Issue 3 September 1996

Welcome

This issue we're happy to be leaving the negatives of Mad Cow disease and fruit fly behind and focusing on the good news of HACCP or Hazard Analysis Critical Control Points. This system of food safety rules is taking off nationwide in the meat and poultry industries, which means our fresh produce should be safer than ever. Thank you for reading Food Focus. We always value your comments and suggestions for future issues.

RA food focus
MAF Regulatory Authority Information for the Agriculture and Seafood industries.

Introducing HACCP - the American Way

New Zealand companies exporting to the United States are now preparing for the effects of the United States Department of Agriculture's new regime of food safety rules for meat and poultry.

The regime, known as the Final Rule, requires companies that slaughter and process meat and poultry to target harmful bacteria on their products.

Components of the US regime are as follows:

Hazard Analysis and Critical Control Points (HACCP)

Every plant must carry out its own HACCP plan based around seven internationally recognised principles :

1. hazard analysis
2. critical control point identification
3. establishment of critical limits
4. monitoring procedures
5. corrective actions
6. record keeping, and
7. verification procedures.

Mandatory E. coli testing in slaughter plants.

Every slaughter plant must regularly test carcasses for generic E. coli. bacteria. This test shows whether the plant's procedures for preventing and reducing faecal contamination have been effective.

Pathogen Reduction Performance Standards for Salmonella

All slaughter plants and plants producing raw ground products must meet new pathogen reduction performance standards for Salmonella.

Sanitation Standard Operating Procedures (SOPs)

As the foundation for HACCP, every plant must adopt and carry out a written plan for meeting its sanitation responsibilities, both pre-operational and operational. Effective sanitation in slaughter is essential to prevent direct adulteration of meat and poultry products.

In New Zealand, MAF RA is encouraging the meat and poultry industry to put in place HACCP plans on a voluntary basis, in recognition of the food safety benefits provided by HACCP, and noting the likely importance of HACCP in international trade and domestic dealing.

The HACCP Steering Group, consisting of representatives from industry groups, MAFRA, MAF Quality Management and the Ministry of Health, has been set up to help with the introduction of HACCP throughout New Zealand.

With regard to the US Final Rule, New Zealand will be putting up an equivalent system for assessment by the USDA. Consultation has already begun within New Zealand between industry and MAF RA to determine where New Zealand lies in relation to the Final Rule.

Setting up an equivalent system is now a matter of considerable urgency, as the first of the Final Rule requirements, the USDA testing for Salmonella, comes into effect on 18 October. Effective dates for the other components vary from six to 42 months.

The HACCP Steering Group, consisting of representatives from industry groups, MAFRA, MAF Quality Management and the Ministry of Health, has been set up to help introduce a uniform approach to HACCP throughout New Zealand.

Quality Quote

Last night we went to a Chinese dinner at six anda French dinner at nine, and I can feel the shark's fins navigating unhappily in the Burgundy.

Peter Fleming, 1938.

INSIDE

Access Snippets

Freeing up transtasman trade

Restrictions to trade with our nearest neighbours should soon be reduced, thanks to efforts underway to develop joint Australian and New Zealand food standards.

A new body, the Australia and New Zealand Food Authority (ANZFA) has been set up to administer the move towards a single set of food standards for composition and labelling.

Because the move to joint food standards will take time, New Zealand standards are now accepted in Australia, with the provision that New Zealand food must also meet Australian maximum residue levels for cadmium, pesticides and veterinary drugs.

All food exported to Australia will need to meet Australian quarantine requirements.

Accreditation standard tightens up

A new MAFRA standard comes into effect on 1 October, to formalise the accreditation of inspection staff who work on behalf of MAF.

MAFRA Standard 159.10 "Requirements for the Accreditation of Operators Providing Inspection, Audit and/or Documentation Services for Plants Export Certification" replaces the old "MAF Quality Management Plant Conformity Certification Scheme Rules". The new standard marks the final stage of the policy/delivery separation between MAFRA and MQM and the start of setting up the framework for contestable delivery of plants export certification services.

