# ISO 14461-1:2005-05 (E)

## Milk and milk products - Quality control in microbiological laboratories - Part 1: Analyst performance asse ssment for colony counts

## Contents

Page


Foreword ..... iv

Introduction ..... vi

1 Scope ..... 1

2 Normative references ..... 1

3 Terms and definitions ..... 1

4 Principle (see Figure 1) ..... 2

5 Diluent, culture media and reagents ..... 3

6 Apparatus and glassware ..... 5

7 Sampling ..... 5

8 Preparation of test sample ..... 6
8.1 Milk ..... 6
8.2 Dried milk ..... 6

9 Procedure ..... 6
9.1 General ..... 6
9.2 Number of decimal dilution steps ..... 6
9.3 Preparation of first decimal dilution ..... 6
9.4 Preparation of further decimal dilutions ..... 7
9.5 Melting the medium ..... 7
9.6 Preparation of binary dilutions and inoculation of the medium ..... 7
9.7 Incubation ..... 7
9.8 Randomization and counting of colonies ..... 8

10 Statistical evaluation ..... 10
10.1 Adequacy of the data set ..... 10
10.2 Evaluation of the complete data set (see Figure 2) ..... 10

Annex A (informative) Weighted mean and homogeneity testing of colony counts ..... 27

Annex B (Informative) BASIC programme for calculating the likelihood ratio index G2 ..... 33

Bibliography ..... 34