New research to help Australian wineries find novel ways of managing smoke taint.

The federal government has announced a $950,000 CRC-P grant in support of a $2.3 million industry-research project to commercially develop new methodologies and strategies for the Australian wine industry to manage taint from grapes exposed to bushfire smoke.

Producing wine in Australia has become increasingly challenging. Grape and wine producers have not only been affected by drought, but more recently by smoke exposure from the 2019/2020 bushfires. Vineyard exposure to smoke can cause significant financial losses as a result of smoke taint, where smoke causes grapes and therefore wine to take on unpleasant smoky and ashy characteristics. The 2007 Victorian bushfires cost the industry more than $100M in lost production due to smoke taint. The financial impact of the 2019/20 bushfires, which impacted prominent wine regions in the ACT, NSW, SA and Victoria, is expected to be significantly larger. Losses due to not harvesting smoke tainted fruit by far exceeded physical losses due to the bushfires.

This research project is being led by Cassegrain Wines in Port Macquarie, NSW. They are focused on understanding, trialling and testing how new and existing technologies can help grape growers and winemakers remove or mitigate smoke taint from premium wines. Research will concurrently be undertaken at the University of Adelaide by Professor Kerry Wilkinson, a world leader in smoke taint research.

Alex Cassegrain, senior winemaker at Cassegrain Wines will lead the industry research component and said; "I am very pleased to be working with Australia's leading wine scientists and using the latest, ground-breaking technologies to develop new ways of mitigating the impacts of smoke taint. We work with grape growers from eight regions across NSW and have witnessed the devastating effect of the 2019/2020 bushfires on the region and our industry. Cassegrain Wines has a proud winemaking tradition but appreciate the importance of new technology in ensuring we produce nothing but the best quality wine, to maintain the future sustainability of the industry.

"I would like to take this opportunity to thank the Federal Government for its support and significant contribution to this project, which recognises the benefits of direct industry involvement in research collaborations."

University of Adelaide Professor of Oenology, Kerry Wilkinson, reiterated the importance of this research: "Smoke taint research has come a long way over the last decade, we have a much better understanding of how smoke affects grapevine physiology and the composition and sensory properties of grapes and wine. But we still don't have the silver bullet for smoke taint, this project will support the Australian wine industry by developing better strategies for mitigating the effects of vineyard exposure to smoke.

The project is supported by a number of other industry and research partners including international technology company Ligar, who is at the forefront of molecular imprinted polymer technology – a very promising smoke taint treatment process. Other project partners include The Australian Wine Research Institute, VA Filtration, Dr Megan O'Connor from De Beaurepaire Wines.

The Australian wine sector, which includes grape growing, wine making and wine related tourism plays a significant role in the Australian economy. In a 2019 Wine Australia report, it was estimated that the Australian Wine Industry generates $45.5 billion for the Australian economy and creates employment for nearly 165,000 people, much of which benefits Australia's regional areas.

'Smoke taint' typically results in the decision to cancel harvest and therefore no wine production for the entire year. Bushfires and smoke taint are an ongoing threat to the long- term economic viability of the Australian wine industry. Research outcomes from this project will be of international significance and will deliver clear economic and social benefits.

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