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Technologies®

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## Organic Plant & Soil Pro 2™ Raspberries

Organic Raspberries in Pots with Organic Plant & Soil Pro 2  
vs. the control group –

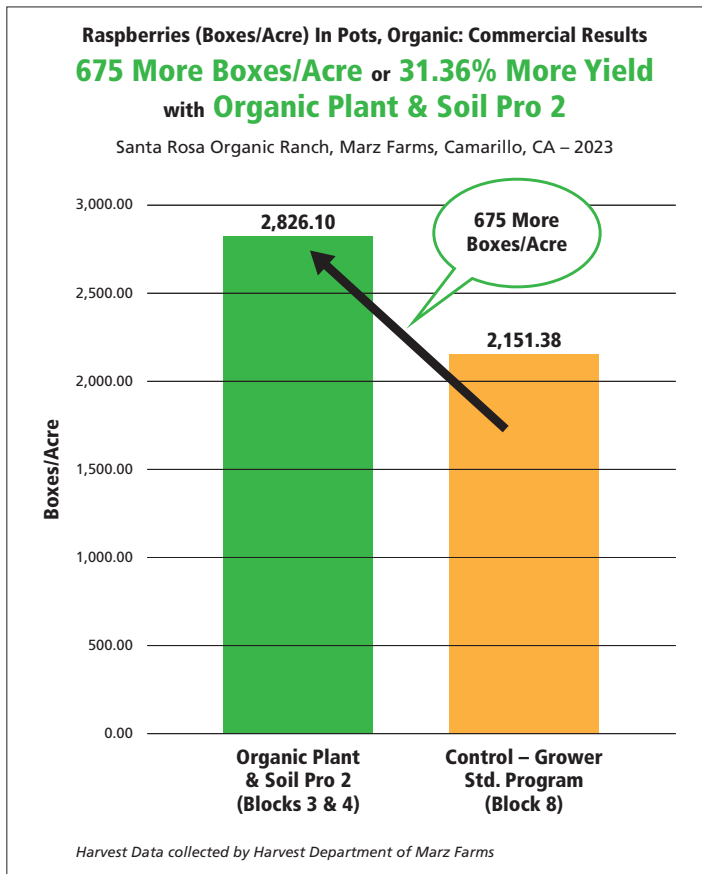
**31.36% More Yield or 675 Boxes per Acre**

## Commercial Results

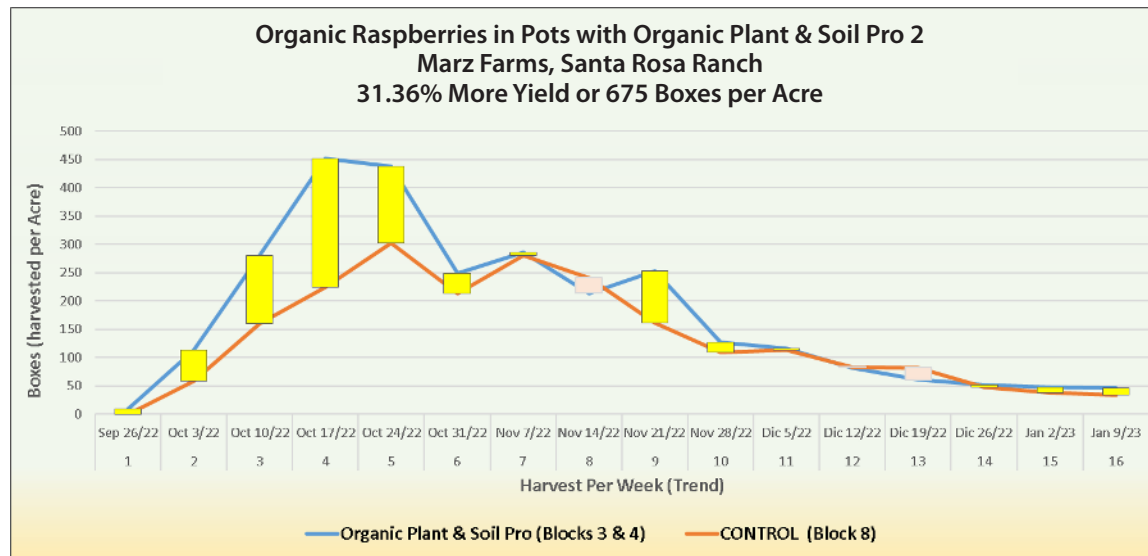
Raspberries, Organic in pots  
Santa Rosa Ranch, Oxnard, CA  
Marz Farms  
January 2023

