

IT WAS about 15 years ago when the Crittenden family – pioneers of the Mornington Peninsula's now-burgeoning wine industry – first noticed that something was up.

"We found at harvest time we weren't achieving balance," said winemaker Rollo Crittenden, who works alongside his father Garry and sister Zoe in the family's 4.5ha vineyard at Dromana that produces I 500-2000 cases of premium wine a year.

"For great wines you really need to have the stars aligned ... you want to have your sugar levels, flavours, acid levels, pH all come together at that one time — and that really wasn't happening.

"We were finding that at the time when sugars, for the alcohol, were at desired levels the flavours weren't there, and the acids were starting to fall away."

With colour intensities in their pinot noir also not at optimal levels, the Crittendens conducted research and found the blame rested with their farming practices.

"As was the wisdom at the time", Rollo says, glyphosate was the go-to to address weed problems within the vineyard and artificial supplements were employed to rebalance the soil's nitrogen, phosphorous and potassium levels.

"It became very apparent...by not replenishing our soils, and through the use of chemicals, we were killing the microbial growth in the soil," he said. "And you could see the nutrient deficiencies in the vines were starting to take effect."

#### LINKED IN

To counter this the Crittendens ceased chemical use, trialled spreading compost over rows of the vineyard and growing cover crops between vines to stimulate the soils. Almost immediately, they saw "a decided difference, in particular in the soil".

"There was better colour in the bunches (of fruit)," Garry said. "It was amazing, things like more disease resistance. Much of the Peninsula would have a bad vintage with powdery mildew or downy mildew but our vines wouldn't have a problem.

"It is now well known that by using this system you improve the inherent ability of the vine to resist disease. The fungus might still be in the atmosphere but the vines say 'nope, not today – we're not taking you on."

Rollo said the timing of leaf production and senescence [fall] was a great indicator of vine health and he'd received a lot of comments about the healthy state of vines from people who would drive past the vineyard in late April or early May – after harvest.

"They say 'My god, you've still got a green vineyard, what is going on there?" he said.

"I just think that is a show of the health of our vineyard that leaf material and the function of the vine is still ticking long after the harvest date, putting nutrients and carbohydrates back into the vine."

Rollo said the results had also shown up in the winemaking process.

"The quality is going up and up as a result of what we are doing. People are starting to wake up to the fact that good soils mean good wine."

Vintage performer Garry has been a wine connoisseur for almost as long as he cares to remember, and has a particular fondness for French varieties and styles.

"For want of a better word, I was what you would describe today as a wine wanker," he said. "In other words I bothered about which side of the hill it was grown on. I knew the difference between a Bordeaux and a Burgundy."

Originally from Queensland, he came to the Mornington Peninsula in 1962 to work for the-then Department of Crown Lands and Survey at Frankston's Keith Turnbull Research Station. Five years later he began operating a plant propagating and nursery businesses in Mt Eliza and Mt Martha.

In 1978, a chance sampling of a French-inspired wine during a family holiday to Tasmania led Garry to briefly contemplate moving the family to the island state to establish a vineyard. A few years later he came across a grower successfully growing grapes on the Mornington Peninsula, and decided to concentrate his efforts closer to home.

Garry and wife Margaret purchased the IIha Dromana property in 1981 and planted the first grapes a year later. Their initial 2.02ha planting doubled the entire plantings on the Mornington Peninsula, which is now home to about 1052ha of vines.

The property boasts well-draining soils with about 30cm of sandy loam soil over grey clay.

It receives a fairly reliable 950mm of rain a year but is currently feeling the effects of a long, dry summer:

"There is a perception with the Mornington Peninsula being on Melbourne's doorstep that it's not a farming region, it's for hobby farmers and it's lush and green," Rollo said

"But we're no different to central Victoria, we really need some rain."

## HERE'S CHEERS

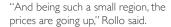
The Crittendens now grow about 4.5ha of vines, predominantly pinot noir and chardonnay with smaller plantings of savagnin, from France's Jura region. All grapes grown on the property feed into Crittenden Estate's premium wine offering.

Of the 18,000 cases of wine produced by the Crittendens in any given year, about 1500-2000 are produced by their own grapes. Other labels are supplied by fruit purchased from other Mornington Peninsula growers and from select Victorian cool-climate regions.

The Crittendens are one of just a handful of wineries in Australia growing savagnin. From the Jura – France's smallest designated wine regions – the wine style is now "hot property in London and New York" with leading sommeliers "falling over themselves" to secure supply.







