TECHNICAL REVIEW

Villa San-Juliette Expands Estate Production

Winery in Paso Robles, Calif., adds new crush pad and compressed air system for fermentation management

t the start of 2013, winemaker Matt Ortman's crush pad was an unfinished dirt lot, and the winery's fermentation tanks were rest-

ing on the ground. He quickly went from being a new hire at Villa San-Juliette Vineyard & Winery to overseeing the first phase of a large expansion to the winery's production capacity. "Mission one was to get processing on site," he said.

The winery had been making most of its wine at a custom-crush facility, but Ortman, who had done some consulting for the winery, was hired to start estate production while maintaining quality. One of Ortman's key decisions was to install a Pulsair System to manage fermentation in each of the winery's larger tanks.

"While there was some stress with getting the winery online before the grapes came in," Ortman said, "I think

By Andrew Adams

exciting is a better word for it." Some of the excitement included "MacGyver-ing" a hopper for whole-cluster pressing Pinot Gris when the purchased hopper was stuck in a shipping crate on a loading dock somewhere.

"We were a brand new team working in a brand new winery with fruit that none of us had worked with before. The learning curve was massive," Ortman said, "but our production family was so solid and enthusiastic that when surprises came up they were met with excitement and a 'let's get it done right' attitude."

Ortman said he had to schedule grape delivery around when construction crews would be bringing tanks online. He and his team had to learn how to operate new equipment right after it arrived at the winery. The experience wasn't easy, but Ortman said it provided a great trial by fire experience





to thoroughly understand the crush pad and estate grapes.

Family background in winemaking

Ortman, who is now also the winery's chief operating officer, came to Villa San-Juliette following the closure of Ortman Family Wines in November 2011. Matt Ortman had started the business with his father, Chuck Ortman, who founded Meridian Vineyards and sold that winery to Beringer Vineyards in 1988.

A graduate of California Polytechnic State University in San Luis Obispo, Matt Ortman had a degree in construction management and an interest in fermentation. Friends encouraged him to turn his homebrewing hobby into a profession after college, and he studied brewing at the University of California, Davis. He found few prospects in the late 1990s, however, as the beer industry contracted following the boom of microbreweries during the first half of the decade. Ortman worked in construction in the San Francisco Bay Area for a few years before he decided to move back to the Central Coast and help his father launch the family brand.

Ortman said it was hard to close the family winery, but he sees his work at Villa San-Juliette as a means to maintain a legacy in winemaking. He also occasionally asks his father for winemaking advice. Focusing on making wine with estate grapes is also a bit easier than running one's own winery. "It's hard to wear a sales hat and a marketing hat and a winemaker's hat," Ortman said.

The tasting room at Villa San-Juliette is

decorated with photos of Lythgoe and Warwick in sessions with musicians such as Elton John, Mariah Carey, Dolly Parton, Gwen Stefani and others, but aside from the photos, the owners' celebrity appears to have a minimal presence at the winery. Both Lythgoe and Warwick have residences on the estate and visit the winery regularly, yet they have given Ortman free rein in the cellar, saying, "We like the wines that he makes, so we're not going to tell him how to make them."

Getting to know the vines

Ortman's first experience with the estate came in winter 2012, when as a consultant he ran blending trials on that year's wines. The 2013 vintage gave him invaluable insights into the estate and its potential. Situated at 1,000 to 1,200 feet in elevation, the property consists of rolling hills with about 3-4 feet of loose, sandy topsoil. The vineyard is certified through Sustainability in Practice (SIP) and managed by Tim Lindquist of Vineyard Professional Services in nearby Templeton, Calif.

While he's still getting to know the vineyards, Ortman said his initial impression is that the grapes tend to reach maturity without getting overly fruity. Fruit flavors are balanced by a mineral quality he attributes to a good skin-to-juice ratio. "What I see is our berry size is really small, our cluster size is really small and compact," he said.

The estate vineyard is 129 acres, and 48 of those are Cabernet Sauvignon planted in 2008, after Lythgoe and Warwick purchased the property in 2005. Ortman said

Highlights

- Winemaker Matt Ortman guided a major expansion at Villa San-Juliette winery near Paso Robles, Calif.
- Fermentation is managed by a compressed air system from Pulsair.
- The winery is owned by TV producers Nigel Lythgoe and Ken Warwick, who developed television shows including "So You Think You Can Dance" and "American Idol."



winemaker Matt Ortman has been with the winery since 2012.



Villa San-Juliette produces a line of estate wines as well as its second label Fat Monk, which is made with estate and purchased grapes.

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THE CHALLENGE

Villa San-Juliette winemaker Matt Ortman's first harvest at the winery in 2013 also involved helping to oversee a major expansion of the winery's processing capacity. Owners Nigel Lythgoe and Ken Warwick wanted to bring winemaking in house as the duo add wine production to their resume of successful television production projects.

