

OVERWINTERING AND YIELD OF WINTER WHEAT DEPENDING ON CULTIVATION METHODS IN CONDITIONS OF VERTICAL ZONALITY OF KBR

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The article presents the results of studies, the purpose of which was to identify the role of predecessors, mineral fertilizers and the timing of sowing for overwintering and the survival of plants of winter bread wheat in the conditions of vertical zoning of Kabardino-Balkaria. The experiments were carried out on the varieties of winter bread wheat Moskvich, Yuzhanka, Laureat, Yuka, Cheget and Adel. Doses of mineral fertilizers were applied: N60P60K30, N60P90K40, N90P120K60. Sowing was carried out at optimal, acceptable and late dates for the soil and climatic zones of the republic (steppe, foothill and mountain). Data were obtained on field germination, overwintering and survival of winter wheat plants in the foothill zone for 4 predecessors: peas, corn for silage and grain, sunflower. The percentage of overwintering wheat plants varied from 91.4 to 93.3% for the Moskvich and Yuzhanka varieties, the maximum indicators were obtained for the predecessors of peas and corn for silage. The plant survival rate varied from 85.6 to 89.5%. Mineral nutrition plays a special role in the formation of winter hardiness. Studies have established that the application of the maximum doses of mineral fertilizers (N90P120K60) contributed to high winter hardiness (99.2 and 98.8%) for the Moskvich and Yuzhanka varieties, respectively.

Our observations have established that the highest winter hardiness is characteristic of plants with optimal sowing dates. In studies on the timing of sowing in various climatic conditions, the best indicators were obtained in the steppe zone for varieties Laureat (93.8%) and Cheget (92.9%), in the foothill zone the best data were obtained for variety Cheget (93.2%) and in mountain for variety Laureate (91.3%).

When sowing at optimal times in soil and climatic zones (steppe, foothill, mountain), applying mineral fertilizers, placing after good predecessors, winter wheat plants wintered better. As a result of the experiments, the influence of the listed factors on the overwintering of winter wheat was established. At the same time, overwintering by wheat varieties, zones and predecessors ranged from 93.1 to 97.2%.

Keywords: winter wheat, varieties, predecessors, fertilizers, overwintering, yield, sowing dates.

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