



ASEV 2008 Merit Award

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From Farm Boy to Winegrower: A Perspective of the Past Forty Years and the Challenges of the Future



I want to thank the ASEV for awarding me this year's Merit Award. I am extremely honored and frankly a bit overwhelmed. I accept this award for myself and all those individuals who have taught, counseled, befriended, and helped me grow into a winegrower; without you I would not be here today!

I am going to tell you my story so that it will be clear that without the help of the dozens of people I'll mention, many of whom are past Merit

Award winners, I could never have become a winegrower and I wouldn't be standing here. Thinking back I realize what a lucky man I am.

When I was 13 my mother and father bought my grandfather's 20 acre Thompson Seedless raisin vineyard in Easton, California (southwest of Fresno). My extended family were all honest, hardworking, and family oriented; what a great atmosphere in which to grow up. It was my family's values that have become my values for life.

In 1959 I went to Fresno State and studied viticulture. Admittedly this was a time when fast cars, girls, parties, and the money I made working in a grocery store were more important to me than school. However, Professor Vince Petrucci took me and others into the viticulture family and he not only taught but also counseled and befriended us. Vince and Jo Petrucci helped me get to this point in life and we remain lifelong friends. My education at Fresno State served me well for my profession. My classmates Charlie Williams, Nick Troiani, Phil Bava, Tom Valdero, and Ken Weber remained friends and peers for life.

Upon graduation I worked in the table grape harvests of Coachella Valley, Arvin, and Porterville. I was sup-

posed to return full time to Coachella to work for Richard Bagdasarian but found out about a job at Schenley Industries in Delano. I interviewed and got the job. Wow; from 20 acres to 5,000!

My first day on the job was interesting. First, I found out that my boss did not like me since I was hired by his boss and then learned that the farm was involved in a strike with Caesar Chavez's United Farm Workers Union. The Schenley Vineyards were in Kern and Tulare counties and I quickly learned that there were a lot of problems that became my responsibility. I relied on the local farm advisors Curt Lynn, Don Luvisi, and Fred Jensen who spent lots of time helping me and I could not have done my job without them. Fred was the 2001 Merit Award winner and from my experience with him his award was well deserved.

On the winery side, Chet Steinhauer, Elie Skofis (Merit Award 1985), and Myron Nightingale (Merit Award 1986) all helped me with valuable lessons in improving grape quality for brandy and wine production. I consider myself very lucky to have worked and trained under their tutelage.

During this two-year period we fought the union, but with Caesar Chavez's guidance the strike was helped by a nationwide boycott of table grapes and Schenley products. Robert Kennedy, the Kennedy family, and the Catholic Church all sided with the strikers. Schenley was concerned about the damage done by the boycott and Robert Kennedy was putting on the pressure. Schenley signed a contract and the strike was over. I realized that the farm workers at that time were mistreated and I learned to respect Caesar Chavez.

The best day in my life was when I met Verna Grimm. She and I had dated in high school but had later gone our separate ways. We started dating again and married almost 40 years ago—July 6, 1968. We have two wonderful adult children, Erik and Annie, and have led a great family life. The three of them have made my life very special. They have supported, encouraged, counseled, and loved me. Without them it would have been a much different life.

In 1967 I decided to go back to school for a master's degree. The Fresno State master's program was just starting and the curriculum gave me just what I wanted: a series of classes that would help in production agriculture.

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While working on my master's degree I went back to work in a grocery store and Verna taught third grade in Clovis. The grocery store had me work in the wine department, where the biggest selling wines at the time were Paul Masson, Almaden, Lancers, and Mateus. Women liked Lancers because after the wine was gone the bottle became a flower vase for daisies.

In 1969 I completed my master's thesis on internal browning of Thompson Seedless table grapes (this really served me well in my future wine industry work). I was offered a job as vineyard superintendent at Schenley in Delano, which I accepted. Verna took a job teaching in Delano and we were very happy.

Roy Harris was my boss and we instituted many changes that included better people management and farming practices. I was involved in the United Farm Worker contract renewal negotiation in 1969. The company made strides at that time in improving all the farming practices. It was a challenging but rewarding time.

In 1970 I was selected for the first class of the California Agriculture Leadership Program, a program that changed my perspective on farming and my life. We learned about politics, communications, economics, and culture. Our class of 30 traveled around the United States, Mexico, and Europe. It was the first time I had traveled outside California. I learned a great deal from my classmates who represented all segments of California Agriculture. I was extremely lucky to participate in the program. Verna and I made new life-long friends and our understanding of the world grew in many ways.

