

## IMPROVING THE EFFICIENCY OF PROCESSES AND EQUIPMENT OF BAKING PRODUCTION<sup>1</sup>

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**Prof. Volodymyr Telychkun,**

E-mail: tvill@meta.ua

**Prof. Oleksandr Gavva**

E-mail: gavvaoleksandr@gmail.com

**Assoc. prof. Oleksii Gubenia**

E-mail: gubena@meta.ua

**Assoc. prof. Yuliia Telychkun**

**Assoc. prof. Vitalii Rachok**

**PhD student Oleksandr Kozak**

Department of machines and apparatus of food and pharmaceutical productions

National University of Food Technologies, Kyiv, Ukraine

**Abstract:** *The Scientific School of Bakery Processes and Equipment, which operates at the National University of Food Technology (Kyiv, Ukraine), has a number of scientific developments that take into account the world's leading trends in the industry and significantly improve product quality, productivity and hygiene requirements. The essence of the proposals concerns the following processes:*

- *Use of kneading machines with cam working bodies. This allows to ensure the high quality of the third stage of kneading - plasticization.*
- *Combination of dough fermentation operations and forming pieces under pressure in one unit. This reduces fermentation time, reduces the number and metal consumption of equipment.*
- *Combination of baking and drying processes for some varieties of bread products, in particular, rusks and chopsticks. This avoids heat consumption for reheating the products, the amount of equipment.*
- *Rational use of heat of steam of hygrothermal processing and heat of secondary steam which is formed during baking of bread.*
- *Vacuum cooling of bread products. This ensures fast cooling of bread before cutting and packing.*
- *Stream cutting of different types of bread.*
- *The use of packaging equipment based on integrated technical complexes created on the basis of mechatronic functional modules, each of which is a functionally and structurally independent product with a large number of synergistically interrelated characteristics and parameters.*

*Each of these proposals is examined by competent experts and substantiated. The total result is an increase in product quality, productivity and safety, ensuring hygienic requirements, reducing the number of equipment and ensuring its versatility.*

**Keywords:** *bread, equipment, kneading, fermentation, forming, recuperation, baking, cooling, cutting, packaging.*

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<sup>1</sup> Reports Awarded with "Best Paper" Crystal Prize - 60th Science Conference of Ruse University, Bulgaria, 2021, as a hard copy (ISBN 978-954-712-864-4) and on-line on the Conference Website