	Acres	Variety	Production System	Total Boxes Harvested Per Total Area	Yield (Boxes/Acre)
Organic Plant & Soil Pro 2 Blocks 3 & 4	4.56	Marilyn	In Pots, Organic Substrate	12,887.00	2,826.10
Control (Grower Std. Program) Block 8	6.50	Marilyn	In Pots, Organic Substrate	13,984.00	2,151.38

**Difference of Extra Yield (Pounds/Acre) Using  
Organic Plant & Soil Pro 2 vs. Actual Fertilization Program: 675**  
**Difference (%) More YIELD with Organic Plant & Soil Pro 2: 31.36%**



## Behavior of harvest season (per week)



According to the Harvest data per week, the increase in more boxes per acre, is by using Organic Plant & Soil Pro 2. More boxes collected during the weeks of the Highest Pick, (weeks 2 to 9). Differences marked in Yellow.

## Recommendation

**Recommendation per Week:  
3 Galons of Organic Plant & Soil Pro 2/Week/Acre  
Average Cost per Week (\$20 - \$22), per Acre.**

## Raspberries Comparison of Agronomic Parameters

No.	Parameters	Control (Test 2)	Organic Plant & Soil Pro 2 (Test 2)	Percent Difference
1	Average Flowers per Plant 2nd flowering week	86 units	111 units	29.07%
2	Average Flowers per Plant 4th flowering week	175 units	209 units	19.43%
3	Average Stems Thickness (in mm) per Plant	11.32 mm	12.54 mm	10.78%
4	Chlorophyll Content (Photosynthesis Rate)	0.057 mm/cm <sup>2</sup>	0.064 mm/cm <sup>2</sup>	12.28%
5	Average Weight/Each 100 fruits beginning of harvest	3.06 lbs	3.34 lbs	9.15%

## Agronomic Conclusions

- ▶ Raspberries with Organic Plant & Soil Pro 2 showed more production of flowers since the early stages of the crop and during all cycle, even extending the harvest.
- ▶ Overall plants were healthier, with thicker stems, with more capacity of nutrient translocation for fruit production.
- ▶ Plants were more vigorous with more flowering and fruits.
- ▶ Most of foliage showed more photosynthesis rate, capturing more carbon with more metabolism.
- ▶ Fruits with more weight per unit, better sizes and better dry matter content, resulting in more yield.

