

Australian Standard®

Food microbiology

Method 1.4: General procedures and techniques—Colony count—Surface spread method

PREFACE

This Standard was prepared by the Standards Australia Committee on Food Microbiology to supersede the following Standards:

AS	
1095	<i>Microbiological methods for the dairy industry</i>
1095.1—1971	<i>General procedures and techniques</i> <i>Section 2.4: Colony count—Surface-viable methods</i>
1142	<i>Methods for the microbiological examination of eggs and egg products</i>
1142.1—1975	General procedures and techniques Section 2.2: Colony count—Surface viable methods
1766	<i>Methods for the microbiological examination of food</i>
1766.1—1975	<i>General procedures and techniques</i> <i>Section 2.2.3: Plate count methods—Spread method</i>

METHOD

1 SCOPE This Standard sets out a method for estimating the number of colony-forming units (CFUs) in a sample of food using a surface spread technique.

NOTE: The surface spread method is used for estimating the number of CFUs per millilitre or per gram of material under the conditions of the test.

The method is applicable where it is desired to produce surface colonies and the expected count is greater than 1000 per millilitre or per gram of sample.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS	
1095	Microbiological methods for the dairy industry
1766	Food microbiology
1766.1.2	Method 1.2: General procedures and techniques—Preparation of dilutions

3 PRINCIPLE Serial decimal dilutions of the material under test are prepared and 0.1 mL volumes are transferred to and spread over the dry surface of a solid medium. The count is calculated from the mean count of a number of plates, taking dilution factors into account.

4 DILUENTS AND CULTURE MEDIA The diluents and agar culture media are specified in the relevant methods of AS 1095 and AS 1766 according to the product under examination and the microorganisms to be counted.

5 APPARATUS The following apparatus is required:

- Apparatus for preparation of dilutions as specified in AS 1766.1.2.
- Graduated pipettes, 1 mL.
- Bent spreaders, made of stainless steel or glass.