

Comparison of use of compost and mulch in viticulture

Function required	Product type	Comments on method of use or application
Water saving	Compost	Compost incorporated into soil to raise organic matter levels will increase speed of infiltration and total storage capacity Fine compost on the soil surface may cause 'sealing' of the surface and, if it dries out completely, may become 'non-wetting', causing water to run off before it infiltrates
Water saving	Mulch	Mulch on the soil surface increases the speed of infiltration of rain or irrigation moisture and reduces water loss by evaporation
Water saving	FCRD	FCRD used alone will have no effect FCRD/compost blend have the same benefits as compost FCRD/mulch blend have the same benefits as mulch
Weed control	Compost	Minimum affect if incorporated. May change soil conditions to either discourage or encourage weed growth, depending on site conditions
Weed control	Mulch	Mulch on the soil surface smothers annual weeds and reduces germination by limiting exposure to light Needs to be used much thicker to handle perennial weeds (may not be an effective use)
Weed control	FCRD	FCRD used alone or as FCRD/compost blend will have minimal/no effect FCRD/mulch blend have the same benefits as mulch used alone
Nutrient supply	Compost	Compost may supply significant nutrients depending on feedstock. High rates of use of compost may result in over-supply of potassium. Effects will be faster if incorporated Much greater loss of nitrogen to the atmosphere if used on the soil surface
Nutrient supply	Mulch	Mulch may supply nutrients depending on feedstock. Very high rates of use of mulch may result in over-supply of potassium. Effects will be slower as mulch is used on the soil surface Mulch should not be incorporated as it will cause 'tie-up' of nitrogen, sulphur and other nutrients (but the potassium is generally freely available)
Nutrient supply	FCRD	FCRD used alone can supply the nutrient needs of many vineyards FCRD/compost blend has the benefit of supplying more phosphorus and can reduce the relative quantities of P and K (reducing the capacity for oversupply of potassium)