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Effect of Some Growth Regulators and Commercial Preparations on the Chlorophyll Content and Mineral Nutrition of *Lycopersicum esculentum* Mill

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Abstract: The effect of some growth regulators and commercial preparations on N, P, K and chlorophyll contents *Lycopersicum esculentum* Mill. were examined. Tomato seedlings were grown in sand and after four weeks they were transferred to Hoagland hydroponic culture solution. Growth regulators and commercial preparations were applied to these plants twice, one week and three weeks after transferral, at room temperature. 10 or 20 ppm IAA, GA 3, ABA; 20 ppm Berelex and 15 or 30 ppm Cytozyme were pulverized during the applications. After an eight-week experimental period, not only were morphological observations made, but analyses of chlorophyll for primary productivity and N, P, and K for mineral nutrition were carried out as well. The chlorophyll contents of ABA and cytozyme-treated plants were found to be higher than those of the others. N and K contents were found to increase with cytozyme application, whereas ABA and Berelex applications increased the P content. Morphological changes such as decrease in the growth rate and leaf size in ABA-treated plants, unhealthy growth in GA 3 - treated plants and healthy growth and leaf size increase in cytozyme-treated plants were observed.

Key Words: *Lycopersicum esculentum*, abscisic acid (ABA), gibberellin (GA 3).

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