DISCLAIMER

Electronic versions of the exhibits in these minutes may not be complete.

This information is supplied as an informational service only and should not be relied upon as an official record.

Original exhibits are on file at the Legislative Counsel Bureau Research Library in Carson City.

Contact the Library at (775) 684-6827 or library@lcb.state.nv.us.

Tahoe Ridge™
Vineyards and Winery

History of Winegrowing in the State of Nevada

Last Updated - January 20, 2002

In 1990 my wife *(Kathy Halbardier)* and myself *(Rick Halbardier)* moved to Minden, Nevada a small community located in the Carson Valley on the eastern slope of the Sierra Nevada mountains roughly 15 miles due east of South Lake Tahoe.

Kathy and I have had a love of wine for many years working crushes, bottlings, labelings, etc. at wineries throughout the West i.e. California, Oregon, Washington, and Idaho.

Kathy and I both spent time at the University of California, Davis studying viticulture and enology. Kathy was focused more on the viticulture/grape growing side of things, and I was focused more on the enology/winemaking side of things.

1991 marked the year that research began in Nevada. Working with Dr. Wayne Johnson, Horticulturist from the University of Nevada Reno (UNR), and Jim Ashby, Climatologist from the Desert Research Institute (DRI) study began on developing a *vitis vinifera* wine grape test plot in Nevada.

Dr. Johnson was in the final stages of completing research on a 12-year *vitis lambrusca*, and *french hybrids* table grape test plot located at the UNR Valley Road Field Research Station in Reno, Nevada.

Although UNR (Dr. Bernard Jones 'Dean' School of Agriculture, and Dr. Ronald Pardini, 'Asistant Dean' School of Agriculture) would not support the development of the wine grape test plot formally – Dr. Johnson was willing to commit his own personal time and expertise to the project.

Kathy and I soon found that no research existed with regards to growing wine grapes in the State of Nevada. Furthermore, there was very little history of grape growing/winemaking in Nevada.

Kathy via the Nevada State Historical Archives (Guy Rocha, State Archivist)) could find only three references to bonded wineries existing in the State of Nevada. All three wineries existed in Southern Nevada in Nye County. The first and second wineries

existed prior to prohibition and never reopened. The third was a listing of a winery currently in operation located in a town called Pahrump (60 miles northwest of Las Vegas, Nevada). Pahrump Valley Winery had no history of growing *vitis vinifera* wine grapes only *vitis lambrusca* table grapes i.e. Concord, Himrod, etc. Pahrump Valley Winery crushed no grapes at their own facility. The wine was transported via tanker truck from the Central Valley of California and bottled under their brand name at the winery facility.

Kathy and I initiated vineyard development in 1991 under the name of Churchill Vineyards. The name officially changed to Tahoe Ridge Vineyards and Winery, Inc. in 1993. Under the name Churchill Vineyards plans were set fourth to establish vineyard plot # 1 on Rick and Kathy's property located within the Carson Valley - Minden, Nevada.

Churchill Vineyards was faced with some difficult factors to overcome with regards to establishing wine grape vineyards in the State of Nevada. High elevation, inorganic alkaline soils, short growing seasons, cold winters, low humidity, and limited water supplies were just some of the factors to overcome.

Jim Ashby at the Desert Research Institute (DRI) had his work cut out for him. Jim developed a comparative climatic model going back 60 years (to the early 1930's). The model encompassed seven-cool/cold climate wine grape growing regions from around the world that Churchill Vineyards felt had climates similar to that of the Carson Valley/Nevada. The locations were Christchurch - New Zealand, Bonn/Koblenz – Germany, Empernay/Reims – France, Prosser – Washington (USA), Caldwell – Idaho (USA), Grand Junction – Colorado (USA), and Seneca – New York (USA).

Data such as Growing Degree Days, Latitude Temperature Index, High/Low temps, Precipitation rates, Ground Soil Thaw Rates, etc., etc., etc. where reviewed and analyzed. Extensive discussion followed with the individuals (listed below). These are individuals that Churchill Vineyards considered to have a tremendous amount of experience in growing wine grapes in either cool/cold climates:

Dr. Wade Wolff, Viticulturist, Hogue Cellars – Washington State
Dr. Jim Wolpert, Viticulturist, University of California Davis
Dr. Stan Howell, Horticulturist, Michigan State University
Dr. Jack Watson, Viticulturist, Washington State University
Dr. Robert Wampel, Viticulturist, Fresno State University
Dr. Lamar Anderson, Horticulturist, Utah State University
Dr. David Peterson, Viticulturist, Cornell University
Dimitri Tchelistchefe, Winemaker, Jarvis Winery, Napa Valley – California
Eddy Szyjewicz, Viticulturist, DeVine Consultants, Los Gatos – California

Kathy and I visited Logan – Utah, Grand Junction – Colorado, Caldwell – Idaho, and Prosser – Washington in the summer of 1991 to meet with winery/vineyard owners to discuss their experiences with growing *vitis vinifera* wine grapes in cool/cold climates.

