Vegetables Production with Polyethylene Mulched and Drip Irrigation System

Anas D. Susila

Plant Production Division, Departemen of Agronomy and Horticulture, Faculty of Agcriculture, Bogor Agricultural University, Jl. Meranti, Komplek IPB Darmaga Bogor. 16680, Tel/Fax: 0251 8629353. Email: anasdsusila@yahoo.com

Key words : drip irrigation, polyethylene-mulched, fertilization, eggplant, yard long bean, kangkong

ABSTRACT

Eggplant, Yard Long Bean, and Kangkong, were grown with polyethylene mulched and drip irrigation system on Podzolic soil with low pH (4.5), low C-Organic (0.97%), very low N-total (0.17 %), low K content (0.15 me/100 g), but high soil P_2O_5 concentration (13.7 ppm) to evaluate the best crop management practices. Combination of polyethylene mulched (with and without), fertilizer application (with and without), number of irrigation line (0, 1, and 2 lines), methods of fertilizer application (preplant, split, and drip) were arranged in Randomized Completely Block Design with four replications. The result showed that mulched and fertilizer application significantly increased yield of all crops. One line irrigation system also obtained the best yield. Application of fertilizer 100% P, 50% N and K applied preplant with 50% N and K fertigated 10 times weekly was the best methods to produce Eggplant, Yard Long Bean, Kangkon under polyethylene mulched and drip irrigation system.