Sustainable Winegrowing New Zealand

Certification Scheme Handbook

NEW ZEALAND SUSTAINABLE WINEGROWING

New Zealand Wine
Altogether Unique.

Sustainable Winegrowing New Zealand

Certification Scheme Handbook

Resources

About Sustainable Winegrowing New Zealand

Sustainability is an integral part of the New Zealand wine industry. New Zealand's winemakers and grape growers are committed to crafting exceptional wine while enabling the natural environment to thrive.

Sustainable Winegrowing NZ™ (SWNZ) is a programme run by New Zealand Winegrowers, the industry body for New Zealand's grape growers and winemakers (see additional information about New Zealand Winegrowers on the next page). SWNZ is widely recognised as a world-leading sustainability programme and was one of the first in the international wine industry when it was established in 1995. The programme is based on continuous improvement and alignment with standards and benchmarks, which ensures members meet best practice guidelines for sustainability. The programme was first adopted by grape growers across the country, followed by wineries, with the establishment of sustainable winery certification standards in 2002. SWNZ now certifies all parts of the production chain including vineyards, wineries, New Zealand-based bottling facilities, and brands.

Today, 98 percent of New Zealand's producing vineyard area is certified by SWNZ, and approximately 90 percent of the wine produced in New Zealand is processed in SWNZ-certified facilities. This level of industry-wide participation in a sustainability scheme offers a significant point of difference for New Zealand wine.

The SWNZ programme provides:

- standards and guidance for members to ensure stewardship across key focus areas of sustainability
- a consistent set of benchmarks enabling members to make informed business decisions across key focus areas with the aim of continuous improvement
- protection and enhancement of the reputation of the New Zealand wine industry nationally and internationally by maintaining the industry's social licence to operate.

SWNZ strives to showcase the sustainability of the New Zealand wine industry and to be globally recognised as a leader in this area. To achieve this, the programme must be robust and operate with integrity, ensuring that the certification standards and associated branding are trusted.

SWNZ members pay an annual fee based on membership type. The current fee structure can be found online for vineyards and wineries.

About New Zealand Winegrowers

New Zealand Winegrowers (NZW) is the industry body representing New Zealand's grape growers and winemakers, with offices in Auckland, Wellington and Blenheim, New Zealand. The organisation is governed by a Board of Directors of 12 members – ten elected directly by NZW members, and two appointed by the Board. Current Board membership can be viewed here

NZW is funded through:

- a levy on the sale of grapes, collected under the Commodity Levies Act 1991
- a levy on the sale of wine under the Wine Act 2003, and
- user pays activities and sponsorships.

There are a range of committees that sit under the Board of Directors, which provide advice and recommendations to the Board on a range of organisational functions. Committees are made up of Board members, and on some committees, members from the industry have been appointed for their specialist expertise.

The Environment Committee oversees the environmental and sustainability functions of NZW, including the SWNZ programme. This means that any substantive changes to the SWNZ programme must first be endorsed by the Environment Committee before going to the Board for final approval. The structure of the programme and requirements for SWNZ certification are reviewed by the Committee and Board periodically to ensure the SWNZ programme remains relevant and fit-for-purpose.

Why is sustainability certification important?

Sustainability is no longer a 'nice-to-have' for many consumers – it has become a critical element of the wine industry's social licence to operate. This is driven by the expectations of consumers both domestically in Aotearoa New Zealand and in key overseas markets. Many consumers want to know the wine they enjoy has been grown in a way that sustains and protects the natural environment. Internationally, proof of sustainability is also becoming a prerequisite to access an increasing number of markets. Furthermore, regulations governing the sustainable use of land and water are strengthening – SWNZ certification can create a pathway for members to meet relevant regulatory requirements through continual improvements to viticultural, winemaking and other operational practices.

What are the benefits of being a SWNZ member?

Through the programme, SWNZ provides members with:

- the confidence of operating within a robust sustainability framework, allowing wine companies to make strong sustainability claims in their markets
- the integrity of the SWNZ branding to connect with a growing number of sustainability-conscious customers all over the world
- market access for growers to sell their grapes to wine companies that are SWNZ-certified and use the SWNZ logo
- empirical evidence to demonstrate sustainability credentials of grape growing and winemaking practices to local councils and central government (potentially minimising the costs of environmental regulation)
- benchmarking reports that highlight areas for improvement, enabling members to make decisions to maximise resource efficiency and enhance economic sustainability
- feedback and guidance enabling members to continuously improve and fine-tune their operational systems and processes
- access to information resources and events to enable members to stay up-to-date with the latest best practice methods.

Sustainability Focus Areas

NZW has six sustainability focus areas, which form the framework for the SWNZ programme: climate change, water, waste, soil, plant protection and people.

NZW has developed these focus areas and associated industry goals by drawing on the United Nations Sustainable Development Goals as a foundation. The Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all, as they seek to mobilise global efforts around a common set of targets. Within each of these goals, NZW has identified the areas that are most relevant and in which the industry has the greatest ability to make a positive impact.

Focus Area	Focus Area Goal
	**NZ wine industry achieves net zero emissions by 2050** Climate change is a significant risk to the New Zealand wine industry. New Zealand Winegrowers will support the industry to adopt activities that will enable us to minimise our industry's greenhouse gas emissions and meet or exceed the government's expectations regarding industry responsibility for greenhouse gas emissions. Please refer to the industry's Roadmap to Net Zero for more information.
	**Be a world leader in efficient water use and the protection of water quality** Water is of critical importance to New Zealand's wine industry for vine irrigation, frost protection and winemaking activities. It is vital that our wine businesses minimise water use and protect the purity of waterways to ensure our supply remains clean and sustainable in the future.
	**NZ wine industry achieves zero waste to landfill by 2050** Wine production, like all agricultural production, generates waste. Circularity is the focus for those working in New Zealand's vineyards and wineries, where by-products are routinely diverted from the waste stream and turned to beneficial use.
	**Protect and enhance soil health** Soil has a strong influence on both the quality and character of a wine. Protecting soil structure and enhancing soil health is fundamental to grape quality, and ensuring that New Zealand vineyards can continue to produce our renowned wines in the future.
	**Understand, reduce, and mitigate impacts of existing and potential pests and diseases. Be a world leader in sustainable alternatives.** The world expects high quality, unique wines from New Zealand. To maintain the quality of our wine, we work to ensure our vineyard ecosystems are healthy and protected from the impacts of disease and pests.
	**Be an industry of choice for workers** The success of New Zealand's wine industry depends strongly on the commitment and passion of the employees behind it, through each step of the growing, production and sales and distribution chain.

Certification requirements

SWNZ members are required to demonstrate commitment to and compliance with standards in each of the six focus areas. This is achieved through the development of site management plans, as well as the annual submission of questionnaires and other documentation, and the completion of regular audits.

More details on the various steps of certification can be found on page 5.

SWNZ requirements in each focus area – summary table

Focus Area	Industry goal	Programme requirements
Climate change	To achieve net zero emissions by 2050	• Supply details of verified certification programme for managing emissions (if applicable) • Submit energy use figures • Measure and record figures for the transportation of grapes and juice/wine • Provide information about the types of packaging used (e.g., regular vs lightweight bottles, cans, etc.) • Supply details of any initiatives implemented to reduce carbon footprint
Water	To be a world leader in efficient water use and the protection of water quality	• Submit total water use figures and wastewater volumes • Supply details of relevant resource consents for water takes and wastewater discharge • Use techniques to optimise water applications • Provide details of water efficiency practices/initiatives implemented
Waste	To achieve zero waste to landfill by 2050	• Provide details about how major waste streams are being managed • Submit the total amount of waste sent to landfill • Supply details of any initiatives implemented to reduce waste
Soil	To protect and enhance soil health	• Retain a soil property map on file • Implement soil testing protocols in accordance with the vineyard's Soil and Nutrient Management Plan, including copper and organic matter testing where relevant. • Enter all nutritional/biological inputs (e.g., fertilisers) into online spray diary • Supply details of any initiatives to protect and enhance soil health and biodiversity
Plant protection	To understand, reduce and mitigate the impacts of existing and potential pests and diseases while being a world leader in sustainable alternatives	• Adhere to all requirements outlined in the latest industry rule book (the annual 'Spray Schedule') • Submit full spray diary with details of all applications made to the vineyard • Have procedures in place to monitor, assess and control pests and diseases (chemical and non-chemical) • Provide record of regular calibration of all equipment used to apply sprays • Ensure all spray applicators (including contractors if used) have the appropriate training and up-to-date qualifications
People	To be an industry of choice for workers	• Retain current health and safety plan and key documents that are up to date and compliant with regulatory requirements • Implement employment agreements containing (at least) minimum employment entitlements for all directly employed staff, as well as comprehensive contractor agreements (as applicable) • Store fuel and agrichemicals safely in compliance with regulatory requirements

The certification process

To gain or maintain SWNZ certification, all members must agree to and comply with the terms and conditions of the programme (see more information below about confidentiality and privacy). This includes completing annual submissions and undergoing regular full-site audits conducted by an independent, third party verification company. These requirements include:

- submission of an annual questionnaire (with no outstanding corrective actions)
- submission of an annual spray diary that meets all Spray Schedule requirements
- completion of the annual Biosecurity Vineyard Register
- successful completion of a full-site audit at least once every three years
- payment of applicable membership fees.

A detailed list of certification requirements for each SWNZ membership type is found in the SWNZ Standard document available on the NZW website here. The table below summarises these requirements for each membership type.

Membership type	Compliance with SWNZ terms and conditions	Questionnaire	Spray diary	Biosecurity Vineyard Register	Full-site SWNZ Audit	Proof of current organic certification	Payment of applicable membership fees
Winery (including bottling facilities)	✓	✓			✓		✓
Vineyard	✓	✓	✓	✓	✓		✓
Winery no-site (brand only)*	✓	✓					✓
Vineyard organic equivalence**	✓	✓		✓		✓	✓
Winery organic equivalence**	✓	✓				✓	✓

**Note. A 'Winery no-site' is an operation (wine brand) that does not own its own vineyards and/or winemaking facilities, instead buying grapes from contract grower(s) and/or contracting out the production of wine to a winery.*

***Note. Organic equivalency is a reduced membership stream open to organically certified vineyards and wineries that also wish to be SWNZ-certified. This membership stream avoids duplicating requirements already met by the operation through their organic certification. Organic members are audited annually by their organic verifier. Members granted SWNZ equivalence status are not entitled to make any individual claims with respect to SWNZ certification, or use the SWNZ logo in their own right.*

NZW values confidentiality and privacy

Through the SWNZ certification process, NZW collects data and information about members' operations and sustainability practices. This information is used to help monitor and audit compliance with the programme's requirements and, for that purpose, may be shared with auditors or contractors compiling or analysing data on behalf of NZW. Data collected under the SWNZ programme may also be used in an aggregated form for benchmarking purposes, so that SWNZ members can see how their data compares at a national and regional scale.

