

Research area: VITICULTURE

Regional cluster: LIMESTONE COAST

What is the best way to treat the iron-related clogging problem in the Limestone Coast?

Background

The recent Irrigation Water Quality Survey indicated that iron-related clogging of irrigation infrastructure has been an increasing problem in the Limestone Coast region since the 1990s, particularly in the Naracoorte and Coonawarra areas. The problem is extremely costly in terms of both infrastructure and labour costs. Most irrigators who are affected are dealing with the problem in isolation, and mitigation strategies are often implemented on a trial and error basis. The degree of clogging varies from a slimy coating on infrastructure to complete clogging with a reddish-brown sludge. The causes of the clogging problems are not known, including whether the clogging is always iron-bacteria related, or whether in some or all cases it is caused by inorganic precipitation of iron.

Why is it important?

A recent survey funded by the South-east Natural Resource Management identified iron bacteria as being a significant issue in the Limestone Coast, including for viticulture. By being able to determine the extent to which clogging problems are caused by iron bacteria, and identify whether and how the composition of the clogging material varies between irrigation wells, will assist with making informed decisions about the best mitigation strategy to address iron-related clogging.

What would success look like?

Results from this work will enable growers to select the most cost-effective way to minimise clogging issues caused by iron bacteria growing in dripper irrigation systems, resulting in improved water use efficiency.

For further information and to develop an application please contact:

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