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THE FEATURES OF PRODUCING DRINKING YOGHURT WITH FRUIT FILLING

The dairy sector in Ukraine and worldwide is seeing steady growth in the consumption of fermented milk products, with yoghurt playing a leading role. Yoghurt is not only a dairy product but also a source of easily digestible protein, calcium and, most importantly, probiotic cultures, which have a beneficial effect on the gut microbiota and strengthen the immune system. The nutritional value of yoghurt depends on the recipe, the type of starter culture and the production technology. Modern consumers are placing ever-higher demands on the functionality and quality of products, which necessitates the introduction of innovative production methods, in particular the fortification of yoghurt with probiotics, prebiotics and protein concentrates. Furthermore, in places where many people strive for a balanced and healthy diet, fruit-filled yoghurt is becoming an important product. It combines the benefits of lactic acid bacteria with the flavour and vitamins of natural fruit.

Yoghurt is made from milk or a milk mixture to which dried milk, sugar and fruit and berry syrups have been added, through fermentation using pure cultures of thermophilic lactic acid streptococci and *Lactobacillus bulgaricus*.

There are two methods for producing yoghurt: the tank method and the thermostat method, but the core processes remain the same (reception, purification, standardisation, pasteurisation and cooling), followed by the addition of starter culture, fermentation (in a tank or in containers), cooling and packaging.

The production process for yoghurt using the tank method consists of 10 stages: receipt and preparation of raw materials, cleaning and thermisation of raw materials, standardisation of the mixture, homogenisation of the mixture, pasteurisation of the

mixture, cooling of the mixture, inoculation and fermentation of the mixture using starter cultures of the species *Lactobacillus delbrueckii subsp. bulgaricus* and *Streptococcus salivarius subsp. thermophilus*. This is followed by the cooling and mixing of the fermented mixture, then filling, packaging, portioning, and labeling. The following information was printed on each unit of consumer packaging: the product name; the manufacturer’s name, full address and telephone number, and the address of the production facilities; net weight, g; nutritional information and calorie content, indicating the amount of protein, carbohydrates and fats in the specified units of measurement per 100 g of product; best-before date; batch number; storage conditions; reference to this standard. The next step is packaging. The consumer packaging must be sealed in a manner that ensures its integrity and the preservation of the products.

Yoghurt is a widely consumed dairy product, and its quality and safety depend heavily on close monitoring at every stage of production.

The success of yoghurt production depends on high-quality milk, strict adherence to production procedures and appropriate safety controls. At every stage of production, there can be no room for compromise – from milk collection and storage right through to the production process itself. All stages must meet established quality standards.

REFERENCES

1. State Committee of Ukraine for Technical Regulation and Consumer Policy. (2008). DSTU 4902:2008 Semi-finished fruit and berry products: General specifications.
2. State Committee of Ukraine for Technical Regulation and Consumer Policy. (1995). DSTU 3097-95 Starter cultures of lactic acid bacteria: Specifications.
3. Mashkin, M. I., & Parysh, N. M. (2006). Tekhnolohiia moloka i molochnykh produktiv: Navchalne vydannia [Technology of milk and dairy products]. Vyshcha osvita.