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Wine Industry Evaluation of Oregon Pinot noir Wines Made From Grapes of Different Maturities

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INTRODUCTION

An industry panel tasting of wine from the 1987 Pinot noir maturity trials (see previous article by Watson et al this issue) was conducted at OSU in April, 1988. Thirteen winemakers participated in the half-day tasting which involved both the description of the aroma and flavor of the wines and a quality rating. The goal was to determine if date of harvest and chaptalization created observable differences in sensory character (more fruity, less vegetative, etc.) and in overall quality (more varietal character, better balanced, etc.).

THE WINES

The wines were made in replicate lots from grapes harvested at set intervals as described by Watson et al. (reference), and the early harvest date samples were divided into two lots, with one lot being chaptalized. A total of eight wines were presented to the winemakers at approximately 65°F in two sets, first for the intensity rating of sensory characteristics, and second for the rating of quality parameters. A total of 20 descriptors were rated including fruity, blackberry, green, herbaceous, spicy, and black pepper using a 9 point intensity scale (1=none, 9=extreme) for the first set of wines. In the second set, winemakers rated color intensity, overall quality, varietal character, complexity on a 6 point scale (1=low or poor, 6=extremely high or exceptional). Flavor balance was rated on a 7-point scale (1=poorly balanced, 7=perfectly balanced).

DIFFERENCES AMONG WINES

Sensory Characteristic Intensity Ratings

Five aroma descriptors, fruity, blackberry, herbaceous, spicy and earthy, were found to be significantly different among the eight wines evaluated (Table 1). Within the control wines, the last harvest date wine (9/29) was significantly higher in fruity and blackberry character than earlier harvested samples. Chaptalization did not cause major differences except in the spicy note where chaptalized wines were significantly higher in spicy character for all of the early test dates as compared to the controls. Also, at the third harvest date (9/16) the chaptalized wine was also significantly higher in blackberry character.

TABLE 1. Means* of Aroma and Flavor Descriptors for the Evaluation of the 1987 Pinot noir Maturity Trial Wines for all Maturities (Chaptalized and Control)

Harvest Date	9/4		9/10		9/16		9/22	9/29	LSD**
	(chap)	(control)	(chap)	(control)	(chap)	(control)	(control)	(control)	
Fruity	4.27 ^{bcd}	4.27 ^d	5.00 ^{bcd}	5.09 ^{bcd}	5.36 ^{bc}	4.46 ^{cd}	5.73 ^{ab}	6.64 ^a	1.08
Blackberry	2.67 ^{bc}	2.25 ^c	3.33 ^{abc}	3.33 ^{abc}	3.83 ^{ab}	2.17 ^c	3.00 ^{bc}	4.67 ^a	1.45
Herbaceous	2.80 ^{abc}	3.20 ^{ab}	2.60 ^{abc}	3.10 ^{ab}	2.60 ^{abc}	3.90 ^a	2.50 ^{bc}	1.50 ^c	1.31
Spicy	4.55 ^a	3.00 ^b	4.46 ^a	3.00 ^b	4.46 ^a	3.18 ^b	5.18 ^a	4.46 ^a	1.15
Earthy	3.40 ^{ab}	2.00 ^b	2.40 ^b	2.90 ^{ab}	2.60 ^b	2.90 ^{ab}	3.30 ^{ab}	4.30 ^a	1.55

* Intensity scale ranging from 1 = none to 9 = extreme.

** LSD = Least Significant Difference (amount of difference between means necessary to state the samples are significantly different).

abc means with the same superscripts are not significantly different at the $p \leq 0.05$ level.

Quality Differences

Although the chaptalized wines were lower in total anthocyanin content and higher in total phenolic content than the control wines for the first three harvest dates, there were no differences in color of the wines observed by the winemakers (Table 2). Color rating increased dramatically from the first (9/4) to the second (9/10) harvest date, but did not change much in subsequent samples.

TABLE 2. Means of Attributes from the April 1988 Quality Evaluation of 1987 Pinot noir Maturity Wines for all Maturities (Chaptalized and Control)

Harvest Date	9/4		9/10		9/16		9/22	9/29	LSD*
	(chap)	(control)	(chap)	(control)	(chap)	(control)	(control)	(control)	
Color**	2.85 ^d	2.85 ^d	4.23 ^a	4.39 ^a	3.39 ^c	3.39 ^c	3.54 ^{bc}	3.92 ^{ab}	0.475
Overall quality**	2.92 ^{cd}	2.31 ^d	2.92 ^{cd}	3.15 ^{bc}	3.39 ^{bc}	3.08 ^{bc}	3.77 ^{ab}	4.15 ^a	0.713
Varietal character**	3.08 ^{bc}	2.62 ^c	3.00 ^{bc}	3.15 ^{bc}	3.15 ^{bc}	3.15 ^{bc}	3.31 ^{ab}	3.92 ^{ab}	0.629
Complexity**	2.85 ^{bc}	2.39 ^c	2.85 ^{bc}	3.15 ^b	2.92 ^{bc}	2.77 ^{bc}	3.39 ^{ab}	3.85 ^a	0.651
Flavor balance***	3.08 ^{cd}	2.85 ^d	3.23 ^{bcd}	3.92 ^{abc}	4.08 ^{ab}	3.31 ^{bcd}	4.31 ^a	4.62 ^a	0.929

abc means with the same superscripts are not significantly different at the $p = 0.05$ level.

* LSD = Least Significant Difference (amount of difference between means necessary to state the samples are significantly different).

** 6-point scale ranging from 1 = low or poor, to 6 = extremely high or exceptional.

*** 7-point scale ranging from 1 = poorly balanced, to 7 = perfectly balanced.

There were no significant differences in any of the other quality parameters measured between the control and chaptalized samples. The only significant differences occurred between the early harvest dates in general and the late harvest dates with the later dates receiving higher ratings in overall quality.

CONCLUSIONS

Our industry experience has shown us that Pinot noir can mature differently in different years, thus generalized conclusions are impossible to make at this time. This study will be continued with the evaluation of these same wines at later dates by both the industry and trained descriptive panel, plus wines from the 1988 vintage will also be evaluated for sensory quality. One can say that for the 1987 vintage evaluated after only a few months of age, winemakers found few differences in sensory descriptors, and no differences in quality ratings between control and chaptalized wines made from early harvest dates. Also, there was no question that the latest harvest date was the most preferred and rated highest in quality by the winemakers. The winemaker panel has just completed a second evaluation of the 1987 wines, the results of which will be presented in the next WAB Research Report.