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## REVIEW

on the author's abstract of the thesis presented for the degree of candidate of technical sciences (PhD) Tsaits Maxim Valerievich on the topic: "Separation of the seed part from flax stems by a rotor-beater unit during combine harvesting", Specialty 05.05.01 - Technologies and Means of Mechanization in Agriculture (Technical Sciences)

The separation of flax seed boxes and seeds from the stems of flax using traditional technology causes significant damage to flax straw and leads to losses of fibrous raw materials. The flax harvesting technology involves pre-threshing the flax seeds on the plants followed by pulling out the stems. With a sequence of technological operations ensuring the threshing of the seed part of flax on the stems, all stems and flax seeds remain undamaged.

The dissertation work of Tsaits M. V. addresses the pressing issue of developing the theory and practice of threshing the seed part on the stems of flax. The author conducted comprehensive research over many years to scientifically substantiate the technological scheme of separating the seed part from the stems of flax. A flax thresher design was proposed, ensuring the cleanliness of threshing as stipulated by industry regulations for growing flax with a low content of impurities in the seed mass. Original scientific data were obtained from experimental research, and the values of factors most influencing the process of separating the seed part by a rotor-beater apparatus during combine harvesting were scientifically substantiated. Particular attention is drawn to the originality of the rotor-beater apparatus design and the approaches to substantiating its main parameters. The practical significance of the work lies in its applicability in designing new machinery for harvesting and primary processing of flax.

The work was conducted using established methodologies, has high publication rates, and has been well tested, encompassing over 137 literary sources, indicating sufficient awareness of the state of the issue.

The conclusions are specific, well-argued, and reflect the content of the dissertation.

Remarks on the abstract are as follows:

- It is necessary to supplement the abstract with information on the morphological and physico-chemical characteristics of flax subjected to laboratory research, as well as on the parameters of the stem stand suitable for harvesting during production trials. These data are essential for a deeper analysis of the conducted research;
- Additional attention should be paid to a detailed description of the methodology of experimental research, including a description of the methods and equipment used. This will allow readers to more fully understand the research process and interpret the obtained results;
- To improve the abstract, it is advisable to more fully disclose the practical significance and potential areas of application of the research results. This contributes to a deeper understanding of the work's contribution to industry development and its relevance assessment.

These remarks do not diminish the significance of the work done and its contribution to solving the problem of improving the efficiency of separating flax seeds from flax stems.

I believe that the dissertation work of Tsaits M. V. meets the requirements for scientific novelty, relevance, and practical significance expected of candidate dissertations, and the author deserves to be awarded the sought-after degree of Candidate of Technical Sciences in the specialty 05.05.01 - Technologies and Means of Mechanization in Agriculture (Technical Sciences).

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