For a full statement on privacy and confidentiality, please see the terms and conditions for membership in the SWNZ programme, which can be accessed here

Once the foregoing requirements are met, SWNZ certification is granted and a status letter issued. Winemakers producing wine made from grapes grown in fully SWNZ-certified vineyards and produced in SWNZ-certified facilities can apply for permission to display the SWNZ logo on the bottle. This is the industry's guarantee of sustainable production from grape to glass.

Each of the certification steps is outlined in the following sections.

Questionnaires

Every year, members must complete self-assessment questionnaires (previously known as 'scorecards') covering all aspects of the business. There are four types of questionnaire, depending on the type of operation. These are: vineyard, winery (note: winery organic equivalence members also complete the 'winery' questionnaire), winery no-site and vineyard organic equivalence.

Once submitted, every questionnaire is processed for compliance. If a response indicates that a SWNZ requirement has not been met, a corrective action is identified along with a timeframe for its completion. SWNZ certification for the subsequent year is not granted until the corrective action is verified as being complete and the relevant programme requirement(s) met.

Please refer to the SWNZ Standard document for detailed information about the data collected in the annual questionnaires.

Site management plans

A key requirement highlighted in the questionnaires is the development of a site management plan. A comprehensive site management plan ensures that each member has a dedicated plan in place for key focus areas of sustainability. This assists with implementing best practice, meeting audit requirements and continuous improvement. To guide members in the development of their site management plan, SWNZ provides a template plan for vineyards and wineries.

The Vineyard Site Management Plan is made up each of the following:

- a Water Management Plan
- a Soil and Nutrient Management Plan
- a Plant Protection Plan
- a Waste Management Plan
- an Emissions Management Plan (recommended but not mandatory).

The Winery Site Management Plan is made up each of the following:

- a Water Management Plan
- a Waste Management Plan
- an Emissions Management Plan (recommended but not mandatory).

See the Resources section for the Site Management Plan templates (starting on page 17).

Spray diaries

Vineyard members must also submit a full spray diary annually, which documents all agrichemical applications made to the vineyard that season, including any herbicide and fertiliser applications (if used). Spray diaries are processed for compliance to ensure that only approved products have been used and specific rules of use have been adhered to as outlined in the latest NZW Vineyard Spray Schedule (see more information about the Spray Schedule on page 7). If any practice does not comply with a particular requirement, the vineyard is typically required to submit a compliant spray plan for the upcoming season and undergo a pre-harvest spray diary audit. SWNZ certification for the following year is not granted until the audit is conducted and the spray diary is confirmed as meeting all Spray Schedule requirements.

Every spray application entered must include the following information:

- date of spray application
- vineyard block(s) to which spray was applied
- application method (e.g. foliar, ground, fertigation, spot, spread)
- the spray head target (whether the spray was applied to the full canopy, bunch line or leaf zone)
- the type of canopy training/trellising system
- the canopy density (dormant, light/open, medium, or dense)

- the spray volume applied (per hectare or per 100 metres)
- the name(s) of the product(s) applied and the application rate(s) at which applied
- the primary pest or disease target for each product applied
- the name of the operator who applied the spray round.

SWNZ members have free access to GrapeLink, an online tool provided to record and submit spray diaries online. Members are encouraged to use GrapeLink as a planning tool by entering sprays prior to application. The GrapeLink programme notifies users of any planned operations which may not align with SWNZ requirements, enabling members to take pre-emptive action. Planning spray applications in GrapeLink also gives members access to the Rates Calculator tool, which provides guidance to calculate the correct amount of chemical to apply per hectare or per 100 metres of row.

In addition to compliance processing, spray diary data is used by SWNZ to produce personalised benchmarking reports for members and to undertake industry benchmarking.

Spray Schedule: the agrichemical rule book

The NZW Vineyard Spray Schedule is compiled and published annually. The Spray Schedule is the agrichemical rule book for SWNZ-certified vineyards and provides guidance on market access requirements. It is an important risk management tool for members and the entire New Zealand wine industry. All agrichemical products are vetted by a group of experts prior to inclusion in the Spray Schedule. SWNZ members must only use agrichemicals on their vineyards that are listed as approved in the latest Spray Schedule.

Within the Spray Schedule the terms 'must' and 'should' carry specific meaning for SWNZ members. 'Must' is a mandatory command or action. Failure to follow the command or action will jeopardise SWNZ certification. 'Should' suggests good practice. Failure to follow suggested good practice will not risk SWNZ certification but will be noted for recommended improvements.

Biosecurity vineyard register

The biosecurity vineyard register is a further requirement for SWNZ certification, and completing the register annually is a simple action growers take to help manage biosecurity risks in vineyards. Maintaining an accurate record of vineyard location, variety and future plantings helps NZW to communicate effectively with members in case of an incursion from a new biosecurity threat.

The register requires the vineyard operator to complete (or confirm) the following information annually:

- vineyard name, contact details and location
- planted area and types of varieties planted (including planned for future plantings)
- confirm whether there is an up-to-date Biosecurity Plan (mandatory requirement for all SWNZ-certified vineyards from the 2025/2026 season onwards)
- confirm whether the vineyard is certified organic (and if so, with what certifying body) or in the process of conversion to an organic regime
- confirm if any of the vineyard area is mothballed or producing fruit which will not be harvested for wine production.

Audits

Conducting regular audits is fundamental to maintain the integrity of the SWNZ programme. Vineyards and wineries participating in the programme are audited when they first join the programme, following the submission of the required documentation.

After the first year, vineyards and wineries are audited at least once every three years. If there is a change of ownership or management, the audit cycle is reinitiated: an initial audit is undertaken under the new management/ownership and the three-yearly audit cycle begins from that initial audit. A successful audit allows members to obtain or retain SWNZ certification.

SWNZ members are audited at least once every three years to ensure that they are:

- accurately monitoring and recording required information
- adhering to standards, procedures, guidelines and regulations
- ensuring staff have the correct training and knowledge
- managing risks and issues in accordance with SWNZ standards and complying with relevant regulatory requirements.

The audit involves the assigned auditor reviewing key records against the most recent questionnaire responses and spray diary entries, and a brief walk around the property. In the case of a remote audit (when it is not possible for the auditor to undertake a site visit, as was the case under COVID-19 conditions), photos may be requested. Members should allow for 2–3 hours for an audit involving a site visit.

Information gathered for the audit helps members and NZW to monitor progress, make informed decisions, identify and manage risks, demonstrate safe and effective practices and address issues.

If the auditor identifies a SWNZ requirement that has not been met, a corrective action is identified along with a timeframe for its completion. SWNZ certification for the following year is not granted until the corrective action is verified as complete and the relevant programme requirement(s) met.

SWNZ contracts the third-party audit services of Water and Atmosphere Information Ltd (WAI) to conduct vineyard and winery audits. This independent organisation specialises in environmental auditing in the viticultural, aquaculture and mining sectors, as well as other services in the horticultural sector. Auditors are selected based on clear demonstrable knowledge, experience and expertise in the wine industry. New auditors shadow experienced auditors during their first year before they are permitted to conduct audits independently. All auditors receive training from WAI's lead auditors who are qualified to internationally recognised accreditation standards, including ISO. New auditors also undergo auditor skills training by completing an AsureQuality training course. All auditors are required to attend annual auditor training sessions to ensure they are up-to-date regarding SWNZ programme and verification requirements, including new or adapted technical standards.

See the Resources section for the vineyard and winery audit document checklists (starting on page 33).

Personalised benchmarking reports

Continuous improvement is a key objective of the SWNZ programme. Using the data collected from annual submissions, personalised benchmarking reports are produced for all SWNZ members each year. These reports help members track their progress over time, compare their performance against other vineyards/wineries, and identify areas for improvement. Benchmarking reports cover the following topics:

- Greenhouse gas (GHG) emissions
- Water use
- Plant protection (vineyards only)

A technical advisory group reviews and provides input into the production of these reports to ensure they are relevant and add value for members. All members are encouraged to review their benchmarking reports annually and contact membership@swnz.org.nz if they have any questions or feedback.

See the Resources section for anonymised examples of vineyard and winery GHG emissions reports (starting on page 9).

Further information

Need to know more?
Check out the NZ Winegrowers website I nzwine.com/en/sustainability/swnz/
Email I membership@swnz.org.nz I Phone I +64 3 577 2378

Sustainable Winegrowing New Zealand

Vineyard Greenhouse Gas Emissions Report

Season	**2024/25**
Vineyard name	----
Vineyard ID	----
Region	Marlborough

Overview and purpose of this report

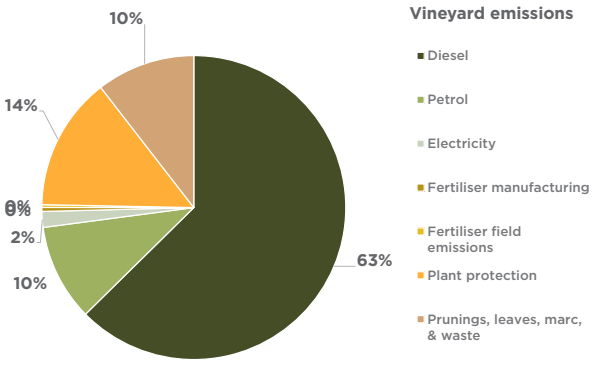
This report is based on data from the 2024/25 season.
This report is designed to help you identify your greenhouse gas emission sources, as well as potential areas for improvement.
The information is derived from GrapeLink and the SWNZ Questionnaire. Incomplete fertiliser and agrichemical records in GrapeLink, or fuel use and production records in the questionnaire, will result in potentially misleading calculated emissions for your vineyard.

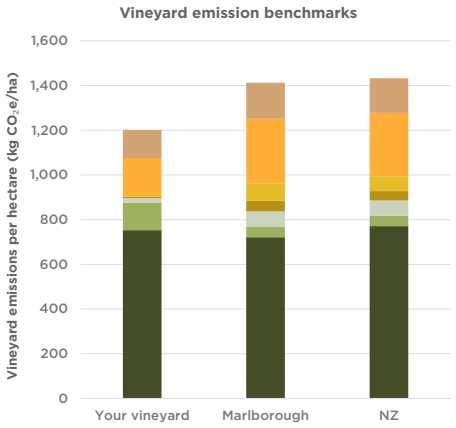
Life-cycle greenhouse gas emissions have been used in this report. This includes the raw materials extraction, manufacturing, transportation, and use.