Schenley sold the wine business to Guild Wine Company in early 1971. The vineyards were sold to Buttes Gas and Oil. Buttes asked me to stay on as manager of the vineyard but I was also approached by my Schenley boss, Roy Harris, about a job managing vineyards in the Napa Valley, working for a young man, Andy Beckstoffer, who started a Heublein farming company for Beau-lieu and Inglenook. I debated about moving to the Napa Valley, but it was Verna who had the foresight to make the move. She also insisted that we find a home in St. Helena. So in March 1971 we moved to Napa and in November 1971 bought our home in St. Helena. It is apparent that Verna is the smart one in our family. We live in the same home, raised our two children there, and love the small town, our town, St. Helena.

I reported directly to Roy Harris in the Napa Valley but Andy Beckstoffer had me also report to Andre Tchelistcheff (Merit Award 1970) for viticulture. Once Andre found out that I was hard working and willing to listen and learn he did what he had done for many other individuals: he befriended me and taught me. Farming in the Napa Valley was very different from my short experience at Schenley. Andre taught me about the importance of site, soils, and climate on the ultimate quality of the wine. One of the things I will always remember is at harvest time I would go to the winery late in the evening for the next day's harvest instructions. Andre would be in the winery pumping over a tank, so I would grab a hose and

ask which tank he wanted me to pump over. Andre would not only give the next day's instructions but lessons of his experience. It was a magical time for me.

In the 1970s the Napa wine industry was a fairly small community. There were 36 wineries and about 14,500 acres of vineyard. Robert Mondavi Winery was the most recent new winery. The people in the industry worked together closely and were willing to help educate me. I spent many hours with farm advisors Jim Lider and Keith Bower. People like Charlie Williams, Rollin Wilkinson, Frank Woods, Louie Martini (Merit Award 1981) taught me about farming varietal winegrapes for quality wines. I fell in love with the Napa Valley, the life style, the vineyards, and the people.

All during the 1970s in the Napa Valley, Andy Beckstoffer helped me develop by teaching that it took a lot more than being a good farmer to be successful: it was a business. We also developed a special bond that exists today.

Justin Meyer (Merit Award 1999) was an influence on my life in so many ways. He also had a huge influence on the industry through making great Cabernet, at Silver Oak, and through his leadership. In the late 1980s Justin and I played handball a couple of times a week and I found out how tenacious he was on and off the court. He talked a lot about the need for industry research in viticulture and enology. It was his idea to reinvigorate the American Vineyard Foundation (AVF) and I believe that Justin, with a little help from his friends, rebuilt the AVF to what it is today. He did it with dedication, determination, tenacity, and personal standing in the industry. He and Bonny influenced me personally in many ways and their gift of friendship was a major reason why I consider myself a lucky guy.

During these early years of my career in Napa and through today the professors at UC Davis helped me and the industry. I will always remember working with Harold Olmo (Merit Award 1973), Curt Alley, Mark Kliewer (Merit Award 2003), Amand Kasimatis (Merit Award 1993), Austin Goheen, and also Sandy Purcell, at UC Berkeley. They were always ready to answer questions, teach, and help solve vineyard issues. My understanding of coastal farming practices grew from gaining experience and knowledge from all of these people. What a tribute this Merit Award is to these individuals who were so willing to help me develop into a winegrower.

Following a beautiful 1978 vintage, I was approached in November to see if I would interview for the Beringer Vineyard Manager position. Looking back it was fortunate for me that I had a bad day because I said yes. I met with Dick Maher, but I still wasn't sure if I wanted to leave Andy's company. Dick and I had discussions over the next three months; I believe that maybe Dick took my indecision as a personal challenge to his sales capabilities because he kept the discussions going and I finally did take the job.

So, March 1, 1979, Verna and I were off on a new adventure. Beringer, what a fantastic 25 years for me. What a great ride!

I could write a book about my experiences over the 25 years at Beringer. We always had great leadership that gave us clear goals as to where they wanted the business to go. Dick Maher, Mike Moore, Walt Klenz, Jim Watkins, and Dan Leese led the company to achieve success. We, as a team, grew Beringer from a relatively small Napa Valley winery into a large California wine company. We grew the Beringer brand, bought the Meridian brand and built the Meridian winery in Paso Robles. We also bought Chateau St. Jean and Chateau Souverain in Sonoma along with St. Clement, Stags Leap Winery, and Etude in the Napa Valley. We grew to almost 10 million cases over the 25 years. Our goal was to have the best quality and value in every segment of the wine market.

