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M E M O R A N D U M

MILAB LABORATORY APPROVAL SCHEME

To: **ALL MILAB APPROVED LABORATORIES
EXPERT PANEL
INTERNATIONAL ACCREDITATION OF NEW ZEALAND
AGRIQUALITY PROFICIENCY PROGRAMMES**

Cc: Gail Mustor, National Adviser (Microbiology)

From: **Mirzet Sabirovic
MILAB Administrator**

Date: **10th January 2002**

Subject: **MILAB OFFICIAL TESTS FOR POTABLE WATER (1.1 & 1.2) – AN UPDATE**

Ref: A-02-01

Dear All

Please note that this Memo replaces and cancels Memo of 5 November 2001 (Ref: A-01-08)

The following explanations on page 2 of this memo apply to the November 2001 amendment of the Microbiological Manual for the Meat Industry, 3rd edition, April 2000 with regard to potable water testing methods.

This memo provides an opportunity for laboratories to update their potable water methods references to Microbiological Manual for the Meat Industry, 3rd edition, April 2000, November 2001 amendment. Note also that the result submission forms for ILCP monthly potable water tests references have been updated to the November 2001 amendment.

Laboratories currently using mEndo membrane filtration for the official test 1.1 are required to update their existing methods to the new methods listed below before 4th February 2002 and provide written confirmation to IANZ.

Any laboratories with pending IANZ audits in 2001 are advised to update to the Microbiological Manual for the Meat Industry, 3rd edition, April 2000, November 2001 amendment before the audit takes place.

Please note that there is no change to official test 1.2, however some clarifications are provided.

Potable water testing methods for total coliforms and faecal coliforms to meet all market access requirements (including EU).

Note that approved method references are Microbiological Methods for the Meat Industry (MIMM) 3rd edition, April 2000, November 2001 amendment

MILAB official test 1.1, total coliforms –mEndo; requirement for TSA enrichment/resuscitation

MIMM, before the November 2001 amendment, allowed two options for the mEndo method; one without enrichment/resuscitation (11.A3.1.5) and one with enrichment/resuscitation using lauryl tryptose medium (11.A3.1.6).

The approved method is now MIMM November 2001 amendment, Chapter 11.3 Membrane Filter Method for Total Coliforms which requires **enrichment/resuscitation for all potable water samples, using tryptic soy medium**. LT (lauryl tryptose) medium will no longer be required as the enrichment/resuscitation medium.

- Section 11.3.3. Incubate for 1.5 - 2 hours on **non-selective TSA** at 35 +/-0.5°C prior to transfer to selective enrichment on mEndo agar incubated at 35 +/-0.5°C for a further 20.5 to 22 hours.

MILAB official test 1.2, faecal coliforms mFC- TSA enrichment/resuscitation also required

The approved membrane filtration method is MIMM November 2001 amendment, Chapter 11.4 Membrane Filter Method for Faecal Coliforms.

- Note that resuscitation using non-selective TSA is required. See section 11.4.3 – incubate for 2 hours on TSA at 35 +/-0.5°C prior to transfer to selective enrichment on mFC agar incubated at 44.5 +/-0.2°C for a further 22 hours.

MIMM chapter 11. 5, Identification of Coliform Species Including *Escherichia coli*- clarification

Verification of *Escherichia coli* and Coliforms – for confirmation of total coliform and faecal coliform colonies counted/detected using any of the MILAB official methods.

- At least 10% of colonies should be isolated in pure culture (using non-selective TSA as confirmation media). Carry out oxidase and Gram stain tests. Oxidase negative and Gram stain negative isolates (presumptive *E. coli*) are then fully confirmed using commercial ID kits (with strict adherence to manufacturer's instructions),
- ID kits produce results from several different biochemical reactions (MUG only tests one) and are more accurate overall. The ID kits will identify *E. coli* and other species of *Enterobacteriaceae* and this will provide very useful information for determining a contamination source.

References

For potable water market access requirements:

- OMAR 01/157(sample collection)
- TD 01/152 (physico-chemical testing)
- Circular 95/3/1 (faecal streptococci and sulphite reducing clostridia tests)
- Circulars 86/3/5 and 86/3/2 (total coliform, faecal coliform, SPC22/37, Category A and Category B)