Oregon Wine Advisory Board
Research Progress Report

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Summary of Report on the 17th International Symposium for Grape Propagation and Geisenheim Research Center February 4-8, 1985

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In the interest of taking full advantage of a personal business trip to Frankfurt, West Germany to attend the 17th International Symposium for Grape Propagation, I offered to make contacts for the Wine Advisory Board. I was asked to focus and report on five topics of research interest to OSU and the Wine Advisory Board. A summary follows:

1. **Top Working:** Two conflicting factors contribute to the assessment of the potential for efficient and economical field grafting in cool climate viticultural areas. First, it is already well recognized that successful field grafting is much easier to achieve in southern climes (e.g. Italy, or California). The synchronization of the critical stage in Spring growth with required callusing temperature conditions necessary to assure "a take" is much more reliable in warmer and drier viticultural areas. Unfortunately, I have been unable to find any research thus far which quantifies the bounds of constraint for successful field grafting.

   That brings us to the second factor which makes this problem difficult to assess. The entire German wine grape propagation system which has become institutionalized by laws over the past one hundred years is dependent upon well regulated bench grafting practices. Any mention or thought of field grafting runs counter to well ingrained tradition. So it appears that we, in Oregon, will have to seek out our own solutions on the feasibility of changing varieties in the field. What we know thus far is that successful field grafting is erratic while bench grafting is reliable in Oregon. More research and experience in field grafting may provide greater dependability in the future.

2. **Rootstocks:** The word from Geisenheim is that they gave up on AXR before WWI. California has used it with some success but it has changed unrecognizably from its original clonal form. They do not recommend its use in cool climates. Oppenheim S04 continues to be the mainstay particularly for combining Phylloxera resistance with reduced vigor. The rest of the rootstocks intended for special conditions or experimental work which show some promise include Couderc 1202 and 3309, Richter 99, 5BB and 5C. Unfortunately, I was unable to communicate adequately with the Bulgarians to learn anything. Richter 99 continues to be a mainstay in South Africa where Phylloxera is a serious problem. As with field grafting, much work will be needed here in Oregon before any definitive recommendations can be offered.

3. **Vigor Control:** No major, new informational breakthroughs were learned at Geisenheim or the international symposium on this subject.

4. **Propagation:** A significant change in vinifera propagation is taking place on the larger geopolitical scale in western Europe. The European Economic Community (EEC) is beginning to impact the historical independence of wine grape production in the respective member nations. The economies and climatic conditions of Italy, southern France and Spain are placing a heavy competitive burden on grape propagation and production in the more temperate and cool climate zones. The German propagators already feel threatened by the volume/cost numbers coming from their southern neighbors. A growing share of the German planting stock (including bench grafted rootstock material) is propagated at large nurseries in northern Italy and southern France where weather conditions and labor costs are more favorable. The problem is further exacerbated by the present wine "glut" which the EEC committees are proposing to address with restrictive quota schemes for new planting as well as harvest of existing plantings. The German viticulturalists are irate over the potential trade-off of "quality" products for "quantity" coming from southern Europe. The formulas being derived to regulate production may be crucial to the future growth and even survival of many areas.

   Specifics in "state of the art" bench grafting techniques were acquired in a tour through the Geisenheim Research Center.

5. **Phylloxera:** My impression, resulting from a number of inquiries, is that Phylloxera remains a serious problem in the warmer climatic zones of France, Italy, Spain and South Africa where the winged form is common and population build-up is more favorable. The use of chemical control (Endosulfan) appears to be of limited value and variable success. Total eradication in soil has not been demonstrated. Population reduction with Endosulfan controls Phylloxera spread and economic losses for periods of 3 to 5 years; then the treated vineyard returns again to a marginal (non-thrifty) state.

   An important consideration to keep in mind is the lack of incentives or motivation to use chemicals with the public concern over contamination of ground and surface water in the more heavily populated areas. Also, the European system of massive bench grafting propagation for Phylloxera resistance is an institutionalization which would be negatively impacted by widespread use of chemical controls.

A universal quotable from the 17th International Symposium: "Many more people are born out of wine consumption than have died because of it."