

Vital Earth Resources

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2011 Crop Results

Vitazyme on Barley

Farmer: AGRivision
Systems, Perth, Australia

Researcher: Steven David

Research organization: Organic Farming

Variety: unknown

Location: Goshen, Victoria, Australia

Planting date: June, 2010

Soil type: sandy clay loam

Experimental design: A barley field was divided into three sections – the normal farmer practice, and two Vitazyme programs – to evaluate the effect of this product on barley yield and growth.

1. Control

2. Vitazyme on the seeds

3. Vitazyme on the seeds and leaves

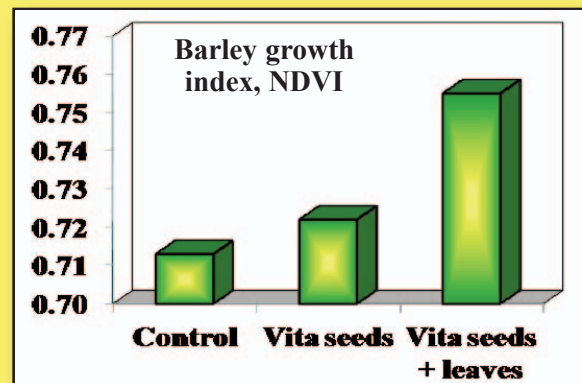
Fertilization: farmer practice

Vitazyme application: (1) 1 liter/tonne of seed for Treatments 2 and 3; (2) 0.5 liter/ha on the leaves at early tillering

Growth results: Early barley growth was significantly increased by Vitazyme, as shown below.

| Treatment | Barley growth* | Growth change |
|---------------------------------|---------------------------|---------------|
| | ----- NDVI analysis ----- | |
| Control | 0.713 b | — |
| Vitazyme on seeds | 0.722 ab | 0.009 (+1%) |
| Vitazyme on seeds and leaves | 0.755 a | 0.042 (+6%) |

*Means followed by the same letter are not significantly different at P=0.05 according to Duncan's Multiple Range Test.

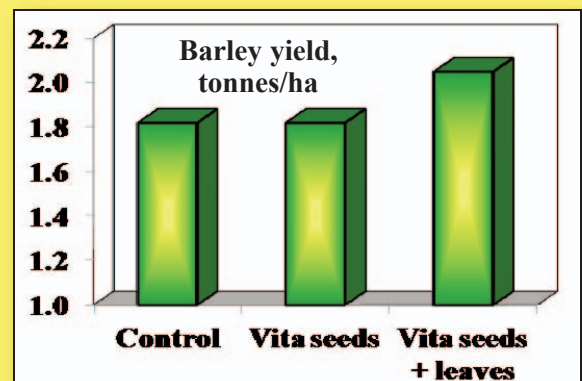


**Increase in early growth with
Vitazyme twice: +6%**

Yield results: The crop was harvested in December of 2010.

| Treatment | Grain yield* | Yield change |
|---------------------------------|--------------|--------------|
| | tonnes/ha | tonnes/ha |
| Control | 1.82 b | — |
| Vitazyme on seeds | 1.82 b | 0 |
| Vitazyme on seeds and leaves | 2.05 a | 0.23 (+12%) |

*Means followed by the same letter are not significantly different at P=0.05 according to Duncan's Multiple Range Test.



**Increase in yield with Vitazyme
twice: +12%**

Conclusion: In this Australian barley trial, Vitazyme applied on the seeds and again at early tillering significantly increased both early growth (+6%) as well as final grain yield (+12%). The seed treatment alone did not significantly improve plant growth or yield, revealing the importance of a foliar application on barley. This trial success reveals the great value of the Vitazyme program for barley production in Australia.