

SWEET SUCCESS

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Rose Hill, located in Duplin County, North Carolina, would be an unremarkable small town in the rural south if it wasn't the home of Duplin Winery. For almost forty years, the Fussell family has taken the sweet muscadine grapes that thrive in hot and humid eastern North Carolina and turned them into wine that is sweet in both taste and affordability. The story of three generations of Fussells creating, managing, and sustaining a family business is of interest not only as a success story, but also as an opportunity to evaluate opportunities for determining where the family business may go in the future.

From its inception, any organization must face the continuous and demanding challenges of at least two critical factors; managing and sustaining the enterprise. This case offers undergraduate and graduate students a setting in which to apply decision-making and analytical tools, identifying and determining courses of actions that lead to more efficient and effective use human and nonhuman resources.

HISTORY OF DUPLIN WINERY

In 1972, brothers David and Dan Fussell decided to plant 10 acres of muscadine grapes. David was a school teacher and Dan was a carpenter. They had grown up on a farm owned by their father, "D.J." or "Big D" Fussell and their original plan was to grow and sell the grapes to a New York winery for \$350. When the market for muscadine grapes fell to less than half of what they expected, they asked "Big D" for advice. Ready to help as well as advise, he loaned the brothers \$70,000 and a vacant warehouse so they could use the grapes to make wine. The brothers were not knowledgeable about the chemistry of wine-making plus they were located in a community that viewed their winery as "a factory of liquid sin." While their mother, Elizabeth, didn't really approve of her sons' new business of making wine, she supported them by telling naysayers that, "Well, we're not making it on Sunday." The business is still closed on Sundays.

In the 19th century, North Carolina was one of the leading producers of wine in the United States, but in 1919, the 18th Amendment to the U.S. Constitution devastated the winemaking

industry by banning the “manufacture, sale and transportation of alcohol.” (<http://liquorlaws.net/prohibition.html>) Although this Amendment was repealed in 1933, the North Carolina winemaking industry has never recovered its position of national prominence. The Fussell brothers wanted to be part of that recovery. They were armed with basic knowledge of the industry, \$70,000 and a warehouse, but they were also given a lucky tax break when the North Carolina Legislature passed legislation to reduce the tax on native table wine. The 1972 reduction from 60 cents per gallon to 5 cents per gallon boosted profitability and sales. This advantage lasted until 1984 when the Supreme Court ruled that the tax break was unconstitutional.

In the early days, the Fussells themselves stomped the grapes, bottled the wine and put the labels on the bottles. In 1978, David Sr. bought out his brother Dan and by 1983, he realized he needed to expand. David Sr. was a schoolteacher but he threw himself into the wine-making business by borrowing \$1 million with which to buy a farm and build a 40,000 case winery. In 1984 Duplin Winery sold 40,000 cases of wine. They began buying grapes from other growers in order to obtain a sufficient quantity of grapes. To control cash flow, they resorted to issuing stock in the company for grapes, creating a cooperative of about 90 stockholders. To date, these minority stockholders have not been willing to sell their shares to the Fussells. While the Fussell family has maintained controlling interest, they have never succeeded in buying out all of the non-family members. Employee/shareholders within the Fussell family are compensated with salaries instead of dividends on their stock.

The repeal of the favorable tax law in 1984 marked a turning point for Duplin Winery and the business was operating at a minimal level in 1990 when they sold only 4,000 cases of wine. At that time, David “Dave” Fussell, Jr. graduated with an economics degree from East Carolina University in 1990 and moved home to Rose Hill to work in the family business. David Sr. had his home repossessed and the winery lost \$28,000 in the same year. “Big D,” ever supportive, made sure the family had a place to live and David Sr. resumed teaching. Dave, Jr.’s goal was to repair broken relations and turn the company around. A likeable man with a quick smile, Dave Jr. is quick to tell visitors that his father has fired him seven times since 1990, “and sometimes I deserved it.”