The standard specifies the requirements for operators of inspection, audit and/or documentation services to become accredited to carry out these activities on behalf of MAFRA Plants.

Operators could once be approved on the basis of their experience or qualifications, but the new standard asks them to demonstrate their proficiency to a MAFRA Plants representative four times prior to accreditation being formalised.

The standard also formalises other aspects of the accreditation process which lacked fixed procedures previously. Packhouses and exporters will need to formally apply to participate in the MAFRA programme and sign a contract of accreditation with MAFRA. Packhouses must document their compliance systems to address the requirements of the standard.

Manager of Horticultural and Arable Crops Peter Johnston says there was a need for a standard which are defensible in the international environment. "We had to ensure the skill level of our industry inspection staff met our normal proficiency requirements because our international reputation for acceptance of export certification depends upon it," he says.

Policy Watch

Reviews: "how can we best do what we do?"

That's the big question facing the independent scoping panel currently assessing the most appropriate organisational and management structure to deliver the functions currently performed by MQM.

Recently completed reviews dealt with:

- the provision of government-owned quarantine stations
- the Animal Disease Surveillance Information System;
- the Animal Exotic Disease Response System and
- options for the provision of meat inspection

and aimed to find the most cost effective way of providing these services, in the public or private sector, without reducing the level of agriculture security, food safety or market access.

The decisions reached during these reviews were recently approved by the Cabinet Strategy Committee and are currently being considered by a scoping panel comprised of Brian Roche, Brian Chamberlain, Rob Thomas with Peter O'Hara as an ex officio member.

The panel is to complete its final report by mid December, with papers to go to Cabinet proposing the future for the delivery of MQM functions in March next year.

Policy Watch

New Chief Technical Officer

Long-serving MAF-ite Tim Knox has recently been appointed to the new position of Chief Dairy Officer / Chief Agricultural Compounds Officer.

The need for this position arose from the government's new regime for managing the risks associated with agricultural compounds and hazardous substances. The Agricultural Compounds Bill, recently introduced to Parliament, and the Hazardous Substances and New Organisms Act 1996 are the new regime's two major pieces of law. Because they are closely linked, they will require coordinated administration.

One of Tim's top priorities in his new role will be managing the implementation of the Agricultural Compounds Bill. His main focus will be on the strategic management and direction of the Dairy and Agricultural Compounds divisions, and the interface with other government agencies, industry, international bodies and New Zealand's key trading partners.

Tim started out at MAF in 1981 as a Quarantine Officer. He became National Manager of the Quarantine Service in 1988, and moved into the plant quarantine policy area in 1990 when MAF separated its policy and delivery functions. In 1994, Tim became Deputy Administrator of MAFRA, and has contributed to its overall management as a member of the MAFRA senior management team.

