

THE EFFECT OF *CHAETOMIUM GLOBOSUM* AND ORGANIC FERTILIZER ON THE SWEET PEPPER VARIETIES GROWTH AND YIELD UNDER THE GREENHOUSE CONDITIONS

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Abstract

This experiment was conducted at horticulture college (USAMV Bucharest) during the summer season of the year 2017 to investigate the growth and yield of sweet pepper varieties (Dinamica f1, Abadia f1 and Abadia f1-grafted on emperador) planted under the greenhouse as influenced by Dix 10 n (organic fertilizer) with dose (300 g/m² dix 10n) and soil contaminated with *Chaetomium globosum* fungus. The results of the experiment demonstrated that the highest plant height between the varieties were represented by Dinamica recorded 69.66cm while the maximum plant height between the interaction treatments recorded with (Dinamica + (D+CG), Dinamica + CG and Abadia G+ CG evaluated (89.66, 87.66, 84.00 cm) respectively. While the highest percentage of aerial plant dry matter represented by the interaction treatments of Dinamica + (D + CG) and Abadia G + (D + CG) which reached to (18.56 and 18.53 %) respectively. While the minimum effect for percentage of root dry matter obtained (15.20 and 16.20 %) for control treatment of (Abadia and Abadia G) respectively. The highest yield of plant (Dinamica + (D + CG), Abadia G (D + CG) and Abadia (D + CG)) were recorded lowest yield per plant were (1367.66, 1363.00 and 1325.66 g) respectively. The highest chlorophyll content in leaves were (135.30 and 117.53 μmol m⁻²) in Abadia G (D + CG) and Abadia G + CG respectively. The minimum photosynthesis value was 7.36 μmol m⁻² s⁻¹ in Abadia G (D + CG). The maximum of highest N-NO₃ was in Dinamica + (D+CG) treatment which reached to 90.13 ppm, while the highest PO₄ level was observed in Abadia + D treatment which recorded 198.87 ppm and the highest level of K was in Abadia G + CG which reached to 4066.66 ppm.

Key words: *Chaetomium globosum*, fertilizer, greenhouse, plant growth, sweet pepper varieties
