Tackling a zero detectable pesticide residue approach

There is growing concern among SA fruit and vegetable industries that UK-based retailers are applying additional restrictions on the use of plant protection products (PPPs), over and above the EU pesticide regulations. Typically these retailers demand a grower commitment prior to the production period to use a predetermined and reduced range of pesticides. Of further concern, is that these lists appear not to necessarily take into account the legal status of the PPP under EU Maximum Residue Level (MRL) or SA usage legislation. Consumer groups in the EU have also put pressure on growers through the food supply chain to use fewer pesticides.

At grower level, this has caused considerable confusion, as various retailers have approached individual growers to get different pesticide usage declarations from them. Typically these growers turn to the Citrus Growers Association of Southern Africa (CGA) or Citrus Research International (CRI) to provide practical advice on which pesticides they can and should use. As the need for help has escalated, a coordination desk operated by Paul Hardman at CGA, for communications between growers and retailers was requested and approved at the June 2006 meeting of the Citrus Marketing Forum.

To address these concerns, and to demonstrate the high level of importance placed on consumer, environmental and worker protection by fruit and vegetable producers in SA, some direct contact with international buyers was deemed appropriate. Paul Hardman and prof Vaughan Hattingh visited the United Kingdom between the 12th - 19th October 2005.

A ZERO DETECTABLE RESIDUE APPROACH

Without exception, the meetings with retailers, retailer groups and consumer groups confirmed an increasing trend among UK retailers to introduce additional restrictions on the use of certain pesticides. UK retailers are seeing food safety as a competitive issue, despite their official denial, with the intention of having less residue detections (counts) than their rival retailers. Some retailers are aiming for zero detectable residues within the next 15 years.

This approach clearly diverges from the legal parameters and food safety principle governing the usage of pesticides outside and within the EU. Key reasons by retailers for wanting to reduce the number of pesticide residue detections include:

• High percentage of own label (retailer branded) products in UK stores than elsewhere in the world therefore a strong incentive to protect brand reputation.
• "Name and shame" publications by the Pesticide Safety Directorate (PSD) show the relative "performance" of retailers based on the number of products with a detectable residue.
• Consumer groups such as Friends of the Earth and the Food Standards Agency, also use this information to put pressure on retailers to reduce perceived food safety risks.

PAUL HARDMAN (CGA) & PROF. VAUGHAN HATTINGH (CRI)

Vaughan and Paul were able to highlight inherent flaws and difficulties with managing a zero detectable residues policy:

• There is no scientific justification for taking such a position; in fact the science shows that residues at or below the MRL present no short or long-term risk to human health.
• Abandoning permissible pesticides without scientific justification conflicts with the principles of Integrated Pest Management (IPM), which aims to reduce the impact of pesticides on the environment in the long-term.
• Fruit requiring post-harvest treatments would be especially problematic since detectable residues would normally be found on such fruit. In response, retailers indicated that they would be phasing-in this Policy, and post-harvest treatments would be dealt with towards the end of this phasing-in process.
• Finally, managing public consumer expectations becomes more difficult, since a single detection of a residue can then cast doubt on the credibility of the entire policy, and without scientific backing this can be very difficult to defend.

QUALITY ASSURANCE SCHEMES

The pressure on all participants in the value chain to sell "safe" food was entrenched in the UK legal system during the early 1990's through the introduction of the due diligence concept. That is, all reasonable steps must be taken to ensure food is suitable for human consumption. Retailers initially responded by increasing their technical capacity, at relatively high company cost. Some retailers even invested in private testing laboratories.

Towards the late 1990s a new approach emerged with the introduction of upstream food safety, quality assurance and accreditation schemes, such as Nature's Choice from Tesco and EurepGAP. These schemes provided retailers with the opportunity to demonstrate appropriate due diligence on the one hand, and shift the significant costs of large administration and technical teams on the other. Much like taking out insurance, retailers adopted outside institutions to manage the perceived risks.

With smaller technical teams and arm-length assurance schemes in place, retailers have become less able or willing to deal with pesticide issues, and defend this in light of the complexity of EU pesticide and MRL legislation, whose outcomes are often uncertain. Growers seeking continued access to the retail market have been forced to either "toe the line" and reduce the range of pesticides they use, or take full responsibility to ensure they are compliant with all the legal requirements by applying an appropriate Good Agricultural Practices policy. Yet, direct engagement with these stakeholders showed that UK retailers with a better understanding of the EU MRL...
A practical approach to skills development

Skills development and capacity building has long been put forth as a major requirement for growth in the agricultural industry. Although this seems true on principle, the role that skills development can play in growth has not been clarified enough. And before we have a very clear vision on this matter, there is the danger that skills development will be done merely for the sake of it, and will not be part of the successful grower's long-term planning.