The vineyards grew from 2,000 acres to 10,400 acres. The vineyards are located in Napa, Sonoma, Lake, San Luis Obispo, and Santa Barbara counties. Initially we sold grapes but by the year 2004 we had almost 400 growers growing grapes in 10 different counties. I don't believe this growth would have been manageable without a team of good and dedicated people and great leadership.

I believe one of the hallmarks of Beringer was our attitude toward each other and all employees. We made mistakes. I made many, but we fixed our mistakes and moved forward in a positive way. Were there bad times/hard times? You bet, but our strength of working together and long-term vision carried us through, and I have to say that Verna always helped me through good and bad. I can't imagine having done it without her.

I realized that it was not enough to be a good farmer. There were just too many outside influences that affected the business. To be successful as a company and as a farmer you must be involved in outside influences. The management of Beringer understood this very well and we were all involved and encouraged to make a difference. I worked over the years on many industry issues and hopefully can say that I contributed to the industry as well as Beringer. I was able to work with, learn from, and observe some very capable industry leaders, namely John DeLuca and Bobby Koch, Wine Institute; Linda Reiff, Napa Valley Vintners; Karen Ross, California Association of Winegrape Growers; Justin Meyer and Hal Huffsmith, American Vineyard Foundation; and of course Lyndie Boulton, American Society for Enology and Viticulture.

I was absolutely amazed at how the industry supported these organizations and helped guide them in improving all segments of our industry. There are just too many names to mention. But one I can't leave out is my friend and former boss at Beringer, Walt Klenz. He is a great example of an industry leader. At the Wine Institute, he served as an officer and as chairman and over his many years there he understood the complexity of the issues, did what was right for Beringer but also did what was right for the entire industry and for that was respected by his peers. He taught me a lot and I was always glad that when we had a roll call vote his name came before mine.

One of my strengths has been the ability to surround myself with people who are smart and who have diverse

talents. In the north coast we developed a vineyard management team that was the very best. Roberto Alonzo, Bruce Bardessono, Scott Bauer, Steve Bell, Enriqueta Dunck, Jim Frisinger, Jose Gallegos, John Garduno, Miguel Jimenez, Drew Johnson, Ryan Leininger, Don Munk, Carlos Ramirez, Jack Todeschini, Frank Villanueva, and all the field workers. You are the best and it has been my privilege to work with you.

The management at Beringer recognized by the early 1980s that we were soon going to outgrow the north coast. It was decided to increase our ability to purchase fruit. We hired George Buonaccorsi away from Allied Grape Growers and he built a fantastic team. I asked George that he follow three simple rules: Our word is our bond, a handshake means something, treat people with dignity and respect and don't ask a grower to do something we would not do in our own vineyards.

The other decision was to expand our vineyard holdings outside the north coast. Nestlé, the owner of Beringer, had hired a French professor of geology from the University of Bordeaux in 1973 to do a study on the vineyard potential of the coastal districts of California. Professor Enjalbert's report was read and remembered by me in the early eighties. He thought that the central coast, especially sites in Santa Barbara County, were some of California's best terroir. So Ed Sbragia, Beringer's winemaker, and I started snooping around and tasting the wines. We liked what we saw and Ed liked what he tasted. So, Beringer sent me on a quest to find existing vineyards to purchase. Our first purchase was made in 1988 and four other sites followed, amounting to some 6,000 acres.

We realized that these properties were large and unique viticulturally. We decided to hire two management companies for their local expertise and knowledge. We hired Hampton Farming and Pacific Vineyard Company, managed by Dale Hampton and Jim Eford, respectively. What a great decision we made as Dale and Jim and their staffs provided even more than we expected and became an integral part of our farming enterprises. I consider myself a very lucky man to work with Dale, Jim, and all their staff. The Santa Barbara area may be as difficult farming conditions as you can find in California, and we were successful because of these two farming companies.

The new generation of UC Davis professors and Cooperative Extension personnel helped me and is still helping us today. Beringer would not have been successful without the help of Linda Bisson, Roger Boulton, Pete Christensen (Merit Award 2004), Nick Dokoozlian, Susan Ebeler, Deborah Elliot Fisk, Doug Gubler, Amand Kasimatis (Merit Award 1993), Mike McKenry, Ann Noble (Merit Award 2006), Andy Walker, Larry Williams, Jim Wolpert, and others.

