

# THE INFLUENCE OF BIOSTYMULATORS SULFONAMIDES CONCENTRATION, APPLIED IN DIFFERENT BIOPHASES, ON WINTER WHEAT PRODUCTION

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## **Abstract**

An experience in farm Ezăreni-Iasi organized in 2008-2011, on cambic chernozem soil, we studied the effect of biostymulators concentration (BCO - 4 DMA, BCO - 2 K; BCO - 2 K + acetate Zn) in three concentrations applied (50 ppm, 25 ppm, 12.5 ppm) in three biophases (twinning, bellows, flowering) for winter wheat, variety Boema. Climatic conditions were favorable for winter wheat in terms of temperature and rainfall, crop year 2010-2011 the most favorable for wheat. Averaged over three years, comparing yields with version control treated with water, the highest yield was achieved with biostymulators BCO-2 K + zinc acetate, with 6322 kg / ha, 26.16% difference is very significant. Comparing yields with BCO - 4 DMA (control variant 2) production increase was 11.14%, distinct significantly in the variant BCO - 2 K + zinc acetate. In the three years average the concentrations of 12.5 ppm and 25 ppm were found higher compared with the concentrations of 50 ppm. Between biophases application of growth regulators no registered statistically differences, which requires obtaining of similar production value. The interaction between factors showed that the best variant BCO - 2 K x 25 ppm x flowering, with an average of 6844 kg / ha, 11.77% higher than the production control variant (BCO - 4 DMA x 12.5 ppm x twinning). The biostymulators used were potassium salt of the acid-4-chloro-phenoxyacetic amidosulfonil (BCO - 4 K), without and with zinc acetate and dimethylamine salt of 4-chloro acid, 2-phenoxyacetic sulfonyl amide (BCO - 4 DMA) obtained of the Proff. C. Oniscu from the Technical University "Gh. Asachi" of Iasi.

**Key words:** biostymulators concentration, biophase, winter wheat