

OZONE MAY CUT WINE ALLERGIES

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Using ozone to preserve grapes could replace the need for allergy-causing sulphites, possibly leading to healthier and less allergenic wine, scientists have found.

The researchers, from the Technical University of Cartagena in Spain, say their new technique of exposing grapes to ozone was 90 per cent as effective as sulphur dioxide in preventing decay. Ozone-treated grapes also contained up to four times more antioxidants, the team say in a peer-reviewed article in the *Journal of the Science and Food of Agriculture*.

Their work could help the wine industry reduce the allergenic potential of its products, and also furthers the development of a healthy wine category.

Sulphites are commonly used as a preservative in a wide range of food products, including wine. Sulphur dioxide often lies trapped in the head space of wine bottles between the cork and the wine.

But sulphites are known to cause violent allergic reactions in some people, particularly those with asthma, which means many wines sold in the EU now have to put 'contains sulphites' on their bottles, under the bloc's allergy labelling rules.

Andrew Waterhouse, chair of the Department of Viticulture at the University of California, Davis, said the new ozone technique could replace sulphites during the liquification process.

One problem may be cost. Sulphites remain a cheaper way of preserving products and tight operating margins may discourage firms from making a switch.

An added advantage of ozone is its ability to increase antioxidant content in grapes, however.

Several studies have emerged recently charting the protective effect of antioxidant compounds in red wine against heart disease. The compounds have already been linked to lower risk of various illnesses, including cancer, in other foods.

The ozone team said they were still not sure why their technique raised antioxidant levels in grapes.

But the discovery may aid the development of a 'healthy', premium wine category. UK supermarket Sainsbury's recently launched 'Red Heart' wine, which claims to contain more antioxidants than other wines on the market.

For more on the ozone research, see *Journal of the Science and Food of Agriculture* (doi 10.1002/jsfa.2780), and *Chemistry & Industry*, the magazine of the Society of Chemical Industry.