The NZ wine industry has a goal to achieve net zero emissions by 2050. Check out the wine industry's new Roadmap to Net Zero, along with a number of relevant fact sheets to help with emissions related decisions www.nzwine.com/members/sustainability/guides/climate-change

1. GHG emissions summary

Your total vineyard emissions: **63** t CO_2e





	Your vineyard	Marlborough	New Zealand
GHG emissions per hectare (kg CO_2e/ha)*	**1,202**	**1,413**	**1,433**
GHG emissions per tonne grapes (kg CO_2e/t)**	**97**	**95**	**109**

Your vineyard emissions per hectare are within the average range for your region.

Your vineyard emissions per tonne are within the average range for your region.

*Your vineyard size = ---- ha. Average Marlborough vineyard size = 29.5 ha. Average national vineyard size = 25.1 ha.
**Your vineyard production = 12.4 t/ha. Average Marlborough vineyard production = 14.8 t/ha. Average national vineyard production = 13.2 t/ha.

Your total vineyard emissions of 63.4 tonnes CO_2e is equivalent to approximately:

289,100 kilometers driven in an average sized car OR 12.9 flight(s) for 1 person from Auckland to London OR 22.5 tonnes of coal (bituminous) burnt

Historical tracking

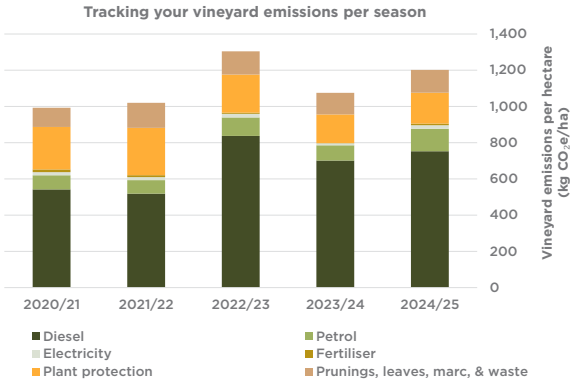
GHG emissions per hectare (kg CO_2e/ha)

2021/22	2022/23	2023/24	2024/25	Annual average
1,020	1,304	1,075	1,202	**1,150**

Comments: Same source inputs

Your recorded emissions have increased by 11.8% compared to last season.

This increase in emissions has in part been driven by a 7% increase in diesel use this season, compared to 2023/24.



2. Emissions breakdown

Source: SWNZ Questionnaire, GrapeLink

Fuel & electricity use	Units	Usage per ha: Your vineyard	Usage per ha: Marlborough	kg CO_2e/ha: Your vineyard	kg CO_2e/ha: Marlborough	kg CO_2e/ha: NZ	kg CO_2e/t grapes: Your vineyard	kg CO_2e/t grapes: Marlborough	kg CO_2e/t grapes: NZ
Diesel	L	239	229	**753**	**721**	**771**	**61**	**49**	**58**
Petrol	L	45	17	**124**	**46**	**46**	**10**	**3**	**4**
Electricity	kWh	186	643	**20**	**70**	**68**	**2**	**5**	**5**
Plant protection & fertilisers[1]									
Fertiliser manufacturing				**5**	**48**	**42**	**0**	**3**	**3**
All fertilisers	kg product	21	235	5	43	38	0	3	3
Lime/Dolomite	kg product	0	110	0	4	4	0	0	0
Fertiliser field emissions				**4**	**78**	**67**	**0**	**5**	**5**
Nitrogen fertiliser	kg N	1	8	4	38	33	0	3	2
Lime/Dolomite	kg product	0	110	0	40	34	0	3	3
Total plant protection[2]				**171**	**289**	**283**	**14**	**19**	**21**
Herbicide	kg ai	3.4	6.3	48	91	83	4	6	6
Fungicide	kg ai	23.4	39.7	104	167	166	8	11	13
Insecticide	kg ai	0.1	0.2	2	5	5	0	0	0
Oils	kg ai	3.9	4.4	8	10	10	1	1	1
Other	kg	4.4	8.7	8	16	19	1	1	1
Prunings, leaves, marc & waste									
Total waste & biological inputs				**126**	**161**	**155**	**10**	**11**	**12**
Waste to landfill[3]	m^3	0.1	0.3	0	0	0	0	0	0
Grape marc[4]	tonnes	-	0.6	-	23	25	-	2	2
Prunings and leaves[5]	kg N	29.4	32.2	126	138	130	10	9	10
Total		**-**	**-**	**1,202**	**1,413**	**1,433**	**97**	**95**	**109**

3. Emissions reduction opportunities

Diesel — Comprises the largest source of emissions on your vineyard.

- Reducing diesel usage by 50% would result in a 30% reduction in total emissions.
- Full electrification of all machinery could result in a 59% reduction in total emissions.

Source	Cause	Reduction strategies	More resources
Diesel	Combustion of diesel fuel releases carbon dioxide (CO_2), among other pollutants.	Collecting diesel usage data if not already collecting, including from contractors. Purchasing more fuel efficient machinery where possible. Maximising efficiency of machinery passes on the vineyard.	https://www.eeca.govt.nz/co-funding-and-support/products/wine-decarbonisation-pathway/
Petrol	Combustion of petrol fuel releases carbon dioxide (CO_2), among other pollutants.	Reduction strategies are similar to diesel.	https://www.eeca.govt.nz/co-funding-and-support/products/wine-decarbonisation-pathway/
Electricity	84% of NZ's electricity usage is from renewable sources. This is the 4th highest in the OECD and increasing towards NZ's 100% target by 2035. NZ is fortunate to have low emissions per unit of electricity by global standards.	Irrigation is by far the largest source of electricity usage on vineyards. Irrigation efficiency will therefore translate to electricity use efficiency. Electrification of vehicles and machinery where possible will also lower your emissions, as the emission factor for electricity is less than that of diesel per unit of work.	https://www.oxin.nz/ https://smartirrigation.co.nz/ https://tinyurl.com/ElecTractor https://tinyurl.com/ywh2f8uy
Fertiliser	Emissions from fertiliser come from two primary sources. The first are the embodied emissions from their manufacture and transport. The second are the nitrous oxide (N_2O) and carbon dioxide (CO_2) emissions released from nitrogen fertilisers and lime upon application.	Reduction in fertiliser use by increasing fertiliser efficiency will reduce emissions directly, as well as indirectly by reducing machinery passes. Nitrogen fertilisers have different field emissions dependent on whether they are urea or non-urea. Urea fertiliser coated with urease inhibitors have the lowest field emissions.	
Agri-chemicals	Agrichemical products have embodied emissions from the manufacturing process, including packaging and transport.	Agrichemical usage is on average the second highest contributor to vineyard emissions after diesel. Increasing the efficiency of agrichemicals will reduce their usage. For guidance on spray efficiency, refer to the personalised plant protection reports for vineyards released annually and in-season.	https://tinyurl.com/34z3wh6v

4. Notes and assumptions used in this report

[1] Product manufacturing emissions and field emissions (the generation of N_2O after nitrogen fertiliser application, and CO_2 following lime/dolomite application).

[2] Emissions from combination products (e.g., insecticide & fungicide) are attributed to fungicides. The 'other' category includes products such as adjuvants.

[3] Landfill waste from vineyards is typically steel and plastic with no associated breakdown emissions from landfill. Subject to further investigation on vineyard landfill waste mix.

[4] While marc composition will vary enormously, based on a literature search, we have assumed N = 1.8% dw, 46% DM, and a density of 845 kg/m^3. Marc, like all sources of N, has a small amount of nitrous oxide emissions.

[5] Assumed vineyard prunings and leaf fall contribute 30 kg N/ha at a yield of 13 t/ha. This is adjusted based on your vineyards actual yield, if provided.

- Emissions offsets (e.g., areas planted for biodiversity) are not calculated in this report due to the high variability in carbon uptake from planted areas.

- Emissions embodied in capital (e.g., buildings, machinery) are not included in this report both due to a lack of data and also as they are likely to be immaterial (<1%) to emission sources.

- Life cycle emission factors are used to calculate the resource input emissions. These are described in the NZ Wine National Greenhouse Gas Emissions Report on the NZ Wine website.

Committed to a Sustainable Future

AGRILINK

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VineyardGHGReport25 (2).xlsm 15/12/2025

Sustainable Winegrowing New Zealand

Winery energy use and GHG emissions

Vintage	2025
Winery name	----
Winery ID	----
Winery type	Processing with and without bottling
Winery size	1m - 4m L
Region	Hawkes Bay

How does this affect me?

The overall winery industry electricity intensity this vintage was 180 kWh/kL wine, down 25% from 240 kWh/kL in the 2024 vintage and 13% lower than the 10 year average (210 kWh/kL). Overall energy use decreased by 17% and was similar to the 10 year average.

Life-cycle greenhouse gas emissions have been used in this report. This includes the raw materials extraction, manufacturing, transportation, and use.

The NZ wine industry has a goal to achieve net zero emissions by 2050. Check out the wine industry's new Roadmap to Net Zero, along with a number of relevant fact sheets to help with emissions related decisions: https://www.nzwine.com/members/sustainability/guides/climate-change/

Electricity data entered into SWNZ Questionnaire	✓
Electricity data included in analysis (Anticipated range is 50 - 2,000 kWh/kL wine)	✓
Other energy data included in analysis (LPG, natural gas, petrol, and diesel use data is excluded if outside anticipated ranges)	✓

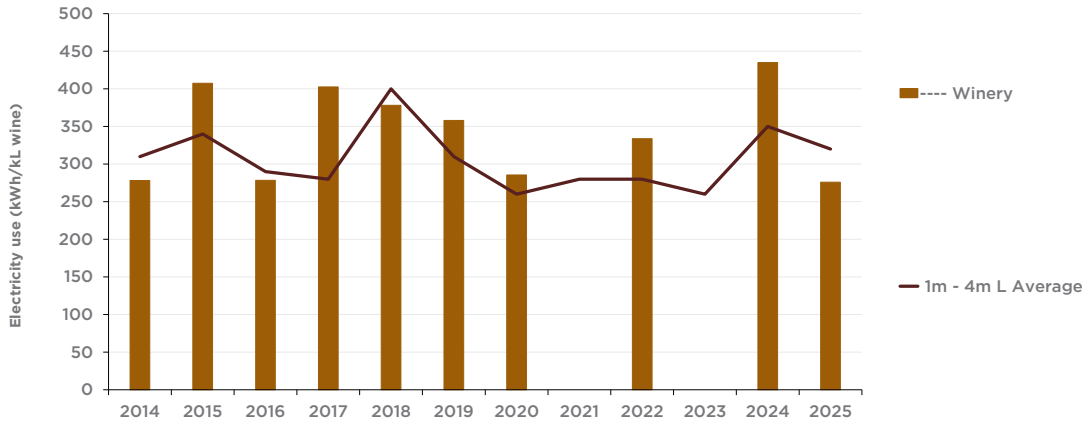
1. Production & energy use

	2025 vintage	2024 vintage
	5,065 tonnes	2,813 tonnes
	3,876,600 litres	2,193,750 litres

