

International trade in dairy products is based on confidence from suppliers, customers and regulatory agencies that test results are equivalent between all laboratories throughout a global supply chain. The DairyChek programme provides independent verification that testing laboratories meet the dairy industry's exacting standards.



## PROGRAMME OBJECTIVE

The DairyChek Proficiency Testing scheme has been developed over many years to provide a system for laboratories to validate their testing capability and to benchmark their results among an established network of competent laboratories. The scheme provides independent test verification for more than 120 dairy and nutritional laboratories in 16 countries. The sample types are selected to cover a range of properties representative of internationally traded dairy products.

## BENEFITS OF PARTICIPATING IN DAIRYCHEK:

### ➤ Confidence in Results

Measurement of performance in comparison with other laboratories provides confidence that:

- Precision and Accuracy of test results and test methods are within acceptable limits
- Results from participating laboratories (or groups of laboratories) are equivalent
- In-house methods are equivalent to national or international standard methods

### ➤ Credibility

Performance can be demonstrated to:

- Customers
- Regulatory Authorities
- Accreditation Agencies

### ➤ Compliance with

- Laboratory Standards (e.g., ISO 17025)
- Regulatory and market access requirements

### ➤ Optimising Yields

Low levels of bias in simple tests (e.g., moisture) can add up to significant volumes of lost yield (and value) over time.

### ➤ Training

Test performance from individual analysts can be monitored and reported over time.

## PROGRAMME FEATURES

- Comprehensive range of sample types and tests, covering the major recognised chemistry and microbiological test methods
- Participation by numerous accredited laboratories gives high confidence for inter-lab comparisons
- Separation of data by method (where appropriate)
- High quality and cost-effective reference materials
- Technical direction from an independent Technical Advisory Group ensuring relevance to current industry needs
- Accredited to ISO/IEC 17043: Conformity Assessment - General Requirements for Proficiency Testing and ISO 17034: General requirements for the competence of Reference Material Producers

## SAMPLE TYPES

Casein, Caseinate, Whey Protein Concentrate, Whey Powder, Lactose, Milk Protein Concentrate, Nitrate/Nitrite

## AVAILABLE TESTS:

### CASEIN

#### *Lactic and Mineral Acid*

Fat (SBR)  
Moisture (102°C Oven)  
Ash  
Lactose  
Free Acidity  
pH  
Protein (Kjeldahl)  
Particle Size (2 passes)

### CASEINATE

#### *Sodium & Calcium*

Fat (SBR)  
Moisture (102°C Oven)  
Ash  
Lactose  
Calcium  
pH (5% soln)  
Protein (Kjeldahl)

*Calcium offered in the March and September sample set*

### LACTOSE

#### *Edible & Pharmaceutical*

pH (10% soln)  
Moisture (LOD)  
Total Moisture (KF)

### BULK DENSITY

#### *Casein, Caseinate, MPC & WPC*

Bulk Density (35 taps)  
Bulk Density (100 taps) \*  
\*MPC ≤ 70 only

### NITRATE / NITRITE

Nitrate  
Nitrite

### MILK PROTEIN CONCENTRATE

#### *MPC 42, 56, 70, 80, 85 & MPI*

Fat (RG / SBR)  
Moisture (102°C Oven)  
Ash  
Lactose\*\*  
Insolubility Index 40°C  
Titratable Acidity (5% soln) \*  
WPNI  
pH (5% soln)  
Protein (Kjeldahl)  
\*42, 56, 70 only  
\*\*80, 85, MPI only

*WPNI offered in the April and October sample sets for MPC 80, 85 & MPI (WPNI is offered in all MPC 42, 56 and 70 sample sets)*

### WHEY PROTEIN CONCENTRATE

#### *Sweet & Acid Whey*

Fat (SBR)  
Moisture (102°C Oven)  
Ash  
Lactose  
Insolubility Index 24°C  
pH (5% soln)  
Protein (Kjeldahl)

### WHEY POWDER

Fat (RG)  
Moisture (102°C Oven)  
Ash  
pH  
Protein (Kjeldahl)  
Titratable Acidity  
Salt  
Insolubility Index 24°C

### PURITY

*Casein, Caseinate, WPC & Lactose Recovery & Identification*

Global Proficiency also offers other DairyChek proficiency products including **Milk Powders**, **Fat Products** and **Cheese** – please request a copy of the Programme Description if you are interested.



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### SAMPLE TYPES

- Casein (matrix is lactic casein)
- Caseinate (matrix is sodium caseinate)
- Whey Protein Concentrate (matrix is sweet whey)
- Lactose (matrix is edible lactose. Note - one round per year the matrix is pharmaceutical lactose).

Provided as four-sample sets. Samples consist of 4 freeze-dried vials containing microorganisms, each with an accompanying sachet containing the applicable matrix as detailed above to enable the preparation of sample homogenates.

### AVAILABLE TESTS - ALL SAMPLE TYPES:

Aerobic Plate Count  
Coliforms (Count & Detection)\*  
*E. coli* (Count & Detection)\*  
*Enterobacteriaceae* (Count, Detection)  
Coagulase-positive Staphylococci (Detection)  
Yeast & Mould Count  
Thermophile Count\*

*Enterobacteriaceae* offered in the **March** sample set

\* *Lactose* offers Detection only and no Thermophile Count

### ALSO AVAILABLE

**Inhibitory Substances:** Samples with varying levels of Penicillin G in a milk matrix.

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**FOR MORE INFORMATION PLEASE VISIT OUR WEBSITE**

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**OR EMAIL**

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