Oregon Wine Advisory Board
Research Progress Report

1992 - 1993

Evaluation of New Wine Grape Cultivars for Production Potential in Southern Oregon

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OBJECTIVE

To characterize the cultural aspects, maturation, production, and wine quality of several untested Italian, French, and Spanish wine cultivars in southern Oregon.

RESULTS AND DISCUSSION

Cultural aspects

Most vines had sufficient growth following the 1990 freeze to prune two or three canes for a total of 10-20 nodes per vine depending on vigor. The canes were trained horizontally on a 30-inch high wire and shoots were trained upright with two foliage wires 18 inches above. Approximately half of the clusters were removed in late July to reduce the crop load on most vines and/or to remove the mildew infected clusters. Two applications of Rally were made in early July and August for mildew control. Shoot thinning, lateral removal, and tipping was done in June to expose the canopy and clusters. Observations on cultural aspects of the cultivars are summarized in Table 1.

The trellising in the plot will be improved by placing a post every 25 feet instead of the present 50 feet with fruiting wires at 36 and 42 inches above the ground for the Scott Henry system when necessary plus two permanent foliage wires at 57 and 72 inches. Fully developed vines will be pruned to 25 nodes for undivided canopy and 50 nodes for Scott Henry system.

Harvest aspects

A 30 berry per replicate sample was collected weekly from each variety for measurement of 'Brix and TA. At harvest, 10 clusters per rep were pressed by hand and filtered through cheesecloth for 'Brix, TA, and pH. Bird netting of the late harvested varieties was necessary to protect the fruit from the birds. Harvest occurred when the white varieties reached 22Brix and the reds reached 24'Brix. Wine samples were made of Tempranillo, Viognier, Doleetto, Syrah, Petite Vex-dot, and Sangiovese by Sarah Powell of Foris Vineyards.

Comments about 1992 season

The 1992 season was early and warm. Bud break occurred from March 29 to April 5 (about 17 days early) while harvest was about 22 days in advance of long term average for Pinot noir. In addition, the season was quite warm (3631 degree days compared to an average of 2611 degree days for Medford).

Therefore, some of the late maturing varieties such as Petite Verdot, the Nebbiolos, and Sangiovese were able to mature. We would expect these varieties to mature in less than 50 percent of the seasons (like Zinfandel and Barbera). This season's maturation benefitted from a low crop load also and it would be important to keep the crop load to less than 2 tons/acre (2 kg/vine) for these varieties in the future. Varietal phenology and juice characteristics at maturity are summarized in Table 2.

Funding History:

Year Initiated: 1988-1989. Funding for 1991-1992: $1,000

Table 1. Winegrape varietal observations in 1992 and possible cultural treatments in 1993, Southern Oregon.

Varieties	% frost damage Apr 28 28° F	Powdery mildew damage (June)	Vine vigor (growth)	Laterals (number)	Canopy (shading)	Cluster per shoot	Cluster desc.	Poss. pruning type	Poss. canopy system
Chardonnay	4.0	light	mod.	few	mod.	1-2	tight	cane	divided
Cabernet franc	6.0	high	high	few	mod.	2-3	loose	cane	divided
Cabernet Sauvignon	5.2	high	high	few	mod.	1-2	loose	cane	divided
Dolcetto	2.7	high	low	many	mod.	2-4	loose	spur	undivided
Fresia	0.4	mod.	mod.	many	mod.	1-2	loose	cane	divided
Gamay noir	5.2	high	low	none	mod.	3-4	tight	spur	undivided
Graciano	3.3	light	mod.	few	dense	2-3	tight	spur	divided
Limberger	7.2	mod.	high	few	mod.	2-3	loose	spur	divided
Nebbiolo	2.9	high	mod.	many	mod.	0-1	loose	cane	divided
Nebbiolo fino	2.0	high	mod.	many	mod.	0-1	loose	cane	divided
Nebbiolo lampia	1.2	high	mod.	many	mod.	0-1	loose	cane	divided
Pinot blanc	9.1	mod.	low	few	mod.	1-2	tight	cane	undivided
Pinot gris	1.7	light	low	none	mod.	1-2	tight	cane	undivided
Petite Verdot	2.8	light	mod.	some	dense	2-3	loose	spur	divided
Refosco	4.5	high	high	few	mod.	2-3	mod.	spur	divided
Sangiovese	10.2	high	high	few	mod.	1-2	mod.	cane	divided
Syrah	3.6	light	high	many	dense	1-2	loose	cane	divided
Tempranillo	3.0	mod.	high	many	dense	1-2	loose	cane	divided
Viognier	3.3	mod.	mod.	many	open	1-2	loose	cane	divided

Table 2. Winegrape varietal phenological and harvest data in 1992, Southern Oregon.

Variety	Bud break date	Veraison date	Harvest date	Season BB-Har (days)	Yield (tons/ac)	Cluster weight (g)	Brix	TA (g/l)	pH
White									
Pinot gris	3-31	7-26	9-4	150	0.9	83	23.3	7.4	3.55
Chardonnay	3-31	7-31	9-4	157	1.1	81	23.1	10.4	3.31
Pinot blanc	3-31	7-26	9-4	157	1.6	139	22.8	9.1	3.39
Viognier	3-31	7-26	9-4	157	0.6	89	22.5	8.9	3.43
Red									
Gamay noir	3-31	7-29	9-4	157	4.9	190	23.6	10.3	3.30
Tempranillo	3-31	8-1	9-4	157	0.5	88	24.1	7.5	3.51
Dolcetto	3-31	8-6	9-10	163	0.8	72	24.3	6.6	3.37
Limberger	3-31	8-2	9-4	166	0.4	69	22.7	10.4	3.25
Fresia	4-5	8-8	9-17	165	0.6	84	24.3	10.5	3.31
Cabernet franc	4-5	8-12	9-17	165	1.0	59	24.2	8.8	3.33
Nebbiolo fino	3-29	8-12	9-17	178	0.2	47	24.1	11.5	3.13
Cabernet Sauvigon	4-5	8-12	9-17	172	0.5	42	22.8	10.5	3.23
Syrah	4-5	8-10	9-30	178	1.1	80	24.7	8.9	3.43
Petite Verdot	4-5	8-16	9-30	178	0.9	50	24.7	13.7	3.24
Nebbiolo	4-2	8-12	9-17	181	0.3	76	23.7	13.9	2.99
Nebbiolo lampia	4-2	8-14	9-17	181	0.3	149	23.7	12.9	3.05
Refosco	4-2	8-8	9-30	188	-	-	22.9	8.6	-
Graciano	4-5	8-11	9-30	192	-	-	22.5	9.3	-
Sangiovese	4-2	8-10	10-14	195	0.6	107	23.9	8.8	3.35