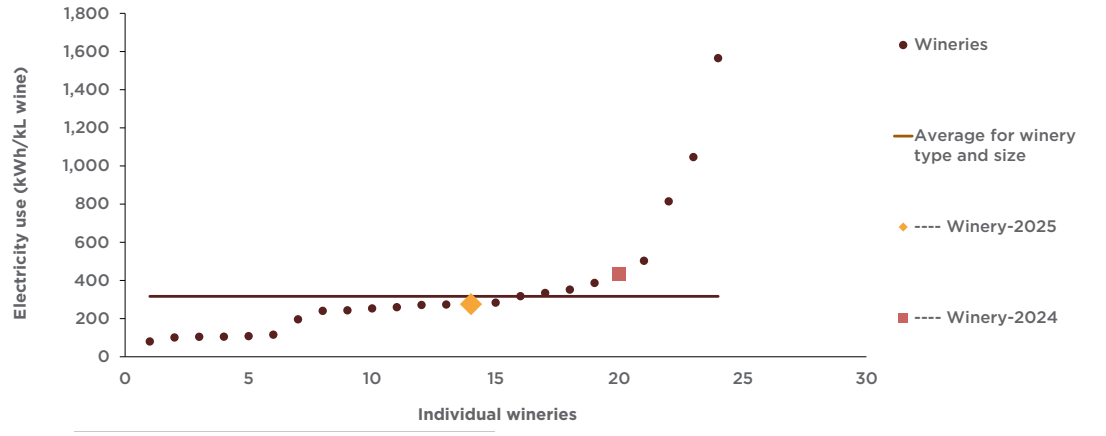
Your energy use	2025 vintage	2024 vintage
Electricity (kWh/year)	1,069,400	954,072
Electricity (kWh/kL wine)	276	435
Electricity (MJ/kL wine)	990	1,570
Fossil fuels [1] (MJ/kL wine)	200	270
Energy [2] (MJ/kL Wine)	1,190	1,840
Your energy emissions		
Total energy emissions [illegible]	167.7	142.0
Energy emissions [illegible]	43.3	64.7
Electricity emissions [illegible]	30.0	47.3
Emissions from fossil fuel [illegible]	13.3	17.4

Emission factor sources: MfE Measuring Emissions Guidance 2025 and Agrilink Fuel EFs (www.agrilink.co.nz)
1. Fossil fuels = Natural gas, LPG, petrol, and diesel, reported in megajoules per 1,000 litres of wine.
2. Energy = Electricity plus fossil fuels, reported in megajoules.

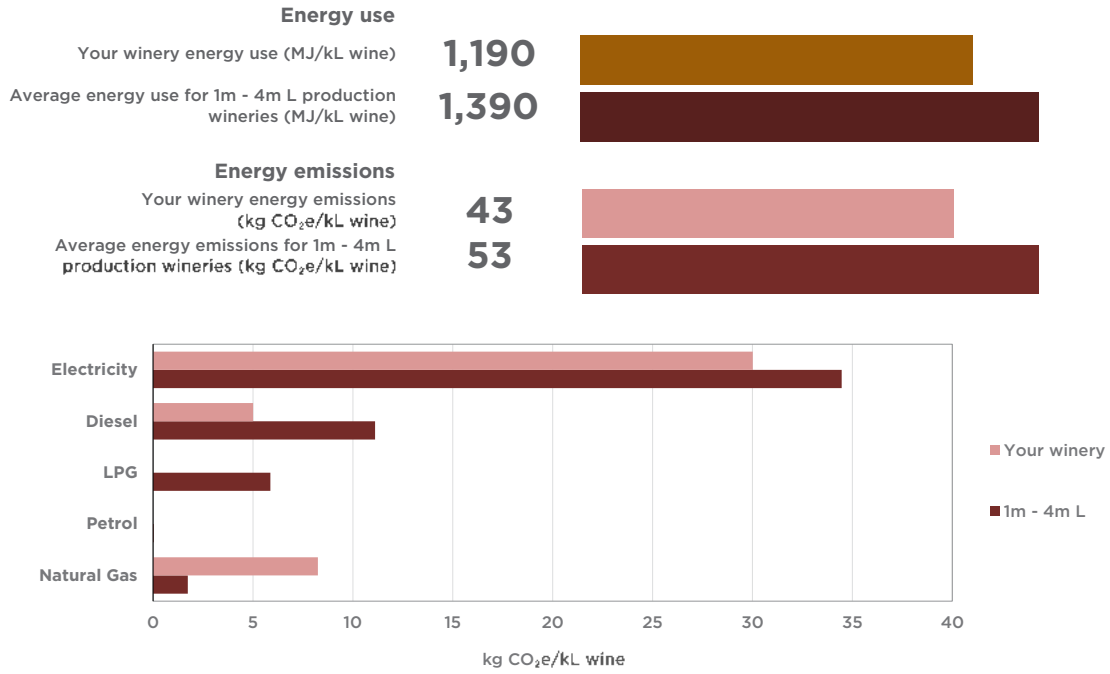
2. Historical winery average electricity use by production volume: 1m - 4m L



Electricity use - Winery size 1m - 4m L wineries (kWh/kL)



3. Winery energy use & emissions comparison by production volume: 1m - 4m L



Increasing the efficiency of energy inputs can translate to a reduction in total winery emissions.
Different energy sources have different emission factors, ranging from low emissions per unit for electricity, to relatively high emissions per unit for fossil fuels such as diesel.
Reducing the use of fossil fuels and electrifying machinery and vehicles can help lower your energy use emissions. Reducing electricity intensity per litre of wine produced will also reduce emissions.

Detailed information on measures you can use to reduce energy use and resultant emissions can be found on the NZ Wine website. Including an in-depth emissions reduction guide from Toitū Envirocare: https://www.nzwine.com/members/sustainability/guides/climate-change/.

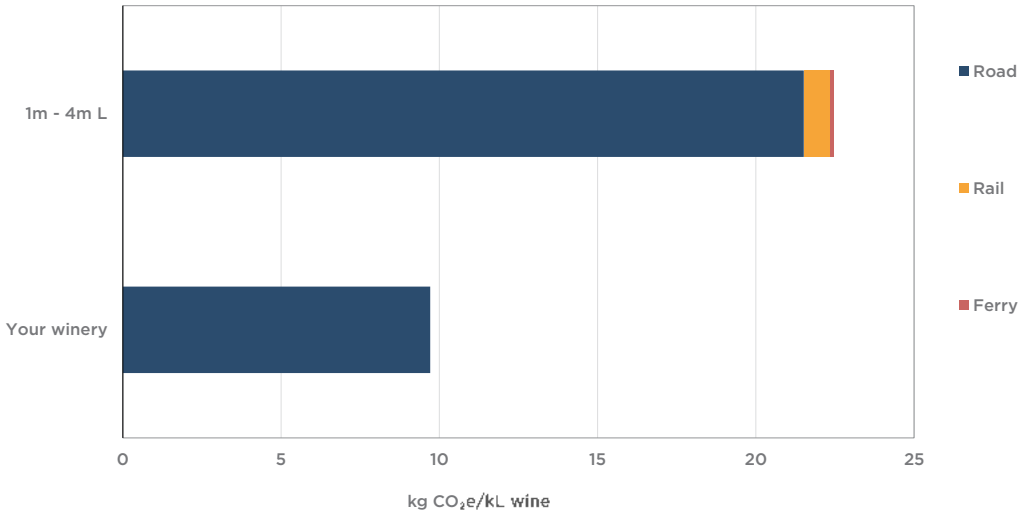
4. Transport emissions

The SWNZ questionnaire encourages wineries to enter data on the transportation of grapes from vineyard to winery and the transport of bulk liquid from facility to facility. Wineries can select the method of transportation, the quantity transported, and the one-way distance travelled. This information is used to determine the total tkm by transport type and from there determine total transport emissions.

In general, transport by rail is significantly less emissions intensive than transport by road.

Transport type	tkm/kL wine produced				kg CO_2e/kL wine produced					
	Grapes		Bulk Liquid		Grapes		Bulk Liquid		Total	
	Your winery	1m - 4m L	Your winery	1m - 4m L	Your winery	1m - 4m L	Your winery	1m - 4m L	Your winery	1m - 4m L
Road	33	65	2	12	9.2	18.2	0.5	3.3	9.7	21.5
Rail	0	0	-	26	0.0	0.0	-	0.8	-	0.8
Ferry	0	0	0	2	0.0	0.0	0.0	0.1	0.0	0.1
Total	**33**	**65**	**2**	**40**	**9**	**18**	**1**	**4**	**10**	**22**

Emissions for your winery from the transport of grapes and bulk liquid were 57% less than the average for 1m - 4m L category wineries.
Note transport is often very specific to a winery's location(s).



5. Packaging emissions

Calculating packaging emissions presents a challenge to the industry for several reasons:

1. Packaging emissions typically constitute the single largest source of emissions from the wine production process (depending on the system boundary).
2. The source of packaging material determines its emissions intensity. We have attempted to account for glass transport to the winery based on an NZ or international source.
3. Not all wine is packaged at the winery, so providing a fair comparison of one wineries packaging emission profile to an industry average is complex.
4. Wine is sometimes packaged in multiple steps (e.g., initially packaged in a flexitank and then bottled in another facility).
5. The stage the wine is packaged at has an impact on packaging emissions (e.g., packaging in-market may reduce emissions from transport to market).
6. The data collected for this report, and therefore the emissions calculated, are to the winery gate only and so cannot account for downstream packaging.

This report attempts to deal with this complexity by presenting the emissions from packaging in two scenarios:

1. Wineries owned and controlled emissions - the emissions resulting from the packaging reported through the SWNZ Questionnaire, converted to the quantity of packaging per kL of production. Averages by winery size category are the average emissions from all wineries of the same size category weighted by production.

2. Complete packaging emissions - assumes all wine produced is put into consumer packaging at the winery gate, i.e., wine in flexitanks is put into consumer packaging. This is scaled using the same proportions of a wineries actual consumer packaging to the winery gate. This hypothetical scenario is intended to present an approximate indication of the emission intensity from packaging in your winery compared to your wineries size category on the basis that all wine is eventually packaged ready for the consumer.

A winery's owned and controlled emissions are used when presenting total emissions from the individual winery and its size category.

NOTE - THIS REPORT DOES NOT QUANTIFY EMISSIONS RESULTING FROM TRANSPORT TO MARKET. THESE EMISSIONS ARE STRONGLY LINKED TO PACKAGING TYPE.

This page summarises winery emissions from packaging - usually the largest contributor to emissions embodied in wine.

Your winery emissions for each type of packaging are benchmarked to the average industry emissions from other wineries in the same production category, under the two scenarios (owned and controlled, and all packaged scenario) explained on the previous page.

