

AgResearch MIRINZ Microbiology Manual

Meat Industry Microbiological Methods

Editorial Committee:

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Farming, Food and Health. **First**

Te Ahuwhenua, Te Kai me te Whai Ora. Tuatahi

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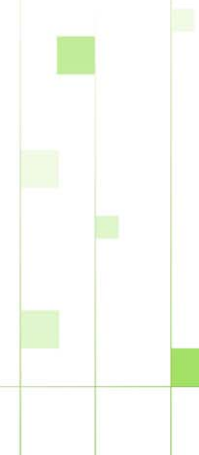
MIRINZ

Regulatory Testing

MIMM is one of the three tools used in regulatory testing for microbes in NZ foods

The other two are:

- **NZFSA - National Microbiological Database**
- **Laboratory Approval Scheme (LAS) that includes the AgriQuality Proficiency Programme (ILCP)**

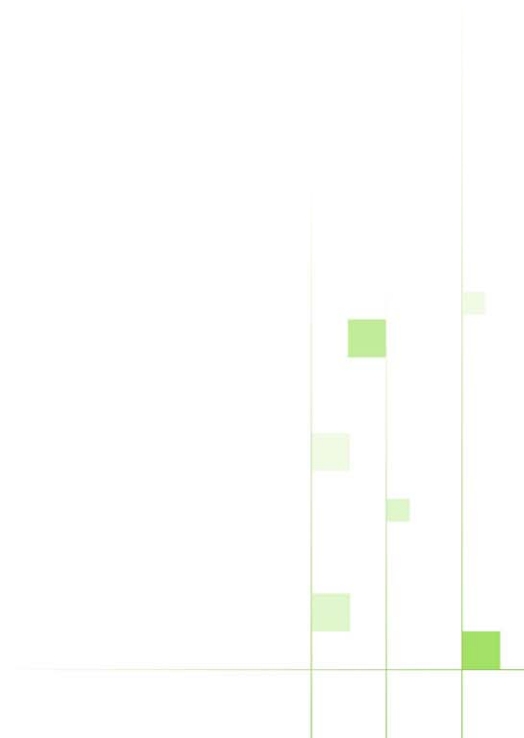


Original MIMM Purpose

MIMM was produced as a resource for laboratories undertaking testing for the New Zealand meat industry



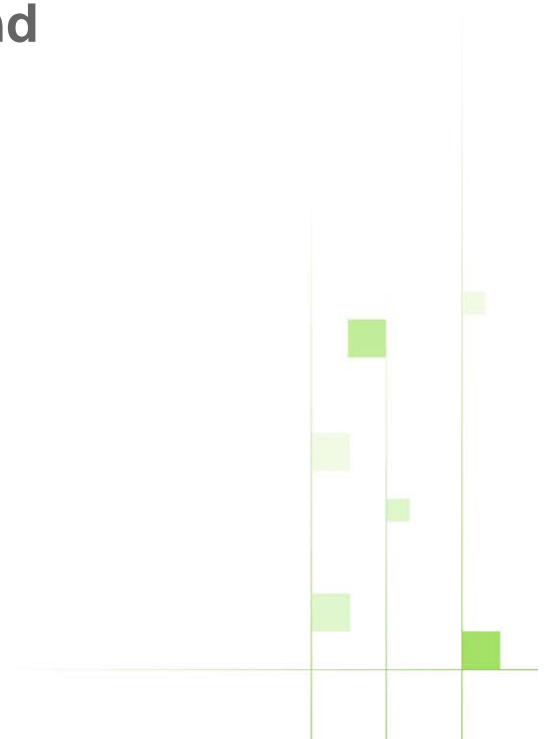
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On-going MIMM Purpose



The intent is to gradually incorporate procedures that meet the requirements for other types of meat, both processed and unprocessed