Duplin Winery’s sales began improving in 1991, when they sold 8,000 cases. Sales held steady through 1995, but the company was still losing money. They managed to sell all that they produced since 1992, but 1995 marked another turning point for the business. In 1995, “Sixty Minutes” aired its first report on resveratrol, promoting the health benefits of drinking red wine, especially red wine made from muscadine grapes.

ROSE HILL AND DUPLIN COUNTY

Duplin Winery employed less than one hundred people in 2011, making it one of the largest employers in Rose Hill, NC. At that time, the town of Rose Hill had only 1,392 residents. The county surrounding Rose Hill, Duplin County, had 58,505 residents as of the 2010 U.S. census (<http://quickfacts.census.gov/qfd/states/37/37061.html>) Duplin County is fairly small

in area (816.22 square miles) but is fairly diverse, with 57.2% white residents, 25.3% black residents and 20.6% hispanic residents. Average household income for Rose Hill in 2009 was only \$30,503 while the state of North Carolina had an average household income of \$43,671. Rose Hill is a poor town and depends heavily on Duplin Winery as a major employer. (<http://www.city-data.com/city/Rose-Hill-North-Carolina.html#ixzz1b92EYMAh>)

UNPARALLELED GROWTH

In 1977, sales of wine began and only 1,300 cases sold. By 1984, Duplin was selling over 40,000 cases, but in 1989 sales had dropped to 4,800 cases. Beginning in the early 1990s sales began to increase and by 2011 the winery was selling 360,000 cases. (See Exhibit A for more information about sales.)

The growth in sales volume prompted Duplin to expand their operating capacity as well as their management team. The current capacity is 1.55 million gallons per year. In 1996, Dave Jr. recruited a winemaker and a director of operations. In 1998, brother Jonathan joined the winery and in 2001 they hired a vice president of sales. Much of the growth in sales came after the “Sixty Minutes” report (http://wn.com/Resveratrol_60_min_Resveratrol_health_benefits_and_Resveratrol_supplements!) and the front page article in the News & Observer in 1996. People flocked to buy wine with resveratrol’s supposed health benefits. Duplin’s wine was an attractive source of resveratrol since it regularly sold for under \$10 per bottle.

While increased sales volume has pushed expansion, there are limitations to Duplin’s growth. The two biggest limits are that they supervise the growth of their own grapes and that competition has increased in the marketplace. There are currently 43 families growing grapes for Duplin. Bigger competitors have expanded by buying grapes that are not native to their geographic region and/or by purchasing wine made at another winery and labeling it as their own. Duplin has decided not to pursue either of these options. They did choose to augment their position by opening the Bistro next to the wine-making facility in Rose Hill. The Bistro contains a retail store and wine tasting facilities. Tours of the winery are also offered for visitors who stop at the Bistro. In 2010, 92,000 people visited the facilities in Rose Hill. Duplin wine is currently sold in ten states (Ohio, Kentucky, West Virginia, Virginia, Maryland, North Carolina, South Carolina, Georgia, Florida and Tennessee) plus the District of Columbia. Food Lion has traditionally been their largest customer and WalMart has put their wine in stores in four states. Even with this somewhat limited introduction by WalMart, Duplin is the 22nd best-selling wine in all of WalMart.

The Fussels had a dream that Duplin Winery could become a destination point for tourists and vacationers. They hoped that they could attract people to special events and concerts. In 2003 they bought land near I-40 outside of Rose Hill and had plans to build a hotel that would be available for people coming to these events and also to travelers going from Wilm-

ington, NC, to Raleigh, NC. The town of Rose Hill didn't approve sewer and water for the hotel. The hotel investors felt that business travel during the week might not be adequate to support it. The project is currently "on hold."

