

# ASSESSMENT OF CHEMICAL COMPOSITION AND PHYSICAL PARAMETERS OF BEANS *PHASEOLUS VULGARIS* AND *PHASEOLUS LUNATUS*

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European market in 2022 showed potential for common dry beans and their products. Consumers were interested in plant-based products: high in protein, high in fibre, gluten-free, free of preservatives and additives and organic (1). The aim of the study was to evaluate the physical-chemical parameters of four colourful beans (*Phaseolus vulgaris* and *Phaseolus lunatus*) grown in Latvia, harvested in 2022 with in future its assessment in pasta production. As control sample analysed white common beans from local market. Standard methods were used for nutritional assessment Kjeldal method for protein determination, ISO 6492 for lipid, AOAC 985.29 for total dietary fibre (TDF), ISO 2171:2007 for ash, ICC Standard No 110/1 for moisture determination and calculation for carbohydrates were used. Energetic value calculated using conversion factors according to (EU) No 1169/2011. For physical parameters 1000 seed weight was determined using ISO 520:2010, bulk density according to LVS 275, and colour analysis using CIE L\*a\*b\* system. All experiments carried out in three replicates; results expressed as average value  $\pm$  standard deviation. In general, the quality of beans is assessed by protein content, and seed coat colour. The results showed biologically grown beans in Latvia as raw material is with high protein and TDF content. *Phaseolus lunatus* had the statistically highest TDF, ash content, colour brightness and bulk density compared with other samples, also energetic value was 21% of reference intake of an average adult. In conclusions, biologically beans grown in Latvia could be potential raw material for new products obtaining.

Key words: *Phaseolus vulgaris*; *Phaseolus lunatus*, nutritional value.

**Acknowledgments.** This research was supported by the framework of the project 'Legumes as alternative for extruded pasta obtaining' funded and implemented by the program "Strengthening of scientific capacity at LBTU'.

## References.

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