Making the Wine

Hopper	Diemme Enologia and Imma, The Vintner's Vault, thevintnervault.com		
Destemmer	Imma, The Vintner's Vault, thevintnervault.com		
Pumps	Mono 70 must pump, The Vintner's Vault ; RapidFil Cellar- Mate, Premier Wine Cask , premierwinecask.com		
Tanks	18 stainless steel tanks, Paso Robles Tank , pasoroblestank.com (One: 13,000 gallons; Two: 6,900 gallons; Four: 6,500 gallons; Five: 4,600 gallons; Two: 2,000 gallons; Two: 1,220 gallons; Two: Open-top 630 gallons; Four concrete tanks). Vino Vessel , vinovessel.com (Two: 1,100 gallon "cubes;" Two: 330 gallons "cones")		
Barrels	Seguin Moreau Napa Cooperage, seguinmoreaunapa.com; (Canton Cooperage, cantoncooperage.com; TW Boswell, twboswell.com; Tonnellerie St. Martin North American, tonnelleriesaintmartin.com; Mueller stainless steel, Paul Mueller Co., muel.com		
Bottling line	Castoro Bottling Co., castorobottling.com		
Yeast strains	Many, but primarily: BDX, D-254 and RC212, Lallemand , lallemandwine.com. Experiments with "wild" yeasts: Torulaspora delbrueckii, Kluyveromyces thermotolerans, Chr. Hansen , chr-hansen.com		
Malolactic bacteria	Various strains known for high alcohol tolerance and low acetic acid production. AEB USA , aebusa.com; Gusmer Enterprises , gusmerenterprises.com; Scott Laboratories , scottlab.com		
Press	Criveller, criveller.com		
Filter	Cross flow prior to bottling, Pacific Wine Services , pacificwineservices.com		
Barrel washing	Gamajet barrel washer, gamajet.com. Ozone rinse, Carlsen & Associates, carlsenassociates.com		
Fermentation control and cap management	Pulsair Systems , pulsair.com; Punch downs three times daily for bins, open-top vessels and concrete cubes. TankNet , temperature control, monitoring, acrolon.com		
Lab analysis	In-house and Baker Wine & Grape Analysis, bwga.net		

Building the Winery

Designer	Steven D. Pults & Associates, pults.com
General contractor	Specialty Construction, specialtyconstruction.com
Winery refrigeration	Knecht's Plumbing & Heating, kph-inc.com
Plumbing/hot water	Knecht's Plumbing & Heating, kph-inc.com
Wastewater pond	Wallace Group, wallacegroup.us

Packaging

Bottles	Encore Glass, encoreglass. com; TricorBraun WinePak, tricorbraunwinepak.com
Corks	1.75-inch cork; 2-inch natural-wash cork for top tier, Scott Laboratories , scottlab.com; Amorim Cork America , amorimca.com
Label printing	Tapp Label Technologies, tapplabel.com
Capsules	Rivercap USA, corksupply.com
Screwcaps	G3 Enterprises, g3enterprises.com

Estate Vineyard (acres)

Petit Verdot	3.84	Alicante	2.17
Grenache	4.05	Zinfandel	3.43
Petite Sirah	4.32	Cabernet Sauvignon	48.54
Cabernet Franc	4.41	Syrah	5.08
Pinot Gris	2.04	Sauvignon Blanc	16.39

WINEMAKING

plans are in place to tear out a Merlot vineyard planted in the 1980s and replant with Petite Sirah, which he said does quite well in the area.

In addition to the Bordeaux varieties, the estate is also planted to Zinfandel, red and white Rhone varieties and a small portion of Alicante Bouschet.

Some of the estate grapes are bottled under the winery's second label, Fat Monk, which also uses grapes from area vineyards. Ortman said the winery's total production in 2013 was around 60,000 cases, and Villa San-Juliette accounted for about 25,000 cases. At the estate winery, Ortman said he processed 500 tons in 2013.

All the grapes are hand-harvested and delivered to the winery in half-ton MacroBins. The winery's production staff includes cellar hand Drew Nenow, cellarmaster Dan Smith and enologist Lauren Hruska. Ortman said that during the 2013 harvest he pulled in some tasting room staff members to sort, but he didn't need any other temporary harvest help.

The crush pad is equipped mainly with machines from The Vintner's Vault in Paso Robles. Workers dump bins into an Imma hopper and elevator that raises



The RapidFil Cellar-Mate semi-automated wine transfer system.

grapes to an Imma destemmer. A Mono 70 must pump sends processed fruit to tanks via the bottom valve. White grapes are dumped into a Diemme hopper with an elevator that lifts them into an EnoVeneta press.

