Review article

Influence of time and harvesting methods on yield and grain quality of winter soft wheat

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Annotation. Russia is the largest producer and exporter of wheat grain, and therefore the study of practical issues of crop formation and grain quality of this valuable food crop is of great national economic importance. In solving this important problem, along with other agricultural practices, the timing and methods of harvesting play a decisive role. Based on the analysis of scientific literature, the state of knowledge of the problem is determined, data are presented on the role of the timing and methods of harvesting winter wheat in increasing grain yield and improving its quality in various soil and climatic conditions. The article presents materials on quantitative changes in the yield of winter wheat grain during harvesting at different times. The best terms and methods for harvesting winter wheat under various cultivation conditions have been identified. A comparative analysis of the literature is given on the issues of changing the quality indicators of grain depending on the timing and methods of harvesting and cultivation conditions. The relationship between soil and climatic conditions, productivity and grain quality of winter wheat is shown. The main phases of winter wheat grain ripeness and the processes occurring in specific periods are described. The separate method of harvesting and direct combining are considered, in various soil and climatic conditions, taking into account the phases of grain ripeness. Studies have shown that the content of dry matter in wheat grain is not a constant value and varies depending on the phase of crop development. The article highlights the issues of the formation of yield and quality of grain during overgrowth of winter wheat plants on the vine from full ripeness.

Key words: winter wheat, yield, grain quality, protein, gluten, grain size, terms and methods of harvesting

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