

The effect of insect frass on the tomato transplant growth and nutrient content

Margit Olle

NPO Veggies Cultivation, Address: Kesa 60, Tartu, 50115, Estonia.

E-mail: margit.olle@gmail.com

Abstract

Sustainable insect manure is a 100% natural fertilizer that includes nutrients the plants can well obtain and metabolize. Manure produced by insects is a high-quality and innovative organic fertilizer that is obtained from plants fully digested by insects and therefore combines a balanced fertilizer and biostimulator in one product. Insect manure components support plant growth; they are of natural origin, stimulate plant growth, and support root development. Tomato variety valve 7 treatments, 3 replications The experiment was repeated twice. Usual growing technology Bugimine Ltd. does not want to give accurate receipts as they remain their property. Treatments: 1. Matogard substrate + Insect frass, 2. Matogard substrate + Insect frass + spraying with insect frass solution; 3. Matogard substrate insect frass and spraying with water 4. Control: Matogard substrate, 5. Matogard substrate + Insect frass + EM (effective microorganisms), 6. Matogard substrate + Insect frass + UBP. 7. Matogard substrate until pitching, then Matogard substrate + insect frass. The height of plants, the number of leaves, and the stem diameter were the lowest in the control treatment. The content of N, P, K, Ca, and Mg was lowest in the control treatment. It can be concluded that the use of insect frass makes tomato transplants better growing (plants were higher and stem diameter was larger) and containing more nutrients, making them perfect to use as transplants to get a good yield as well.

Key words: growth, insect frass, nutrient content, tomato