## Organic Raspberries in Pots

First Stages and Flowering



Fruit load stage



Harvest Stage



Organic Plant  
& Soil Pro 2  
(Blocks 3 & 4)  
4.56 Acres

Control  
(Block 8) 6.5  
Acres



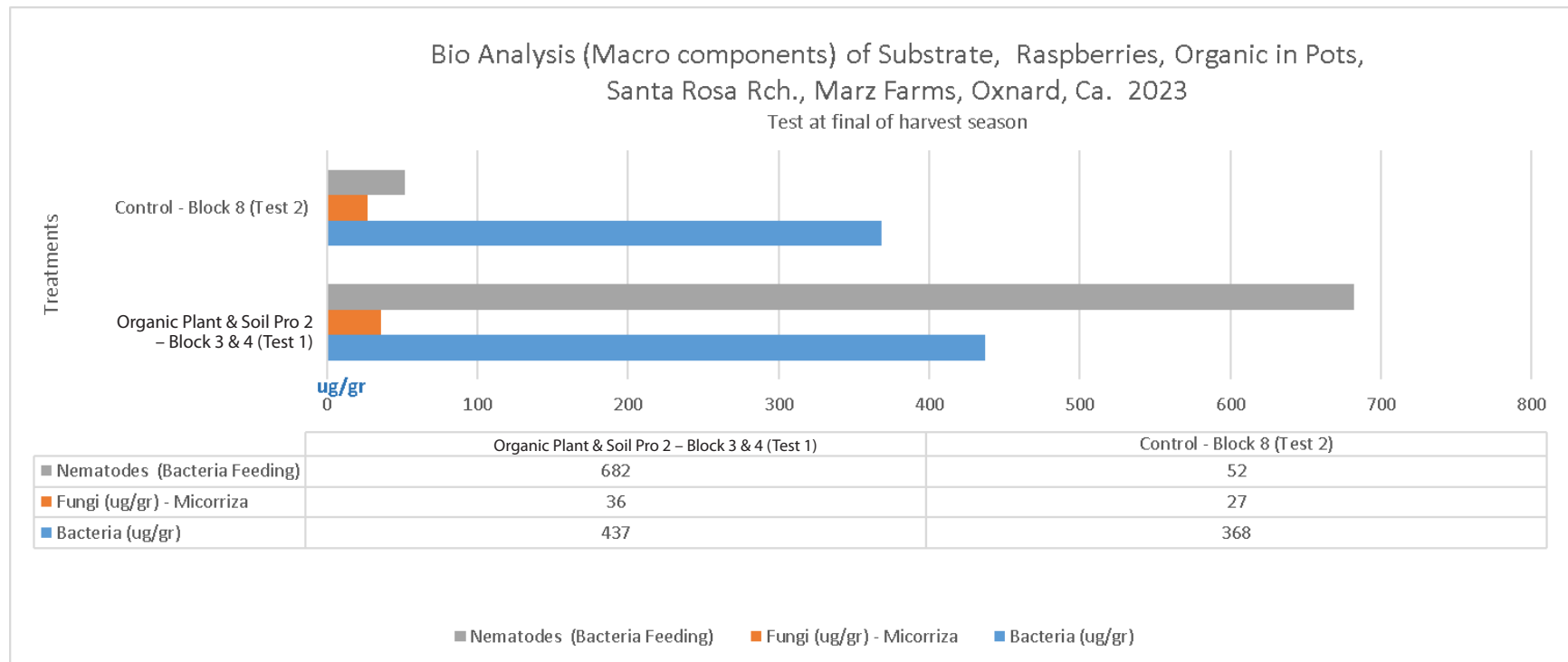


# Comparison of Microbiology of Substrate

## Macro Elements

Substrate Microbiology – Macro Elements

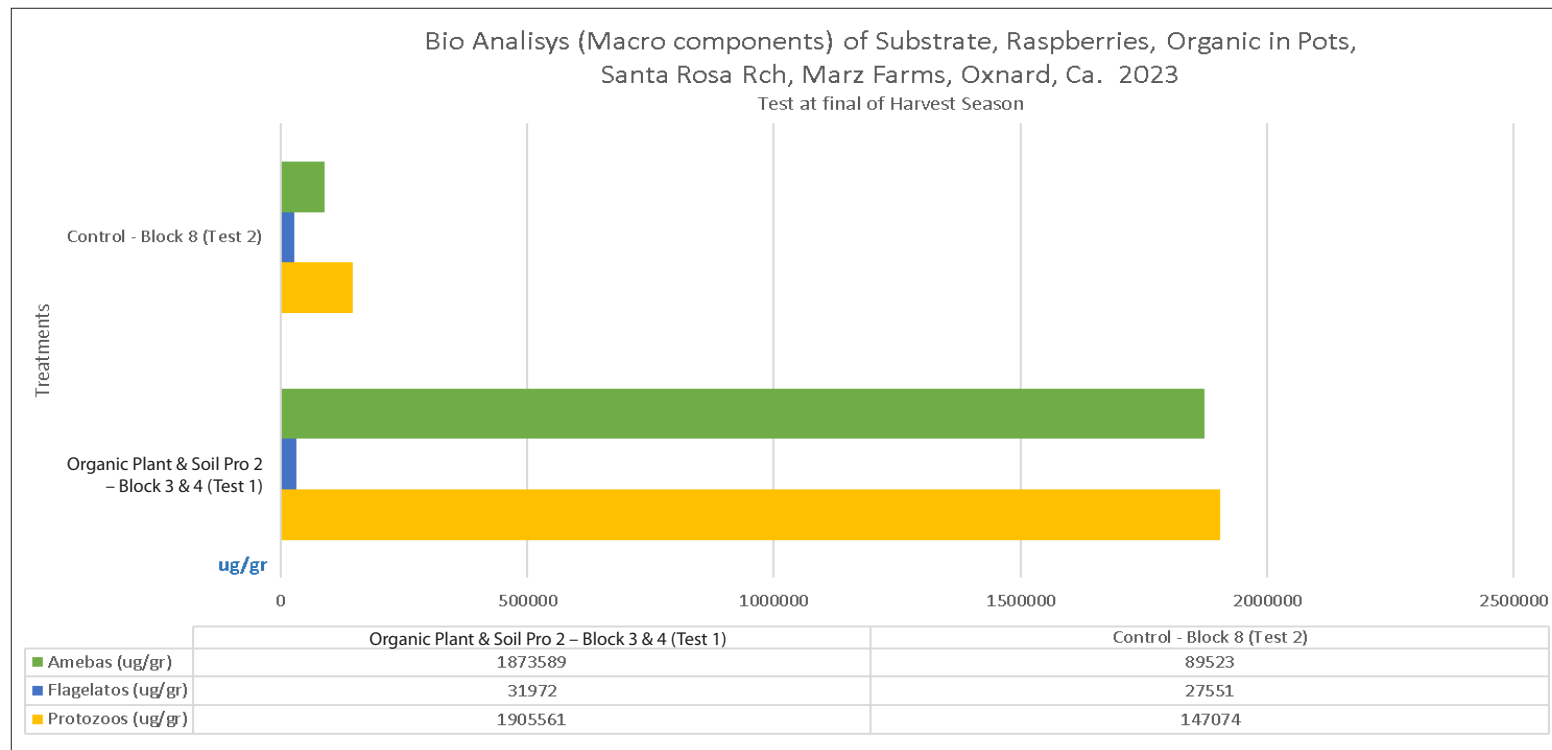
Block No. & Treatment	Bacteria (ug/gr)	Fungi (ug/gr) – Micorriza	Nematodes (Bacteria Feeding)
Organic Plant & Soil Pro 2 – Blocks 3 & 4 (Test 1)	437	36	682
Contol - Block 8 (Test 2)	368	27	52



