LIMITING FACTORS OF PRODUCTION PROCESS OF SEED MILLET IN KABARDINO-BALKARIA

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Despite the great efforts of the world scientific community in solving the problem of plant resistance to adverse environmental factors, the success in creating sustainable varieties of agricultural plants is very modest. And this is due, first of all, to a lack of fundamental knowledge about the mechanisms that underlie plant resistance to biotic and abiotic stresses. There are a number of unexplored fundamental questions of biology and selection of plant resistance to stress. Significant losses of agronomic products due to yield losses caused by exposure to adverse environmental conditions are related to the urgency of solving these issues and problems.

"Deviations are also observed in biology, but they may not be infinitely small, as in physics, but very significant, capable of exerting such a strong effect that at times obscures the manifestation of the law expressing the relationship between two certain factors. This circumstance explains the variability and instability of the normal factors determining the crop, "wrote one of the founders of the science of agricultural ecology, J. Azzi (1959).

In developing the phenotypic model of the variety, the whole complex of modern scientific knowledge about the physiological and biochemical mechanisms of photosynthesis in this type of plant should be used as the basis for the synthesis of organic matter and crop accumulation. Particular attention should be paid to the traits that, being formed as a result of the interaction of the genotype and environmental conditions, contribute most to the high efficiency of photosynthesis, the maximum and effective use of soil fertility and moisture reserves, and thereby ensure a high and stable yield. Of these, the group of traits responsible for adaptability to limiting environmental factors or to factors favorable to obtaining high yields have the most importance [7].

Keywords: millet, productivity, drought tolerance, environmental factors, varieties, samples, lines, global warming, water stress, heritability, selection.

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