

Study on plant growth regulator for promoting soybean productivity¹

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summary

The purpose of this study is to understand the soybean productivity affected by the different concentrations of TIBA. SADH accompanied with different cultural densities applied on soybean cultivar "Hualien No.1". The results indicated that plant height, leaf stalk length and leaf area were significantly inhibited by the treatment of TIBA, the similar effect was observed with SADH expect for leaf area. The higher inhibiting effect was accompanied with the higher concentration of TIBA and SADH. On yield, the TIBA -38ppm applied in densities 60×10 cm and 60×5cm and SADH-1000 ppm applied in 60×5cm were significantly higher than the check (non treated with growth regulator) by 15.3 22.6%, Effect of some treatments of TIBA and SADH on yield weren't stable which revealed that screening for the optimum concentration of TIBA and SADH is very important. The results also revealed that the climatic condition affected the effect of growth regulator, the yield sprayed with TIBA and SADH will be low or less than the check if unfavorable climatic condition occurred. For extension, it's important to select the best climatic conditions and the optimum concentration of TIBA and SADH for usage.

(Key words: Soybean, Plant growth regulator, TIBA, SADH.)

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