The farm advisors are so important to our industry. They have added valuable insights and knowledge through their research, looking at our problems and bringing us new and useful information. I am particularly thankful for the help given to me by Ed Weber, Rhonda Smith, Mark Bethany, and Larry Bettiga. Ed Weber is truly missed by

our industry. They were all more than willing to teach us and counsel us and their past and continued contribution should never go unnoticed.

When my colleague Tom Peterson and I were looking around the wine areas of South Africa, we noticed different problems in the vineyard from what we had in California. One night at dinner with 10 winegrape farmers, I asked what was their biggest vineyard problem? They replied in unison “the winemaker.” It is a universal problem!

I felt comfortable teasing the Beringer winemaking team because they knew how much I enjoyed working with them all those years. From the beginning in 1979, Ed Sbragia and I became soul mates. Ed is a great winemaker and my great friend. I would help Ed any time, any place.

Besides Ed, I was fortunate to work with a lot of fantastic winemakers. Especially special to me are Chuck Ortman, Laurie Hook, Tom Peterson, John Priest, and Natasha Boffman. I believe I have formed a very special bond with these people and I’m grateful and lucky to have worked with them.

A shock wave hit Beringer in 1996 when it was learned that Nestlé, after 25 years of ownership, was selling Beringer. The purchasers were Texas Pacific Group and Silverado Partners. The new ownership was fantastic to work for and Beringer became very dynamic and aggressive. We expanded our brands and brought three new wineries into the organization.

In 1999 Beringer went public. All the employees became small share holders and we became partners in success and failure. In 2000 the company was sold to Fosters for \$1.5 billion. Thanks to a decision of the board we all shared in financial rewards, along with the knowledge of achieving success.

I enjoyed working for Fosters prior to my retirement. I especially enjoyed working with the Fosters’ viticulturist, Vic Patrick, who gave me new ideas and an Australian perspective. Traveling to Australia was great and broadened my viticulture farming experience.

All in all, there is not much I would hope for at Beringer for my life and career that did not happen.

I retired from Beringer (Fosters) at the end of 2004. I very much wanted to stay involved but at a much slower pace. Dale Hampton and I formed Wineland Consulting, LLC. This seemed strange because previously I always said “consultants: always certain, sometimes right.” While I miss the day to day excitement of farming, consulting has been very exciting. I have met new great people and have been exposed to new winemaking and farming ideas. Many days I felt I have learned more than I taught. I am happy with my involvement.

CHANGES

I’d like to address about some of the changes we’ve seen in our industry in the past 40 years, changes so numerous and expansive that they are hard to imagine! I will speak briefly about some of the viticulture changes

and will relate these changes primarily to the Napa Valley and the coastal districts.

People

First, let me talk about the people. Over the years I have seen a huge transition in the knowledge of the vineyard managers, viticulturists, and winemakers. Davis, Fresno, Cal Poly San Luis Obispo, and the community colleges should all be proud of their students. Wine growing has become very sophisticated and the quality of our wines and the management of our wineries, vineyards, and employees are testament to all your abilities.

The treatment and respect toward the farm workers has improved in many positive ways. Looking at the Napa Valley I am proud that most all employers provide fair wages, health benefits, and pension plans. Many growers provide health and pension plans through membership in the California Grower Foundation. With funds from the industry, county, and state we have three beautiful housing facilities for farm-working men in Napa County. The industry funds the operations of these housing units by an up to \$10 per acre, per year assessment. At Beringer and many other farms there is great emphasis on safety and open communications with town hall meetings.

One of the best days in my career was when I was able to tell the permanent vineyard farm workers that Beringer was sold to Fosters. We also explained to them that they would all keep their jobs and they would also receive a check for approximately \$9,800 for their Beringer stock options. I think that proved Beringer’s commitment to its employees. These employees had supported Beringer; many for more than 25 years, and without their efforts success would have been much more difficult.

As a wine community, especially in the Napa Valley and other coastal districts, we began in the early 1970s to understand and realize we could make world-class wines; wines that were indicative of our specific sites and abilities. We developed an attitude!

I will always remember Joe Heitz coming up to me at a technical meeting where our Napa wines were being criticized by two young fantastic winemakers, who had compared them to French Bordeaux, and he said, “You know, Bob, if we really want to make great wines of the Napa Valley we need to make them in a style that demonstrates the attributes of our sites. We cannot make French wines unless we go to France!” I believe that this lesson was adopted by many winemakers and we grew up to be “adults” with our own wine styles.

