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Time of Harvest and Wine Quality of Esprit Wine Grapes

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Time of Harvest and Wine Quality of Esprit Wine Grapes

Abstract

Currently there is little to no information regarding when to harvest many of the coldhardy hybrid grape cultivars. There are contrasting opinions of the quality of the wine made from some of these cultivars, which may in part be due to a difference in timing of harvest. Many of the cold hardy cultivars contain *Vitis labrusca* in their parentage that can lead to differing levels of 'foxy' flavors depending on when the fruit is harvested. Wineries may prefer different levels of the typical *V. labrusca* flavors in their wines. Many of the cold-hardy cultivars also tend to have high titratable acidity (TA) and harvest is delayed to lower the TA. It is unknown what impact a later harvest has on other parameters of fruit quality. The objective of this study was to evaluate the quality attributes of the wine made from the grape cultivar Esprit harvested earlier and later than the traditional harvest date.

Keywords

RFR A9044, Horticulture

Disciplines

Agricultural Science | Agriculture | Horticulture

Time of Harvest and Wine Quality of Esprit Wine Grapes

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Introduction

Currently there is little to no information regarding when to harvest many of the cold-hardy hybrid grape cultivars. There are contrasting opinions of the quality of the wine made from some of these cultivars, which may in part be due to a difference in timing of harvest. Many of the cold hardy cultivars contain *Vitis labrusca* in their parentage that can lead to differing levels of 'foxy' flavors depending on when the fruit is harvested. Wineries may prefer different levels of the typical *V. labrusca* flavors in their wines. Many of the cold-hardy cultivars also tend to have high titratable acidity (TA) and harvest is delayed to lower the TA. It is unknown what impact a later harvest has on other parameters of fruit quality. The objective of this study was to evaluate the quality attributes of the wine made from the grape cultivar Esprit harvested earlier and later than the traditional harvest date.

Materials and Methods

This study was conducted in a vineyard established in 2003 at the Horticulture Research Station, Ames, IA. Grapes were harvested from the vineyard at two different times during the ripening season (September 11 and September 24). The early harvest was stored in a cooler, so that both harvests could

be crushed at the same time and processed for wine in a similar manner. After setting overnight, the must was racked into five-gallon carboys to remove impurities. Sugar was added to bring the soluble solids concentration (brix) of both harvests up to 21%. White cane sugar was added at a rate of 0.125 lb/gallon for each degree of brix needed. Yeast was added to the must and allowed to incubate 24 hours at room temperature. This helped ensure strong colonies were established before the must was placed in a cooler at 58°F to control the speed of fermentation. The fermentation was continued to completion with very low or no residual sugar.

Results and Discussion

The first harvest had 17.6 brix and 0.5 lb of sugar was added per gallon to bring the brix above 21. The second harvest had 19.4 brix and .25 lb of sugar was added. The TA of both harvests was high after fermentation, with 12.29 g/liter for the first and 9.33 g/liter for the second harvest. Currently, wines from both harvest dates are being completed. The wines will be evaluated for quality attributes and the results will be summarized over the next months.

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