COTTON AND CATTLE
- THE FUTURE -

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Introduction

The nature of agricultural production has changed dramatically over the past decade, with more changes in the pipeline. Where producers once chose between grassfed livestock or cereal crops, or a combination of both, as their primary income source, they are now faced with a plethora of enterprise choices as a means of supporting their businesses and families. Traditional practices have given way to innovative and lateral activities that enable producers to spread their financial risk across a multitude of enterprises.

While this has been an exciting development worthy of strong community support, it often brings with it new problems. Countering the upside of better land utilisation and financial risk management are 'boundary' issues, particularly those that negatively impinge from one production system to another either on the same property or within a region.

Agricultural-chemical 'trespass' is the starkest example of this, with the cattle/cotton production interface the most publicised.

Until two or three years ago, individual agricultural sectors were quite satisfied to develop their own quality assurance (QA) programs to maximise quality and safety attributes for customers. While a number of these programs were extended to include environmental and/or animal welfare matters, little effort was made to ensure 'seamlessness' across enterprises, even though multiple-enterprise properties were becoming an increasingly common feature of the agricultural scenery.

Fortunately this is changing, albeit slowly. Resulting from rumblings in the bush, the cattle, sheepmeat, grain and wool industries, for example, are now sharing common 'modules' across their QA schemes. These cover 'management' and 'chemical use/storage'.

The beef-cattle/cotton industry interface is in desperate need of similar co-operation.

Quality Assurance for the Cattle Industry

The cattle industry is experiencing a quiet revolution in QA adoption. Two internationally recognised and accepted levels of QA are evident: ISO 2001, which is the international 'Rolls Royce' version being adopted by the strong-hearted, and CATTLECARE®, the cattle industry's own ISO-consistent, independently audited, on-farm QA program.

To understand CATTLECARE®, one needs to examine its genesis.

Past experiences of, and developments within, the beef industry

Since 1986, the Australian beef cattle industry has suffered from 12 publicised 'incidents' involving chemical residues. The vast majority of these (excluding recent endosulfan-related incidents) could have been avoided had an industry QA scheme been in place and widely adopted.

There is, of course, one advantage to high-profile coverage of incidents, though it comes at a cost: it accelerates industry's awareness of the need for care. Producers' role in ensuring responsible handling of chemicals (and veterinary drugs) has become better understood and accepted by the entire sector, with the cattle sector now being the most advanced of the extensive livestock industries in developing preventative measures and preparing for, and dealing with, residue crises.

The cattle sector has combined with governments, Meat and Livestock Australia Ltd and other sectors of the beef industry to implement systems designed to reduce the risk of contamination, increase the effectiveness of product testing and improve crisis management techniques. The following developments are worthy of note.

1. CATTLECARE®. CATTLECARE® is a fully audited on-farm quality assurance program for cattle producers throughout Australia. It comprises 15 elements with a focus on the generic modules of management and chemical use; the livestock module is specific to beef cattle production.

   Over 3,000 producers across Australia, covering over 4 million head of cattle, have now adopted CATTLECARE®. Adoption rates continue to increase exponentially, with the latest surge driven by price premiums publicly offered by major buyers.

2. The National Vendor Declaration (NVD). The cattle industry's NVD that accompanies every animal sold was trialled in 1996 and made permanent from January 1997. The NVD was designed to convey on one sheet of carbonised paper sufficient information about the chemical- and drug-treatment history of the cattle being sold to make the buyer confident that residues relating to the cattle being purchased represent a minimal or zero risk.

   The NVD is voluntary but, because buyers will avoid pens of cattle without one, it has almost 100% uptake.

3. The National Residue Survey (NRS). The NRS is an arm of Government operating under almost-full cost recovery principles. Its activities cost cattle producers, through the Cattle Transaction Levy, $3.5 million to $4.0 million each year. Cattle Council of Australia and

the Australian Lot Feeders' Association ensure producers have considerable influence over the design of NRS programs, which are aimed at sampling produce for chemical-residue contamination. The NRS conducts a random surveillance program as a monitoring tool and to satisfy overseas customers, and targeted-testing programs for potential trouble spots; the endosulfan program is an example of the latter.

4. National Registration Authority (NRA). As with the NRS, the NRA is an operative of Government with almost-full cost recovery. Funds come predominantly from the chemical companies on a user-pays basis. The NRA is responsible for reviewing chemical-release applications from manufacturers and ensuring use instructions on labels are appropriate.

