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# End User Profile

<b>Property/Organisation</b>	Plunket Fowles Vineyards
<b>Region</b>	Victoria
<b>Machine</b>	Quantum Mist Twin Row Sprayer
<b>Application</b>	

## Vineyard 'toasts' Quantum Mist's debut

THERE'S a special satisfaction when a cutting-edge sprayer all but pays for itself in its first year of use by delivering more product, despite a tough growing season.

Such is the case at Victoria's noted Plunkett Fowles vineyards, perched on the edge of the Strathbogie Ranges some 130km north of Melbourne, where vineyard manager Rick Milland is overseeing a wind-down in paddock work. As a result, he had time for a chat about its recently-purchased Cropland Equipment's Quantum Mist sprayer – a specially-designed unit that is putting runs on the board because of its proven technology.

The winery has the potential to crush around 6,000 tonnes of fruit each year using state-of-the-art equipment, offering patrons a choice of five main wine brands.

But a critical part of its day-to-day operations centres on the Quantum Mist sprayer that was first put to work late last year. "What with the cold weather at the end of the season, plus a lot of rain, it's been a particularly difficult year as far as managing disease pressures," Rick Milland said.

The newcomer works in tandem with another Croplands machine – an earlier model Grape Liner – and was purchased to boost single-row work rates.

"What was appealing to me about the Quantum Mist was its new spray technology – particularly its ability to adjust droplet size to cover the fruit and crop canopy a lot better," he added. Able to cover two rows in each pass, a total of eight angled spray heads are preferred to a traditional single fan-type sprayer design, mainly because of their ability to "push" spray on to vines much more efficiently.

It's all about using low power inputs being used to direct large volumes of low velocity air towards the target for optimum coverage, and with no ducting or 'bending' of the airstream.

"You can increase or decrease the speed of the fans and each head has six nozzles on it so you can easily adjust your flow and droplet sizes by using different size nozzles in each head," Rick Milland explained.

Applying fungicides all through the growing season, Plunkett Fowles' vineyard sprayer operators vary application rates between 300L/ha and 550L/ha (depending on growth stage during the season), principally to control powdery mildew, botrytis, also downy mildew. On

this count the sprayer is said to have carried out a “fantastic” job. In a normal year Rick Milland must crank up his sprayers a total of eight times per season to ensure the property keeps on top of these serious grapevine diseases. “But this year we’ve had to spray between 11 or 12 times to safeguard against crop losses,” he said. “This year we had a bumper crop that included an extra 170 tonnes of fruit,” he added. The thinking is the outlay on the new spray technology largely has been re-couped in its first year of operation.

In hindsight the 3000L newcomer looks to have impressed, aided by its tandem axle arrangement which has smoothed performance across rolling country and its stunning range backdrop. “The wheels supported the axle very well, ironing out most of the bumps, aiding stability,” Rick Milland said.

While the Quantum Mist cruised through the longer runs of each paddock, its overall performance also was enhanced by its self-steering drawbar which came into its own when making tighter turns in the vineyard’s smaller paddocks.

“The reason why I went for the Croplands machine is that we had a great run with an earlier (Grape Liner) model and now we’re more than happy with the new Quantum Mist,” Rick Milland said. “It too is proving to be a really good machine.”

Both sprayers are put through their paces in a season which starts in September, tailing off towards the end of February.

Plunkett Fowles, vineyard manager also drew attention to “the solid build” of the Quantum Mist sprayer, noting its fully galvanised chassis for maximum corrosion resistance.



Footnote: All Quantum Mist Grape sprayers are equipped with UV-stabilised tanks, AR oil-bath positive displacement diaphragm pumps and choice of QM 380mm and QM500mm hydraulic drive fan heads, according to individual preference. As well, there’s a choice between two auto spray rate control units.