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Research on Barley Behavior in The System of Sustainable Agriculture*

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Abstract

The research follows to substantiate the technology of growing autumn barley in conditions of sustainable agriculture and the implication on the attack of diseases, pests, morpho-physiological properties and barley production.
The presence of perennial plants as a precursor to barley cultivation, in the conditions of the sustainable agriculture system, determined a reduced infestation with weeds and pathogens as well as the increase of all the values of the productivity elements.
Under the conditions of a biological system (without chemical treatment on seeds and vegetation), the common diseases in autumn barley crops, in ascending order of frequency and degree of attack were: rust (F-15%), powdery mildew (GA-10%), reticular spot (GA-10%) and embers (F-1%).
The data resulting from the determinations made were materialized in tables and graphs. Following the completion of the interpretation of the results, the necessary conclusions and recommendations were issued for the continued use of cropping technology according to sustainable agriculture. Under the conditions of a biological system (without chemical treatment on seeds and vegetation), the common diseases in autumn barley crops, in the increasing order of frequency and degree of attack were: rust (F-15%), powdery mildew (GA-10%), reticular spot (GA-10%) and embers (F-1%). The size of the recorded values depended on the rotation, the level of food and water supply, as well as the weather conditions and the health of the barley crop.

Keywords: technological links, evolution of diseases, elements of productivity

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