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ENGINEERING RHEOLOGY OF ROLLER WORKING BODIES DURING THE FORMATION OF FLOUR PRODUCTS



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Розглянуто найбільш типову машину, яка сьогодні виробляється заводом України та проведено
грунтовне дослідження впливу її конструктивних параметрів на технологічний процес формування
булихів двох етапним аналізом. Перший етап відображене у монографії «JUSTIFICATION OF THE
PROCESS OF FORMATION OF WHEAT FLOUR PRODUCTS» виданого у Польщі, де розкрито
теоретичні та узагальнені дослідження суті самого процесу і визначено місце основного вузла машини –
формувальний пристрій. Наведено усі його недоліки та запропоновано шляхи майбутньої модернізації.

Другий етап – доповнення монографії матеріалами опублікованих статей в міжнародних
журналах, що індикуються в базі даних скопус. Матеріали статей розкривають шляхи
удосконалення конструктивних параметрів обладнання для покращення якості виробів на основі
визначення взаємодії середовища і обладнання в технологічному процесі нагнітання маси тіста до
формувальних пристрій. Розкрито вплив реологічних процесів для вирішення проблем – зниження
затрати на енергоносій та конструктивних параметрів обладнання.

Доповнення до монографії розглянуто як узагальнючу назву із відображенням двох частин.
Видання розглянуто на засіданні Вченої ради Інституту продоврльчих ресурсів НААНУ. Монографія
призначена для фахівців хлібопекарської та кондитерської галузі, інженерно-технічних працівників,
потенційних інвесторів, викладачів вищої школи, студентів і аспірантів вищих навчальних закладів
та всіх, хто цікавиться актуальними проблемами обладнання і процесу.

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Ministry of Agrarian Policy and Food of Ukraine

Poddubny V. A., Stadnyk I. Ya.,
Homichak L. M., Iegorov B. V.

ENGINEERING RHEOLOGY OF ROLLER
WORKING BODIES DURING THE
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The most typical machine, which today is produced by a factory in Ukraine, was considered, and a thorough study of the influence of its design parameters on the technological process of bagel formation was carried out using a two-stage analysis. The first stage is reflected in the monograph «Justification of the process of formation of wheat flour products» published in Poland, where theoretical and generalized studies of the essence of the process itself are revealed and the location of the main unit of the machine – the forming device – is determined. All its shortcomings are listed and ways of future modernization are suggested.

The second stage is to supplement the monograph with materials from published articles in international journals, which are indexed in the Scopus database. The materials of the articles reveal ways to improve the design parameters of the equipment to improve the quality of the products based on the definition of the interaction between the environment and the equipment in the technological process of injecting the mass of the dough into the forming devices. The influence of rheological processes to solve the problem of reducing energy costs and structural parameters of equipment is revealed.

The appendix to the monograph is compiled as a general title with a display of two parts. The publication was approved at the meeting of the scientific council of the Institute of Food Resources of the National Academy of Sciences. The monograph is intended for specialists in the bakery and confectionery industry, engineering and technical workers, potential investors, teachers of higher educational institutions, students and post-graduate students of higher educational institutions, and everyone who is interested in modern problems of equipment and technological processes.

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