

What do I report?

Report on the resources used in the production of grapes that are associated with your Entwine membership. For example water and electricity use in other operations that are managed by your business such as other farming activities or accommodation should not be included in these figures. If other activities are conducted, but not metered separately an estimate of the proportion of resource linked to vineyard operations is sufficient. If you register a regional cluster of vineyards under the one Entwine membership number, sum the data from the cluster for reporting here.

All information will be held in strict confidentiality and is for the purposes of providing feedback to members on their performance relative to averages from the Entwine membership.

If you have any concerns or difficulties in completing your Entwine data report please contact Damien Griffante on (08) 8222 9251 or damien@wfa.org.au

Entwine Australia Indicators for vineyards:**1. Financial Year of Data Collection**

Record the financial year (eg 10/11) for the data you are reporting on

2. Tonnes of grapes produced (T)

The total tonnage of winegrapes that you harvested in the financial year of reporting, do not include un-picked grapes.

3. Area under vine, excluding headlands (Ha)

Include total area of all winegrapes (including any non-producing vineyard areas, such as newly planted and 'mothballed' vineyard areas).

4. Total purchased electricity (kWh)

Include the total electricity purchased in the management of the vineyard operation, for example in the powering of irrigation pumps, office and shed lighting, air-conditioning and refrigeration. Include all electricity purchased from the grid, do not include any electricity generated on site for example by solar panels or generators."

5. Total water used (ML)

Include the total water used in managing the vineyard, for example for the irrigation of grape vines, washing machinery, using sprays and operating office and shed (in mega litre units).

6. Total nitrogen applied in kilograms (kg)

Nitrogen fertiliser applied to the vineyard as synthetic fertiliser (do not include organic sources of nitrogen such as manure). The nitrogen content of fertilisers is stated on the fertiliser packaging. Most fertiliser packaging will have a sequence of numbers such as "21 – 3 – 20". This information pertains to the concentration (as a %) of the elements Nitrogen, Phosphorous and Potassium (N-P-K) in the fertiliser. Therefore in a 20kg bag of fertiliser with a label stating 21 – 3 – 20 the nitrogen content would be 21% of 20kg = 4.2kg of nitrogen. If fertiliser is liquid based establish the total volume of nitrogen in litres (L) and then convert to kg by multiplying by 0.8083 (density of liquid N).

Fuel use reporting in questions seven to 9 is for fuel used in vehicles, pumps and other machinery such as generators that were used in the vineyard operation and associated transport. As a general rule, if the fuel was paid for by the vineyard business, include it here.

7. Total petrol use in litres (L)**8. Total diesel (excluding biodiesel) use in litres (L)****9. Total LPG use in litres (L)****10. Did you maintain a mid-row cover crop this year (YES/NO)?**

If any mid-row cover crop (either sown or volunteer) was maintained over all or part of your vineyard area during the year, circle yes for this question.

11. If "YES" for question 10, did you maintain the cover crop year round (YES/NO)?

If a cover crop was maintained over the whole year (perennial), in more than ½ of the vineyard area i.e. there was no period of bare soil exposure in that area, circle yes for this question.

12. If "YES" for question 10, what percentage of the total vineyard floor was covered by:

- **Volunteer sward (%)** – If you maintained a volunteer sward (normal grassy paddock plants that established themselves without the need for sowing) in your vineyard for all or part of the year, estimate the percentage of the total vineyard area that the sward covered.
- **Sown or managed (sown in previous years) native species (%)** – If you had native grasses and herbs that were sown this year, or sown in previous years and are being actively maintained (for example by careful spraying,

avoiding slashing during seed-set and/or weeding out non-natives), estimate the percentage of the total vineyard area that the natives covered.

- **Sown non-native species (%)?** If you sowed any non-native species in the mid-row such as rye grass, buckwheat and clover this year estimate the percentage of the total vineyard area these species covered.

13. What is the area of land in hectares (Ha) that you actively manage, with the primary goal of maintaining and/or reintroducing a natural ecosystem and biodiversity?

Please Note: If you have already answered this question in the winery indicator sheet for your business please do not count the same areas again. Calculate the area that you actively contribute to (either on the same property as the vineyard or off site), with the primary purpose being to protect, maintain, restore, rehabilitate or revegetate native habitat. This can include areas that have a secondary recreational, income-generating or waste management purpose (such as eco-tourism, carbon farming or releasing treated winery wastewater) provided that these activities do not degrade the native habitat potential of the area. However, do not include areas that are used regularly for domestic animal grazing. You can include in this figure areas that are not owned by the business, but that your business makes the leading contribution to the care of, for example through weed control and revegetation of a nearby creek on public land. Do not include the area of native plant cover crops in the vineyard.

