

# **Protein Products - Chemistry**

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.
- Separation of data by method (where appropriate).
- o 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 the competence of proficiency testing providers; 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 (DEA)

# **Lactic and Mineral Acid**

Fat (SBR)

Moisture (102°C Oven)

Ash Lactose

Free Acidity pH

Protein (Kjeldahl)
Particle Size (2 passes)

# CASEINATE (DFA) 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 (DLA)

Edible & Pharmaceutical

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

### **BULK DENSITY (DYA)**

Casein, Caseinate, MPC & WPC Bulk Density (35 taps)

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

# **PURITY (DEC)**

Casein, Caseinate, WPC & Lactose

Recovery & Identification

# MILK PROTEIN CONCENTRATE (DMA/DMC)

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 (DGA)

Sweet & Acid Whey

Fat (SBR)

Moisture (102°C Oven)

Ash Lactose Insolubility Index 24°C

pH (5% soln) Protein (Kjeldahl)

# WHEY POWDER (DWA)

Fat (RG)

Moisture (102°C Oven)

Ash pH

Protein (Kjeldahl) Titratable Acidity

Salt

Insolubility Index 24°C

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



# **Protein Products - Microbiology**

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 the competence of proficiency testing providers; and ISO 17034: General requirements for the competence of reference material producers.

# **SAMPLE TYPES**

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

Provided as four-sample sets. Samples consist of 4 freezedried 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\* Sulphite-reducing Clostridia Spore Count (WPC80 only)

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 paired with Milk Powder, WPC80 and Lactose.

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

# FOR MORE INFORMATION PLEASE VISIT OUR WEBSITE

www.global-proficiency.com

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