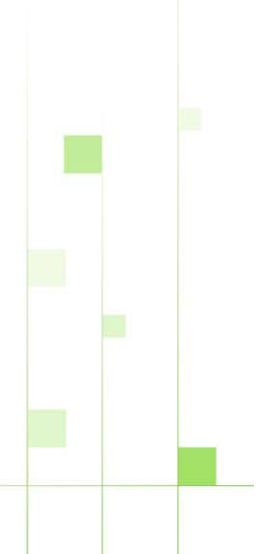




MIMM CONTENTS

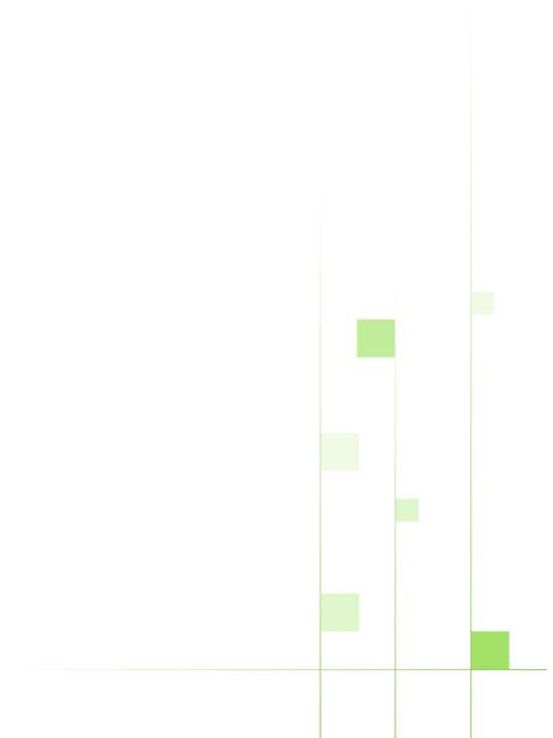
- **Introductory Material**
- **Laboratory Safety, Quality Control, General Procedures**
- **Procedures for Meat and Meat Products**
- **Procedures for Potable and Natural Waters and Effluents**
- **Microscope Methods and Biochemical**

www.agresearch.co.nz/micromanual/

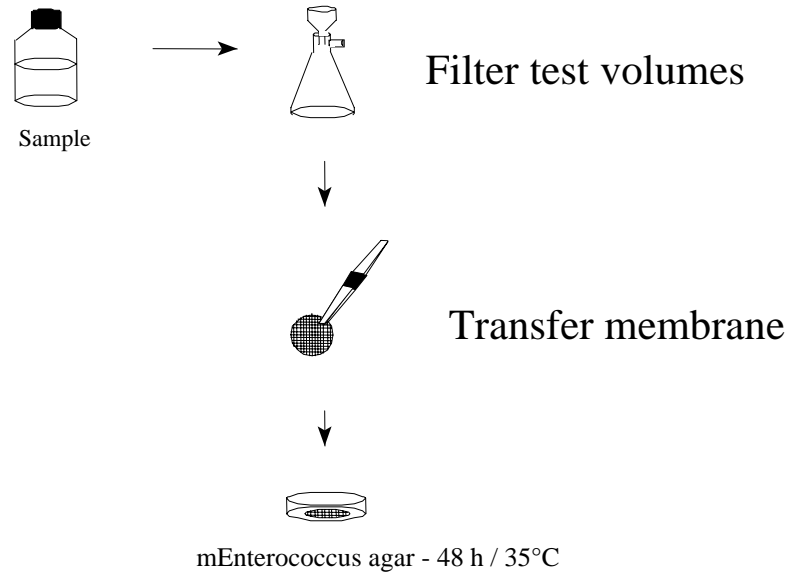


Designing a Method

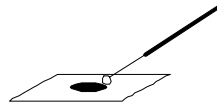
- Internationally acceptable method
- Theoretical background
- Precise requirements for materials
- Clear laboratory instructions
- Flow diagram
- Photograph