Before we make an attempt at such a role definition, we need to consider two realities around the process of how skills are developed.

First of all, everybody learns all the time. Although this statement sounds rather obvious, its implications are far reaching. It implies that all growers have an existing skills pool amongst their employees, with skills and knowledge that have been developed and gained mostly through practical experience.

Another important implication of this reality is that the quality of the skills and knowledge of employees is dependent on the agricultural practices on the farm - where good agricultural practices are not applied every day, workers would not have learnt the ‘right’ skills. The breadth and depth of skills and knowledge that have been acquired by workers further depends on the management structure on a farm. If the management structure is such that workers only enjoy limited exposure to certain aspects of the farming operation, they will find it difficult to contextualise their skills and knowledge, and to obtain an understanding of the ‘big picture’.

The second reality of the process in which skills development takes place, is that information does not equal knowledge, and that knowledge does not equal insight. A process is required to ensure that information leads to knowledge and that knowledge leads to insight. Employees that are exposed to certain processes on a farm may obtain the information, but they may face a certain task in the expected manner, but if they are not provided with additional information, they may not be able to contextualise the information. Contextualising information is the basis of gaining knowledge and developing skills that can be applied in situations that they have not been faced with before.

Formal skills development programmes aim to provide learn-

CONTINUED FROM PAGE 25

Tackling a zero detectable pesticide residue approach

legislative process and its implications for third countries exporting to the EU, were generally more pragmatic in dealing with pest risk management. These retailers tended also to be more willing to listen and to cooperate to reduce the risk of a pesticide non-conformance for mutual benefit.

A CREDIBLE FOOD SAFETY RISK MANAGEMENT MODEL

Many retailers acknowledged the proactive approach by the southern African citrus industry to manage their own food safety risk through the compilation and distribution of the Recommended Usage Restrictions For Plant Protection Products On Southern African Citrus. This is a quarterly (sometimes more frequent) publication reflecting the most recent MRL changes in key markets, along with appropriate usage restrictions that help growers to meet the MRL targets. The Recommended Usage Restrictions For Plant Protection Products On Southern African Citrus (RUR) is the sum of close monitoring of the EU MRLs, plus the findings of a breakdown research by the CRI group, over the last 15 years. The latest version is available on the CGA website (www.cga.co.za).

Backed up by credible science, and in line with the legal MRL principles and policies of major trading partners, the RUR is firstly defendable before consumers - it meets all the food safety and legal requirements - and secondly, is less prescriptive on what growers can and cannot use to manage pests and diseases in their own situation. It reduces the risk of a non-conformance and addresses many of the concerns highlighted by retailers as reasons for employing a zero detectable residue policy.

As a model to promote sustainable and responsible agriculture that also offers retailers the appropriate assurances ("all reasonable steps to ensure food is suitable for human consumption have been taken") this approach by growers was well received by retailers. It also "fits" with commercial accreditation schemes already in place. For example, Tesco have worked closely with the CGA-CRI in their latest version of the RAG Plant Protection Products List (PPPL) and by taking into account the appropriate usage restrictions catered for in the RUR, the final draft now reflects a far more pragmatic approach than was evident in the earlier versions.

CONCLUSIONS AND RECOMMENDATIONS

Essentially UK retailers are seeking ways to reduce their exposure to reduced sales resulting from a Food Safety incident, particularly around pesticide excedances, as they perceive this to be their greatest risk. The current strategy of some is to aim for zero detectable residues over the next 8-15 years, effectively precluding the future usage of PPPs.

As a practical alternative used in the southern African Citrus industry, the compilation of the Recommended Usage Restrictions For Plant Protection Products On Southern African Citrus, can scientifically provide consumers and retailers with the appropriate level of assurance while optimising the number of instruments/tools to manage pests and disease according to Good Agricultural Practices. This approach needs to be further promoted among UK retailers. Ongoing and more frequent interaction between CGA-CRI retailers and consumer groups is necessary to remain in touch with their current thinking on food safety issues.

ACKNOWLEDGEMENTS

Our thanks go to the SA PIP and CGA for co-funding the trip to the EU, and for all those that engaged with the SA citrus industry.