

Project Report
American Vineyard Foundation
Reporting Year: April 1, 2001 - March 31, 2002

I. Project Title: Evaluation of Wine Grape Cultivars and Selections for a Cool Maritime Climate (Viticulture Project)

II. Principal Investigator: Gary A. Moulton, Washington State University - Mount Vernon, 16650 State Route 536, Mount Vernon, WA 98273

Cooperators: Tom Thornton, Cloud Mountain Farm, 6906 Goodwin Rd., Everson WA 98247 (360-966-5859) - off station test plot location

III. Summary:

The trial was begun in 2000 with two plots, one located at Mount Vernon research station and one located at a vineyard near Concrete. A randomized block of 3 replications, with 5 plants per replication was established. At the station site, plot dimensions are 10' rows with 6' between plants, and the upriver plot at 8' rows with 6' between plants. A preliminary evaluation, consisting of three plants per variety in two rows, is to test certain other varieties/selections to be added to the primary trial later if their performance warrants it. A rootstock trial of Pinot Noir 2A has been planted consisting of seven rootstocks plus self rooted plants, to test for earlier ripening potential. This trial includes five plants of Pinot Noir 2A on each rootstock, replicated three times, at each plot location.

Plots were established in spring 2000. Irrigation lines, posts and wires were installed in the 2000 season and vines were pruned and trained to the Guyot method in spring 2001. In the fall of 2001, fruit was produced in most of the rootstock trial plots and in some of the variety trial plots. Netting was applied to the fruit bearing plots to protect from bird damage, and equipment for more efficient application of netting successfully tested and acquired. Preliminary data was collected from testing of brix and acid from sample fruit.

In both the station plot and the upriver plot there were indications of earlier ripening on Pinot Noir 2A grafted on certain rootstocks when compared to fruit on own root plants. However, insufficient fruit was available for complete data analysis in all the plots. In December 2001 the plot at Concrete was moved to a more favorable location, which would also extend the trial to serve potential growers in the adjacent Whatcom County area. Contacts are being initiated with cooperating growers throughout western Washington. Each site is asked to obtain a weather monitoring system (Avatel) and to coordinate the resulting data with other sites.

IV. Objective(s) and Experiments Conducted to Meet Stated Objective(s):

Objective: To help support a research trial of wine grape varieties and selections, in order to ascertain their adaptability in a cool maritime climate. Emphasis is on early ripening, varietal quality, and productivity.

Experiment: Replicated plots of selected varieties and rootstocks have been established, with data to be collected and analyzed. A plot on station in a cooler area is compared with an off-station plot with heat units in the higher range.

V. Summary of Major Research Accomplishments and Results (by Objective):

The trial is currently in progress. Results and accomplishments as yet undetermined.

VI. Outside Presentations of Research:

Gary Moulton, Presentation "*Variety Trial of Grapes for a Cool Maritime Climate*," Puget Sound Wine Growers, May 7, 2001, Whidbey Island Winery, Whidbey Island, WA.

Gary Moulton, Presentation "*Variety Trial of Grapes for a Cool Maritime Climate*," Vancouver Island Grape Growers Association, May 16, 2001, Sidney, B.C., Canada

Gary Moulton, Presentation "*Wine Grapes: Variety Trial Project Report*," Vancouver Island Grape Growers Association, September 19, 2001, Sidney, B.C., Canada

Gary Moulton, Presentation "*New Fruit Alternatives*," Western Washington Horticultural Convention, January 10, 2002, Seattle, WA.

VII. Research Success Statements:

This research will provide growers with information on promising new, early ripening wine grape varieties, particularly red wine varieties, that are well suited to growing in a cool maritime climate, where they can produce high quality wines with full, fragrant flavor. These new varieties, with unique qualities for varietal and blended wines, would broaden the range and increase the sales potential for growers and wineries. Pinot Noir clones appear adaptable to many western Washington locations, particularly on various rootstocks that enhance early ripening, for producing a very high quality wine. The Pinot Noir rootstock trial will supply growers with knowledge on which to base their future plantings.

VIII. Funds Status:

In 2001 support for this project was received from:

Washington Wine Commission - Wine Advisory Board	\$ 14,149
American Vineyard Foundation	5,000

APPENDIX

Table 1. Cultivar Trial (5 plants x 3 replications x 2 locations)

Cultivar (Source)

1 = Agria (BC)	15 = Garanoir (BC)
2 = Burmunk (SMSU)	16 = St. Laurent (SMSU)
3 = Baco 1 (BC)	17 = Zweigelt (BC)
4 = Dornfelder (BC)	18 = Gamay Beaujolais (WSU)
5 = Dunkelfelder (BC)	19 = 39-9/74 (SMSU)
6 = Gamaret (BC)	20 = Kozma 55 (SMSU)
7 = Golubok (SMSU)	21 = Kozma 525 (SMSU)
8 = Regent (BC)	22 = XIV 11-57 (SMSU)
9 = Sylvaner Red (BC)	23 = Rubin Tairovsky (SMSU)
10 = Schonberger (BC)	24 = Laurot [MI 5-106] (SMSU)
11 = Gamay Chaudenay (BC)	25 = Tskerka [54-36-33] (SMSU)
12 = Gamay Freaux (BC)	26 = I 55/8 (SMSU)
13 = Gamay Noir (BC)	27 = XX 15-51 (SMSU)
14 = Gamay Rouge de la Loire (BC)	28 = Nero (SMSU)

Table 2: Pinot Noir Rootstock Trial (5 plants x 3 replications x 2 locations)

Rootstock Source: Duarte, except Couderc 3309 from Sonoma

1. Pinot Noir 2A/Couderc 3309	5. Pinot Noir 2A/Millardet et de Grasset 420A
2. Pinot Noir 2A/Kober 5 BB	6. Pinot Noir 2A/ Riparia Gloire
3. Pinot Noir 2A/Malegue 44-53	7. Pinot Noir 2A/Teleki 5C
4. Pinot Noir 2A/Millardet et de Grasset 101-14	8. Pinot Noir 2A/self rooted

Table 3. Varietal Pretest (3 plants x 2 locations, no replication)

Source: SMSU except as indicated

Aligote (WTN)	Kerner	Pinot Noir Dijon 113
Auxerrois cl. 22 Gm	Kozma Pal Muscataly	Pinot noir R14 V4
Bianca	L 4-9-18	Plai
Bromariu	Lagrein (WTN)	Rani Riesling
BV 19-88	Leon Millot	Red Traminer
BV 19-143	M 39-4163	Regner
CSFT 194	Madeleine Angevine	Reichensteiner
CSFT 195	Malbec	Siegerrebe
Demetra	Meunier	SK 77-513
Dolcetto (WTN)	Muller Thurgau	SK 77-1216
Ehrenfelser	Muscat	Toldi
i 31-67	Optima	Viorica
ir 26/5	Ortega	XIV 186
Juwel	Perle of Csaba	5-17 x Orange (DJ)
K-15	Pinot Blanc	34-4-49
K-38	Pinot Gris	1170/21

SOURCES:

BC = Euro Nursery & Vineyard (West) Inc., Sidney, B.C., Canada

DJ = David Johnson

Duarte = Duarte Nursery, Hughson, CA

OSU = Oregon State University, Corvallis, OR

SMSU = Southwest Missouri State University, Fruit Experiment Station, Mountain Grove, MO

Sonoma = Sonoma Grapevines, Inc., Fulton, CA

WTN = Witness Tree Nursery, Ltd. (Bryce Bagnall), Salem OR

WSU = Washington State University, IAREC, Prosser, WA