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"Producing higher yields for growers, one farm at a time."®

100% sustainable
Produced without greenhouse gas emissions

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For Organic Use

# Organic Plant & Soil Pro 2™ Wine Grapes

Organic Wine Grapes with Organic Plant & Soil Pro 2™

vs. the control group –

**35.04% more yield (2.13 more tons per acre)**

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Ranch: **Herbert Ranch**
Date: **September 2023**
Variety: **Pinot Noir**
Crop Age: **4 years**

**Treated with Organic Plant & Soil Pro 2:** 12 Acres
**Control: 3 West Side Rows**

| | Block | Variety | Yield Average Analysis 4 samples ea. 38.50sqft (Pound) | Harvested Weight Yield (Pounds/Acre) | Harvested Weight Yield (Tons/Acre) |
|---|---|---|---|---|---|
| Organic Plant & Soil Pro 2 | 2020 | Pinot Noir | 14.53 | 27,000.00 | 13.50 |
| Control | 2020 | Pinot Noir | 10.76 | 19,760.00 | 9.88 |

| | |
|---|---|
| Difference of Extra Yield (Pounds/Acre) Using Organic Plant & Soil Pro 2 vs. Actual Fertilization Program | **4,265.49** |
| Difference of Extra Yield (Tons/Acre) Using Organic Plant & Soil Pro 2 vs. Actual Fertilization Program | **2.13** |
| Difference (%) More Yield, with Organic Plant & Soil Pro 2 | **35.04%** |

**Yield Analysis Protocol**

1. **Design:** Harvest 4 spots randomly, in square angle, covering the entire block on each side.
2. **Per David Moore requirements:** for the harvest in the control side, we eliminated the last row (to avoid alteration of data due to the border effect). Samples were taken from row 2 and 3. From the Organic Plant & Soil Pro 2 side, we took samples from rows 6 to 9 in order to maintain the same exact conditions as the Control.
3. **Samples taken:** 2 samples 300 Feet away from borders, in each side, and 2 samples 400 feet in the middle of each block.
4. **Harvested by hand:** All bunches in a 3.5 linear feet or 38.50 Sq.Ft, and weighted

Obtained projected yield per area by using the Yield Analytical Evaluation Protocols, established by Washington State University.

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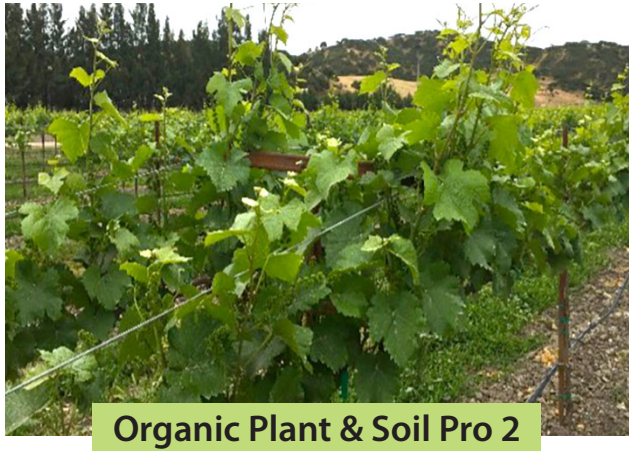
## First Stage Of Plant

Control



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- Foliage with Organic Plant & Soil Pro 2 have more chloroplast, and more density

## Fruit At Harvest Time

Control

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- Bunches or clusters of grapes with Organic Plant & Soil Pro 2are denser, larger, heavier

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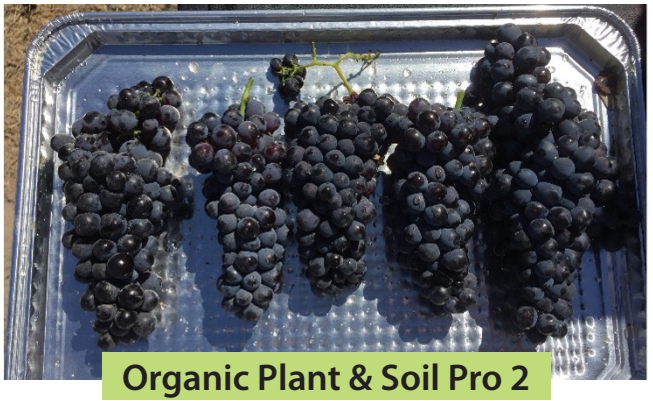
# Fruit Analysis

Control



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| Fertilizer Used | Parameters | Results | Units | Difference (%) |
|---|---|---|---|---|
| Organic Plant & Soil Pro 2 | Dry Matter | 30 | % | **3.45** |
| Conventional | | 29 | | |
| Organic Plant & Soil Pro 2 | Brix | 22.8 | % | **7.55** |
| Conventional | | 21.2 | | |
| Organic Plant & Soil Pro 2 | Nitrogen (In fruit) | 0.786 | % | **-11.09** |
| Conventional | | 0.884 | | |
| Organic Plant & Soil Pro 2 | Cell Wall Calcium | 63 | mg/kg | **18.87** |
| Conventional | | 53 | | |

- According to the laboratory analysis results, we can determine that the fruit with Organic Plant & Soil Pro 2, has more dry matter content, with less nitrogen and more brix, which indicates a much better quality fruit.

- The results also show more cell wall calcium in the fruit, which combined with less nitrogen will improve shelf-life. The picture below shows a comparison after 13 days. The Control Fruit shows the presence of mold. The fruit with Organic Plant & Soil Pro 2 shows no deterioration nor mold.

* Fruit Analysis conducted by AGQ Lab.

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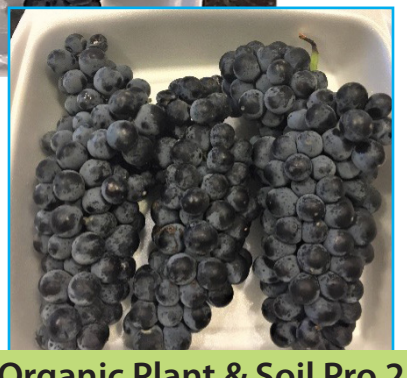
# 13 Days Shelf-Life Study of Grapes.


Control



Organic Plant & Soil Pro 2

▶ **Comparison after 13 days. The Control Fruit shows the presence mold. The fruit with Organic Plant & Soil Pro 2 shows no deterioration nor presence of mold.**

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## Final summary and benefits of using Organic Plant & Soil Pro 2

1. Better yield: 35.04% more yield (2.13 More Tons Per Acre)
2. Better Quality Fruit:  with less nitrates and more Brix.
3. Overall healthier plants: potential to reduce the use of pesticides/less fungicide applications.
4. Potential to improve the shelf-life of the fruit, with great quality and healthier fruit.