Based on the climatic model that DRI developed it looked very promising to grow grapes in the Carson Valley! In many ways the Carson Valley climate looked more favorable than that of Northern Germany and Northern France where wine grapes had been grown for hundreds of years (making some of the best sparkling an Riesling wines in the world).

The results of the DRI model (see Appendix 'A' for DRI results) along with the success stories of the winegrowers we spoke to on our trip, led us to choose the following varieties to plant on test plot #1 to be located in Minden, Nevada:

White Riesling
Gewürztraminer
Muller Thurgau
Pinot Chardonnay
Pinot Noir
Cabernet Franc
Gammay Beaujolais

After further talks over the winter with growers in Washington State and New York State, it was determined that all vines should be grown on their native root. This growing practice was chosen due to the possibility of winter die back below the graft union. It was also decide that all vines would be double trunked – giving the vine a 50% better chance of survivability due to the extremely cold conditions experienced in Northern Nevada. Extreme cold can often cause dieback to the ground or complete death of the vine.

In the spring of 1992 planting began on vineyard plot #1 a 900 vine vineyard located on Rick and Kathy's property in the Carson Valley, Nevada. The vineyard sits at an elevation of approximately 4,300 feet and averages 130 day growing season annually. Average precipitation ranges in the 8 – 11 inch range and soils tend to be a sandy loam composition with pHs in the 6.5 – 7.2 range

In 1992, Rick's parents Frank and Norma Halbardier moved to Pahrump, Nevada from Southern California. In 1993, Rick and Kathy decide to plant a warm climate *vitis vinifera* wine grape plot in Southern Nevada on Rick's parents property.

Due to a much warmer climate in Southern Nevada, we were back to the drawing board with Jim Ashby from DRI. Jim built a comparative climatic model spanning 30 years comparing the Pahrump Valley with Amador and El Dorado Counties in Northern California. It was determined that the climate in Pahrump would be conducive to growing both Chenin Blanc and Zinfandel.

In the spring of 1993 planting began on vineyard plot #2, a 700-vine vineyard on Frank and Norma Halbardier's property in Pahrump, Nevada. The vineyard sits at an elevation of approximately 2,800 feet and averages a 200 plus day growing season annually.

Average precipitation ranges in the 3 – 5 inch range and soils tend to be a sandy clay composition (hardpan tends to be common at 2 – 3 feet) with pHs in the 7.1 – 8.3 range.

In the fall of 1993, due to some publicity associated with Churchill Vineyards name change to Tahoe Ridge Vineyards and Winery, Rick and Kathy were approached by Gary and Dorothy Peterson from the Carson Valley. The Petersons volunteered to put up an acre of their land to plant a vineyard. We decided to continue research with the 6 varieties planted in plot #1 with one exception - Merlot was added to the mix as a seventh variety.

In the spring of 1994, planting began on vineyard plot #3, a 800-vine vineyard on Gary and Dorothy Petersons property in Gardnerville, Nevada. The vineyard sits at an elevation of approximately 4,400 feet and averages a 130 day growing season annually. Average precipitation ranges in the 8 – 11 inch range and soils tend to be a sandy loam composition with pHs in the 6.5 – 7.2 range.

In the fall of 1994, Tahoe Ridge was approached by Dr. Wayne Johnson from UNR. Dr. Johnson had come across a hatch grant proposal and wanted to submit for funding to further the development of wine grape research in Nevada. With this proposal, Dr. Grant Cramer, a Plant Physiologist, from the Department of Biochemistry, at UNR joined the project team as a new addition. Dr. Cramer brought to the project a background in both plant growth and stress research.

By the winter of 1994, a five-year proposal was submitted to the granting authority in the amount of $100,000 - the grant was accepted by January of 1995. Planning was initiated to develop a joint venture *vitis vinifera* wine grape plot between Tahoe Ridge Vineyards and Winery, Inc. and the University of Nevada, Reno. The plot would be located at the Valley Road Field Research Station in Reno, Nevada.