This page also summarises total winery emissions from energy use, transport, and packaging and benchmarks your winery average to the average from other wineries in the same production category.
Information on the methodology used to calculate these emissions, as well as industry total and average emissions, can be found in the National Greenhouse Gas Emissions Report - which is published annually on the New Zealand Wine website:

https://www.nzwine.com/members/industry-reports-statistics/sustainable-winegrowing-nz-reports/national-ghg-emissions-and-energy-reports/

Total wine produced at this winery

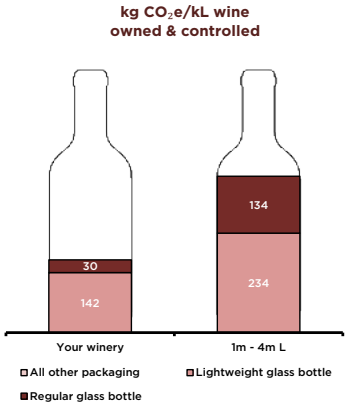
3,876,600 litres

Total wine packaged at this winery

869,628 litres

Owned and controlled packaging - As reported from SWNZ Questionnaire

Packaging type	Unit weight (kg)	Packaged volume (L/kL)		Manufacture + transport kg CO_2e/kL wine	
		Your winery	1m - 4m L	Your winery	1m - 4m L
Regular glass	0.50	34	147	30	134
Lightweight glass	0.42	191	306	142	234
Refillable bottles[1]	0.50	0	0	0	0
Flexitanks	40.25	0	119	0	0
Other packaging	0.02 - 0.2	0	0	0	0
Total	-	**224**	**572**	**172**	**369**
Additional packaging	-	0	0		
Unpackaged production	-	776	428		



Complete packaging: Scenario assumes all production wine is eventually packaged in glass.

Where the bottles were manufactured:

	Your winery	1m - 4m L
NZ	99%	72%
Overseas	1%	28%

Emissions: Glass transport to winery (kg CO_2e/kL wine)

	Your winery	1m - 4m L
NZ	106	80
Overseas	3	54
Total	109	135

When scaled for comparison - your packaging emissions are -6% less than the average for 1m - 4m L category wineries.

Packaging type	Unit volume (L)	Scaled packaged volume (L/kL)		Manufacture + Transport kg CO_2e/kL wine	
		Your winery	1m - 4m L	Your winery	1m - 4m L
Regular glass	0.75	151	324	134	296
Lightweight glass	0.75	849	676	632	517
Refillable bottles[1]	0.75	0	0	0	0
Total	-	1,000	1,000	766	812

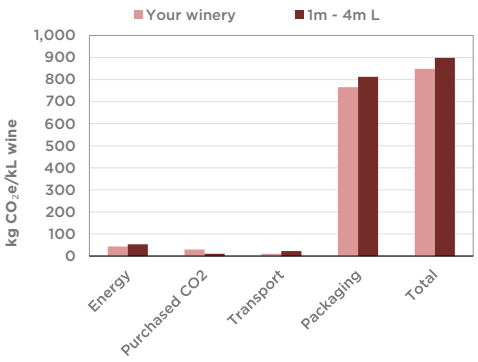
[1] Placeholder for future - currently no winery recorded use of refillable bottles.

kg CO_2e/kL wine complete packaging

NOTE: Packaging in flexitanks will result in lower emissions during transport to market. Post-winery transport has not been quantified in this report.

6. Total winery emissions

Emissions category	Emissions intensity (kg CO_2e/kL wine)		Total emissions (t CO_2e)
	Your winery	1m - 4m L	Your winery
Energy	43	53	168
Purchased CO_2	30	10	115
Transport	10	22	38
Packaging:			
Owned and controlled	*172*	*369*	666
OR All glass packaging	766	812	*2,968*
Total - owned and controlled	*254*	*455*	986
Total - All glass packaging	848	898	*3,289*



Your winery emissions per unit of production are 6% less than the average for 1m - 4m L category wineries.

When packaging emissions are excluded your emissions from other sources are 4% less than the average for 1m - 4m L category wineries.

7. Notes & assumptions

- Average usage and emissions exclude wineries who have not recorded transport type(s) in their SWNZ Questionnaire.
- Packaged wine includes flexitanks (assumed volume = 26,000L) and kegs (volume = 20L).
- Waste has not been accounted for, due to insufficient data on winery waste types.
- Emissions offsets (e.g., areas planted for biodiversity) are not calculated in this report due to insufficient data to correctly account for the carbon uptake from planted areas.
- Emissions embodied in capital (e.g., buildings, machinery) are not included in this report due to a lack of data and as they are likely to be an immaterial (<1%) emission source.
- Emission factors used to calculate these emissions are all Life Cycle Assessment (LCA) based and are described in the NZ Wine National Greenhouse Gas Emissions and Energy Use report on the NZ Wine website - updated each year.

SUSTAINABLE NEW ZEALAND WINEGROWING *Committed to a sustainable future*

AGRILINK

Prepared by
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andrew@agrilink.co.nz
WineryReports2025-Water & GHG (3) 17/12/2025

Vineyard Site Management Plan

New Zealand Wine
Altogether Unique.

Please use this outline when developing/refining your Vineyard Site Management Plan to ensure that it meets all audit requirements. The format of this plan can vary depending on company structure and size, but should include all components listed that are relevant to the vineyard. **The templates on the following pages can be used to complete your Site Management Plan.**

It can also be helpful to document a **12-month operational plan** of all activities that will occur on the vineyard on a monthly basis. This **12-month plan** can assist in the development of your site management plan.

Water Management Plan	Soil & Nutrient Management Plan	Plant Protection Management Plan	Waste Management Plan	GHG Emissions Management Plan
If an irrigation system is installed, details of how the system is managed and maintained. • For instance, how regularly does the irrigation system undergo monitoring and maintenance and by whom? What checks are completed pre-season? What regular ongoing maintenance is completed? Are you required to calibrate your meters according to your consent, if so, how often?	Details of soil and foliar testing protocols. • For instance, how often are soil and foliar samples taken for testing? In what format are records kept? • Organic matter testing should be included at least once every three years. • If copper is applied to the vineyard, copper testing must be included at least once every three years.	Details of procedures in place to identify, monitor, assess and control the incidence of pests and diseases relevant to the region and property. Plans and controls used should be based on: • Best practice and monitoring programme (including hot spots, marked bays, etc.) • Resistance management guidelines & approved chemical controls (refer to the latest Spray Schedule) • Advice from contracted company employed for monitoring (if used) • Phenological data and weather data	***The Vineyard By-Product Checklist can be used as a waste management plan as an alternative to this template.***	***A greenhouse gas (GHG) emissions management plan is NOT MANDATAORY but recommended if you are not already measuring and managing emissions through a verified certification programme (e.g., Toitū).***
Details of how water applications are optimised in order to conserve and reduce water use, which can include: • Tracking weather predictions and measuring rainfall • Understanding specific soil types across the vineyard and their water capacity • Measuring vine and soil moisture • Reviewing consultant reports (if consultants used) • Moving towards dry farming • Reviewing water benchmarking reports	Details of when nutrient applications are applied (frequency of applications) and method of application (e.g., own equipment vs contractor) • Fertilisers/nutrients should only be applied in response to soil/foliar tests. • Nutrient removal rates should be considered when planning applications.	Details of how monitoring results will be recorded (e.g., storing photos).	Details of how vineyard waste products are managed. • Waste products should be reused, reduced and recycled wherever possible to minimise volumes being sent to landfill).	The EECA emissions plan template can be used as an alternative to this template (under 'DIY Emissions Emissions Plan' online).
Details of scheduling plans for water applications (timing of applications) and how these are recorded/reported. • How are your water applications controlled (e.g., manual vs electronic)? Are scheduling plans modified based on weather events?	Plans for calibration of application equipment for soil conditioners/ground spread fertilisers (including calibration of contractors' equipment if applicable) and how calibration results will be recorded.	Plans for calibration of application equipment for all canopy sprays (including calibration of contractors' equipment if applicable) and details of how calibration results will be recorded.	Plans to reduce the amount of waste being sent to landfill	Overview of key sources of emissions from the vineyard, typically: • Energy use (diesel, petrol, electricity) • Chemical & fertiliser use
Details of how natural waterways are managed (if waterways are near the vineyard).	Details of strategies implemented to maintain/ enhance organic matter.	Overview of the details that must be provided for any spray contractor used (if applicable). • Examples include a signed agreement, verification of GrowSafe certification, equipment calibration records, contractor's health & safety plan, signed induction for site health and safety protocols, plans for disposal of agchem containers	Details of how the total amount of waste sent to landfill each year will be measured	Details of how total use will be measured and tracked every year • For guidance on how to calculate total diesel use, have a look at the NZW Calculating Diesel Fact Sheet here
Monitoring plans for measuring water quality.	Identification and management of erosion risks, including cultivation and irrigation run-off (if applicable).			Current or future plans for initiatives to reduce carbon emissions overtime, such as: • Upgrade of equipment to more fuel efficient options • Using renewable energy sources like solar, wind, and biofuel • Energy efficiency initiatives (e.g., sensors, timers, staff awareness campaigns, transport fuel reduction actions) • Carbon offsetting initiatives undertaken (e.g., carbon credits purchased, offsets selected for business air travel) • Property plantings for the purpose of carbon sink/ credits.
Maps outlining the irrigation zones across the vineyard.	Details of strategies implemented to limit soil compaction.			
	Details of how the inter-row sward is managed.	It is best practice to create a Biosecurity Plan for the vineyard to help mitigate the risks posed by unwanted pests and diseases. There is a template available here.		
	Resistant grasses management plan (if resistant grasses have been identified).			

In addition to your Vineyard Site Management Plan, the following key documents must be in place:

- ☐ **Property Spray Management Plan** (outlining sensitive areas, spray drift management & mitigation)
- ☐ **Health and Safety plan** (including an Incident and Near Miss register)
- ☐ **Current site map(s)** identifying key areas including hazards, protected natural areas, location of chemical stores, fuels, emergency equipment, inventory to WorkSafe requirements (the Hazardous Substances Inventory Calculator can help to create your inventory)
- ☐ **Documented procedures**, including emergency procedures
- ☐ **Staff training records** (signed and dated)

Template last updated November 2025

SUSTAINABLE NEW ZEALAND WINEGROWING

Name of vineyard

Vineyard ID number

Date plan was last updated

New Zealand Wine
Altogether Unique.

Vineyard Site Management Plan

Fill in this template to complete your Site Management Plan

Back to overview

Water Management Plan

If an irrigation system is installed, details of how the system is managed and maintained:

For instance, how regularly does the irrigation system undergo monitoring and maintenance and by whom?
What checks are completed pre-season? What regular ongoing maintenance is completed?
Are you required to calibrate your meters according to your consent, if so, how often?

