



Radishes #1 with Vitazyme application

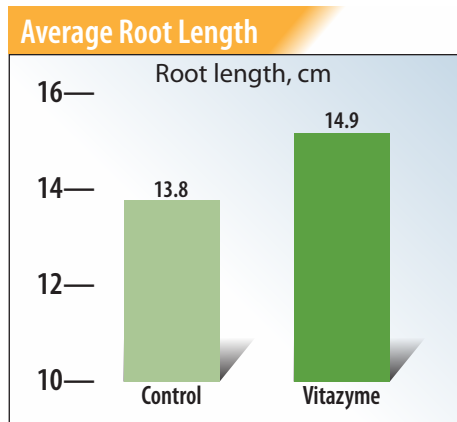
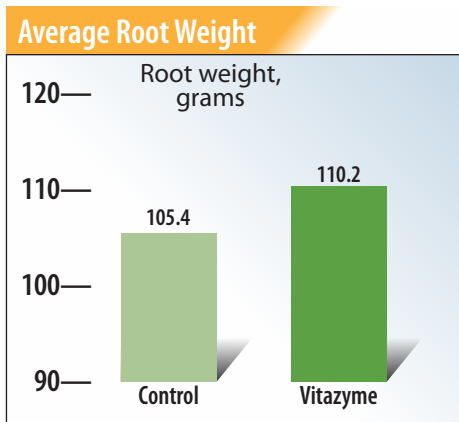
Researcher: Rajnish Khanna, Ph.D.
Research organization: e-Cultiver, Manteca, California
Location: USDA/Plant Gene Expression Center, Albany, California
Variety: Daikon
 Planting date: February 21, 2024
Potting Soil: Sunshine Mix #1 (Sungro Horticulture)
Pot size: 5 gal tall
Experimental design: A greenhouse radish trial was initiated to discover the effect of Vitazyme biostimulant on the weight and length of the radish roots, as compared to the untreated control plants. Seventeen plants for each treatment were used.



The Vitazyme treated radishes on the right produced greater average root weights and lengths than the untreated controls roots on the left.

① Control ② Vitazyme

Fertilization: Peters 20-20-20 water soluble fertilizer at 1:64 ppm, once per week
Vitazyme applications: 1:100 dilution sprayed on the leaves to the dripping point, and to the soil, every two weeks
Disease suppression: Floramite and Decathlon at 0.25 tsp/gal sprayed on the leaves
Radish weight and length results: The radishes were harvested on April 26, 2024, and were weighed and measured.



Increase in root weight with Vitazyme: 5%

Increase in root length with Vitazyme: 8%

Conclusions: This California radish greenhouse study showed that Vitazyme increased the weight and length of the plants by 5 and 8% respectively versus the untreated control. Moreover, the heaviest and longest roots were produced with Vitazyme, showing that this biostimulant is a very good complement to radish production.

Treatment	Weight grams	Weight change grams	Length cm	Length change cm	Heaviest root grams	Longest root grams
1. Control	105.4	—	13.8	—	226.7	22.9
2. Vitazyme	110.2	4.8 (+5%)	14.9	1.1 (+8%)	355.8	30.1



Radishes #2 with Vitazyme application

Researcher: Rajnish Khanna, Ph.D.
Research organization: e-Cultiver, Manteca, California
Location: USDA/Plant Gene Expression Center, Albany, California
Variety: Daikon
Planting date: March 21, 2024
Potting Soil: Sunshine Mix #1 (Sungro Horticulture)
Pot size: 5 gal tall
Experimental design: A small greenhouse experiment using Daikon radishes was initiated in a pot study. Seventeen plants received Vitazyme treatment while seventeen others served as untreated controls to evaluate the effect of the biostimulant on the weight and root length of the radishes.

1 Control 2 Vitazyme

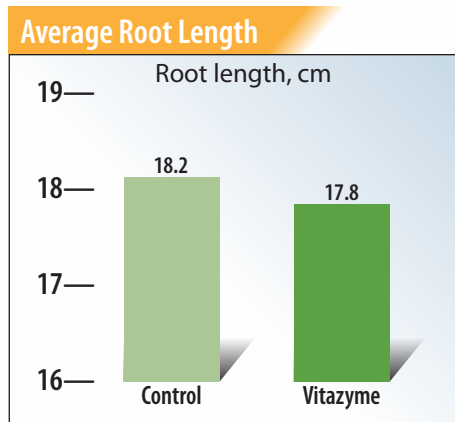
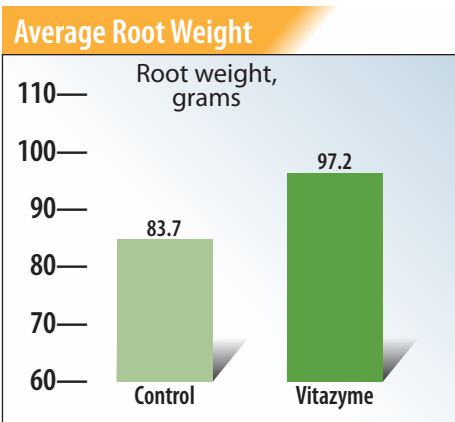
Fertilization: Peters 20-20-20 water soluble fertilizer at 1:64 ppm, once per week
Vitazyme applications: 1:100 dilution sprayed on the leaves to the dripping point, and to the soil, once per week
Disease suppression: Floramite and Decathlon at 0.25 tsp/gal sprayed on the leaves
Radish weight and length results: The radishes were harvested on June 22, 2024, and were weighed and measured.



