

# EFFECT OF BIOSTIMULANTS APPLICATION IN CULTIVATION OF WINTER BARLEY

**Melinda Tar<sup>1\*</sup>, Györgyi Csontos<sup>1</sup>, Ferenc Lantos<sup>1</sup>, Péter Jakab<sup>1</sup>**

<sup>1</sup>Institute of Plant Sciences and Environmental Protection, Faculty of Agriculture, University of Szeged, Hódmezővásárhely, HUNGARY

\*corresponding author: [tar.melinda@szte.hu](mailto:tar.melinda@szte.hu)

Biostimulants as alternative methods can play a significant role in supporting plant growth, and in reducing negative effects of abiotic and biotic stresses. A field experiment with winter barley (cv. SU Ellen) was conducted in Hungary to assess the response of grain yield, yield components, plant fresh and dry weight and SPAD index and grain quality of two different commercially available biostimulator preparations (Aminocomplex and Főnix). The foliar application of Aminocomplex at a rate of 3 L ha<sup>-1</sup> was done at end of tillering (BBCH29). The Főnix at rate of 0.25 L ha<sup>-1</sup> at end of tillering (BBCH29) and in two times 0.12 L ha<sup>-1</sup> at end of tillering (BBCH29) and flag leaf stage (BBCH39). The application of Aminocomplex significantly increased the SPAD index which caused higher grain protein content. The biostimulant Főnix in two times resulted in 27.5% yield increase compared to the control. The research indicated that the application of biostimulants could help to maximize yield and increase grain quality.