Details of how water applications are optimised in order to conserve and reduce water use:

Examples include:
- Tracking weather predictions and measuring rainfall (only irrigating when there is a need for it, such as prolonged periods of dry weather)
- Understanding specific soil types across the vineyard and their water capacity
- Measuring vine and soil moisture (i.e., with pressure bombs and soil probes)
- Reviewing consultant reports (if consultants used)
- Moving towards dry farming
- Reviewing water benchmarking reports

Details of scheduling plans for water applications (timing of applications) and how these are recorded/reported:

How are your water applications controlled (e.g., manual vs electronic)? Are scheduling plans modified based on weather events?

Details of how natural waterways are managed (if waterways are near the vineyard):

Natural waterways include rivers, streams, ponds, and wetlands.

Monitoring plans for measuring water quality:

☐ **Map(s) outlining the irrigation zones across the vineyard**

Template last updated November 2025

NEW ZEALAND SUSTAINABLE WINEGROWING

Name of vineyard

Vineyard ID number

Date plan was last updated

New Zealand Wine
Altogether Unique.

Vineyard Site Management Plan

Fill in this template to complete your Site Management Plan

Back to overview

Soil & Nutrient Management Plan

Details of soil and foliar testing protocols:

For instance, how often and when are soil and foliar samples taken for testing? In what format are records kept?
- Organic matter testing should be included
- Copper testing must be included if copper is applied to the vineyard

Details of when nutrient applications are applied (frequency of applications) and method of application (e.g., own equipment vs contractor):

- Fertilisers/nutrients should only be applied in response to soil/foliar tests so that all applications are justified (i.e., as recommended by a consultant).
- Nutrient removal rates should be considered when planning applications.
- Nutrient contents of compost or grape marc (if applied) should be considered

Plans for calibration of application equipment for soil conditioners/ground spread fertilisers (including calibration of contractors' equipment if applicable) and how calibration results will be recorded:

Details of strategies implemented to maintain/enhance organic matter:

Examples include:
- Permanent sward/cover crops
- Minimal use of cultivation
- Vine prunings mulched into the mid row/under vine
- Reduction of herbicide use

Template last updated November 2025

NEW ZEALAND SUSTAINABLE WINEGROWING

New Zealand Wine
Altogether Unique.

Vineyard Site Management Plan

Fill in this template to complete your Site Management Plan

Back to overview

Soil & Nutrient Management Plan continued

Details of strategies implemented to limit soil compaction:

Examples include:
- Avoiding driving down rows when soil is wet, where possible
- Using machinery with low impact tyres
- Using machinery on every alternate row where possible
- Using multi-tasking machinery to minimise number of passes

Identification and management of erosion risks, including cultivation and irrigation run-off (if applicable):

Details of how the inter-row sward is managed:

Examples include:
- Mowing alternate rows
- Perennial sward with diverse species
- Annual cover crops
- Plantings for beneficial insects

Resistant grasses management plan (if resistant grasses have been identified):

Examples can include both chemical and non-chemical options.

Template last updated November 2025

NEW ZEALAND SUSTAINABLE WINEGROWING

Name of vineyard

Vineyard ID number

Date plan was last updated

New Zealand Wine
Altogether Unique.

Vineyard Site Management Plan

Fill in this template to complete your Site Management Plan

Back to overview

Plant Protection Management Plan

Details of procedures in place to identify, monitor, assess and control the incidence of pests and diseases relevant to the region and property:

Plans and controls used should be based on:
- Best practice and monitoring programme (including hot spots, marked bays, etc.)
- Resistance management guidelines & approved chemical controls (refer to the latest Spray Schedule)
- Advice from contracted company employed for monitoring (if used)
- Phenological data and weather data

Details of how monitoring results will be recorded:

For example
- Photos of the vines taken during monitoring walks around the vineyard and stored in a designated location.

Plans for calibration of application equipment for all canopy sprays (including calibration of contractors' equipment if applicable) and details of how calibration results will be recorded:

Overview of the details that must be provided for any spray contractor used (if applicable):

Examples include a signed agreement, verification of GrowSafe certification, equipment calibration records, contractor health & safety plan, signed induction for site health and safety protocols, contractor's plans for disposal of agchem containers

☐ **It is best practice to create a Biosecurity Plan for the vineyard to help mitigate the risks posed by unwanted pests and diseases. There is a template available here:**

Template last updated November 2025

NEW ZEALAND SUSTAINABLE WINEGROWING

Name of vineyard

Vineyard ID number

Date plan was last updated

New Zealand Wine
Altogether Unique.

Vineyard Site Management Plan

Fill in this template to complete your Site Management Plan

Back to overview

Waste Management Plan

The Vineyard By-Product Checklist can be used as a waste management plan as an alternative to this template

Details of how vineyard waste products are managed:

Waste products should be reused, reduced and recycled wherever possible to minimise volumes being sent to landfill).

Plans to reduce the amount of waste being sent to landfill:

Details of how the total amount of waste sent to landfill each year will be measured:

For example:

- Receipts from trips to the dump saved and total weight calculated at the end of the season.

Template last updated November 2025

NEW ZEALAND SUSTAINABLE WINEGROWING

Name of vineyard

Vineyard ID number

Date plan was last updated

New Zealand Wine
Altogether Unique.

Vineyard Site Management Plan

Fill in this template to complete your Site Management Plan

Back to overview

GHG Emissions Management Plan

Climate Change is the newest focus area in the SWNZ programme. A greenhouse gas (GHG) emissions management plan is not mandatory but recommended to help you manage and reduce your emissions over time. Information on strategies to reduce emissions can be found in the wine industry Roadmap to Net Zero. An alternative and more comprehensive emissions plan template is available online from the Energy Efficiency & Conservation Authority (EECA) here, along with a user guide and emissions calculations spreadsheet (found under 'DIY Emissions Plan').

☐ **Our company is measuring and managing carbon emissions for the vineyard through a verified certification programme (e.g., Toitū), which includes a full emissions management plan.**

Click here **for information about carbon management supplier options**

List of key sources of emissions from the vineyard:

Typically:

- Energy use (diesel, petrol, electricity)
- Chemical & fertiliser use

Details of how total use will be measured and tracked every year:

For guidance on how to calculate total diesel use, have a look at the NZW Calculating Diesel Fact Sheet here

Current or future plans or initiatives to reduce GHG emissions over time:

Examples:

- Upgrade of equipment to more fuel efficient options
- Using renewable energy sources like solar, wind, and biofuel
- Energy efficiency initiatives (e.g., sensors, timers, staff awareness campaigns, transport fuel reduction actions)
- Carbon offsetting initiatives are undertaken (e.g., carbon credits purchased, offsets selected for business air travel)
- Property plantings for the purpose of carbon sink/credits

Template last updated November 2025

SUSTAINABLE NEW ZEALAND WINEGROWING

Name of vineyard

Vineyard ID number

Date plan was last updated

New Zealand Wine
Altogether Unique.

Vineyard Site Management Plan

Fill in this template to complete your Site Management Plan

Back to overview

12-Month operational plan

Enter key activities that will occur on the vineyard on a monthly basis

JUL	AUG	SEP	OCT	NOV	DEC

Template last updated November 2024

Vineyard Site Management Plan

Fill in this template to complete your Site Management Plan

Back to overview

12-Month operational plan

Enter key activities that will occur on the vineyard on a monthly basis

JAN	FEB	MAR	APR	MAY	JUN Submit ALL SWNZ submissions by 30 June

Template last updated November 2024

Winery Site Management Plan

New Zealand Wine
Altogether Unique.

Please use this outline when developing/refining your Winery Site Management Plan to ensure that it meets all audit requirements. The format of this plan can vary depending on company structure and size, but should include all components listed that are relevant to the winery. **The templates on the following pages can be used to complete your Site Management Plan.**

It can also be helpful to document a 12-month operational plan of all activities that will occur in the winery on a monthly basis. This **12-month plan** can assist in the development of your site management plan.

Water Management Plan

The NZW Environmental Waste Water Management Checklist can be used as part of the water management plan.

Information about the current consents for water take and disposal and the strategies in place to manage consent requirements. It is typically required that wineries:

- Manage inwards water to the allowable take from the consent
- Pre-treat waste water
- Monitor waste water quality
- Verify the operational capacity of disposal systems
- Separate wastewater from storm water (if they are combined, total amount disposed must still meet council limits)
- Have systems to limit wash additives getting into the waste water system
- Have systems to minimise the effect of solids on the functionality of the waste water disposal system

Details of how equipment is maintained for inwards and outwards water.

Details of how waste water quality is checked and confirmed (e.g., sampling of waste water).

Details of how water volumes are measured and tracked over time (volumes of water in versus water out of the winery should be regularly reviewed). Variances should be recorded with actions taken.

Company initiatives and strategies to reduce the amount of water used over time.

Waste Management Plan

The Winery By-Product Checklist can be used as a waste management plan as an alternative to this template.

Details of how winery waste products are managed

- Waste products should be reused, reduced and recycled wherever possible to minimise volumes being sent to landfill).

Company initiatives and plans to reduce the amount of waste being sent to landfill.

Details of how the total amount of waste sent to landfill each year will be measured

GHG Emissions Management Plan

A greenhouse gas (GHG) emissions management plan is NOT MANDATAORY but recommended if you are not already measuring and managing emissions through a verified certification programme (e.g., Toitū).

The EECA emissions plan template can be used as an alternative to this template (under 'DIY Emissions Emissions Plan' online).

Overview of key sources of emissions from the winery, typically:

- Energy use (diesel, LPG, biofuel, natural gas, petrol, electricity)
- Transportation of grapes and wine
- Materials used for wine packaging

Details of how total figures for key emissions sources will be measured and tracked every year.

Current or future plans for initiatives to reduce GHG emissions overtime, such as:

- Upgrade of equipment to more fuel efficient options
- Using renewable energy sources like solar, wind, and biofuel
- Energy efficiency initiatives (e.g., sensors, timers, programmable thermostat on HVAC equipment, staff awareness campaigns, transport fuel reduction actions)
- Energy management/monitoring plans or audits
- Green building investment (e.g., passive lighting/heating/cooling, insulation upgrades)
- Carbon offsetting initiatives undertaken (e.g., carbon credits purchased, offsets selected for business air travel)
- Property plantings for the purpose of carbon sink/credits

In addition to your Winery Site Management Plan, the following key documents must be in place:

- ☐ **Health and Safety plan** (including an Incident and Near Miss register)
- ☐ **Current site map(s)** identifying key areas including hazards, protected natural areas, location of chemical stores, fuels, emergency equipment, inventory to WorkSafe requirements (the Hazardous Substances Inventory Calculator can help to create your inventory)
- ☐ **Documented procedures,** including emergency procedures and protocols for dealing with potential spills (Spills Template available here)
- ☐ **Staff training records** (signed and dated)

Template last updated November 2024

SUSTAINABLE NEW ZEALAND WINEGROWING

Name of winery

Winery ID number

Date plan was last updated

New Zealand Wine
Altogether Unique.

