

Department of Primary Industry

**AUSTRALIAN CODE OF PRACTICE
FOR DAIRY FACTORIES**

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Section J

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Section J— Guidelines for dairy produce laboratories

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Section J— Guidelines for dairy product laboratories

Scope

- J1.1 This Section sets out what are regarded as the minimum standards for an effective and reliable general purpose dairy produce laboratory. Information on structural requirements, equipment, test manuals, records and laboratory practice is included. Matters concerned with the actual testing procedures or quality control programs have not been covered, as they are considered to be outside the scope of this Section.

Facilities of a higher standard than outlined in this Section may be required for particular applications, e.g. testing for pathogens.

Attention is drawn to the laboratory registration scheme operated by the National Association of Testing Authorities, Australia (Head Office, 688 Pacific Highway, Chatswood, 2067). In addition, the Standards Association of Australia has the publication of a document *Code of Good Laboratory Practice* under consideration.

Legislation administered by some Dairy Authorities, e.g. Queensland Department of Primary Industries, requires that dairy produce laboratories be registered under that legislation. Minimum standards are also specified.

Location

- J2.1 The laboratory should be a self-contained entity; it should not be located in an actual or potential thoroughfare.
- J2.2 The laboratory should not have direct access to any processing area.
- J2.3 The surrounds of the laboratory should be clean and dust free.

Floors

- J3.1 The laboratory floor should be:
- (a) smooth but slip-proof;
 - (b) free from cracks, crevices and other irregularities; and
 - (c) maintained in a clean and sound condition at all times.

Walls and ceilings

- J4.1 Laboratory walls and ceilings should be:
- (a) smooth, free from ledges and coated with an impermeable finish not subject to flaking due to deterioration; and
 - (b) maintained in a clean and sanitary condition.

Lighting

- J5.1 The laboratory should be well lit, i.e. minimum of 400 lumens per square metre.

Note:

Light fittings should be recessed into the ceilings.

Ventilation

- J6.1 The laboratory should be well ventilated, but free from dust, draughts and excessive temperatures. A minimum requirement is forced draught ventilation.

Note:

It is recommended that laboratories be fully air-conditioned.

- J6.2 Ventilation should not exhaust air to processing areas.
- J6.3 Only authorised personnel should be allowed entry to the laboratory (a separate sample room will be beneficial in this regard).

Size

- J7.1 The laboratory should be large enough for the purpose intended having regard to work areas, equipment, storage space and personnel.

Note:

It is strongly recommended that a separate room be provided for washing up and media preparation. If office facilities are required, these should be separate from the main laboratory.

Benches

- J8.1 The working area of the bench should:
- (a) be level;
 - (b) have adequate surface space for plating and equipment;
 - (c) have an impermeable, smooth surface; and
 - (d) be maintained in a clean and sanitary condition.

Storage

- J9.1 Clean, dry cupboard storage, sufficient to accommodate all sterile glassware, media and equipment as well as all other laboratory equipment and requisites not in use, should be provided.

General laboratory equipment

- J10.1 A laboratory should be equipped with the apparatus and facilities necessary for:
- (a) preparation of reagents and solutions;
 - (b) preparation of media;
 - (c) cleaning of glassware and other equipment; and
 - (d) sterilisation of media, solutions, glassware and other equipment;
- in accordance with the relevant provisions of Australian Standard AS1095 Part 1 Section 1. Such apparatus and facilities should be in good working order. This does not preclude the supply of all or part of the media, reagents and solutions from another laboratory.
- J10.2 The apparatus should include a thermometer certified as to accuracy.

- J10.3 The facilities should include a sink of adequate size for washing glassware and other equipment. The sink should have enclosed drainage and be serviced with hot and cold running water.

Apparatus and requisites for sample testing

- J11.1 A laboratory should be equipped with apparatus, glassware, chemicals, media and other equipment prescribed for the particular tests to be undertaken. The equipment should be in good working order.

Laboratory manual

- J12.1 A laboratory should be provided with a manual of test methods for the tests to be undertaken by the laboratory.

Records

- J13.1 A laboratory should be provided with a suitable book or binder for permanently recording the following information about each sample analysed: date of sampling, date of analysis, sample description and identification, and clearly expressed results of each test. The temperature of at least one sample of each batch of liquid products should be recorded also. A separate book should be kept for each product type, i.e. raw milk, pasteurised milk products, etc.

Laboratory practice

- J14.1 Coats worn for microbiological work should not be worn outside the laboratory.
- J14.2 Hand washing should be carried out immediately upon entry and just prior to leaving the laboratory. Adequate facilities should be provided for this purpose and a sign reminding personnel of this requirement should be displayed.
- J14.3 Eating and smoking in the laboratory should be prohibited.

Staff

- J15.1 The laboratory should be staffed by competent and adequately trained personnel.