CORPORATE STRUCTURE

At the present time, there are two corporate entities of interest in this case, Duplin Wine Cellars Inc. and Duplin Wine Family. Duplin Wine Cellars is a C Corporation with about fifty stockholders. The majority of the stock is owned by the Fussell family, although some of the shares issued in the early days to acquire grapes are still outstanding. They have not paid dividends to the stockholders because they have tried to fund their growth mostly through corporate earnings. Duplin Wine Family is an S corporation and is owned by Dave Jr. and his brother. A third corporation, Duplin Wine Cellars Retail Inc., is owned by their parents and is being purchased by the S Corporation. Each organization has an organization chart and a mission statement. They set yearly objectives and short term goals, but no formal long term goals have been put in writing. According to Dave Jr., "long term goals are mostly in our heads." They project what they believe sales will be in four years and plant grapes to produce enough wine. They project sales for the next year and make sure they have the infrastructure to support those sales.

Each of the corporations has a Board of Directors. While Fussell family members control the Boards, there are three outsiders that on the Boards. These outsiders are the Vice President of Sales, an accountant and a financial adviser. Dave Jr. believes that having these individuals provides great strength to the Boards by encouraging new ideas and different perspectives. Dave Jr. chairs one of the Boards and his brother chairs the other.

THE MOTHER VINE - THE NORTH CAROLINA WINE-MAKING INDUSTRY

Over 400 years ago, colonists brought a scuppernong grapevine with them when they settled Roanoke Island in North Carolina. This same grapevine is alive today and is thought to be the oldest grapevine in the country. Local legend says that Virginia Dare may have eaten grapes from this very vine. Tragedy struck in spring 2005 when a utility company contractor accidentally sprayed it with a powerful herbicide while cleaning up the utility right-of-way. The vine has been nursed back, but is reduced in size from its former glory. At one point this one vine covered a quarter of an acre and was so large that it took two men to reach around her. Several years ago, Duplin Winery obtained 1,000 cuttings from the Mother Vine. Approximately 10% of the cuttings survived and these vines are planted in a special half-acre section. In July 2008, the first Premium Scuppernong was released – the tradition of history and heritage continues.

NATIVE GRAPES

There are three types of grapes worldwide: a) *vitis vinifera*– native to Europe b) *vitis labrusca* – native to the northeastern USA and c) *vitis rotundifolia* – native to the southeastern USA. Duplin uses *vitis rotundifolia* which includes scuppernong, muscadine and bullace.

All grapes used by Duplin are native to the SE USA. Some growers in Napa Valley have used grafted vines, but Duplin decided early on that their wine would be made exclusively from native vines. Most grapes have resveratrol only in the skins of the grapes, but muscadine grapes have resveratrol in the pulp as well as the skins. Because of this oddity, even the white wines produced by Duplin contain resveratrol. North Carolina weather is known for being hot and humid. This climate makes fungal diseases common but over time the native grapevines have become disease resistant, making them the obvious choice for Duplin. (<http://www.tytyga.com/publication/The+European+Grape-+Vitis+vinifera-+Natural+Hybrids+with+Ancient+Native+American+Grapevines>)

FUNCTIONAL OPERATIONS

Marketing is outsourced to a group in Raleigh, NC which is about an hour away from Rose Hill. There are plans to use an airplane banner along the North Carolina coast next summer. There is no current strategy for expanding into the international market, due to insufficient capacity. There is probably not sufficient capacity to grow enough grapes to produce wine for a much larger market. Protecting their relationship with their largest customers is very important to Duplin owners and international expansion could put a strain on these relationships.

Distribution is outsourced and is handled by only one company. Duplin used to have its own trucks, but now uses a trucking company owned by Dave Jr.'s uncle. This company operates out of Winston Salem, NC, and handles all freight to the wine distributors. The same company also drives to the glass companies, picks up bottles and delivers them to the winery.

Human Resources are handled internally. There is an employee handbook that was developed in consultation with other established businesses. There are currently 92 employees and most of the recruitment is done by the owners. There is very little turnover, although they have had to let a few people go. Rose Hill is a small town without other major employment opportunities.