Almost all of the Villa San-Juliette's fermentation tanks are set up outside the winery's barrel-storage rooms. Ortman said when he started at the winery there



Two of the four Vino Vessel concrete fermentation tanks at the winery.

were plans to fill one of the barrel rooms with 14 tanks. He said while the tanks would have fit, the room would have been too cramped, hindering operations. "I just knew they wanted the brand to grow larger than where it was, and to fill this with tanks would have made it difficult to grow," he said.

In addition to the outside tanks, the winery also has four stainless steel tanks



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and four concrete tanks inside one of the barrel rooms. Paso Robles Tank supplied all of the stainless steel tanks. The concrete tanks by Vino Vessel include two cones and two square tanks.

Ortman currently is running several barrel trials to determine what works best for the estate wines. Barrels are stored in two large rooms that can hold a total of 1,200 barrels, and Ortman said the next phase of expansion will increase the winery barrel capacity to 2,000. This second expansion also will include a building to house the main fermentation tanks, new crush pad, loading dock, offices and a laboratory.

Cellar workers fill and rack barrels with a Rapidfil Cellar-Mate system. As Ortman describes the benefits of the automated and accurate system, cellar hand Nenow methodically fills a row of barrels, moving the filling wand each time the machine sounds an alert tone to indicate a barrel is full. Ortman said a good check valve on the wand also ensures the pump doesn't suck up lees during racking, and a sensor picks up low flow to prevent gurgling or air getting into the line during racking. The cellar staff clean dirty barrels with a Gamajet barrel washer and give



Tanks are connected to the Pulsair system with valves in the bottom.

them a rinse of aqueous ozone provided by a Carlsen & Associates unit.

All filtering and bottling occurs at the winery, although not with in-house equipment. The finished wine undergoes crossflow filtration with a mobile unit from Pacific Wine Services in Paso Robles and then is bottled by a team from the mobile bottler Castoro Bottling Co., also based in Paso Robles.

Villa San-Juliette wines currently are distributed in 31 states, and direct-to-consumer sales account for 33% of the



winery's total business. The tasting room is open daily and features a "So You Think You Can Taste" flight of four wines poured blind for \$15. If a guest can correctly identify all four wines, the tasting is free.



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Vintner's Vault supplied crush pad equipment, which includes a hopper and destemmer by Imma and a Mono must pump. Paso Robles Tank supplied the stainless steel tanks, which included two small open-tops.



Fermenting with Pulsair

Each tank outside is linked to a central Pulsair System that Ortman uses to manage red fermentations. A heavy-duty Gardner Denver air compressor sends air to each tank. In addition to Pulsair, the winery has a TankNet system to control and monitor fermentation temperatures. That system also is linked to the winery's barrel room to monitor humidity and trigger the chiller and SmartFog system if needed.

Ortman said he manages the Pulsair System with a central control panel to set the level of air and the timing of each pulse for every tank. For a tank that's just been filled with must, Ortman can pro-



Winemaker Matt Ortman adjusts the central control panel for the Pulsair system.

gram the system to deliver six pulses per day, getting it well mixed so he can get an accurate lab analysis on the juice. Later, as fermentation begins, Ortman said he sets the frequency, duration and timing of air blasts for each tank.

Instead of having cellar workers insert long probes to deliver air beneath the cap, each tank is fitted with a valve in the center of the tank bottom, which delivers a pulse of air through the entire column of must. The valves also enable Ortman to ensure the tanks receive the correct amount of air pressure and dial back the pressure if needed. By being able to do that, Ortman said he could fill a tank about halfway and run a fermentation but reduce the air pressure for a gentler blast of air.

He said he became familiar with the Pulsair system while working at Cellar 360 in Paso Robles, where he had the chance to experiment with it. "I just think it's amazingly flexible," he said. During a peak period in harvest, Ortman said he could adjust the system to run a quicker fermentation for maximum extraction yet still clear tanks in about a week. Ortman can also adjust for seasonal variation if the grape phenolics aren't exactly where expected or needed, and he can apply a highly precise fermentation protocol to get the wine where it needs to be. In addition to being flexible, the system is more reliable as well.

The other benefit he's found is that by eliminating punch downs or pump overs, the winery is safer and winemaking requires less labor. While the Pulsair system is mixing tanks, cellar workers can be processing fruit, sanitizing other tanks or topping barrels rather than standing next to a tank for 45 minutes to an hour minding a pump over. "There's just a lot less labor involved," he said.

After helping to build a crush pad from the ground up, Ortman's looking forward to managing the next phase of expansion at the winery. The goal is to expand production capacity while also ensuring the wine remains a steady performer.





