

FOOD ANALYSIS / MILK AND DAIRY PRODUCTS

The use of HettCube cooled incubators to detect the presence of fungi and yeasts in milk and dairy products

Fungi and yeasts are amongst the most frequent organisms responsible for the spoilage of milk products, especially fermented products such as yoghurt or curd cheese. They adversely affect the quality of the product, may affect the health of the consumer and cause lost production output for the manufacturer. The micro-organisms required for the production of cheese can also adversely affect the production process if they are in the wrong place.

Milk and dairy products are therefore tested for the presence of fungi and yeasts at regular intervals, both by the manufacturer and by the regulatory authorities.

— Methods of detection

An analytical method is specified in the Lebensmittel- und Futtermittelgesetz (LFGB) [Food and Feedstuff Act]. A diluted sample is pipetted into a Petri dish containing nutrient medium that is liquefied and cooled in advance. The sample and nutrient medium are mixed so that the sample is evenly distributed in the medium and then incubated.

Importance of the detection of yeasts and fungi in milk and dairy products

Milk and dairy products are tested by the regulatory authorities for the presence of fungi and yeasts at regular intervals to protect consumers. Manufacturers also test their products for the presence of yeasts and fungi to establish any adverse effects on quality in good time so that they can initiate measures to prevent problems that could lead to production losses.

Incubation conditions according to the analytical method given in § 64 LFGB*

Temperature	Duration
25 °C	4 days

— Advantages of HettCube incubators

- Maximal validated usable space on a small footprint
- 4.3 inch touch display for intuitive operation
- Very homogeneous and stable temperature, as well as precise temperature control
- True "one-hand-operation" and flexible positioning of the shelves
- Minimal energy consumption of < 0.06 kW/h at 37 °C
- Low noise level of ≤ 44 dB(A)
- Optimized loading capacity through unique accessories and options



Fig. 1: Cultures of fungi

* Official collection of test methods in accordance with § 64 of the LFGB (previously § 35 of the LMBG), Vol. I (L) L 01.00-37: Quantification of yeast and fungi in milk and dairy products; reference method 1991

Hettich solution

Model	Cat. No.
HettCube 200	62000
HettCube 400	64000
HettCube 600	66000

Model without IVD	Cat. No.
HettCube 200	62001
HettCube 400	64001
HettCube 600	66001