

Stella Maris[®] on WINE GRAPES

improves yield and quality



REPLICATED FIELD TRIAL 1312

SUMMARY

Applications of **Stella Maris[®]** improved yield by increasing the number of clusters per vine by 25%, average cluster weight by 25% and yield per vine by 68%. Applications of **Stella Maris[®]** also increased average individual berry BRIX content by 0.8 degrees and improved juice quality by increasing juice color intensity by 60% and by increasing anthocyanin content by 75%.

LOCATION: Niagara, Ontario, Canada

DESIGN: Randomized complete block with 4 replications

PLOT SIZE: 5-vine panels (vine spacing was 1.4 meters and row spacing was 2.8 meters)

VARIETY: Pinot noir

TREATMENTS:

Control: Grower standard practices

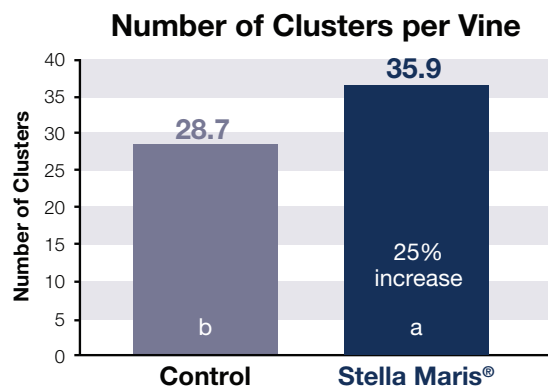
Treatment: The same as the Control plus four foliar applications of **Stella Maris[®]** at 5 liters per hectare (2 liters per acre) at the following timings:

- 8-10" shoot growth
- Trace bloom
- Shot berry
- Post veraison

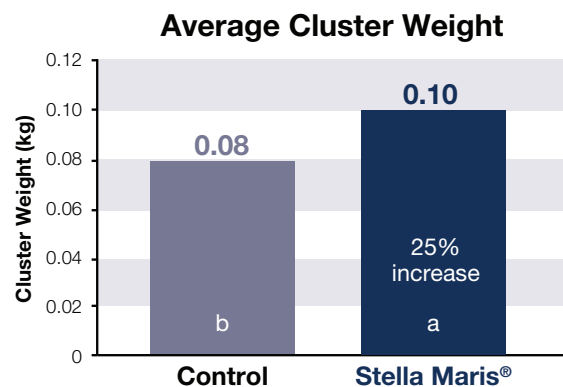
RESULTS

Different letters indicate statistically significant differences between treatments. (P=.1, Student-Newman-Keuls)

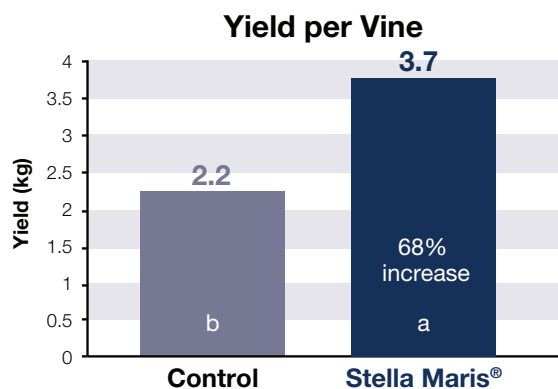
Different letters indicate statistically significant differences between treatments. (P=.05, Student-Newman-Keuls)



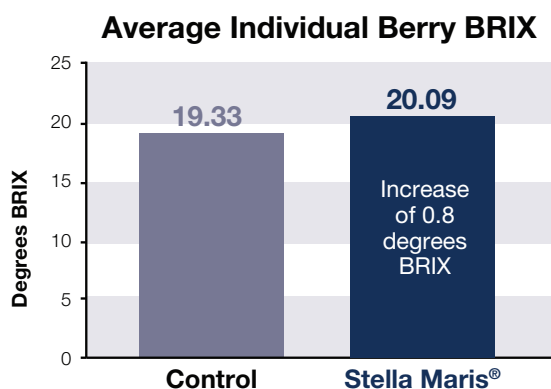
Applications of **Stella Maris[®]** increased the number of clusters per vine by 25%.



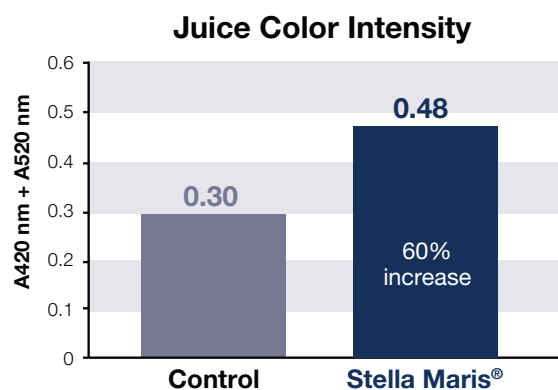
Applications of **Stella Maris[®]** also increased average cluster weight by 25%.



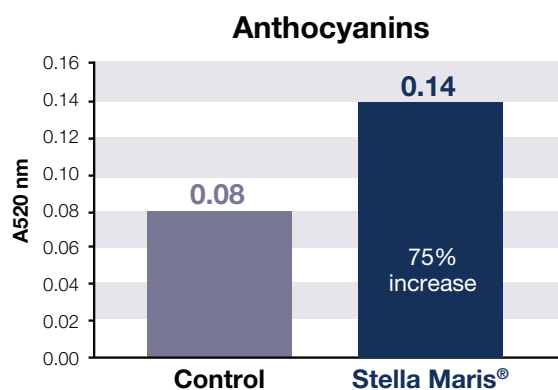
Four applications of **Stella Maris®** increased yield per vine by 68% compared to the Control.



The addition of **Stella Maris®** to the grower's standard program increased the alcohol potential of the wine grapes by increasing the average individual berry BRIX content by 0.8 degrees.



After the harvest, sample bunches were selected and pressed to extract juice. Juice quality was evaluated by measuring color intensity as well as anthocyanin content. The evaluation concluded that grapes treated with **Stella Maris®** produced juice with 60% more color intensity and 75% more anthocyanins. A higher color intensity and anthocyanin content in the juice suggests that there will be a higher color intensity and anthocyanin content in the wine and this could lead to a bolder, more premium beverage.



Juice color intensity is measured by evaluating the amount of light that the juice absorbs at two key wavelengths (420 and 520 nanometers) while the amount of anthocyanins in the juice is measured by evaluating the amount of light that the juice absorbs at a key wavelength of 520 nanometers.

