

Vital Earth Resources

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2004 Crop Results

Vitazyme on Eggplant

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Location: Santiago de Cuba Experiment Station, Dos Rios, Palma Soriana, Santiago de Cuba

Variety: unknown

Soil type: Leptic haplustert

Planting date: late 2003

Experimental design: An area of 10 m² for each treatment was used to evaluate the growth of eggplants, and then a yield estimate was made based on those growth parameters. Each plot had 50 plants. A Vitazyme and a control treatment were used.

1. Control

2. Vitazyme

Fertilization: unknown, but based on soil tests and recommendations

Vitazyme application: 1 liter/ha (13 oz/acre) on December 22, 2003, and January 22, 2004

Growth results: Plants were evaluated on January 21, February 3, and February 9, 2004, for the various growth parameters that follow using random sampling of plants and leaves. The experimental design for this study is unknown, so only basic statistics have been calculated.

Plant Height

January 21, 2004

Sample	Control	Vitazyme
	cm	cm
1	29	37
2	28	34
3	27	35
4	28	34
5	29	35
6	30	36
7	29	34
8	34	35
9	31	37
10	29	36
Mean	29.4	35.3 (+20%)

February 9, 2004

Sample	Control	Vitazyme
	cm	cm
1	45	58
2	42	57
3	44	60
4	48	58
5	49	59
6	47	57
7	48	59
8	47	55
9	45	56
10	48	57
Mean	46.3	57.6 (+24%)

Increase in plant height: 20%

Increase in plant height: 24%

Leaf Area (February 3, 2004)

Control

Sample	Length	Width			area
		Lobe 1	Lobe 2	width	
Mean	Leaf	cm			cm ²
1	15.5	11.5	12.0	11.8	182.1
2	18.0	14.5	12.0	13.3	238.5
3	19.5	16.0	10.5	13.3	258.4
4	16.5	14.0	11.5	12.8	210.4
5	17.4	12.0	13.5	12.8	221.8
6	19.0	16.0	15.4	15.7	298.3
7	17.0	14.7	13.0	13.9	235.4
8	17.0	10.0	12.5	11.3	191.2
9	19.0	14.0	15.0	14.5	275.5
10	<u>20.0</u>	<u>9.5</u>	<u>11.5</u>	<u>10.5</u>	<u>126.0</u>
Mean	17.9	13.2	12.7	13.0	223.8

Vitazyme

Sample	Length	Width		Mean width	Leaf area
		Lobe 1	Lobe 2		
Mean	Leaf	cm		width	area
1	20.0	21.0	15.5	18.2	364.0
2	21.5	16.0	12.5	14.2	305.3
3	19.5	18.0	14.0	16.0	312.0
4	18.3	18.5	15.0	16.7	305.6
5	20.0	17.0	15.5	16.2	324.0
6	19.4	19.5	12.4	15.9	308.5
7	20.2	16.0	16.0	16.0	323.2
8	18.5	16.0	11.0	13.5	249.7
9	19.5	19.3	15.4	17.3	337.3
10	<u>20.2</u>	<u>16.3</u>	<u>14.8</u>	<u>15.6</u>	-
Mean	19.7	17.8	14.2	16.0	314.4

Increase in leaf area: 40%

Yield results (estimated): A formula was used to calculate estimated fruit weight and final yield of the eggplant crop, based upon previous field studies.

Parameter	Control	Vitazyme
Fruit weight	200g	400g
Fruit yield*	40kg/plot	80 kg/plot

*Based on 50 plants per plot and four fruits per plant

Conclusions: This eggplant study in Cuba proved that Vitazyme is an excellent stimulator of plant growth and development when applied twice during the growing season. Plant height was increased by 20 to 40%, and leaf area by 40%, with Vitazyme, leading to a doubling of estimated eggplant yield.