

Choosing Compost

Choosing the right compost for your vineyard will depend on your specific needs. A variety of compost types can be used to achieve different aims in your vineyard. Compost can be used as mulch or incorporated into the soil. Compost can be tailored for water saving, remediation of saline soils, and can get young vines off to a great start and assist in vineyard renovation. Regardless of your compost end-use, there are some general guidelines to follow when choosing the right product for you.

All composts must meet the Australian Standards (AS4454) as a minimum (link to website?). As a general rule, compost should be free from visual contaminants and not hot. Compost should also be free from bad odours - the myth that compost must smell bad in order for it to work well is now well and truly busted.

You should also ask your compost processor to provide a recent analysis of the material indicating how it meets the Australia standard. It is a good idea to tour the compost processing site with the operator, to make sure you are satisfied with the quality of products they use and the standards of processing. This will also help you build a relationship with the compost processor, which will come in handy if you would like your compost customised. Compost can be tailored to suit your specific needs, with additives such as lime and gypsum often easily incorporated into your compost.



Compost for Soil Incorporation

Compost used for soil incorporation should always be fully composted and stabilised. As this material will often come in direct contact with the plant it should be of high quality and not phytotoxic (toxic to plants). Phytotoxicity can occur if compost is not pasteurised or composted properly. The toxicity index should be greater than 60% in order to minimise any negative effect on germinating plants.

Another important quality of compost for soil incorporation is the carbon to nitrogen ratio (C:N). This ratio should be below 20:1 to ensure that there is no "nitrogen draw-down". Nitrogen draw-down occurs when too much woody material is in the compost.

Bacteria will draw nitrogen from the soil to break down this material. This could starve your plants of essential nitrogen, resulting in less plant growth or even plant death.

Rates of application for soil incorporation will depend on your specific situation. For example, at vineyard establishment, rates of 50mm deep mixed to 20cm deep in sandy soils and 10cm in heavy soils can give substantial benefits. When ripping for soil renovation, apply compost at 5-10t/ha on the rip line and incorporating by discing. At the same time, around 8t/ha is recommended for spreading evenly across the mid row for incorporation as deeply as possible.

Compost for mulch

When choosing compost for mulch, the two key factors to remember are texture and application rate.

Texture: Coarse textured compost is the most appropriate for use as mulch. It should have larger woody particles, which help water and air reach the soil easily. Finer textured materials can act faster to improve soil structure and water holding capacity, but can also trap water, preventing it from reaching the soil. The decision to choose coarse or fine textured mulch will depend on the specific needs of your vineyard. (link to other factsheets? Eg salinity, renovation, water saving...)

Application rate: For coarse materials, an application rate of 50-75 mm is recommended, and rates should not exceed 100mm. Mulches of finer texture can be applied at 25mm, but they should never be applied at high rates (not higher than 50mm).

Once you have chosen the right compost, it is important to make the most of it! Good monitoring of soil moisture is vital to ensure that you are not irrigating unnecessarily. Monitoring soil and plant nutrient levels is also important. Fertiliser applications may need to be adjusted to account for the extra benefits your vineyard will receive from composting.

Types of compost material can be:

1. Pasteurised – materials are processed to kill plant and animal pathogens as well as weed propagules/seeds. This occurs at temperatures higher than 55°C
2. Composted – pasteurised and microbially transformed for not less than 6 weeks. Contains no weed seeds or pathogens and is a matured, stabilised product.
3. Raw – not pasteurised or composted. May still contain weed propagules and pathogens



Choosing compost checklist

- Does it meet the Australian standards?
- Do you know what it's made of?
- Have you seen a recent compost analysis?
- Is it free of contaminants?
- Is the compost free from bad odours?
- Is it cool and not too hot?
- Do you have the right grade for your needs?
- Have you checked the correct application rate?

More information

www.compostforsoils.com.au

Jeffries Group

Paul Bowden 0400 366 031

Peats Soil and Garden Supplies

Peter Wadewitz 0418 791 921

Van Schaik's Bio Gro

0412 850 524