   The cattle industry has had success in convincing the Board of NRA to take into account cross-commodity trade implications when assessing a chemical product for widespread use.

5. Export Slaughter Intervals (ESIs). When marketing cattle, legislated withholding periods (WHPs) need to be observed. That is, there is a period after chemical treatment within which an animal must, by law, be kept from slaughter to ensure any residue from the treatment has an opportunity to dissipate. These chemical treatments may involve direct-to-animal applications, paddock applications or any treatment to which cattle may have access.

   WHPs are specific to each country. Therefore, a problem for beef trade occurs when some countries have different allowable residue limits and therefore different WHPs. Australia has, for example, shipped beef that is entirely acceptable by Australian standards to a country that has tighter restrictions, causing a chemical residue violation.

   To overcome this, the Australian beef industry introduced around seven years ago the concept of an ESI. This is a period additional to the legal WHP over which animals are voluntarily withheld from slaughter to allow further time for potential residues to dissipate to levels required by overseas customers. ESIs for all relevant chemical applications are listed on the back of NVD forms for ready reference and questions pertinent to observance of ESIs are asked on the NVD.

6. SAFEMEAT Partnership. SAFEMEAT is a partnership comprising representatives from the Federal and State governments and industry. It has been in place since 1998.

   The primary roles of SAFEMEAT are to oversight and promote sound management systems that underpin the delivery of safe and hygienic red-meat product to the market. SAFEMEAT is also required to promote the rationalisation of regulations and standards within the industry, implement sound crisis management principles and strategies, monitor

and guide research and development and monitor industry performance in respect of meat safety and hygiene.

Combined, these initiatives reflect the seriousness with which the Australian beef industry treats food safety, with a particular emphasis on chemical contamination.

Have we gone far enough? I don't think so. Why? The answer lies in the endosulfan experience.

Cotton's Best Management Practices from beef's perspective

The *Australian Cotton Industry Best Management Practices Manual* is an impressive document, thorough in its content and design. The program offers a major tool to satisfy the community that cotton growers are responsible custodians of best practice. However, for this to be effective and convincing, *all* cotton producers must adopt the program. That leaves little room for the fly-by-nighters. Yet, in true Australian style, cotton production has traditionally been practised by anyone willing to 'have a go', regardless of their credentials in meeting the needs of the industry and the community.

The same can be said of the cattle industry. There are initiatives within our sector that require widespread adoption to ensure community satisfaction; CATTLECARE® is one such initiative. But we have our share of those who don't care, who resist adoption and who constitute real risk to Australia's hard-earned reputation as a supplier of safe food.

In spite of the work done by far-sighted leaders and operators in the cotton industry to introduce QA to their sector, a major problem still exists: that of potential 'chemical trespass' caused by spray drift, run-off, weather conditions, inadvertent errors by applicators and so on.

While the situation involving endosulfan improved dramatically from the 1998-99 spraying season to the 1999-2000 season, cattle-industry players are still very nervous, particularly if the upcoming 2000-01 season proves attractive to uncaring and/or mercenary opportunists.

Cattle producers and the beef industry in general are still angry from their experiences over the past few years. A repeat performance next season will prove devastating.

The Endosulfan Experience

For the cattle industry, four years of the endosulfan program alone have cost close to $754,000 of levy moneys.

The tireless efforts of cotton-industry leaders, particularly Peter Corish and Cotton Australia's then Executive Director, Gary Punch, in pulling together a financial package for the beef

industry's program must be applauded. Like with us, their priorities were to clean up the mess with as little fuss as possible.

Undoubtedly from the cotton industry's perspective, their leaders must have appeared audacious in pulling together and offering the package. However, while the initiative was precedent setting, the cattle industry considered it the least that should be offered; in fact, to many in the cattle and beef industry it was seen as minimalist. Compared with the beef industry's collective funding of $754,000, the cotton industry has contributed only $443,000; and for the 1999-2000 season, the cattle-to-cotton proportion was $638,000 to $268,000, a significant disparity.

Fears exist that there will be an annual struggle for funds to cover a program that should never have been necessary in the first place had more been known about endosulfan and more care been taken with its use.

What's next?

