

# Whistleblower of vexed vetch case

## MAX EDWIN TATE

### Scientist

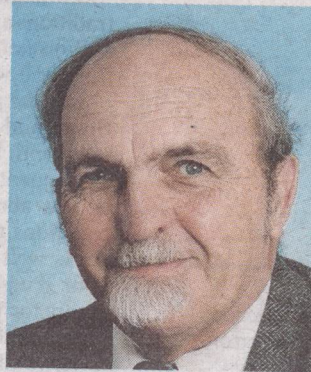
**Born:** September 9, 1932;  
Brisbane

**Died:** October 16, 2016; Adelaide

**M**AX Tate was always a dedicated chemist. It started when he was 10 years old during WWII. Fireworks were no longer available to celebrate Queen Victoria's birthday.

"Right" said young Max, "I'll make my own". And this he did successfully without losing any fingers and with help from the local library.

From then on he was hooked on chemistry. He studied chemistry at Sydney University and University of NSW



and took a postdoctoral position in Canada. He was appointed to Waite Institute in Adelaide in 1964.

Many people knew him better as a whistleblower rather than a chemist. In 1992, he and

his student, Dirk Enneking, published a paper in the journal *Nature* entitled "A mess of red pottage" in which they exposed a dangerous agricultural scam known as the vetch/lentil substitution racket.

Vetch is directly grazed or harvested for its seed, used in stockfeed. There are vetch cultivars that produce seed closely resembling lentils and these seeds were being sold as lentils for human consumption. But vetch contains a highly potent neurotoxin. Had they not exposed this racket, many people would have become seriously ill and Australia's reputation as a food exporting country would have been damaged.

After retirement, Max tried

to produce a zero toxin vetch. He nearly succeeded, reducing toxin concentration from 1.5 per cent to 0.3 per cent.

At the Waite, Max made many important discoveries. His interest in the biological control of crown gall in stone fruit and other plants led directly to the development of pathways to produce genetically modified crops.

Max and his students determined the chemical structures of several compounds important in understanding the disease and its biological control.

A side benefit was Max and his students had to make frequent visits to the Southern Vales almond orchards to see the results of their biological

control, not to mention sampling local red wines.

Non-wetting sands were another area of research, where a simple application of clay was found to solve a large scale problem in agriculture.

Max taught his students to think of nature as chemical simplicity rather than biological complexity, reinforced after every successful experiment with a bottle of champagne.

Max's wife Elizabeth passed away in 2009. They had three sons, Marcus, Nick and Duncan now resident in London, Laos and California respectively, though they returned to Adelaide to support and comfort their father in his fight with melanoma.

Advertiser December 10 2016