The untreated control radishes had a smaller root diameter than did the roots of the Vitazyme treated plants, which were sprayed every two weeks.



Vitazyme treatment on these radishes caused a 16% greater average root weight than for the untreated control plants, despite having slightly shorter roots.



Increase in root weight with Vitazyme: 16%

Conclusions: This Daikon greenhouse radish trial in California, comparing Vitazyme treatment with an untreated control, produced a 16% root weight advantage for Vitazyme. The root lengths for the treated plants were nearly the same length as for the untreated ones, suggesting that the width of the Vitazyme treated plants were greater. This trial suggests a distinct advantage for using Vitazyme biostimulant on radishes.

Treatment	Weight*	Weight change	Length	Length change	Heaviest root	Longest root
	grams	grams	cm	cm	grams	cm
1. Control	83.7	—	18.2	—	311.7	16.0
2. Vitazyme	97.2	13.5 (+16%)	17.8	-0.4 (-2%)	200.6	25.0

*Weight and length are averaged for all 17 plants of each treatment.



Radishes #3 with Vitazyme application

Researcher: Rajnish Khanna, Ph.D.

Research organization: e-Cultiver, Manteca, California

Location: USDA/Plant Gene Expression Center, Albany, California

Variety: Plum purple Daikon

Planting date: March 21, 2024

Potting Soil: Sunshine Mix #1 (Sungro Horticulture)

Pot size: 5 gal tall

Experimental design: A small greenhouse experiment using Daikon radishes was initiated in a pot study. Nine plants received Vitazyme treatment while nine others served as untreated controls to evaluate the effect of the biostimulant on the weight and root length of the radishes.

1 Control 2 Vitazyme

Fertilization: Peters 20-20-20 water soluble fertilizer at 1:64 ppm, once per week

Vitazyme applications: 1:100 dilution on the leaves to the dripping point, and to the soil, once per week

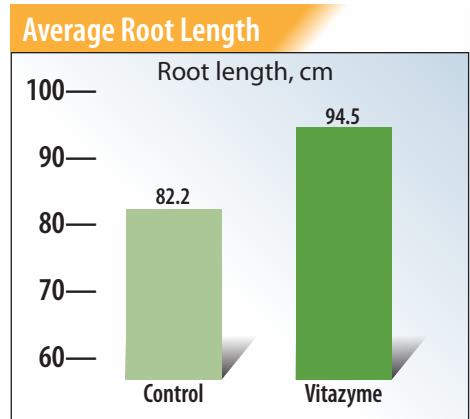
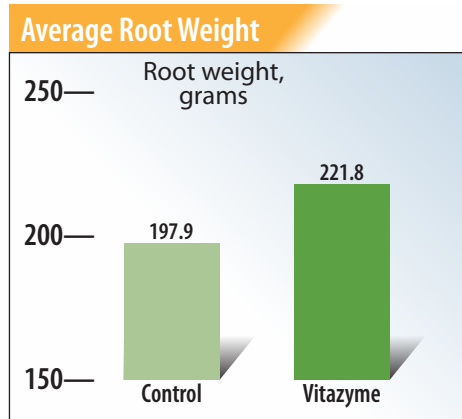
Disease suppression: Floramite and Decathlon at 0.25 tsp/gal sprayed on the leaves

Radish weight and length results: The radishes were harvested on June 26, 2024, and were weighed and measured.

Treatment	Weight	Weight change	Length	Length change
	grams	grams	cm	cm
1. Control	197.9	—	82.2	—
2. Vitazyme	221.8	23.9 (+12%)	94.5	12.3 (+15%)

Increase in root weight with Vitazyme: 12%

Increase in root length with Vitazyme: 15%



Conclusions: This greenhouse radish study, comparing Vitazyme treated and untreated plants, revealed that Vitazyme increased the average root weight by 12%, while increasing the average root length by 15%. These results show that this biostimulant is capable of improving radish growth significantly, making it a natural choice for gardeners and farmers.

Vital Earth Resources

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2000 Crop Results

Vitazyme on Radishes

Research coordinator: H.W. Chung

Location: Kyungju City, Kyungbuk, Korea

Soil type: clay loam

Plant number: 90

Researcher: unknown

Variety: Changsung

Planting date: September 20, 2000

Experimental design: This plot study involved five treatments with three replicates, involving 90 plants (6 plants per plot). The five treatments are as follows:

1. Control
2. Vitazyme
3. Product A
4. Product B
5. Product C

Fertilization: unknown

Vitazyme application: A 1:250 solution (0.4%) of Vitazyme was applied as a foliar spray on the leaves and soil on October 7, 14, and 21.

Data collection: Leaf and root measurements were taken on November 21.

Parameter	Control	Vitazyme	Product A	Product B	Product C
Fresh weight of Leaves and roots	1,151.2	1,301.1	1,252.2	1,269.2	1,247.3
Change vs. control	—	+149.9 (+13%)	+101.0 (+9%)	+118.0 (+10%)	+96.1 (+8%)

**Increase in radish yield
with Vitazyme: 13%**

Conclusions: Vitazyme on these radishes increased fresh weight by 13%, more than the other three products. This response should be highly profitable for the grower

