ABSTRACT

EFFECT OF ORGANONITROFOS FERTILIZER CONCENTRATION ON THE GROWTH AND PRODUCTION OF TOMATO (*Lycopersicon esculentum* Mill) ORGANICALLY WITH SUB SURFACE IRRIGATION SYSTEM

By
Sayu Putu Okta Rinasari

This study aims to determine the effect of concentration of organonitrofos fertilizer on the growth and productivity of organic tomato plants with sub irrigation systems. The method used in the study was completely randomized design with six treatments. The six treatments were O₀ (without organonitrofos), O₁ (organonitrofos 10%, soil 90%), O₂ (organonitrofos 20%, soil 80%), O₃ (organonitrofos 30%, soil 70%), O₄ (organonitrofos 40%, soil 60%), and O₅ (organonitrofos 50%, soil 50%). The results showed that different concentrations of organonitrofos fertilizer had no effect on the vegetative phase, but very different on the generative phase, yields, biomass, and evapotranspiration. Based on analysis of variance, concentration of organonitrofos significantly affected the yield of to made fruit, but treatment of O₃ (organonitrofos 30%, soil 70%), O₂ (organonitrofos 20%, soil 80%), O₄ (organonitrofos 40%, soil 60%), and O₅ (organonitrofos 50%, soil 50%) were not significantly different.

Keywords: Organic Farming, Organonitrofos, Tomato, Sub Irrigation