

From Vine to Vision: New Zealand Wine's roadmap to net zero by 2050

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As sustainability increasingly becomes a crucial aspect of global agriculture, the New Zealand wine industry is positioning itself as a leader in environmental stewardship and climate resilience. Dr Edwin Massey, the General Manager of Sustainability at New Zealand Winegrowers, is at the forefront of this transformation. He oversees the industry's efforts to meet ambitious goals, including achieving Net Zero by 2050. The 2025 New Zealand Winegrowers Sustainability Report was recently published. In an interview with NUFFOODS Spectrum Asia, Dr Massey shares key insights from the report, discusses the role of innovation in vineyard and winery practices, and explains how data-driven tools and cutting-edge research are driving meaningful change across the sector.

What are the most significant takeaways from the 2025 Sustainability Report in terms of progress and challenges for the New Zealand wine industry?

To our industry, sustainability means growing grapes and producing our world-famous wines in such a way that we can do so for generations to come. The report highlights that sustainability is a key differentiator for New Zealand wine and that our producers' commitment to sustainable practices over the last three decades means that consumers can trust that their bottle of New Zealand wine has been made with respect for the natural world and our people. Another key takeaway is that there is no 'endpoint' to sustainability. Our industry is on a journey of continuous improvement, backed by robust data

gathered from the Sustainable Winegrowing New Zealand (SWNZ) programme. Year by year, bit by bit, multiple positive actions from our members ensure our industry, our world and our wine are better for it.

With climate change highlighted as the greatest long-term threat, how are growers and winemakers adapting their operations to meet the targets outlined in the Net Zero 2050 roadmap?

In 2020, the industry adopted the climate change goal of being a net-zero industry by 2050. SWNZ introduced mandatory reporting of scope 1 and 2 emissions for the 2020/21 growing season. This means measuring emissions has become part of business as usual for the industry. The New Zealand Wine Industry Roadmap to Net Zero 2050, released in 2024, provided important guidance to members to accelerate progress towards our Net Zero goal. The recently released Sustainability Report 2025 shows that New Zealand wine businesses are taking rapid action to mitigate their emissions. For instance, the latest statistics from SWNZ data show that:

68 per cent of wineries are implementing specific initiatives to minimise their carbon footprint. A 10 per cent increase since 2022.

63 per cent of wineries are using lightweight glass bottles as one of their packaging methods. An 8 per cent increase since 2022.

15 per cent of wineries have installed solar energy sources. This is a 3 per cent increase since 2022.

56 per cent of vineyards are implementing specific initiatives to minimise their carbon footprint. A 15 per cent increase since 2022.

30 per cent of vineyards are upgrading their equipment to reduce energy consumption. An 11 per cent increase since 2022.

A growing portion of our membership is taking the next step in driving change by becoming formally certified through verified carbon-auditing bodies. 127 Vineyards and 30 wineries reported measuring and managing GHG emissions for their vineyard through a verified certification programme. Of these 30 vineyards and 12 wineries reported doing this through a certified carbon-zero programme. These figures are almost double what they were in 2022. While there remains a long way to travel to get to our goal, we are accelerating the industry's pace of change to a net-zero future.

How does the individualised GHG emissions reporting system help growers make practical and effective changes on the ground?

Two-way information exchange is a vital component of SWNZ. SWNZ issues each member an individualised GHG emissions benchmarking report each year. This report helps our members compare their emissions against past years and against regional averages. This information helps our members to make decisions in their business and to track the impact of these decisions over time. So, for example, if a winery decides to undertake an energy efficiency programme, the benchmarking report will track the impact of that decision and enable them to measure the overall reduction in emissions.

Water conservation is clearly a strength for the industry—what initiatives or innovations have driven such high compliance and optimisation levels among vineyards and wineries?

Water is a key focus area of the SWNZ programme. Our industry goal is to be a world leader in efficient water use and the protection of water quality. Using water as efficiently as possible is a priority for our industry, as typically, grapes are grown in areas that are often dry and sunny in times of peak demand. The introduction of the SWNZ logo use policy in 2008 was a key milestone that helped drive high compliance levels in the industry. This policy ensured that the SWNZ logo can only be used for wine produced from 100% SWNZ-certified grapes and produced in 100 per cent SWNZ-certified winemaking facilities. This means that while SWNZ is not a compulsory programme, wine companies that want to use the logo require their contracted grape growers to be SWNZ certified. SWNZ certification, in effect, becomes a market access requirement for growers wanting to sell their grapes.

How will the upcoming digital tool integration with the SWNZ program improve efficiency for members once the Freshwater Farm Plan regulations are in place?

Project Raumatatiki: Freshwater Farm Planning for Viticulture is focused on developing an online farm planning tool that will help vineyard operators to identify and mitigate risks to freshwater quality while meeting upcoming government regulations. The tool will drive efficiency as it could enable members to complete their plan as part of their SWNZ requirements, reducing potential duplication and saving the costs associated with needing an independent consultant to develop a plan on their

behalf.

How is Bragato Research Institute currently helping the industry stay ahead of emerging sustainability challenges, and what new research priorities are on the horizon?

Bragato Research Institute (BRI) is a wholly owned subsidiary of New Zealand Winegrowers (NZW). Its mission is to lead quality research and innovation that enables the New Zealand wine industry to thrive, from blue-sky research to the practical application of science in vineyards, wineries and supply chains. BRI's work is crucial to enable our industry to make faster progress towards its sustainability goals. One example is the [Sauvignon Blanc 2.0 programme](#) – an ambitious initiative designed to produce the next generation of resilient vines at an accelerated pace. The goal is to create 12,000 entirely new variants of New Zealand Sauvignon Blanc, and then screen them to identify plants that exhibit useful traits selected by industry, such as yield, resistance to fungal infection, frost tolerance and water use efficiency. In addition, current and future research on more efficient and precise viticulture and winemaking practices will help to further reduce the need for inputs, boosting efficiency and saving costs. In combination, these research programmes will help to ensure the New Zealand wine industry's reputation for sustainability.

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