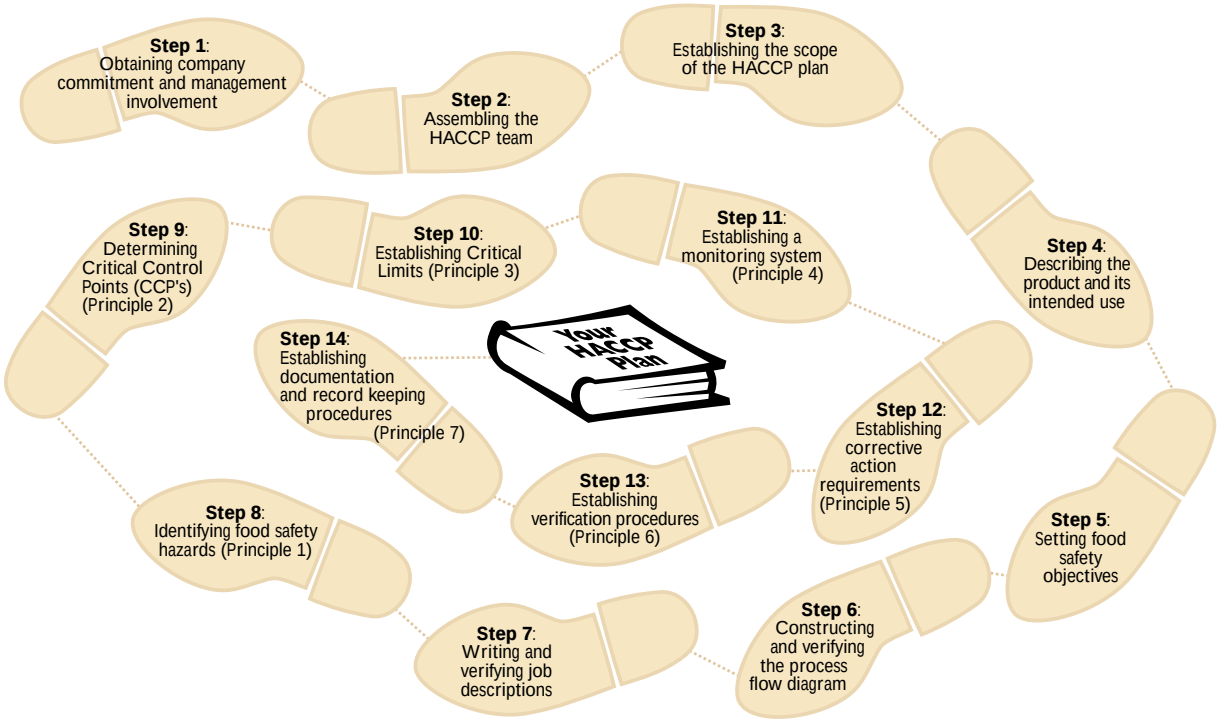
Tim Knox

Technology Update

How to develop a HACCP Plan

One tool the HACCP Steering Group has developed for industry is a step-by-step guide to developing your own HACCP plan.

The following *steps* provide a useful guide in developing a HACCP plan:



Case Study

The Generic Model

An applied generic model developed by the R and D Group of MAFRA meat and seafood for slaughter and inverted dressing of lambs and sheep will soon be available to industry. This will form part of the revised HACCP "Guide to the Implementation of HACCP Systems in the Meat Industry."

In summary, the generic model promotes the following points:

Prerequisite Programmes

Effective prerequisite programmes must be put in place before a HACCP plan can be developed. These programmes must be documented and cover activities which interact with various processes and which could influence the food safety outcome in a critical way. Examples would be programmes covering potable water quality and operator hygiene.

Product Description and intended use

The final product must be fully described, with consideration of its intended use. Operators can then formulate food safety objectives to capture the required outcomes for the final product. For a carcass, these will include factors such as minimising the transfer of microbiological hazards from the gastrointestinal tract and the fleece to the carcass.

Process flow diagrams and job descriptions

Operators construct a process flow diagram showing all process steps and relevant inputs into the process such as raw materials and other items added to the product.

Job descriptions are drawn up for each process step highlighting the food safety responsibilities.

Hazard Identification (Principle 1)

Operators identify hazards for raw material, all other inputs and each process step. Then food safety objectives are confirmed in accordance with the hazards identified.

Critical Control Points (Principle 2)

Using a customised decision tree specifically designed to meet the needs of fresh meat production, Critical Control Points are identified. For each process step, this decision tree focuses on:

- whether each identified hazard could be present in or on the product at unacceptable levels
- whether there is a control measure available that would prevent the unacceptable levels of the hazard
- whether there is a control measure available at a previous step which would contribute significantly to preventing unacceptable levels of the hazard.