Some of the Crittenden vines date back to 1982 with the most recent plantings and graftings occurring in 2008. Most vines run east to west to minimise sunburn issues on fruit.

The vineyard has access to about 50 megalitres of water, through a 20-megalitre dam on the property, 20 megalitres of Class-A recycled water from Melbourne and 10 megalitres of bore water. The Crittendens recently installed a water treatment plant "at considerable expense" which means any excess water and effluent is recycled.

Vines are watered on an as-needs basis by drip irrigation.

# WITH THE FLOW

When watering is required it usually involves about four litres per vine per hour. Rollo said they irrigated three times in the lead-up to harvest this year.

"The idea is to keep function of the vine ticking over," he said. "If it is relatively cool or you've had a bit of rain it is not necessary but if we see a warm spell coming up we'll start to do pre-emptive irrigation so we might give it four hours and another four hours if it is getting up into the mid-30s, and then we'll just monitor.

"We don't have anything too elaborate in terms of soil moisture measurement and the like, but given it is a small vineyard, we're fairly intuitive, we are here every day, we can see what is going on ... we watch the weather patterns."

After harvest, which runs for about seven weeks from mid-to-late February, the Crittendens ramp up waterings to ensure the vineyard has a full moisture profile heading into winter.

"The aim is to keep the vines photosynthesising as long as we can now until May so we're accumulating carbohydrates in the canes," Garry said. "The buds on the canes differentiate and form next year's crop, so we can almost guarantee we will have the potential for a good crop."

## **ROW BOAT**

Each alternate row of the vineyard is either green mulched or sown down to a cover crop.

The mulching is the result of prunings, taken during July and August, being dragged into every second row, where a flail mower then goes over them breaking up the material which, in turn, breaks down into the soil over time.

The cover crops – mostly highnitrogen crops such as snow peas, broad beans and vetch but also oats which Rollo says have "a long taproot that goes right down into the soil" – are grown in April.

Prior to the crop planting, the Crittendens spread a compost – comprising a mixture of grape marc, stalks, pressed-out grape skins from the previous harvest combined with horse manure from Mornington Peninsula racehorse stables, lignified wood and straw – on the vineyard.

On the property they have a long three-metre wide strip of 350-400





CLOCKWISE FROM TOP LEFT: A crop is grown between the vines at Crittenden Estate Wines at Dromana on Victoria's Mornington Peninsula to help stimulate soil health.

Solar panels installed on the roof at Crittenden Estate Wines.

Heap of compost which is used as a natural fertiliser in the vineyard.

Rollo, Garry and Zoe Crittenden at their Dromana vineyard.

cubic metres of compost which is "turned backwards and forwards" every three weeks for about a year by a front-end loader.

"We'll roll it, aerate it, get some moisture in there as best we can and keep moving it around," he said. "It is safe to say we've got the process down pat now, it took us a long time."

The compost is spread in the vineyard at a rate of 12 tonnes/ ha. Then, each September, the Crittendens, rather than mowing the strips of crop, bring in a roller to flatten it.

"Once we've got a large amount of mass grown up – standing around two or three feet tall – we drive the roller through and we crimp the grasses and high-nitrogen plants," Rollo said.

This way you aren't "shattering all that beautiful nutrient you've grown, you're just pressing it down into the soil" which creates a "bed which among other things protects the soil from evaporation".

# HARVEST REWARDS

Rollo said vineyard yields varied from year to year and variety to variety but generally hovered around 5-6.2 tonnes of grapes per hectare.

"Anything less than that and we're not making money and anything much higher than that we're starting to compromise the quality of the product," Rollo said.

The Crittendens have their own distribution channels, with a lot of product sold wholesale to

independent restaurants and bottleshops in Melbourne and on the Mornington Peninsula. They sell through third-party distributors interstate and export some wine to the UK. The remainder is sold through a wine club and a cellar door which opened on the property in January 2015.

Looking forward, the Crittendens will keep producing wine with a natural, low footprint approach in mind. Their aim is not to be the biggest wine producer, but the best.

Twelve months ago they installed solar panels on their office, wine centre and winery which meant they received credits from their power company last summer.

"We are sending more power back to the grid than we're pulling out", Rollo said.

"The motivation originally, when we started doing this sort of thing in the vineyard, was quality of wine, but things have just snowballed for

"It is a lot easier now to be doing the right thing environmentally and the cost of doing so ... is not inhibitive. We find that once you get your head around things and you can establish 'best practices', it just becomes second nature. It's just what we do now."



FEATURED IN THE WEEKLY TIMES - WED MAY I 2019