While I never really got to know Robert Mondavi (Merit Award 1990), he inspired me on many occasions. He was a true believer and visionary who inspired many of us to believe in ourselves and our wine potential. When Robert Mondavi Winery started producing Fumé Blanc they essentially began a California demand for Sauvignon Blanc wines which continues to grow today.

In 1971 the Napa Valley was a quiet farm community. Over the years many individuals have come to the

valley and established themselves in the wine industry. They came from all different backgrounds and are very eclectic. These individuals have brought new ideas, new vision, and new money. In my view they have changed our industry in many positive ways and certainly added to the fun of being a winegrower.

Growth and Varietal Shifts

Let's talk about growth and the shift in varieties. In 1969 winegrape acreage and tons produced was reported by the Federal-State Market News Service. California reported 147,400 winegrape acres producing 775,000 tons, some 5.26 average tons per acre; major tonnage of raisin varieties and table varieties were also crushed. It is interesting to note the industry had grown since 1955 by approximately 175,000 tons. Grapes were for wine, brandy, vermouth, and concentrate. There were 2,457 acres of Chardonnay, 1,130 acres of Sauvignon Blanc, 8,574 acres of French Colombard, 7,079 acres of Palomino, 5,098 acres of Cabernet Sauvignon, 21,704 acres of Zinfandel, 26,963 acres of Carignane, 6,991 acres of Grenache, and 2,715 acres of Pinot Noir. Merlot was not reported. The highest average cash price paid by ton was Cabernet Sauvignon at \$342.50; and Chardonnay at \$328.80. I would bet that the Napa Valley was leading the way even then. The wines being made were primarily Chablis, Burgundy, Sauterne, Sherry, and Port. Some of us can remember the ASEV sherry hour at the annual meeting.

Today the California state winegrape acreage has grown to a reported total of approximately 500,000 acres. The leading variety by acreage is Chardonnay at 95,095 acres and Cabernet Sauvignon is at 75,622 acres. Merlot is the third most planted variety at 49,781 acres. In the May/June edition of *Practical Winery & Vineyard*, George Schofield reported California acreage of these three varieties will not keep up with future consumer demand.

The Silicon Valley Bank 2008–2009 State of the Wine Industry report, May 2008, states that “nonbearing acreage in the coastal regions of California reached an all-time low last year of 2.8%. Demand for fine wine is running between 15–20% currently, it is likely that domestic production for wine will not meet domestic demand for at least the next several years.”

We all know the consumer demand for Pinot Noir. How can a movie influence our business so dramatically?

It should be noted that California wine shipments (minus coolers and bulk wine) have grown since the 1991 “60 Minutes” French Paradox broadcast from approximately 112 million to 187 million nine-liter cases. The fastest growth occurred between 1991 and 2000. At the same time the percentage of imports sold into the United States grew from about 16% to better than 30%. California exports have grown to nearly \$1 billion in total sales.

In Napa Valley in 1971 there were over 50 grape varieties being farmed on 14,852 acres. Cabernet Sauvignon acreage was 3,902 and Merlot was 280 acres. Chardonnay and Sauvignon Blanc were 1,134 and 448 acres, respec-

tively. By 2007 Napa's vineyards had grown in excess of 45,000 acres. While there are some 36 varieties reported, plus mixed red and white, there are only eight varieties with acreage in excess of 1,000 acres. Today Cabernet Sauvignon is king. At 19,036 acres it represents 42% of the Napa acreage. The Napa AVA is approximately 70% red varieties.

In my tenure in Napa we have gone through two major variety market driven changes. The first was red to white and the second was white to red. We have gone through two cycles of Merlot demand. Through all this we have learned where to plant a given variety for the highest quality and established Napa Valley as one of the pin-nacles of wine quality.

The Napa Valley AVA has grown from the valley floor back into the hills. This has been driven by demand and a general perception that hillside sites produce very high-quality wines. Going to the mountains reminds me of a quote credited to Georges de Latour, founder of Beaulieu. “There are three ways to lose money: fast women, slow horses and hillside vineyards.” I am amazed at where we are planting vines now and what it costs. The value of Napa vineyards continue to rise at a dramatic rate. I believe that at some point we will not be able to expand due to environmental restrictions given the lack of suitable soils and water. However, what I do know is that in 1999 I publicly said Napa would never exceed 40,000 acres. We are now at 45,158!

