

**Summary Final Report**

**Operational Research 2000/ 2001**

**Contract - FMA 169**

**Develop generic HACCP models for food assurance programmes, based on scientific validation of the hazards**

**Prepared by:**

**Sandra Walker  
AgriQuality New Zealand  
P O Box 82  
Wanganui  
Ph : 06 348 5870, Fax : 06 348 5874  
E mail : [Walkers@agriquality.co.nz](mailto:Walkers@agriquality.co.nz)**

**February 2002**

## **Contract - FMA 169**

### **Develop generic HACCP models for food assurance programmes, based on scientific validation of the hazards**

#### **Goal :**

Review and align existing Hazard Analysis Critical Control Point (HACCP) models for Fresh Produce to MAF requirements.  
Utilise Codex HACCP methodology to develop a HACCP Plan for each sector group at the same time ensuring compatibility with existing industry programmes and providing MAF with robust HACCP models that can be incorporated into MAF Standards.

#### **Context of Project :**

The initial project reference FMA 101 was initiated by MAF Biosecurity Authority in response to industry feedback that existing quality assurance specification were causing difficulties. Project FMA 169 was undertaken to review FMA 101 and provide a scientific basis to HACCP models.

#### **Approach :**

Project FMA 101 was reviewed

An international Literature search was undertaken to identify food safety issues, hazards, controls and desired outcomes over the range of crops listed below:

Root crops - potatoes, carrots, onions,  
Fruit crops - apples, kiwifruit, summerfruit, sub-tropicals,  
Seeds/sprouts,  
Leafy green - lettuce, brassicas,  
Glasshouse - tomatoes, capsicums,  
Berryfruit, and  
Organic crops.

The results were analysed and used to develop the HACCP models.  
An Implementation Guide was developed.  
Final report was written.

Continuous consultation with MAF Food staff was undertaken to ensure the application of HACCP principles was consistent with MAF Food's application of HACCP and followed Codex Guidelines on HACCP application.

#### **Outcomes :**

The International Literature search validated scientifically (wherever possible) the potential biological, chemical and physical hazards that have been identified, both for conventional and organic production systems.

Obtaining information from NZ sources for microbial, chemical and physical hazards was difficult. In some instances research has not been undertaken or is currently operating under private funding regimes and the researchers were unable to access this information.

Generic HACCP Models have been developed for the range of fresh produce listed in the Approach above, using information obtained from the literature

search in conjunction with analysis of some specific production systems operating in New Zealand.

The HACCP models developed can be incorporated into MAF Standards for a fresh produce food safety assurance programme, as such a programme is developed.

The implementation guide and Objective 1 & 2 report provides guidance to the different levels of the sector to ensure both effective uptake of and maximum benefits from, the models.

The recommendation from FMA 101 for a separate Code of Practice for HACCP application is no longer considered appropriate because the Fresh Produce Industry has since taken more ownership and responsibility for food safety and produce integrity.

### **Summary :**

The goal of the project was met; to utilise Codex HACCP methodology to develop a HACCP Plan for each sector group at the same time ensuring compatibility with existing industry programmes and providing MAF with robust HACCP models that can be incorporated into MAF Standards.

Continuous consultation with MAF Food staff was undertaken to ensure the application of HACCP principles was consistent with MAF Food's application of HACCP and followed Codex Guidelines on HACCP application.

The Literature search, HACCP Model development and Implementation guide have been developed for MAF.

This project identified that it is more appropriate for the produce industry in New Zealand to apply HACCP principles and Good Agricultural Practices (GAP) as appropriate instead of all the HACCP principles, unless enough scientific evidence and food safety objectives for HACCP plans are available.

Further development of the work undertaken in this project would benefit from direct participation of relevant industry members in conjunction with MAF Food as/or when appropriate.

### **Publications :**

Objective 1. International Literature search

Objective 2. Generic HACCP model

Objective 3. Implementation Guide

Final report

- Objectives 1 & 2 have been combined into one document –“ Generic HACCP Models for Food Assurance” Objective 1 - Stage 1 & 2 International Literature Search, Objective 2 HACCP Models Report, dated August 2001.
- Objective 3 is a separate document Titled: “Generic HACCP Models for Food Assurance - Implementation Guide”, dated September 2001.
- Final report is a separate document Titled: “Generic HACCP Models for Food Assurance – Final Report ” dated December 2001.