## Comparison of Microbiology of Substrate

### Nutrient Cycling Elements in the substrate

Block No. & Treatment	Protozoans (ug/gr)	Flagellates (ug/gr)	Amoebas (ug/gr)
Organic Plant & Soil Pro 2 – Blocks 3 (Test 1)	1,905,561	31,972	1,873,589
Contol - Block 8 (Test 2)	147,074	27,551	89,523



**\*\* A significant increase in microbial activity in the substrate, favors the nutrient cycle and increases the nutrient absorption rate of the plants.**

Biological analysis conducted by: Foothill Biological, Ca.



## Financial Analysis

### Extra Income

Input	Product	Units	Extra Boxes Per Acre (with Organic Plant & Soil Pro 2)	Net Grower Profit Per Pound	Total Extra Income Per Acre
1	Raspberries (Organic in Pots)	Market Boxes	675.00	\$8.75	\$5,906.25

Total Extra Gross Income with Organic Plant & Soil Pro 2: \$5,906.25

### Total Extra Cost

Input	Product	Units	Gallons/Acre	Total Extra Cost Per Acre
1	Organic Plant & Soil Pro 2 (Including Application Cost)	Liquid Gallons	63	\$535.50

Total Extra Cost with Organic Plant & Soil Pro 2: \$535.50

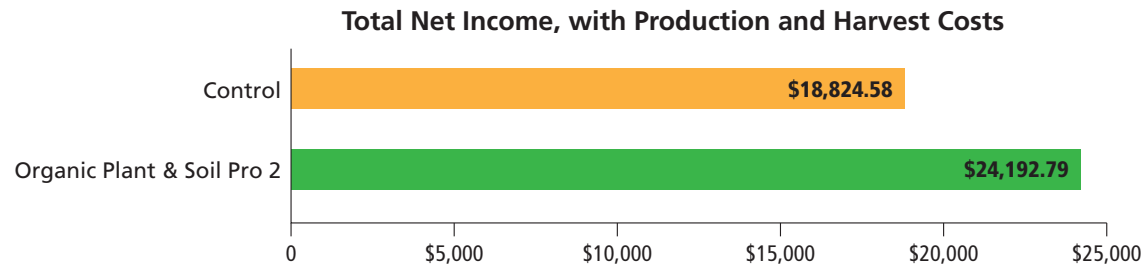
Total Extra Net Income (\$\$\$) Per Acre with Organic Plant & Soil Pro 2: \$5,370.75

ROI Ratio or Cost/Benefit Ratio Using Organic Plant & Soil Pro 2: 10.03

(Per each \$1.00 invested in Organic Plant & Soil Pro 2 generates a benefit of extra \$8.91 of revenue)

Raspberries, Per Marketable Box, Oxnard, CA

**ROI = 10.01%, which is \$5,370.75 Extra income using Organic Plant & Soil Pro 2**



## Final Conclusions

1. Applying Organic Plant & Soil Pro 2 to the nutritional program, increases the production in more than 30% or more than 675 extra boxes per acre, having a much more efficient absorption and production more and better-quality fruit.
2. The microbiology of the Substrate increases its colonies and make more efficient all nutrient cycle and mineralization, resulting in a more efficient system.
3. Opportunity to reduce the actual nutritional program, keeping high yields with less chemical usage.
4. The crop results healthier and vigorous, with more disease resistant capacity and more resistant to environmental stress conditions.