



Red Kidney Beans with Vitazyme application

Researcher: James Anderson
Research organization: J and H Distributing, Belgrade, Minnesota
Location: Atwater, Minnesota
Variety: Chapparel dark red kidney beans
Planting date: early June, 2017
Soil type: silty clay loam Chernozem
Irrigation: center-pivot
Experimental design: A kidney bean field was treated with a strip of Vitazyme applied at planting to determine the effect of the product on bean yield.

1 Control 2 Vitazyme

Fertilization: 2 gallons/acre of Red-Line liquid fertilizer, containing 6-12-2% N-P₂O₅-K₂O plus 1.0% Zn, 0.3% Fe, 0.04% Mn, and 0.05% Cu

Vitazyme application: 13 oz/acre (1 liter/ha) in the seed row at planting

Weather conditions: some wind damage, and quite warm and dry midsummer

Harvest date: September 25, 2017

Yield results: The yield was affected by considerable white mold.

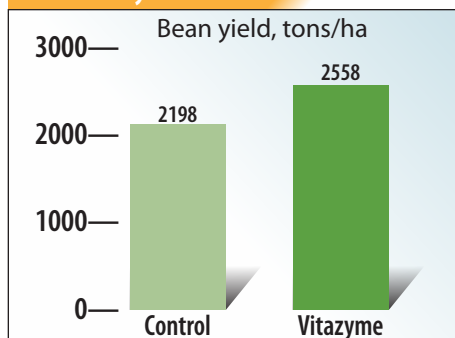


Vitazyme has caused the development of more and larger pods in this west-central Minnesota red kidney bean field trial.

| Treatment | Yield lb/acre | Yield change lb/acre |
|-------------|------------------|-------------------------|
| 1. Control | 2,198 | — |
| 2. Vitazyme | 2,558 | 360 (+16%) |

Yield increase in red kidney bean yield with Vitazyme: 16%

Red Kidney Bean Yield



Income results: At about \$0.25/lb, this additional 360 lb of beans netted \$90/acre more income.

Conclusions: This red kidney bean trial in west-central Minnesota revealed that a Vitazyme in-furrow application, using only 13 oz/acre (1 liter/ha), produced a sizable yield increase of 16%. This yield increase netted about \$90/acre more income, showing the great efficacy of this product to benefit kidney bean growers.



Red Kidney Beans with Vitazyme application

Researcher: James Anderson
Research organization: J and H Distributing, Belgrade, Minnesota
Location: Atwater, Minnesota
Variety: Red Hawk dark red kidney beans
Planting date: early June, 2017
Soil type: sandy clay loam Chernozem
Irrigation: center-pivot
Experimental design: A dark red kidney bean field was treated on one portion with Vitazyme as a foliar application to determine the effect of the product on bean yield.

1 Control 2 Vitazyme

Fertilization: 2 gallons/acre of Red-Line liquid fertilizer, containing 6-12-2% N-P₂O₅-K₂O plus 1.0% Zn, 0.3% Fe, 0.04% Mn, and 0.05% Cu

Vitazyme application: 13 oz/acre (1 liter/ha) sprayed on the leaves at early bloom

Weather conditions: quite warm and dry midsummer

Harvest date: September 21, 2017

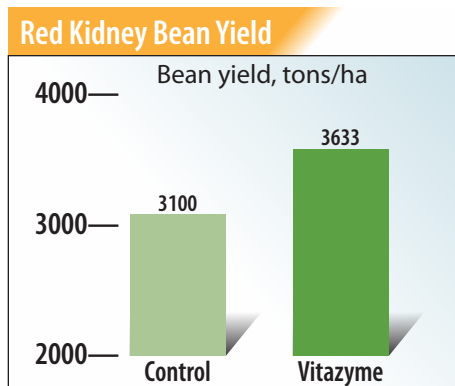
Yield results: White mold was not a serious problem in this field.



Dark red kidney beans show an excellent response to Vitazyme treatment in this Minnesota trial. Note the greater leaf and stem development and root mass.

| Treatment | Yield lb/acre | Yield change lb/acre |
|-------------|------------------|-------------------------|
| 1. Control | 3,100 | — |
| 2. Vitazyme | 3,633 | 533 (+17%) |

Yield increase in red kidney bean yield with Vitazyme: 17%



Income results: At \$0.25/lb of beans, the additional yield of 533/acre produced additional income of \$133.25/acre.

Conclusions: A dark red kidney bean field-scale trial in west-central Minnesota revealed that Vitazyme, applied at 13 oz/acre (1 liter/ha) to the leaves at early bloom, increased bean yield by 17%. This 533 lb/acre increase netted the farmer an additional \$133.25/acre, showing the great value of this program for kidney bean growers.