For the generic model, four CCPs are identified. These are:

- reception of incoming stock
- forequarter workup
- pelting
- retain rail trimming

Principles 3 to 7

Each plant will be able to establish critical limits, monitor and verify its own procedures and keep records without outside assistance. These principles are found summarised in the HACCP plan summary spreadsheet.

The HACCP plan must then be validated at premises level to demonstrate that it can deliver the required food safety outcomes. Validation should indicate that the HACCP plan is at least equivalent to GMP-based controls at the premises for all food safety objectives set.

Research Review

Residue Research

The detection of a chemical residue in New Zealand meat at a level in excess of any market standard could dramatically compromise consumer confidence and market access for our exports. The crisis Australia had to deal with during 1994/95 after a pesticide normally used on cotton was detected in their meat provided a dramatic example of the impact such an incident can have on trade.

As part of MAF RA's policy of trying to pre-empt or at the very least manage the potential risks residues could pose to the farming and processing industry, the Ministry operates an extensive chemical residue monitoring and surveillance programme. The research and development component of this programme helps the Ministry to stay ahead of potentially contentious issues and maintain an analytical capability at least equivalent to that of our export markets.

Over the past year MAF RA has conducted a number of targeted surveys looking at new risk factors or issues with the potential to capture consumer or market interest.

Surveys have been and are being done on issues such as the effects of the Ruapehu eruption on our lamb, the effects of age on organochlorine levels, the potential impact of the low level mercury contamination of some Northland roads on animals grazing adjacent paddocks, and the effectiveness of the controls on poison use in ensuring processed stock and game are free of any residue.

MAF RA has also contracted the refinement of existing assays and the development of new ones to allow us to improve our ability to define and monitor any potential residue concerns. New methods have been developed and implemented for contentious compounds such as carbadox, dimetridazole and diflubenzuron during the past year. We have also refined our ability to detect antibiotic residues and identify organophosphate -based pesticide residues. In response to an overseas market concern, New Zealand's zearalenone method and the database the Ministry has associated with zearalenone residues are also being extended.

With changing market requirements and new residue issues being highlighted all the time, maintaining a comprehensive database and a leading edge analytical capability is a necessary insurance to help protect New Zealand from a residue incident or concern being used as a non-tariff trade barrier against our meat and meat products.

Meet our People - *Nick Whelan*

Getting an education took Nick Whelan across the world before he settled at MAF in September 1995. Twelve months later, he's become National Manager (Registration).

Nick is now based at the Agricultural Compounds Unit (ACU) at the Wallaceville, where he coordinates the licensing process of animal remedies and pesticides. The ACU exists to ensure that agricultural chemicals and veterinary drugs in New Zealand meet acceptable standards of safety, quality and truth in labelling. Nick also works as a Product Manager evaluating Animal Remedies.

Nick's career began at Massey University, where he graduated with a Bachelor of Veterinary Science in 1988. Postgraduate study in Veterinary Pharmacology entitled him to membership of the Australian College of Veterinary Scientists.
This period was followed by more postgraduate work in pharmacology - this time in Texas, where he was awarded the distinction of being made one of only 30 Diplomates of the American College of Veterinary Clinical Pharmacology.
Nick's background in pharmacology has proved invaluable at the ACU.

Bright Note

France has exempted New Zealand from its new sanitary requirements intended to control transmissible spongiform encephalopathies in ruminants. The requirements could have had wide renging detrimental effects on our sheep and beef trade if evidence presented by New Zealand had not enabled France to recognise New Zealand as a free form subacute animal transmissable spongiform encephalopathies.

Editorial Box

RA Food Focus is the quarterly newsletter of MAF Regulatory Authority. It is provided for general information only and people requiring specific information should contact the Authority. Food Focus welcomes feedback and suggestions for future editions.

Please contact:
Sandra Newman
Executive Manager
MAF Regulatory Authority
Ministry of Agriculture
PO Box 2526
Wellington
New Zealand
Phone 04-474-4100
Fax 04-474-4240