

EXPERIMENTAL RESEARCHES ON THE INFLUENCE OF FUNCTIONAL PARAMETERS OF GRAVITY SEPARATOR ON THE QUALITY INDICATORS OF SEPARATION PROCESS WITH APPLICATION ON CLEANING OF WHEAT DESIGNED TO MILLING

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Abstract

The paper presents experimental research of qualitative indexes of impurities separation out of grain seeds for equipment using combined principles of separation (according to specific mass and aerodynamic properties of seeds). The experimental installation used was composed of a gravity separator and an aspiration installation with fan. The experimental research has aimed at quantitative and qualitative influence on separation quality index of the following operating parameters: material flow rate of shaking separator, the air flow of aspiration installation, tilting work surface, work surface oscillation amplitude. Based on data obtained by measurements and qualitative indicators the separating process indexes have been determined, namely: degree of impurities separation, degree of good seeds loss), as well as, the index of technological effect for different types of combinations of separation installation parameters.

Key words: cereal seeds, cleaning, specific mass, index of quality separation

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