

From Plant to Palate: Identifying the Potential for EM in the Australian Wine and Olive Industries

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Abstract : *The wine and olive industries in Australia presently share many features ñ apart from the obvious one that both industries extract their primary product from fresh fruit, that is wine and oil from grapes and olives respectively:*

- *Both industries are currently expanding rapidly, with large investments being made in each;*
- *Each year thousands of hectares are being planted to young vines and trees, often in the same district;*
- *There are concomitant increases in the number of processors in each industry;*
- *Both the growing of the fruit and the extraction and processing of product require large quantities of water and, especially in processing, produce large amounts of waste (solid and liquid);*
- *Each industry is becoming increasingly environmentally conscious and both are attempting to promote a 'clean and green' image;*
- *The tourism potential for each industry not only continues to grow rapidly but also frequently overlaps.*

And now one more common characteristic can be added to this list - the great potential for the effective application of EM Technology.

Much R & D activity in Australia is currently directed at confirming this potential.

This involves work, both in the laboratory and in the field, at primarily five stages in the production cycle of both wine and olive oil, three relating to the vineyard or orchard and two relating to processing. These are first, in the field,

- 1. Use of EM/Bokashi in place of at least some standard fertiliser at initial planting, to stimulate early growth and development of the young vines and trees, with expected earlier and increased productivity;*
- 2. Application of EM to trees and vines during the growing season, by foliar spray and/or through irrigation drip lines for increased plant vigour and especially improved disease resistance;*
- 3. Use of Bokashi in conjunction with surface mulches and cover crops - for improved water-use efficiency and long-term gains in soil health; and then in processing,*
- 4. Addition of EM to wastewater treatment systems both for odour control and for greater efficiency of the treatment system;*
- 5. Mixing of EM/Bokashi with solid residues from processing to improve recovery and utilization of the resources inherent in these materials, e.g. in composting or as stockfeed.*

Considerable progress is being made in each of these aspects in many parts of Australia.
