

Securing the biosecurity of new industries in Australia's agricultural sector - the role of the Rural Industries Research and Development Corporation (RIRDC)

Australian rural industry is undergoing a time of rapid change. In agricultural Australia, the "New Industries" sector (i.e. embracing those producers operating outside of Australia's traditional rural commodities) has been growing faster than the "traditional" agricultural sector. New Industries accounted for 16% of agricultural GVP in 1960. By 2005, this had lifted to 29%, and this proportion continues to grow. A recent ABARE report puts the 2006/07 gross value of production of these industries at \$762 million. More importantly to the Australian economy, the report finds that over 69% of this produce is exported.

The shift of rural production towards new industries has come about because of a variety of factors:

- declining terms of trade on traditional commodities in a global market, (for example exchange rate fluctuations which have been decreasing the competitiveness and desirability of traditional Australian products)
- loss of some export & domestic markets
- the rising power of supermarkets bringing increasing competition and lower margins through generic branding and many producers becoming price-takers rather than price makers
- increasing compliance costs
- competition from low cost import products
- maturing tastes of consumers in Australia and world-wide bringing a desire to experience new, high quality products
- an increasingly multicultural Australian community that seeks access to foods traditionally a part of their culture
- an Australian rural producer profile which is similarly increasingly multicultural and seeking to take advantage of these market opportunities
- a quest for new crops for diversification in times of climatic extreme, and in the face of climate change.

"New Industries", while they provide significant economic opportunities for agricultural Australia, also pose significant risks to Australia's biosecurity and its good-standing as a producer/exporter of clean and green produce. As well as direct risks such as the introduction of a pest or pathogen that may directly affect established industries, an adverse biosecurity/ contamination issue within one of these new industries has the potential to cause significant damage to Australia's reputation, seriously affecting trade in our more main-stream commodities.

By their nature, "New Industries" come with less scientific knowledge and support. Even where crops and animals have been successfully grown/raised overseas for many years, the science which will allow their adaptation to the Australian environment is generally lacking. On top of this, a significant proportion of current and potential producers in Australia have English as their second language and many of them have trouble coming to terms with legislative and scientific requirements

relating to quarantine, chemical use and a raft of requirements relating to the export of produce or its movement within Australia. In this environment, early detection and diagnosis is difficult, and there is a significant possibility that a virulent pest or pathogen may gain a strong foothold before it is detected. In short, these small, fledgling industries carry disproportionate risks for themselves as well as for our more mainstream, well-established industries.

A recently completed study by RIRDC and NSW DPI surveyed Vietnamese vegetable growers in the Sydney Basin region. The study then went on to analyse the usefulness of employing agriculture-trained communication officers with language skills in both English and Vietnamese.

Initially, the survey uncovered 5 key findings:

- only 7% of growers could recognize the most common pests and diseases
- all growers lacked an understanding of disease cycles and the environment-host-disease relationship
- less than 10% could communicate well in English
- the majority of growers mistook symptoms of crop nutritional disorders as a disease
- all surveyed indicated a lack of trust towards government officials.

This survey and the follow-on communications program were run as a project for three years and resulted in a positive improvement in producer behaviour, improved farm hygiene, improved knowledge of agriculture production, and acceptance of the extension officer who became a valuable resource for the growers to link into the wider community including private companies and government.

Other areas of RIRDC investments pertinent to biosecurity within “New Industries” include the following:

1. RIRDC publishes an Asian Foods newsletter in English that is translated into Chinese, Vietnamese and Cambodian and direct mailed to over 1300 growers and supporting agencies. It provides information on scientific, government and industry support networks, crop management, and latest news on R&D, quarantine and Biosecurity issues
2. RIRDC is investing in advisory material for industries to assist in biosecurity requirements, and developing cost effective diagnosis tools for on and off-farm pest, diseases and contaminants
3. RIRDC is investing in a study of urban/peri-urban production, identifying the risks posed to industry and human health including on-farm risk factors and test procedures and methods to best communicate risk management options.
4. RIRDC is investing in the development of biosecurity and food integrity management tools for “New Industries” as a framework for a generic approach to on-farm practices

“New Industries” are an increasingly important part of Australian agriculture and the R&D which underpins the science behind the development of these industries is provided by RIRDC.

“New Industries” pose a number of special needs, and RIRDC is playing a coordinating role and working closely on joint projects with other agencies such as

Plant Health Australia, the CRC for Plant Biosecurity and State agencies. RIRDC is also playing a key role in close partnership with MULO (Minor Use Liaison Office) to facilitate the engagement of these industries in chemical and residue testing and registration processes that will lead to their compliance in the use of chemicals. This is a critical step in ensuring the maintenance of good pest and disease management, and food quality assurance, necessary to protect biosecurity and trade in our new and established industries.

RIRDC is providing extremely effective, value-for-money scientific and communications support for Australia's new rural industries. This provides a useful starting point in the provision of R&D, communications and management tools for the protection of food integrity and biosecurity in this growing sector. However as the sector continues to grow, so do both the logistics required to service it, and the risks of not handling it adequately. There is significantly more that RIRDC would like to do should resources permit.

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