Mechanization

Mechanization is another way our industry has changed and many advances in mechanical harvesting have been made. In 1966 we tried to harvest some blocks in Delano by machine, but it was disastrous because we had not trellised or trained the vineyard for mechanical harvesting. As time went on we changed the trellis systems, improved the machine harvester, and mechanical harvesting became the predominant method of harvest in California.

At Beringer we did observational trials, particularly on Chardonnay and Cabernet Sauvignon. We made wine to compare hand versus machine picked fruit and there were differences in the wines but no clear preference. But we also knew that if we were to harvest the fruit at the right maturity levels we would not be able to hire enough employees and also we were trying to reduce our migrant farm worker requirements. We recognized the advantage of a 20-hour harvest day with two shifts for processing abilities at the winery. The cool fruit from the night and early morning harvest was definitely advantageous, especially on hot days.

In 1986, we decided to do a comprehensive mechanical harvesting trial on Chardonnay. The work was done under the direction of Carter Clary, Viticulture and Enology Research Center, California State University, Fresno (AJEV 41(2)1990:176-181). The wine quality was statistically evaluated along with duo-trio difference taste test employed. The wines were tasted by the North Coast Viticulture Research Group. The group was unable to

statistically differentiate between hand and machine treatments. Preference tests resulted in no statistical favorite. The Beringer winemaking staff repeated the preference test 18 months after the vintage and was unable to statistically pick a favorite based on wine quality.

One of the concerns emanating from this trial, however, was that a calculated juice loss of over 5% was attributed to the machines. Since the time of this trial new machines have been developed that provide much better picking mechanisms and juice recovery systems. Properly operated machines on some varieties have reduced the juice loss to acceptable levels.

We also concluded that a second crop needs to be removed by hand prior to machine harvesting. Today the advances in mechanical harvester technology along with a better understanding of proper operating procedure have improved machine picking dramatically.

The 1994 Beringer Private Reserve Chardonnay was selected by *Wine Spectator* as the number one wine in the world. An undisclosed portion of this wine was mechanically harvested. Of course Ed Sbragia made the wine, which probably had something to do with it.

For certain product lines and selected varieties we also began experimenting with mechanical hedging. In our test of the wine it was very hard to distinguish between hedging and traditional hand pruning. In fact, for central coast Gewürztraminer we preferred the hedging system because it yielded smaller, looser clusters thereby reducing botrytis and making better quality wine.

Other mechanical technology that has been developed includes mechanical prepruners and mechanical leaf removal. When operated correctly this equipment performs well and significantly reduces hand labor requirements.

Technology

Over the years the improvement of all forms of technology has had a tremendous effect on improving our cultural practices. Devices such as remote weather stations, aerial photography that has been advanced with the use of NDVIs, and soil and plant water status devices have all played a major role in our farming abilities. The use of computers and cell phones has become essential for our farming capabilities and effectiveness. I must say that while these tools are extremely useful, we still need to make management decisions in the vineyard, looking at the vines.

Drip Irrigation

The advent of drip irrigation is one of the biggest advances in my 40 plus years of farming. The first drip system that I worked with was installed in Carneros in 1972. Today almost all irrigated vineyards have drip irrigation. Over the years we have determined how much to irrigate, broken down to subblocks based on soil type. We followed the work of Dr. Larry Williams and Dr. Mark Matthews of UC Davis. These and other research results enabled us to fine-tune irrigation strategies.

Today, in the Napa Valley a few vineyards have installed three types of water systems: sprinklers for frost protection, drip for irrigation, and misters for cooling.

Frost Protection

The advances in frost protection equipment developed rapidly. Overhead sprinkler systems and wind machines are used in almost all vineyards in the coastal districts on the valley floor. This equipment has saved many crops.

Clean Propagation Materials

When I started farming in 1971 in the Napa Valley, leafroll virus was rampant in many plantings. Fanleaf degeneration was also a major issue. We all recognized the impact on yields and quality of these two diseases. With new development and redevelopment we searched for disease-free rootstock and scions for propagation. By being very very selective and with the help of Dr. Austin Goheen and other viticulturists, we began planting leafroll clean vines.

At Beringer in 1979, we decided to plant Cabernet Sauvignon on the Beringer winery property. We wanted the vineyard to yield “reserve” quality wine. With the help of Dr. Goheen we found a vineyard that displayed only a few vines with symptoms. We asked the new owner of what we referred to as the See Ranch if we could take cuttings. Jim Frisinger selected every cutting. The vines are leafroll free and do make fantastic wines.

