

Research on the testing of products with biostimulatory effect based on amino acid with potential in the treatment of rape seed

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¹8QLYHUVLW\ 2I \$JURQRPLF 6FLHQFHV \$QG 9HWHULQDU\ 0HGLFLQH 2I %XFKDUHVV
²6FLHQWLAF 5HVHDUFK \$QG 7HFKQRORJLFD 0HYHORSPHQW ,Q &KHPLFD 0HG 3HWURFKHPLFD ,QG XVW
³1DWLRQDO 5HVHDUFK \$QG 0HYHORSPHQW ,QVWLWXWH)RU 7H[WLO \$QG /HDGHU
⁴3UREVWGRUIHU 6DDW]XFKW 5RPDQLD 6UO

Due to its major potential for biofuel production, the rape-cured areas have steadily increased lately, reaching a cultivated area of 38 million ha worldwide at 2016 (FAOSTAT). In these conditions, the problem of increasing the level of the obtained productions is raised more and more, the paper presents the results of the researches regarding the treatment of rape seeds with products containing amino acids (aa). In this context, there were 4 products based on keratin hydrolyzed wool and chelated (co) of Zn, Mn, Cu, Mg and Mo. For testing, a bifactorial experience was performed where Factor A tested the product with 5 graduations a1 14% aa + 0.5% co, a2 12% aa + 0.3% co, a3 10% aa + 0.4% co, a4 14% aa+0.4% co+1% Caryophyllus aromaticus oil microcapsules, and Factor B seed immersion time in products tested with a1 control, a2 1h, a3 2h, a4 3h. The assays were performed under laboratory conditions. The treatments were Im-coated and, after treatment, the seeds were seeded, the TopPaper recommended by ISTA for rapeseed testing. The research found that all the treatments applied had a stimulating effect on the monitored parameters, thus increased the rate and germination rate, and increased the average daily germination rate, the average germination time. From a biometric point of view, there was an increase in the average length of plantlets and roots, as well as the average daily growth rate. The treatments applied did not show phytotoxic effects.

Biography

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