



CRITTENDEN ESTATE®

## SUSTAINABLE INITIATIVES AT CRITTENDEN ESTATE

There is no dispute that as a society we are becoming far more attuned to the unsustainable damage that we have inflicted upon our environment. Sustainability is now regarded as an essential element of any business, no matter the industry. We didn't set out to become leaders in our field when it comes the health of our land, but in our constant pursuit for better soil, fruit and wine, it would seem that is what has occurred. Due to constant requests from consumers and colleagues we have decided to document what we are doing here on the property. We don't want to hide it – we are adamant that this is the future of viticulture and the sooner we can start spreading the word and others are able to follow suit, the better. These are just some of the things that we have focussed our attentions on over the last ten or so years.

### SOIL HEALTH

Over recent years, here at Crittenden Estate, we have abandoned the use of artificial fertilizers and returned to the agricultural ways of our forefathers. In order to encourage vine health and disease resistance, ensuring that each year our crop is robust and full of flavour, we follow a year round process leading up to harvest. It starts with compost. Our compost heap typically measures around 300 cubic metres – or 50 full tip trucks. The scientific understanding of how compost works has blossomed in the past decade and we now know that once spread over the vineyard, the bacteria and fungi in the compost forms a partnership with the vine root system (the place of nutrient uptake) to assist in growing healthy vines. The microbial population forms a biomass not dissimilar to the micro-biome in a healthy human gut brought about by eating the right foods. Our compost heap consists of the grape residue (skins and stalks) from vintage, hay, fine wood chips and horse manure. Using a front-end loader we turn it monthly to encourage an aerobic bacterial ferment. Finally, after approximately 12 months, we spread it over the vineyard post harvest before the vines go into their dormant winter period.



At this time we also lightly cultivate and harrow the inter-rows between the vines in readiness for the sowing of a green manure crop. The crops vary from year to year but typically involve two different types. It may be oats to create bulk along with broad beans for nitrogen. Once the crops reach maturity we roll them flat to form a dense mat that slowly decomposes into the soil to provide the essential nutrients our vines need. Additionally the mat creates mulch, useful for moisture retention over the summer months, ensuring that our need to irrigate is reduced.

The benefits to the vines, fruit and wine from our biological farming practices have exceeded our expectations. Quantifiably we have seen an increase in the anthocyanin in the fruit: the building blocks of colour and flavour. Increasingly favourable reviews of our estate wines by independent commentators around the world also demonstrate that we are well and truly on the right track.





## SOLAR

In 2017 we converted the Estate, including our cellar door, office and operational winery, to solar. Already we are seeing substantial savings in our conventionally generated electricity bills and on many occasions are in a position to be giving our own power, generated by the solar panels that adorn all of our buildings, back to the grid. As time goes by we expect to be able to quantify what this means in relation to the reduction in greenhouse gas emissions we are generating.

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## RECYCLED WATER

Our established vines need less water than one might imagine, however, there are definitely periods over the summer months where some irrigation is essential. In 2013 we installed a recycled water system that enables us to tap into a nearby recycled water outfall and irrigate our vineyards with A class recycled water. We are also able to use this water to sparingly irrigate our landscaped lawns and gardens that our customers are able to take so much pleasure in. Extra care of our soils across the property has the added benefit of the plants not needing so much water, and this combined with the age of our vines means irrigation in general is kept to a minimum. It's heartening to know, however, that the water we do use has already been in use somewhere else!

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## SEWERAGE SYSTEMS

We know it's not polite to talk about money, or sewerage for that matter, but this one's an interesting venture. A green wedge property on the Mornington Peninsula connected to the town sewerage system is rare. The \$100,000 we spent a decade ago to make this a reality, however, has certainly paid off and has obvious and numerous benefits. One of the major problems of running a winery in the country is how to deal with waste water which, due to the mix of high acid grape juice liberated during vintage, poses its own set of effluent disposal problems. Prior to vintage 2018 we invested a further \$50,000 to install a waste water treatment plant which allows us to discharge the treated winery effluent into the town sewerage system in full compliance with EPA standards. In a round about way we will ultimately see this effluent return to the property (once treated) for irrigation use.

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## B E E S

In spring 2018 we installed on the property two bee hives in an effort to improve the pollination and fruit set of our diverse collection of fruit trees on the farm. This has worked wonders with substantially increased yields and as an unanticipated side benefit, the honey yield and quality has surprised and delighted. Such was the quality and quantity we are now selling the resultant cold pressed raw honey in our Wine Centre....A cooperative effort indeed!



As a family business we are mindful of our future generations. We anticipate that the actions we take today will in turn create a more sustainable platform for our vines to continue to provide us with the fruit that we, and perhaps our children, can turn into exemplary wine for years to come.