14. What type of irrigation system is predominately used on your vineyard (Please circle one of the following): Drip; Under vine sprinklers; Overhead sprinklers; Flood/Furrow; Non-irrigated or other?

This question applies to your vineyard site and not other land uses on the property. If multiple methods of irrigation are utilised select the highest volume method you use to irrigate in the vineyard(s).

15. What is the source of your irrigation water?

This question is about the water that you use to water the vineyard when direct rainfall on the vineyard is insufficient to meet vine water needs. If you store water for irrigation on the property in dams it may be derived from the multiple sources that are available to you, such as river water, rainwater runoff and treated wastewater, please estimate the percentage contribution to irrigation from each of these sources. If you irrigated last year, the total for this question should add up to 100%, if you did not irrigate the total should be zero. If you irrigated a portion of the vineyard(s) only, answer for those areas that were irrigated.

- **River water** means water that is collected from rivers either directly by your operation or via an irrigation scheme that draws water predominantly from rivers
- **Ground water** is water collected directly from bores on your property or via an irrigation scheme that primarily sources ground water.
- **Rainwater run-off collected on the property** is rainwater collected on the property from overland flow or springs and building rooves into water storages such as dams and tanks on the property; rain water may be collected by drains and creeks that flow into dams on the property after rainfall events.
- **Recycled winery wastewater** is water that has been used as part of winemaking practices that has been collected and treated sufficiently to allow use for vineyard irrigation, potentially by 'shandy' with water from other sources.
- **Recycled wastewater from a non-winery source** can include any alternate source of recycled water that is applied to the vineyard, such as from treated domestic stormwater or wastewater.
- **Mains water** this is water accessed from municipal domestic water supply systems
- **Other** is water derived from sources that are not listed above, for example this could include water that has been carted to the property during drought conditions

Vineyard Details

Entwine Accredited Brands For Full vineyard members only who have their wine produced through contract winemakers that are also Full Entwine members. List any brands that meet the above criteria.

What do I report?

Report on the resources used in the production wine from a single winery site, including activities such as grape crushing, wine fermenting and bottling (including contract activities). Only include activities conducted at the winery site, for example if your business conducts bottling at a separate location, do not include resource uses for those off-site processes here. Resource uses in other activities that are managed by your business at the site, such as a cellar door or restaurant should not be included. If these activities are not metered separately an estimate of the proportion of resource linked to the winery operations only is sufficient.

All information will be held in strict confidentiality and is for the purposes of providing feedback to members on their performance relative to averages from the Entwine membership.

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Entwine Australia Indicators and Carbon Footprint for wineries:

1. Financial Year of Data Collection Record the financial year (eg 10/11) for the data you are reporting on

2. Scope and scale of your winery operation

Question one is to place your other questions (2-20) in the context of the type and scale of your winery operation. Please estimate the amount of grapes and wine processed in the last financial year for each activity listed below, including contracted winemaking and bottling activities. One kilolitre is the same volume as 1000 litres or a cubic metre (m³).

Winemaking that was conducted at this site:

2a. Tonnes of grapes crushed (T) – Total tonnage of grapes crushed at the winery last year, including grapes crushed on behalf of other businesses.

2b. Full winemaking – Include the kL of wine that were processed from grape crushing to finishing at this site (kL)

2c. First stages of winemaking only (grape crushing, ferment etc, but not finished at this site) Include the kL of wine that was produced at this site but finished elsewhere (kL)

2d. Last stages of winemaking only – Include the kL of unfinished wine or juice from elsewhere that is finished at this site (kL)

Bottling and or Packaging that was handled at this site:

2e. Wine packaging/bottling of wine made at this site – If you conducted bottling at this winery site, enter the volume of wine that was made and bottled/packaged at this winery (kL)

2f. Wine packaging/bottling of wine from elsewhere – If you conducted bottling at this winery site, enter the volume of wine *from other wineries* that was bottled or packaged at this winery (kL)

3. Total winery water use in kilolitres (kL) – The total volume of water that was used in the winery during the year. If not separately metered from other activities such as cellar door, restaurant and watering lawns etcetera, estimate the relevant portion.