ENTEROCOCCI



Test each red/pink colony to identify enterococci

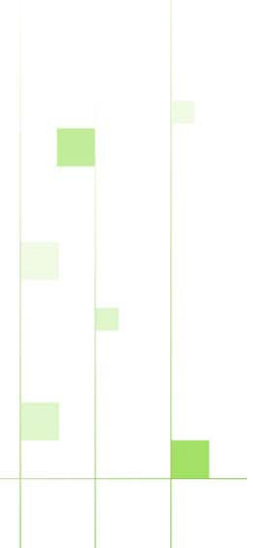


3% hydrogen peroxide
Enterococci are catalase negative



Bile aesculin agar 24 h / 35°C
Enterococci form brownish/black colonies

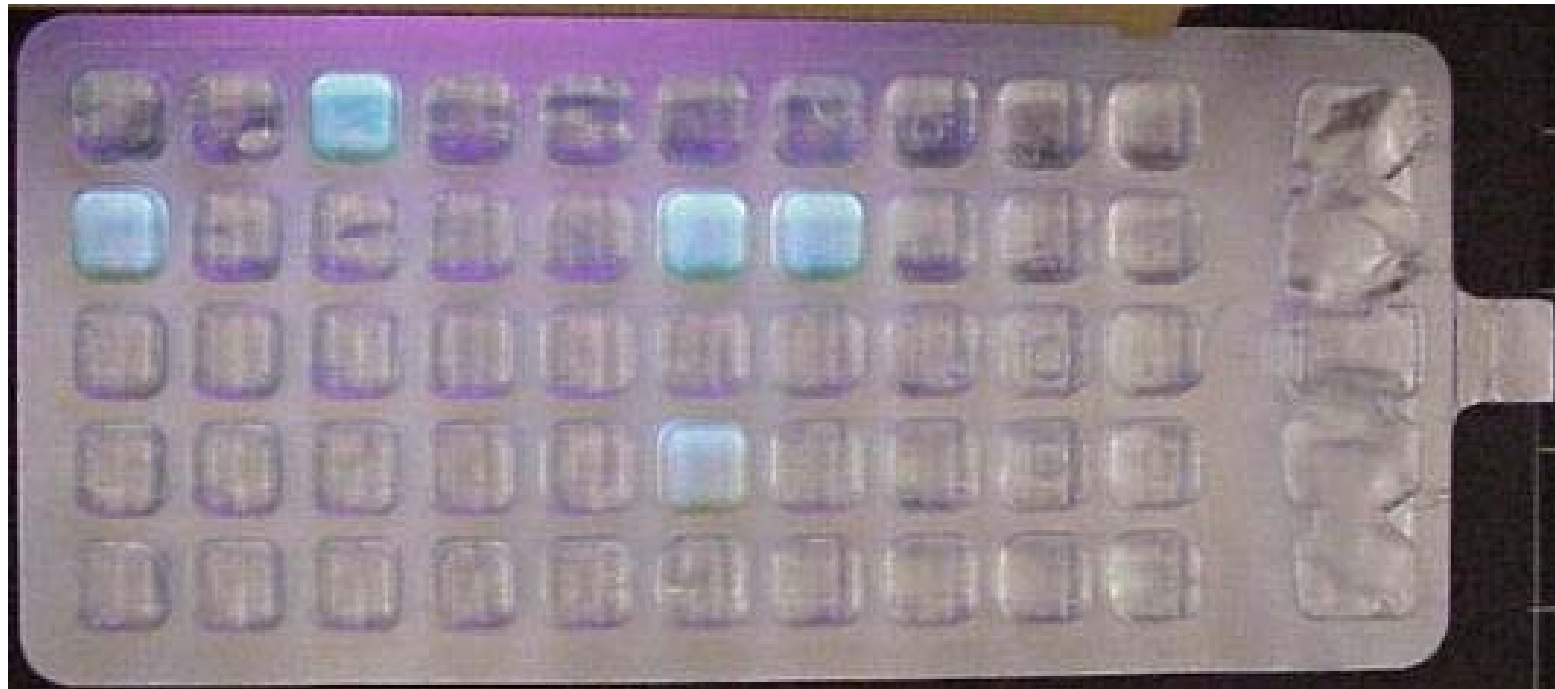
Colonies with typical results for both tests are counted as enterococci



Rapid Test for *E. coli* in Water

Colilert® method in Quanti-tray™ format

Viewed under UV light (366 nm)



Reviewing Methods

Each method is regularly reviewed by the Editorial Committee

Next review 15th November 2006.

Topics to include:

- Inclusion of a direct plating method for *Campylobacter* on poultry
- Review the *Clostridium perfringens* method for potable water
- Correct a typing error in *Enterococci in effluents* - information from a user laboratory

