

Effect of Foliar Fertilization on Product Indicators of Tomato Grown in the Open Field

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Abstract: The practice of modern sustainable agriculture requires professional competence, and permanent monitoring of vegetation factors, among which plant nutrition is the most important one. Use of foliar fertilizers is a new practice improving and optimizing the nutrient regime of the plant in Albanian agriculture which is friendlier to the environment and nature preservation. The study was conducted in three consecutive years from 2009 to 2011, in a family farm in Zagora, Malësia e Madhe, in the North-western part of Albania. The plot was situated in a uniform field with a planting density of 31250 plants ha⁻¹ (0.8 m x 0.4 m). A randomized complete block design (RCBD) with 4 replications and 5 variants with a plot size of 6.4 m² per variant in each replication containing 20 tomato plants was used. There were used four fertilizing products by foliar application, such were: control (no intervention with foliar fertilizer where tomato plants were sprinkled with distilled water), Accele-GRO-M 0.1% (V2), Accele-GRO-M 0.3% (V3), Nutrivant Plus Tomato 1% (V4), and Fertel F 1% (V5). The foliar fertilizing methodology consisted of a fine spray application in three treatments, as dilute solutions in concentrations of 0.1 to 1.0%, according to variants, using 500 liters solution/ha. The first treatment was applied 2 weeks after seedlings planting and the two others in intervals of 14 days between them. Use of foliar fertilizers during vegetation period in tomato grown in the open field provides significant increase of production and fruit quality.

Key words: *Accele-GRO-M, environment, Fertel F, foliar fertilizer, Nutrivant Plus Tomato, tomato.*

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