Grazing sheep in vineyards

IT IS BECOMING MORE COMMON to see sheep grazing in Australian vineyards between late autumn and spring. This article addresses the most common questions asked by vineyard owners about this practice.

Q. WHAT ARE THE BENEFITS OF GRAZING SHEEP IN A VINEYARD?

Australian vineyards are generally highly mechanised, relying on heavy machinery for a variety of operations such as pruning, slashing, trimming, spraying and harvesting.

The use of such machinery comes with a significant cost both in terms of fuel use and greenhouse gas emissions.

Grazing sheep in a vineyard is one way to reduce the need for slashing and spraying to control undervine growth, with additional benefits as a result of lower fuel costs and greenhouse gas emissions.

In some cases, the owners of the sheep may also pay vineyard owners for providing pasture for their sheep, providing an additional source of income.

Q. WHEN IS THE BEST TIME TO GRAZE SHEEP IN THE VINEYARD AND HOW MANY SHOULD THERE BE?

In Australia, sheep are usually grazed in vineyards between the completion harvest and budburst.

Sheep are generally not used during the growing season because they eat the grapevine leaves that are required for photosynthesis and to protect the fruit from sunburn.

In cooler regions sheep can be used for leaf plucking between fruit set and the start of veraison.

The number of sheep suitable to graze in a vineyard will depend on the amount and growth rate of the 'pasture' available, how long they will be grazed for and the type of sheep.

The owner of the sheep will be able to provide advice and there is also a Stocking Rate Calculator available on the Meat and Livestock Australia (www.mla.com.au) website to help with this calculation.

Q. WHAT SAVINGS CAN BE EXPECTED IN TERMS OF OPERATING COSTS AND GHG EMISSIONS?

The savings achieved will vary depending on vineyard size and management practices but in most cases vineyard managers could expect to avoid one slashing and one herbicide pass.

This will result in lower chemical and fuel use, fewer labour hours and reduced maintenance and depreciation costs.

Some labour is required to manage the sheep and these costs should be taken into account. A recent case study at a 500ha vineyard showed total annual savings of around \$22,000.

GHG savings would come from lower fuel use due to reduced passes through the vineyard; however these savings could be partially offset if the sheep need to be transported to the vineyard.

Q. IS ANY INFRASTRUCTURE NEEDED?

Additional fencing may be needed to ensure the sheep can be contained within the block, while still allowing access to the vineyard for winter jobs such as pruning.

Sheep will graze preferentially, so it is more effective to keep them in small sections of vineyard at high stocking rates until all plants have been eaten.

This gives good weed control and has been shown to work well on hard to kill weeds like marshmallow (Malva parviflora) in the Adelaide Hills. Access to water is another requirement and may require investment.

Q. DO AGROCHEMICAL RESIDUES NEED TO BE CONSIDERED?

Sheep can consume agrochemical residues from grapevine leaves or from the mid-row and under-vine growth.





Agrochemical product labels provide rules about grazing animals on the vineyard floor or feeding crop residues to livestock. There are a number of products where the labels state that stock should not be grazed in the vineyard or foliage cut for stock food if the chemical has been applied during the season.

For other products, there may be a withholding period before stock can be grazed or a defined interval between removal of the sheep from the vineyard and their slaughter for consumption.

Before making the decision to run sheep in a vineyard, it's very important to consider all of the agrochemicals that have been used in that vineyard and abide by all label requirements.

Q. WILL THE SHEEP CAUSE DAMAGE IN THE VINEYARD?

Sheep are not known to damage vineyard irrigation

infrastructure but could damage soil structure through compaction in a waterlogged vineyard.

Sheep will show little interest in dormant vines but might affect yield if they are not removed before budburst.

Q. CAN ANY OTHER TYPES OF ANIMALS BE USED IN VINEYARDS?

Birds including chickens, guinea fowl, and geese have been used in vineyards to assist with snail or insect control.

Pests like garden weevil that are otherwise difficult to control have been successfully managed without the need for insecticides by using guinea fowl.

For more information contact the AWRI helpdesk via 08 8313 6600 or helpdesk@awri.com.au.