Winery Site Management Plan

Fill in this template to complete your Site Management Plan

Back to overview

Water Management Plan

The NZW Environmental Waste Water Management Checklist can be used as part of the water management plan.

Information about the current consents for water take and waste water disposal, and the strategies in place to manage consent requirements and water efficiencies on site:

For example, inlcude details on:
WATER IN - Reference the company SOPs
- Current consent(s) - inwards water / dam storage / water sources
- Measuring inwards water / monitoring and reporting requirements / water take within the allowable levels

WATER OUT - Reference the company SOPs
- Current consent(s) - water disposal options for waste water/sludge (i.e., trade waste / to land / contract removal)
- Measuring water disposed / monitoring and reporting requirements / water disposed within the allowable levels
- Type of disposal system used / verify operational capacity of disposal systems
- Contractor references if relevant

Details of how equipment is maintained for inwards and outwards water (reference company SOPs):

For example, include details on:
- Maintenance of the inwards water supply (water in) / calibration of meter(s) / preseason repairs & maintenance / ongoing plans
- Maintenance of the waste water disposal systems (water out) / preseason repairs & maintenance / calibration of meter(s)
- Contractor references if relevant

Details of how water quality is checked and confirmed (e.g., sampling of waste water; reference company SOPs):

For example, include information on:
- Monitoring requirements from the consent(s) held (i.e., timing / parameters / soil sampling)
- Processes to pre-treat waste water / monitor waste water quality / analysis and timing / soil sampling
- Management plans for confirming waste water quality
- System for providing reports to council and receiving Council reports
- Systems in place to minimise the effect of solids on the functionality of the waste water disposal system
- Systems in place to limit wash additives getting into the waste water system
- Contractor references if relevant
- Spillage protocol for major wine spills

Template last updated November 2024

New Zealand Wine
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Winery Site Management Plan

Fill in this template to complete your Site Management Plan

Back to overview

Details of how water volumes are measured and tracked over time (reference company SOPs):
Note: volumes of water in versus water out of the winery should be regularly reviewed and variances actioned with plans recorded. *For example, include details on:* - Equipment used for tracking water into and out of the site (i.e., manual, live systems, etc.) - Processes for separating waste water from storm water (if they are combined, total amount disposed must still meet council limits)
Strategies to reduce the amount of water used over time (reference company SOPs):
For example, include details on: - Certifications to other relevant programmes / environmental policies / company initiatives / company tracking systems / SWNZ benchmarking reports

Template last updated November 2024

SUSTAINABLE NEW ZEALAND WINEGROWING

Name of winery

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Winery Site Management Plan

Fill in this template to complete your Site Management Plan

Back to overview

Waste Management Plan

The Winery By-Product Checklist can be used as a waste management plan as an alternative to this template.

Details of how winery waste products are managed (reference company SOPs):

Waste products should be reused, reduced and recycled wherever possible to minimise volumes being sent to landfill.

Plans to reduce the amount of waste being sent to landfill (reference company SOPs):

Details of how the total amount of waste sent to landfill each year will be measured (reference company SOPs):

For example: receipts from trips to the dump saved and total weight calculated at the end of the season / invoices from waste management companies.

Template last updated November 2024

SUSTAINABLE NEW ZEALAND WINEGROWING

Name of winery

Winery ID number

Date plan was last updated

New Zealand Wine
Altogether Unique.

Winery Site Management Plan

Fill in this template to complete your Site Management Plan

Back to overview

GHG Emissions Management Plan

Climate Change is the newest focus area in the SWNZ programme. A greenhouse gas (GHG) emissions management plan is NOT MANDATORY but recommended to help you manage and reduce your emissions over time. Information on strategies to reduce emissions can be found in the wine industry Roadmap to Net Zero. An alternative and more comprehensive emissions plan template is available online from the Energy Efficiency & Conservation Authority (EECA) here, along with a user guide and emissions calculations spreadsheet (found under 'DIY Emissions Plan').

☐ **Our company is measuring and managing GHG emissions for the winery through a verified certification programme (e.g., Toitū), which includes a full emissions management plan.**

Click here for information about carbon management supplier options

List of key sources of emissions from the winery (reference company SOPs):

Typically:

- Energy use (diesel, LPG, biofuel, natural gas, petrol, electricity)
- Transportation of grapes and wine
- Materials used for wine packaging

Details of how total figures for key emissions sources will be measured and tracked every year (reference company SOPs):

Current or future plans or initiatives to reduce GHG emissions over time (reference company SOPs):

Examples:

- Upgrade of equipment to more fuel efficient options
- Using renewable energy sources like solar, wind, and biofuel
- Energy efficiency initiatives (e.g., sensors, timers, programmable thermostat on HVAC equipment, staff awareness campaigns, transport fuel reduction actions)
- Energy management/monitoring plans or audits
- Green building investment (e.g., passive lighting/heating/cooling, insulation upgrades)
- Carbon offsetting initiatives are undertaken (e.g., carbon credits purchased, offsets selected for business air travel)
- Property plantings for the purpose of carbon sink/credits

Template last updated November 2024

Name of winery

Winery ID number

Date plan was last updated

New Zealand Wine
Altogether Unique.

Winery Site Management Plan

Fill in this template to complete your Site Management Plan

Back to overview

12-Month operational plan

Enter key activities that will occur in the winery on a monthly basis

JUL	AUG	SEP	OCT	NOV	DEC

Template last updated November 2024

Winery Site Management Plan

Fill in this template to complete your Site Management Plan

Back to overview

12-Month operational plan

Enter key activities that will occur in the winery on a monthly basis

JAN	FEB	MAR	APR	MAY	JUN Submit ALL SWNZ submissions by 30 June

Template last updated November 2024

Vineyard Audit Guidance Document Checklist

This checklist is a guide of the key records and documents required by the vineyard to demonstrate and support management decisions, questionnaire responses, and audit requirements. Relevant documentation developed for compliance as part of other programmes may also be applicable to Sustainable Winegrowing NZ requirements.

All relevant key documents must be available for the auditor as outlined below. The audit involves your auditor reviewing key records against your questionnaire and spray diary responses, and a brief walk around the vineyard. In the case of a "remote" audit, photos may be requested. Please allocate 2.5 hours for the audit to take place.

REFERENCE	DOCUMENTS/SPECIFIC INFORMATION REQUIRED	DOCUMENTS/ INFO AVAILABLE?
Current questionnaire	Your current questionnaire **must** be completed before the audit can take place (**do not print out**, as it will be sighted online). Ensure any Corrective Actions (CA's) raised from previous submissions have been actioned and completed with supporting evidence available. • *NOTE: There is a link to the NZW Members website at the top of each section where you can access documents and templates. Please review these resources to assist with the preparation of your audit.*	YES NO NA Comments/Notes:
Last audit report & Current Status Letter	If you have been previously audited, please review your most recent audit report (**do not print out**, as it will be sighted online). • Ensure all previous CA's have been actioned and completed. • Have evidence of current certifications (e.g., SWNZ Status Letters) on file for the vineyard/company – these can either be hard or soft copies. SWNZ Status Letters can be downloaded from the NZW Member Portal.	YES NO NA Comments/Notes:
Section 1 – Production and Certification Information	**Vineyard Site Management Plan.** A documented plan of all activities and related management practices that occur on the vineyard throughout the season. Your Site Management Plan must include each of the following components: • Water management plan • Soil and nutrient management plan (should be based on vine and soil requirements, including biological, physical and mineral needs) • Plant protection (pest & disease) management plan • Waste management plan • Emissions management plan (NOT mandatory, but recommended as best practice) **A Vineyard Site Management Plan template is available to assist.**	YES NO NA Comments/Notes:

Vineyard Audit Guidance
Document Checklist

REFERENCE	DOCUMENTS/SPECIFIC INFORMATION REQUIRED	DOCUMENTS/ INFO AVAILABLE?
Section 2 – Water **NZW industry goal: Be a world leader in efficient water use and the protection of water quality** Water resources/ templates are available online here	**Water records and management plans must be held on file. Your water management plan should be included in your Vineyard Site Management Plan.** 1. Records of water used for irrigation and frost (if applicable). 2. Maps to demonstrate the irrigation system(s), such as zones areas. 3. Maintenance plans for the water system(s). 4. Current consents for water take must be provided. 5. Relevant resource consents and key regulatory requirements must be met. 6. Documented evidence that the water take is within the allowable limits. 7. Evidence that any abatement notices received have been addressed. 8. Scheduling plans and systems used to effectively manage and optimise water applications (external company may be used).	YES NO NA Comments/Notes:
Section 3 – Soil **NZW industry goal: Protect and enhance soil health** Soil resources/ templates are available online here	**The site must have a soil & nutrient management plan on file, which should be included in your Vineyard Site Management Plan.** 1. Written soil & nutrient management plan should be based on knowledge of the vineyard's soil and vine (production) requirements and include: a. Compaction and erosion management practices to help manage soil organic matter. b. Plans for and timings of soil tests, including copper and organic matter analysis. c. Plans for foliar/petiole tests. d. Analysis documents/results of latest soil and foliar tests. 2. Soil property map on file showing all classifications of soil types in the vineyard (note: S-Map Online can be used for this in most regions). 3. If using a contracted fertiliser company, must have the certification documents available (i.e., Spreadmark). 4. Records of all fertiliser, canopy nutrient, fertigation and soil conditioner applications (if used). Records should include products used, application dates, application rates and nutrient content. **Please note that it is mandatory to record fertiliser applications in Grapelink.** 5. If compost is made on site, must have a copy of the relevant regulatory requirements for the storage of compost. 6. If sheep are used for winter grazing, have on file details of the animal owner and confirmation that a copy of the most recent spray diary has been provided to them.	YES NO NA Comments/Notes:

Vineyard Audit Guidance
Document Checklist

REFERENCE	DOCUMENTS/SPECIFIC INFORMATION REQUIRED	DOCUMENTS/ INFO AVAILABLE?
Section 4 – Plant Protection **NZW industry goal: Understand, reduce and mitigate impacts of existing and potential pests and diseases. Be a world leader in sustainable alternatives.** Plant Protection resources/templates are available online here	**The site must have a plant protection (pest & disease) management plan on file, which should be included in your Vineyard Site Management Plan.** 1. Current spray diary must be completed before the audit can take place (do not print out, your auditor has access to GrapeLink). Consult the most recent Spray Schedule when developing spray plans. 2. Monitoring records and results demonstrating spray decisions must be available (note: photos are an acceptable form of monitoring records). External consultant reports should be held on file if 3rd party monitoring service used. 3. If you use a contractor for spraying, you must have confirmation in writing of the following (note: a letter with all below information recorded is acceptable): • Standard Growsafe and Certified Handler (if required) • Calibration records of equipment • Confirmation of appropriate disposal of agrichemical containers (e.g., through Agrecovery) • The contractor's spray drift management plan • Hygiene management plans for equipment 4. Have on file copies of current Standard / Certified Handler Growsafe certificates for all staff involved in spraying. 5. Calibration records for spray equipment if own equipment used. 6. Have evidence on file to demonstrate compliance with required biosecurity actions for SWNZ certification (refer to the SWNZ Biosecurity Checklist for full details).	YES NO NA Comments/Notes:
Section 5 – Waste **NZW industry goal: Zero waste to landfill by 2050** Waste resources/ templates are available online here	**The site must have a waste management plan on file, which should be included in your Vineyard Site Management Plan.** 1. Highly recommended to complete the vineyard by-product checklist (can be downloaded from the NZW Members website). 2. Management of all waste streams must be recorded documented. 3. Volumes of waste sent to landfall to be available.	YES NO NA Comments/Notes:
Section 6 – Climate Change **NZW industry goal: NZ wine industry achieves net zero emissions by 2050.** Climate change resources/templates are available online here	**It is mandatory to measure and record diesel, petrol and electricity use in your questionnaire annually.** 1. Evidence of certification to a verified carbon emissions programme (if relevant).	YES NO NA Comments/Notes:

Vineyard Audit Guidance
Document Checklist

REFERENCE	DOCUMENTS/SPECIFIC INFORMATION REQUIRED	DOCUMENTS/ INFO AVAILABLE?
Section 7 – People **NZW industry goal: Be an industry of choice for workers** People resources/ templates are available online here	1. A Health & Safety plan (including an Incident and Near Miss register) must be held on file. This should include an outline of communication plans with workers, contractors, visitors and family about managing risks. Records of employees' participation in health & safety planning and monitoring should be documented. 2. The following key documents must be held on file: • **Property spray management plan** outlining sensitive areas, spray drift management & mitigation. • **Current site management map(s)** identifying key areas, including hazards, protected natural areas, location of chemical stores, fuels, emergency equipment, and inventory to WorkSafe requirements. Correct signage must also be in place (i.e., Assembly Area and/or property hazard notification at the gate). • **Documented procedures** including emergency procedures • **Staff training records** signed and dated • **CCA post storage (not mandatory, but recommended as best practice):** Develop a CCA post storage plan for the vineyard (refer to the NZW Disposal & Storage Guidelines), including the following details: - Location(s) of the storage area for CCA posts - Approximate number of posts stored in the location - Date the storage commenced - Size of the storage area - If possible, store on an impervious base with cover 3. Written and signed employment agreements for all direct employees. If employing overseas staff, you should document the system/procedure for checking visa eligibility. 4. Contractor agreement signed and dated (should include contractor's confirmation that they are aware of and understand any risks on the vineyard). 5. Contract labour compliance. Must have copies of any contractor's compliance with Employment and Health and Safety laws. Hold on file copies of Master Contractor certification, IRD confirmation and RSE documents (if relevant). 6. Fuel tanks (if applicable): Correct signage and location on the property must be demonstrated (please have photos available if REMOTE audit). Any fuel stored on site must be included in the site inventory. • Complete the WorkSafe checklist for safe farm fuel storage prior to the audit. 7. If there is an agrichemical storage shed on the property, please complete the Growsafe AgChem storage checklist prior to the audit for discussion with your auditor. • Refer to the SWNZ AgChem storage minimum requirements checklist for additional requirements. • In the case of a REMOTE audit: photos of inside & outside the AgChem shed (including signage) must be available for your auditor to review.	YES NO NA Comments/Notes:

Winery Audit Guidance Document Checklist

This checklist is a guide of the key records and documents required by the winery to demonstrate and support management decisions, questionnaire responses, and audit requirements. Relevant documentation developed for compliance as part of other programmes may also be applicable to Sustainable Winegrowing NZ requirements.

All relevant key documents must be available for the auditor as outlined below. The audit involves your auditor reviewing key records against your questionnaire responses, and a brief walk around the winery. In the case of a "remote" audit, photos may be requested. Please allocate 2.5 hours for the audit to take place.

REFERENCE	DOCUMENTS/SPECIFIC INFORMATION REQUIRED	DOCUMENTS/ INFO AVAILABLE?
Current questionnaire	Your current questionnaire **must** be completed before the audit can take place (**do not print out**, as it will be sighted online). Ensure any Corrective Actions (CA's) raised from previous submissions have been actioned and completed with supporting evidence available. • *NOTE: There is a link to the NZW Members website at the top of each section where you can access documents and templates. Please review these resources to assist with the preparation of your audit.*	YES NO NA Comments/Notes:
Last audit report & Current Status Letter	If you have been previously audited, please review your most recent audit report (**do not print out**, as it will be sighted online). • Ensure all previous CA's have been actioned and completed. • Have copies of SWNZ Status Letters on file for all production sectors from the vineyard through to final bottling - these can either be hard or soft copies. SWNZ Status Letters can be downloaded from the NZW Member Portal.	YES NO NA Comments/Notes:
Section 1 – Production and Certification Information	**Winery Site Management Plan.** A documented plan of all activities and related management practices that occur in the winery/bottling facility throughout the season. A Winery Site Management Plan template is available to assist. Your Site Management Plan must include each of the following components: • Water management plan • Waste management plan • Emissions management plan (NOT mandatory, but recommended as best practice) **Other certifications.** Hold evidence on file for any other certifications the winery/bottling facility holds. **SWNZ logo.** If the SWNZ logo is used ensure there is confirmation of logo use approval from the SWNZ team on file. **Standards of offshore bottling facilities.** If any wine that is produced in this winery and sold under this company's brand (with the SWNZ logo) bottled overseas, you must have certain processes in place. These processes must confirm that any offshore bottling facility used adheres to standards that ensure the wine remains fit for intended purpose when packaged. For instance: • by requesting current copies of sustainability/food safety certifications that the facility holds (e.g., BRC, 1S022000, HACCP, ISO900, IFS, etc.); or • by comparing the packaging processes used offshore against those required under a WSMP.	YES NO NA Comments/Notes:

Winery Audit Guidance
Document Checklist

REFERENCE	DOCUMENTS/SPECIFIC INFORMATION REQUIRED	DOCUMENTS/ INFO AVAILABLE?
Section 2 – Water **NZW industry goal: Be a world leader in efficient water use and the protection of water quality** Water resources/ templates are available online here	**Water records and management plans must be held on file. Your water management plan should be included in your Winery Site Management Plan.** 1. Records of water used for winery operations and bottling use (if applicable) for both in and out of the site. Comparison of figures to be reviewed and reason for the variances recorded. 2. Relevant resource consents and key regulatory requirements must be met for water in and out of the winery/bottling site. Current consents for water take and discharge must be available with documented evidence that the water take and discharge are within the allowable limits. Typical requirements include: • Maintenance plans for the water system(s). Both in and out of the site. • Pre-treating waste water. Monitoring of waste water and quality reports available to match consent requests. • Design plans available to demonstrate the operational capacity of disposal systems, discharge water zones and allowances. • Separate waste water from storm water system. • Systems to limit wash additives getting into the waste water system. • Systems to minimise the effect of solids on the functionality of the waste water disposal system. • Evidence that any abatement notices received have been addressed. • Reports from Council on file for Waste Water Operations. 3. Completed Environmental Waste Water Management Checklist (not compulsory, however it is recommended as a sufficient Internal Audit Document). 4. If contractors are used, signed and dated contractor agreement must be held on file.	YES NO NA Comments/Notes:
Section 3 – Waste **NZW industry goal: Zero waste to landfill by 2050** Waste resources/ templates are available online here	**The site must have a waste management plan on file, which should be included in your Winery Site Management Plan.** 1. Highly recommended to complete the by-product checklist (can be downloaded from the NZW Members website). 2. Management of all waste streams must be recorded/documented. 3. Volumes of waste sent to landfall to be available. 4. Disposal of hazardous substances (if applicable) using appropriate processes/practices. 5. Disposal of grape marc – have on file direction/consents/farmer's letters/transport compliance letters. 6. Nitrogen calculations on file if grape marc spread to land. 7. If contractors are used, signed and dated contractor agreement must be held on file.	YES NO NA Comments/Notes:

Winery Audit Guidance
Document Checklist

REFERENCE	DOCUMENTS/SPECIFIC INFORMATION REQUIRED	DOCUMENTS/ INFO AVAILABLE?
Section 4 – Climate Change **NZW industry goal: NZ wine industry achieves net zero emissions by 2050.** Climate change resources/templates are available online here	**An emissions management plan is NOT mandatory, but recommended as best practice.** 1. Evidence of certification to a verified carbon emissions programme (if relevant). 2. Energy records available to verify responses in the questionnaire. Energy use figures must be recorded for the following energy sources (if used): diesel; LPG; biofuel; natural gas; petrol; electricity. 3. If contractors are used, signed and dated contractor agreement must be held on file. 4. CO2 records available to verify response in the questionnaire (if CO2 was used). 5. Records available to verify transportation responses in the questionnaire (if the winery received grapes and/or bulk liquid for blending/finishing).	YES NO NA Comments/Notes:
Section 5 – Plant Protection **NZW industry goal: Understand, reduce and mitigate impacts of existing and potential pests and diseases. Be a world leader in sustainable alternatives** Plant Protection resources/templates are available online here	**For wineries/bottling facilities, the focus of the plant protection section is biosecurity.** 1. Evidence of confirmation if the site is registered as a transitional facility approved by MPI. 2. Evidence in the form of certificates for the staff certified to open overseas containers.	YES NO NA Comments/Notes:
Section 6 – People **NZW industry goal: Be an industry of choice for workers** People resources/ templates are available online here	1. A Health & Safety plan (including an Incident and Near Miss register) must be held on file. This should include an outline of communication plans with workers, contractors, visitors and family about managing risks. Records of employees' participation in health & safety planning and monitoring should be documented. 2. The following key documents must be held on file: • **Current site management map(s)** identifying key areas, including hazards, protected natural areas, location of chemical stores, fuels, emergency equipment, and inventory to WorkSafe requirements. Correct signage must also be in place (i.e., Assembly Area and/or property hazard notification installed). • **Documented procedures** including emergency procedures and protocols for dealing with potential spillages • **Staff training records** signed and dated 3. Written and signed employment agreements for all direct employees. If employing overseas staff, you should document the system/procedure for checking visa eligibility. 4. Contractor agreement signed and dated (should include contractor's confirmation that they are aware of and understand any risks in the winery). Relevant documentation of contractors' compliance with relevant regional/district plans, Resource Management Act, and relevant codes of practice. 5. Chemical storage area - Inventory must be correctly recorded with UN numbers (refer to the Hazardous Substances calculator on the Worksafe website).	YES NO NA Comments/Notes:


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