Both industries can least afford a repeat of the 1998-99 experience. Both industries are doing what they can with QA programs and a variety of tools to improve management (including pest-resistant cotton varieties), but more is needed. This was recognised by the National Residue Survey when, for the 1999-2000 season, it tightened regulatory controls for users of endosulfan.

A 'steady as she goes' approach will fail. We must develop a strategy with short-, medium- and long-term elements that reflect genuine co-operation between our two industries, not an *ad hoc* approach as evident in the past.

Co-operation is required; after all, we're all producers together! Remember, in many areas of livestock production the use of 2,4-D ester has been stopped to satisfy neighbouring producers of broad-leafed crops. Without an acceptable strategy agreed by both industries animosity will grow and calls will become louder for the banning of a number of chemicals critical to efficient agricultural production.

Here are some thought teasers.

Short term (2000-01 season)

1. Tighter control-of-use rules. This should comprise the banning of ULV applications, a refinement of the buffer zones and a broadening of the neighbour-notification requirement. The SAFEMEAT Group is seeking these changes; co-operation from the cotton industry would be most welcome.

2. Multi-industry funding of residue surveillance programs. Again, the cattle industry is seeking contributions from other industries to meet its residue surveillance programs caused by chemical trespass. Ongoing co-operation from the cotton industry will be appreciated and will go far towards encouraging harmony between producers.

3. Monitoring of other potentially harmful chemicals. The NRS conducted a one-off monitoring exercise for a range of non-endosulfan chemical residues potentially caused by use of those chemicals in the cotton industry. Agreement was sought from the cotton industry to assist with the funding of this activity (to the extent of $20,000 in early 2000). In mid June, Cotton Australia notified NRS verbally of its unwillingness to contribute; the cattle industry seeks a reassessment of this position.

Medium term (by the 2001-02 season)

1. Collection of moneys. SAFEMEAT is examining the benefits of a small levy placed on the sale of risky chemicals to enable adequate funding for research and avoidance and clean-up of contamination. This approach would be similar in concept to that adopted for the DrumMuster program. Such an approach would appropriately take the focus away from the cotton industry as the sole instigator of problems in the beef industry: all chemical users would contribute. The cotton industry's support would greatly assist.

2. Punitive actions. Both our industries suffer the occasional renegade. When these people create a problem that affects the entire industry's reputation they should be severely punished. Unfortunately, tracing the culprit is often difficult. A method of identifying chemical applications by region, or even property, so that spray drift or run-off can be traced to its source would be ideal. In other words, the addition of a tracer or marker of some kind to the chemical mix should be investigated. Research and development in this area must be pursued, particularly if our industries are serious about future prevention.

Long term (as soon as possible)

Alternative chemicals. The Chlorfluazuron (Helix) experience was unfortunate for more reasons than simply its effect on the cattle industry. It has almost obliterated any chance of such a chemical being taken seriously again. Yet, in combination with careful management and new cotton varieties, it seemed an ideal way of coping with the cotton industry's high dependence on insecticides.

CropCare should be encouraged by industry to take a leaf out of Ciba Geigy's (now Novartis') book. Ciba Geigy had a product, Acatak (Fluazuron), that it wanted marketed as a new-age tickacide. It faced a problem: the MRL in Australia (Queensland only) failed to be recognised by governments in overseas beef markets.

After withdrawing Acatak from the market, Ciba Geigy joined forced with industry and Australian governments to lobby for recognition around the world. In record time, and without CODEX, each major country, one by one, instituted a chemical-residue tolerance level in beef products of 7ppm that enabled the product to be used responsibly in Australia without a risk to trade.

Such a strategy proved remarkably successful for Ciba Geigy; a similar approach may prove equally successful for CropCare with clear benefits for the cotton and cattle industries.

Conclusion

In a number of regions, relationships between cattle and cotton producers have suffered dramatically over the recent past. Animosity between these producers and their respective representative bodies has also developed. All this must end.

Cotton production will continue to expand, often at the expense of cattle production. Assuming it's done responsibly, this should be seen as part of agriculture's evolution. All individuals within those industries have a responsibility to ensure harmony between neighbours and appropriate custodianship of the land.

The cattle and cotton industries, through their leaders and with the support of members, must forge a stronger alliance to develop a mutually acceptable strategy that will allow our respective QA schemes to ensure an end to chemical trespass. Without this, the future holds many problems.