Accounting is done internally, although they do have a CPA who advises them and helps prepare their tax documents. This accountant also serves on the Board of Directors of both corporations.

Research and Development is totally handled in-house in a laboratory above the winery and R&D is mostly trial and error. Dave Jr. reminds everyone that "We're not making a robot. Each year's grape harvest is different and we're dealing with a work of God. Our pilot plant is a ten gallon jar."

THE TURNING POINT

In the early 1990's, the television program "Sixty Minutes" examined the "French Paradox," which reported that the French had lower heart disease than Americans, even though they had high consumptions of wine and a high-fat diet. Many researchers believed that there

was something in the wine that seemed to protect the French from their bad dietary habits. In January, 2009, a second “Sixty Minutes” reported that scientists had isolated a substance named resveratrol which might even extend life by preventing age-related illnesses. Resveratrol was believed to activate the sirtuin gene, which triggers a survival mechanism and extends the normal life span. Red wine was found to have more resveratrol than anything else and thus a connection was made between red wine and a long and healthy lifespan. Dr. David Sinclair, a Harvard biochemist, reported that through research on red wine it may be possible to develop resveratrol-based drugs that will slow down aging. (www.cbsnews.com/stories/2009/01/25/60minutes/main4752082.shtml) Duplin Wineries, the producer of a red muscadine wine called “Carolina Red” had just hit pay dirt.

The good publicity surrounding the health benefits of red wine prompted increased sales and led to a corresponding increase in production. Duplin began experimenting with the production of other products containing resveratrol and these health supplements are now sold along with Duplin wines at the gift shop next to the warehouse. Duplin now operates the production facility, The Bistro, a gift shop and a tasting room. Duplin has also attracted visitors to their facility by hosting tours of the winery, the annual Grape Stomp and various concerts.

In November 2011, *Los Angeles Times* reporter Melissa Healy reported that the first clinical trial testing resveratrol had been completed. The study found that resveratrol lowered blood pressure and improved the health of the group participants. Although the group consisted only of obese men, it has sparked an interest in the health benefits for everyone. (<http://articles.latimes.com/2011/nov/03/news/la-heb-resveratrol-obesity-20111103>) For an update on this controversial research, refer to Thomas Bartlett’s article “Fraud May Not Stain Wine Research” in the January 27, 2012, issue of the *Chronicle of Higher Education*.

THE FUTURE

As American tastes in wine have changed over the last few years, Duplin has seen phenomenal growth in the demand for its sweet wine that is high in resveratrol. The next product on the market will be a three wine set which Duplin is calling “Cool, Sweet & Easy.” Dave Jr. is counting on sophisticated younger wine drinkers to appreciate this product.

Also on the horizon are several challenges. As Duplin grows, waste water and the funding of waste water facilities become bigger problems. Another challenge will be to grow enough grapes to meet the increasing demand for Duplin’s product. Succession planning is always difficult for a family business and there is currently not a succession plan in place. Since the next generation is now aged 5 to 13, there’s probably time to plan. Of additional concern are local, state and national restrictions. The work environment will also continue to change as additional regulations and laws are passed by OSHA and other governmental and regulatory agencies. Health insurance is a major concern for small employers and the possibility of union activity is ever-present.

APPENDIX

EXHIBIT I - HISTORY OF WINE SALES

<u>Year</u>	<u>Sales in cases</u>
1977	1,300
1982	23,000
1984	47,000 (peak)
1988	6,000 (estimated)
1989	4,800 (estimated)
1994	10,000
New generation enters Duplin Winery	
1999	38,000
2000	43,500
2001	56,000
2002	82,000
2003	111,000
2004	136,000
2005	176,000
2006	204,000
2007	240,000
2008	276,000 (estimated)
2009	303,000
2010	335,000
2011	360,000 (estimated)

REFERENCES

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