Over the years Beringer experienced other disease issues such as corky bark on Sauvignon Blanc grafted to Freedom. The corky bark was barely recognizable in the source vineyard which was planted to AXR #1 but it killed the Freedom grafted vines.

Early on the recommended treatment for fanleaf was 10 years of fallow before replanting because of the potential spread by a nematode. In my travels in the Napa and Sonoma areas I see an alarming amount of fanleaf. Thanks to 039-16 rootstock this serious problem can be remedied.

Another concern is “suitcase” selections. What do these selections, which are illegally brought into the United States and California, bring us? The risk of a new disease or insect is why we put plant material through quarantine. A good example is vine mealybug. It is now believed that this insect was brought illegally to California’s Coachella Valley on table grape cuttings from Israel. What is this costing our industry?

Phylloxera

I will never forget the meeting in 1985 where we were told that a vineyard in Napa Valley, planted to AXR #1 rootstock, was failing to phylloxera. We at Beringer and the industry were undertaking redevelopment of our north coast properties along with major expansion efforts. I cannot repeat what I said to myself that day! For some time I was in denial, but by 1989 it was clear that AXR #1 was failing.

I had been warned by Lucie Morton and knew AXR #1 had failed in Europe. I believed that since we did not have the winged form of the life cycle we were safe. What a fool I was and blame no one but myself. The industry knew very little about the adaptability and viticulture characteristics of most of the rootstocks in commercial use in Europe. We all got on a fast learning schedule and by 1989 had shifted to a broad selection of rootstocks. From the “ashes” of phylloxera came a completely new and successful industry. We should all be proud of our commitment to turning failure to success! However, there are times when I still wish for the ease of AXR #1.

Cultural Practices

Over the past 37 years of farming coastal vineyards the farming cultural practices have been revolutionary. Farmers and winemakers continued to learn, develop, and employ the new technology at a phenomenal pace. Of course, when we were forced to redevelop our properties because of the failure of AXR #1, we had a much better understanding and education based on our growing history of failure and successes.

I believe that four major developments have created a new set of cultural practices: (1) Drip irrigation and fine tuning of our irrigation practices. (2) The realization that filtered sunlight on the grapes and grape clusters has changed, in mostly positive ways, the flavors of our wines. (3) The knowledge that we need to use virus-free propagation materials and evaluate scion clones as well as match rootstock to soil and site. (4) The understanding that we need to be sustainable and protect our environment.

Variety, clone, and rootstock selections have all become extremely important for the development of our sites. One example of a big wine-quality improvement has come with the European clones of Pinot Noir.

Trellis type, vine spacing, row direction, and canopy management has evolved. The reduction of chemicals for insect and disease control has transitioned to integrated pest management, organic farming, and biodynamic farming methods.

The California wine industry has made a knowledgeable and meaningful transition to becoming sustainable and protecting our environment. *The Code of Sustainable Winegrowing Workbook* provides a self-assessment tool so that growers and wineries can review hundreds of their procedures. This undertaking demonstrates the California wine industry’s leadership on this important issue. The Lodi Winegrape Commission and the Central Coast Vineyard Team have developed a sustainable certification program. The industry, with major leadership coming from the Wine Institute and the California Association of Winegrape Growers, is developing a statewide program for winery and vineyard certification.

In Napa and Sonoma, a program to certify that vineyards are farmed in an environmentally friendly manner is well underway. The certification programs of Napa

Green and Fish Friendly Farming are overseen by county agencies, California Department of Fish and Game, National Marine Fisheries, and Resources Conservation and Development agencies. I am proud to say that many farms, including all the Beringer vineyards, are certified or going through the process.

I believe these advances combined with our historical learning has allowed all of the California wine industry to become much more efficient and improve yields and quality. These advances have allowed California to stay competitive in the expanding world wine business.

CHALLENGES

The wine business is generally very good with strong growth and especially good consumer recognition of California wine quality. But as an industry we also face many challenges, and if we are to remain strong with good business practices, price competitive wines, and quality wines at all price points, we must face these challenges head on. My perspective of the challenges facing us as farmer and viticulturist are extensive and at times daunting.

