz/acre at a few inches in height on the leaves and soil

Yield results: **Greg:** “The oats with Vitazyme were at least 10% better in yield than the untreated. I would like to run a larger test next year. It would help to get better data.”

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2001 Crop Results

Vitazyme on Oats

Farmer: Dick Porter

Location: Mars Hill, Maine

Variety: unknown

Soil type: gravelly loam

Experimental design: An oats field was divided into treated and untreated areas, the Vitazyme treatment going through the center of the field.

1. Control

2. Vitazyme

Fertilization: the same over all areas

Vitazyme treatments: 13 oz/acre at a few inches in height

Yield and quality results: The test was well-done, but no yield checks were made. However, test weights were taken for the two treatments.

	Control	Vitazyme	Change
Test Weight*	33.5	35.0	+1.5

* Values are averaged from several locations in the treated and untreated areas.

**Increase in test weight with
Vitazyme: 1.5 lb/bu**

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2000 Crop Results

Vitazyme on Oats (Silage, Organic)

Farmer: Richard and Eric Parrott, Parrott Organic Farms

Location: Twin Falls, Idaho

Variety: Otanna

Planting date: March 27, 2000

Soil type: light to white, the white soils on about 40% of the area and low in productivity; Portneuf silt loam

Experimental design: A field of oats was divided into two portions, one part receiving Vitazyme and the other portion left untreated.

1. Control

2. Vitazyme

Fertilization: crop residues and regrowth as green manure, and 1 qt/acre of Soil Tec humic acid

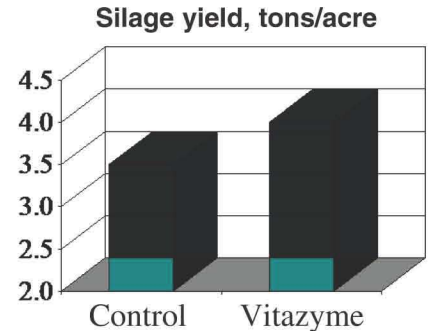
Vitazyme application: on the seeds before planting with a 5% solution, and on the leaves and soil at the early boot stage using 13 oz/acre

Harvest date: June 7, 2000, at the soft dough stage

Yield results: The oats was harvested for silage at the soft dough stage.

	Control	Vitazyme	Change
	tons/acre dry matter		
Silage yield	3.5	4.0	(+) 0.5 (+14%)

Silage yield increase: 14%



Income results: A value of \$60.00/ton dry matter is estimated for organic oats silage.

	Control	Vitazyme	Change
	\$/acre		
Silage income	210	240	(+) 30

**Income increase:
\$30/acre**

Conclusions: This Vitazyme test with oats silage proved that total forage yield can be increased significantly on soils which are in part very poor. Along with a 14% yield increase, the income increased by \$30/acre, giving a very significant return over product costs.

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2000 Crop Results

Vitazyme on Oats

Farmers: Dick Porter

Location: Mars Hill, Maine

Variety: a Manix variety

Planting date: May 29, 2000

Soil type: gravelly loam

Previous crop: potatoes

Experimental design: An oats field was divided into two parts, one treated with Vitazyme and the other part left untreated.

1. Control

2. Vitazyme

Fertilization: 80 to 90 lb/acre of NH_4NO_3

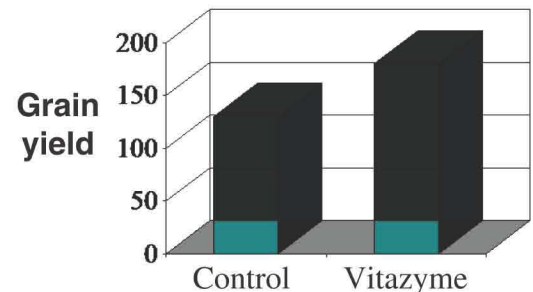
Vitazyme treatment: 13 oz/acre over the leaves and soil at about 6 inches height, along with the herbicide

Harvest date: August 27, 2000

Yield results: At harvest, the field was trimmed on the sides to leave an area on both sides of the treatment boundary which was very similar in yield potential. Five combine widths of the same total length were harvested from each treatment. The total yield for this entire harvested length for both treatments was then tallied. Per acre yields were not possible to obtain due to an inability to measure the different lengths of the paired harvested swaths.

	Control*	Vitazyme	Increase
		cwt/acre	-----
Grain yield	130	180	50(+38%)

Grain yield increase: 38%



Conclusions: Vitazyme treatment at the 6-inch height for this oats crop produced a very good yield increase of 38%. Since oats is oftentimes used as a rotation crop with potatoes on this farm, and is low in monetary return, this yield increase is very meaningful in terms of added income during the rotation year.

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2000 Crop Results

Vitazyme on Winter Forage Barley, Oats, and Wheat

Farmer: Cornelius Van Diest

Location: Newberry Springs, California

Variety: barley, oats, and wheat varieties

Planting date: November 11, 1999

Soil type: light blow sand with high levels of boron in the subsoil

Seeding rate: 150 to 200 lb/acre

Experimental design: A center pivot system was divided into four quadrants. Three (90 acres) were treated with the Vitazyme program and one (30 acres) was left untreated.

1. Control

2. Vitazyme

Fertilization: 18 lb/acre of NH_4NO_3 liquid at the sixth true leaf; 35 lb/acre of NH_4NO_3 liquid two times (sometimes three times) per cutting sequence, giving about 125 lb/acre total of the N fertilizer per crop

Vitazyme treatment: (1) On the seeds at planting at 6.4 oz/acre, with the starter fertilizer; (2) 13 oz/acre sprayed on the leaves and soil twice, after each nitrogen fertilizer application

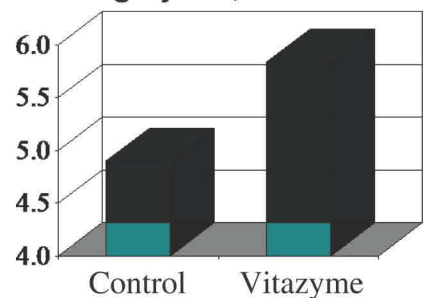
Harvest date: April 11, 2000, for the Vitazyme treatment; April 14, 2000, for the control

Yield results:

	Control*	Vitazyme*	Change
		100 lb bales/acre	
Forage yield	98.0	116.7	18.7
		tons/acre	
Forage yield	4.900	5.833	(+) 0.933 (+19%)

Forage yield increase: 19%

Forage yield, tons/acre



Income results: A value of \$125.00/ton is estimated

	Control	Vitazyme	Change
		\$/acre	
Crop income	612.50	729.13	(+) 116.63

**Income increase:
\$116.63/acre**

Conclusions: This forage trial in the Mojave River drainage basin, with poor desert soils having high yield potential if managed well (12 tons/acre of 20% protein and 60% TDN alfalfa), showed the potential of Vitazyme to substantially increase grass forage yields and income. A 19% yield increase resulted in \$116.63/acre more return, giving a 9:1 return on investment for a Vitazyme seed treatment and two foliar applications.