The concept of the joint venture was that Tahoe Ridge would design and develop the plot, UNR would manage the plot, and Tahoe Ridge would make all the wine from the grapes grown on the plot. The wine would be used for chemical analysis, sensory analysis, and promotional uses i.e. escalating the visibility of winegrowing/winemaking in the State of Nevada.

The primary change to plot #4 would be the addition of several new varieties – with a partial focus towards sparkling wine varieties:

Muscat
Semillon
Pinot Gris
Pinot Blanc
Pinot Menuire
Limberger

In the spring of 1995, planting began on vineyard plot #4, a 1,100-vine vineyard at the UNR Valley Road Field Research Station property located in Reno, Nevada. The vineyard sits at an elevation of approximately 4,100 feet and averages 140 day growing season annually. Average precipitation ranges in the 8 – 11 inch range and soils tend to be a sandy loam composition with pHs in the 6.8 – 7.3 range.

By the fall of 1995, Tahoe Ridge had 3,500 vines in the ground in four plots located around the state. Vineyard development needed to start tapering off and the focus needed to move towards the harvest of grapes off of plot #1 starting in the fall of 1996.

Although some thought was given to establishing one additional plot at the UNR – Newlands Field Research Station in Churchill County – Fallon, Nevada. The site was eventually dismissed due to poor water sources, i.e. canals with no surface reservoir or well water rights and high alkaline soils within the Fallon basin.

By the fall of 1996 Tahoe Ridge harvested the first grapes from plot #1 and made them into wine. Tahoe Ridge produced a Riesling, Gewürztraminer, and Muller Thurgau. Brix, pH, and TA acid ratios were in an acceptable range for quality wine making. Both 1997 and 1998 brought additional harvests off of plot #s 1, 2, and 3.

In the summer of 1999 plot #1 was removed from Rick and Kathy's property in Minden, Nevada due to duplication of varieties at plots #3 & 4.

In the fall of 1999, Tahoe Ridge and UNR shared in the first harvest off of plot #4. Harvested varieties included Riesling, Gewürztraminer, Pinot Chardonnay, Pinot Gris, Pinot Blanc, Pinot Menuire, and Limberger.

In the winter of 1999, UNR and Tahoe Ridge were approached by Charlie Frey, a farmer located in Fallon, Nevada. Charlie wanted to enter into a joint venture between UNR, Tahoe Ridge, and himself to develop a test plot, on his land in Fallon, Nevada, to experiment with varieties tailored to the Fallon climate/soils.

The basis of the joint venture would involve Tahoe Ridge assisting in the vineyard design and winemaking portion, UNR would assist in all research aspects, and Charlie would handle all development and management of the plot. By establishing a plot in Fallon further research could be conducted with trellising design, evaporative cooling, root stock selection, salt stress, etc. *(further review will have to be made of the physical plot in Fallon prior to actual development i.e. ground water availability, water pH, soil drainage, soil pH and EC levels, etc.)*

Grant proposals were submitted to two granting institutions for funding. Funding has not been approved as of this writing. More than likely development will take place in the spring of 2001 if funds are allocated.

The spring of 2000 will also bring further refinement to the UNR plot #4 on the recommendation of Dr. Robert Wampel from Washington State University and Dr. Grant

Cramer from the University of Nevada, Reno. Muscat will be pulled from the plot and replaced with Syrah/Shiraz.

The year 2003/2004 will bring the establishment of Tahoe Ridge Vineyards and Winery as a licensed bonded winemaking facility located in the Carson Valley. Currently plans are in the works to locate a parcel of land and start the development of a winemaking facility to be operational by the fall harvest.

2003/2004 will bring the development of two additional test plots to be located within the Carson Valley, Nevada. Additional varieties will be planted, along with the experimentation of new trellising structures, evaporative cooling techniques, dry water, rootstocks, etc.

Tahoe Ridge has worked diligently throughout the years to rework the State laws to allow for the establishment of wineries and microbreweries. In the 2003 and 2005 legislative session, Tahoe Ridge will tackle both e-commerce and three tier distribution issues within the State of Nevada legislative structure.

I hope the above History of Winegrowing in the State of Nevada brings you up-to-date. Should you have any further questions please call or email:

Home/winery	(775) 267-3664
Cell	(775) 240-0192
Fax	(775) 267-4722
Email	info@tahoeridge.com
Web	www.tahoeridge.com

All the best,
Rick & Kathy Halbardier
Winegrowers