- (1) Invasive pests:
 - Glassy-winged sharpshooter
 - Light brown apple moth: The \$17.3 billion California state budget deficit may jeopardize the state’s cost sharing to eradicate this pest.
 - Vine mealybug: This pest is now established in 17 California counties.
 - New pests that hopefully can be stopped at our borders by a rapid response.
- (2) Insects and diseases:
 - Fanleaf degeneration: 039-16 rootstock has allowed for new planting, but a new generation of rootstocks is needed.
 - Nematodes: New rootstocks need evaluation and continue to improve rootstock resistance to nematodes.
 - Eutypa (*Eutypa lata*) and Bot canker (*Botryosphaeria*): The work of Dr. Gubler and others has proven helpful but must continue.
 - Pierce’s disease
 - Syrah disorder
 - Leafroll virus. Unfortunately, the industry is undergoing another rapid spread of leafroll transmitted by mealybug and scale insects. The epicenter appears to be in the Napa Valley between Yountville and St. Helena.
- (3) Climate change:
 - We need to work toward adaptability for potential long-term changes for our vineyards and wineries because of climatic changes. These changes include potential increases in temperatures along with the severity of other climatic events such as rainfall and drought. We need, in California, to face the issue of reduced water supply for agriculture due to increased demand, less snow in the Sierras, and less rainfall.

(4) Water:

- The continued demands for this limited resource for sustaining fish and wildlife and for a growing California population. An example of legislative efforts is AB 2121, The Instream Flow Policy for Northern California, along with a number of initiatives under review by the California Regional Water Quality Control Board to protect and enhance the environment.
- Salt in well waters, especially in the central coast and parts of the San Joaquin Valley. Dr. Jean-Jacques Lambert, UC Davis, has established a threshold level of electrical conductivity (EC) of 1.5 dS/m (decisiemens) above which own-rooted grapevine yield decreases by nearly 10% per 1.0 dS/m increase in EC above the threshold level.

(5) Wine quality:

- Continually improve cultural practices to remain competitive.
- Look at mechanical ways to improve efficiencies and wine quality at the same time.
- Study ways to produce phenolic and tannin levels at lower sugars. Produce lower alcohol wines for high quality.

(6) Mechanization:

- Work toward the improvement of trellis, training, and equipment for two basic reasons: to reduce costs to stay competitive and to offset the long-term labor shortage issue.

Right now in the Napa Valley I am very concerned about the rapid spread of leafroll virus. However, we cannot ignore any of these issues.

So what are the solutions? The task is daunting, but by working together and incorporating worldwide resources I believe we will prevail. We must become involved in our industry trade groups and these groups also need to come together as they have in the past to address specific issues. There are many examples of how working together has benefited the entire industry, including the Unified Wine & Grape Symposium and the Sustainable Winegrowing Program. A particularly good example of how we have worked together to solve a problem is the CDFR-PD/GWSS Board and PD Advisory Task Force. Because the growers were willing to assess themselves, beginning in 2000, this group has accomplished the following:

- \$16 million in research funded by the assessment, including 14 projects in 2008.
- Seven research symposia in which researchers gathered with stakeholders to share information.

- Five separate infestations have been eradicated from Imperial County and an additional five infestations have been eradicated in northern California. Some of these infestations were in or near grapes.
- Development of biological control programs, including the rearing and releasing of millions of parasitic wasps.
- There are no new infestations in central coast and north coast vineyards.
- Because of grower commitment millions of dollars have come from the state and federal governments to facilitate the containment and eradication program plus major government research.

I believe that because of the industry assessment we will adequately fund the research for a solution to containing Glassy-winged sharpshooter and Pierce's disease.

Many of these problems have been and are being addressed by public and private sectors funding sources. Since 1978 The American Vineyard Foundation has raised over \$20 million for research in viticulture and enology. Working together with the USDA's Viticulture Consortium (federal), the Competitive Grants Program for Research in Viticulture and Enology (state), the California Table Grape Commission, the California Raisin Marketing Board, and the California Rootstock Improvement Commission, research grants totaling over \$2 million were awarded in 2008. The grants are considered and funded based on scientific merit, priority need to the industry, and the likelihood of achieving success.

I don't think we have been sitting on our hands! But we do need to find a way to raise more research dollars if we wish to remain and keep our industry a worldwide leader. My view and my challenge to all of us is to come together and recognize the need to get involved in directing and funding grape and wine research, we need to create consensus that will increase funding for research, extension and education. Will Rogers said, "Even if you are on the right track, if you're sitting you get run over."

Simply put, we need to put more money into research. I am not sure how to accomplish this effort but firmly believe it is critical to the health of our industry. I know that this issue is being investigated right now by CAWG and members of the NGWI, but I challenge the ASEV and all of us to find a solution that will serve our wine industry. I will pledge to you today that I will help to find a solution. Thank you again for this fantastic award.