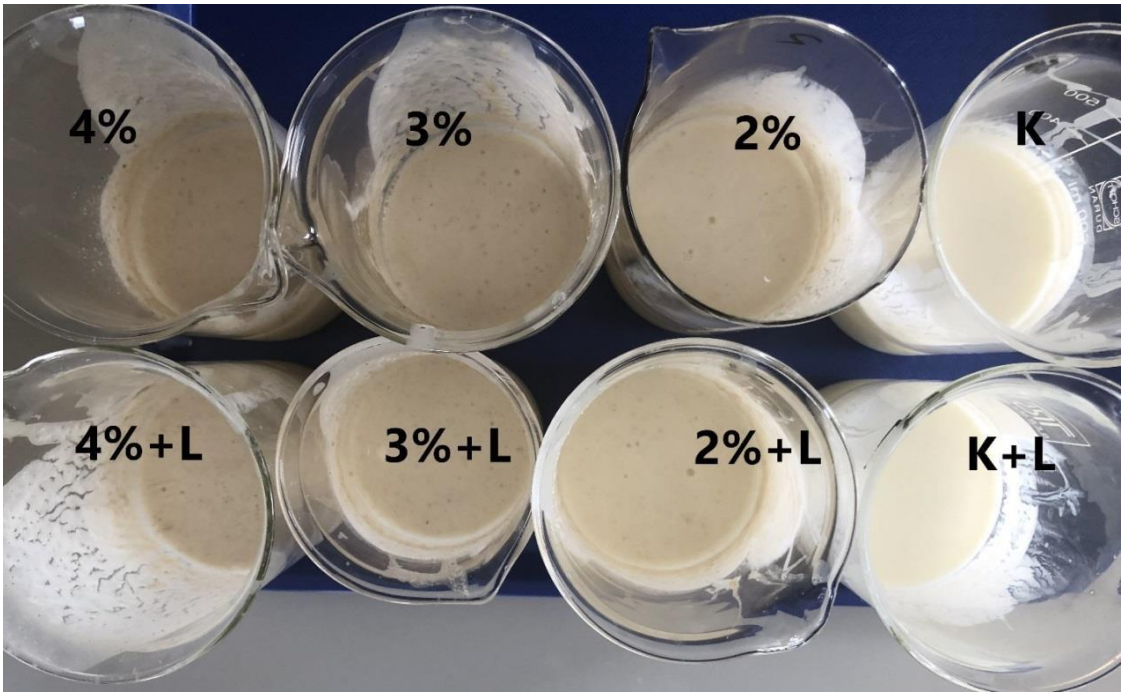
USE OF BARLEY GRAINS IN THE DEVELOPMENT OF A NEW PROBIOTIC PRODUCT

Due to its health benefits and general favourable impact on human health, yoghurt is a very popular functional product in many countries, and the range of yoghurt additives is extremely diverse, including the use of several types of grains and flakes. However, a yoghurt with added barley and sprouted hulless barley grains does not exist.

Aim of the research: studying the use of germinated/sprouted hulless barley grains for the production of fibre-enriched dairy products.



Outtakes of the conclusions

In yoghurt samples with ungerminated/unsprouted dried hulless barley grains, and the same type of grains which were sprouted/germinated for 24 and 36 hours, barley variety "Kornelija" (2%, 3%, 4%) observed more intensive development of lactic acid bacteria, shorter fermentation time and significantly more pronounced ($p < 0.05$) viscosity.″

In yoghurt samples with ungerminated/unsprouted dried hulless barley grains, and the same type of grains which were sprouted/germinated for 24 and 36 hours, barley variety "Kornelija" (2%, 3%, 4%) fermented with or without lactase, and the number of lactic acid bacteria in the finished product was not less than 7 Lg kvv ml-1. ″

When using lactase in the fermentation of yoghurts, the addition of hulless barley grain shortens the fermentation time, increases the number of lactic acid bacteria and increases the viscosity compared to the control sample.

Yogurt fermented with or without lactase significantly ($p < 0.05$) increased viscosity using ungerminated hulless barley grains at concentrations of 2%, 3% and 4%.

In the production of yoghurt, using ungerminated/unsprouted and germinated/sprouted hulless barley grains Kornelija, it is possible to increase the nutritional value of the final product – content of proteins, carbohydrates increase, fibre content significantly increases ($p < 0.05$).''

The optimal corneal supplement of ungerminated hulless barley grains in fermented yoghurt with or without lactase is 2% using grains which were germinated for 24 hours, and''

3% after germination of 36 hours, confirmed by the number of lactic acid bacteria in the product, the increase in viscosity, the organoleptic assessment and the calculation of the nutritional value.

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