4. Total wastewater and liquid waste generated in kilolitres (kL) – Include the total liquid waste generated by the winery, that is, the volume of wastewater including suspended and dissolved waste materials that was generated in the winery.

5. Estimate the percentage of winery water that is recycled or reused – Reused water is water that has been used in the winery as a result of the winery practices that is then reused or recycled for an additional purpose, such as reusing relatively clean washing water for dirty washing jobs. Recycled water use is using treated winery wastewater for a purpose such as addition to an irrigation dam for vineyard, crop or woodlot watering, or maintaining a wetland.

6. Total solid waste produced (T) – Solid waste can include but is not limited to packaging material, organic waste, municipal waste, tyres, chemical containers and other sources of winery waste. This waste should only include waste that has been produced as a direct result of the winery practices. It should not include waste from cellar doors restaurants etc. Organic waste that was reused (for example marc composting/mulching) should be included in the tonnage figure for total solid waste. If precise measurements have not been taken of these numbers estimates are acceptable.

7. Total waste to landfill (T) – Waste to landfill is the proportion of total solid waste produced during the year that was sent to landfill.

- 8. Total Electricity use (kWh)** – Include the total electricity used in the winery, for example in the powering of winery machinery, air-conditioning and refrigeration. Include all electricity used, including electricity that was generated onsite for example by solar panels.

The following four questions (eight to eleven) are for the volume of fuel used during the year, for example to drive vehicles, pumps, boilers and other machinery used in the winery operation and associated transport. As a general rule, if the fuel was paid for by the winery business, include it here.

- 9. Total Natural Gas (cu. m)**
10. Total Petrol used (L)
11. Total Diesel used (excluding biodiesel) (L)
12. Total LPG used (L)

- 13. What is the area of land and/or wetlands in hectares (Ha) that you actively contributed to, with the primary goal of maintaining and or reintroducing a natural ecosystem and biodiversity?**

Please Note: If you have already answered this question in the vineyard indicator sheet for your business please do not count the same areas again. Calculate the area that you actively contribute to (either on the same property as the winery or off site), with the primary purpose being to protect, maintain, restore, rehabilitate or revegetate native habitat. This can include areas that have a secondary recreational, income-generating or waste management purpose (such as eco-tourism, carbon farming or releasing treated winery wastewater) provided that these activities do not degrade the native habitat potential of the area. However, do not include areas that are used regularly for domestic animal grazing. You can include in this figure areas that are not owned by the business, but that your business makes the leading contribution to the care of, for example through weed control and revegetation of a nearby creek on public land. Do not include the area of native plant cover crops in the vineyard.

Carbon Footprint Reporting

All data reporting provided for carbon footprint is to be obtained through use of the Australian Wine Carbon Calculator (AWCC) and provided in units of CO₂ equivalents (CO₂-e). Entwine Australia data reporting requires operators to provide the following scope 1, 2 and 3 (packaging only) emissions data. A summary of the Entwine reporting numbers generated by the AWCC is provided on a separate worksheet labelled 'Entwine Australia'. The AWCC also provides assistance for users through notes within the calculator as well as the AWCC User Guide. The calculator and user guide can be accessed via the Entwine Australia website at: http://www.wfa.org.au/entwineaustralia/carbon_calculator.aspx. If you use products that are not listed in the AWCC please contact Damien (contact details above) for further guidance.

- 14. Total Fuel Use Emissions (Mobile & Stationary)** – AWCC Worksheet 1,2 &3 Mobile and Stationary Combustion
15. Fugitive Emissions (Gas Leakages - SF₆) – AWCC Worksheet 4 Fugitive Emissions
16. Winemaking Practices (Purchased CO₂) – AWCC Worksheet 5 Winemaking Practices
17. Onsite Waste Treatment Emissions (Solid & Liquid) – AWCC Worksheet 7 Waste Treatment
18. Purchased Electricity Emissions – AWCC Worksheet 8 Power Use
19. Total Scope 1 and 2 Emissions
20. Packaging Emissions – AWCC Worksheet 9 Packaging: Complete this section for packaging that is handled by your business regardless of the location. Do not include the packaging of wine that was sold as bulk wine. As wine businesses are users of packaging rather than packaging manufacturers, the emissions are considered to be 'Scope 3' and can be calculated in the Australian Wine Carbon Calculator on worksheet 9 which is labelled 'Packaging'. Please do not include other scope 3 emissions in your report.

Winery Details

Entwine Accredited Brands List wine brands produced at this winery created with grapes from vineyards that are Full members of Entwine Australia.