

As the 2013 AW Howard Memorial Trust medallist, I call for wide-ranging reforms to rebuild and ensure the survival of Australia's farming and food processing sectors.

More than 50 per cent of farm families in Australia's sheep-wheat belt are experiencing "financial and emotional stress". Furthermore, there are abundant examples of 'foolishness' in Australian food supply, such as the destruction of orange trees on Australian irrigated farms due to the importation of orange juice concentrate from Brazil, and bypassing of local processors of dessert fruits (e.g., peaches and pears in jelly) by major supermarket chains, which source products from China and Swaziland.

Australia needs to address these food supply situations and take a nation-building approach to land management, such as New Zealand does with its dairy, sheep, horticultural and wine industries.

Scientists expect to be understood by farmers and it is important for we scientists to provide a reciprocal understanding of the current circumstances of farmers, so that the sector can retain capacity and the Australian environment is managed progressively.

I call for more investment in research and development (R&D) to sustain food production and innovation as part of a list of concerns facing the long-term revival of Australia's food-producing sector.

In my 2013 Oration (Revitalising grasslands to sustain our communities - copy is available), I instanced a number of factors undermining the performance of wheat-sheep farms – the backbone of regional economies and communities in many parts of Australia. They included:

- Declining terms of trade and high input costs and other factors undermining mixed farm profitability
- A plateau in production of Australian crops, particularly wheat, due to limitations in the supply of nitrogen and N-fixing legumes
- A need to reconcile agricultural objectives with natural resource management, including soil erosion, water pollution and biodiversity
- The "specialise or diversity" conflict that has emerged on mixed sheep-wheat farms since the 1970s.

In this Oration, I stress that agricultural performance embraces the productivity, sustainability, economic performance, social wellbeing and political acceptability of agricultural industries, systems and regions. The rice mixed farming system (rice, cereals, lamb production) is a good example of an Australian industry that truly operates a world-class operation from the paddock to the plate.

I believe that the future green paper could consider setting a Food Security Quota for most Australian agricultural industries. This quota could be set low for bulk commodities (even though they sell on corrupted markets) but high for value-added items such as for meat, processed milk, convenience meals and horticultural products. The idea would be to ensure that Australia retains a capacity to produce and process local products without losing focus of the need to be globally competitive and develop export markets. SunRice, SPC and Bega Cheese have shown how this can be done. The supermarket sector has done great damage to local dairy and baking industries through their promotion of 'home' brands at discounted prices, some of which are produced off-shore.