The Effectiveness of Applying Various Doses of Bokashi Fertilizer and Time of Pruning Shoots on the Growth and Yield of Tomato (*Lycopersicum esculentum* Mill.)

By: Arnia Nur Anggita Supervised by: Siwi Hardiastuti and Darban Haryanto

ABSTRACT

Tomato is a potential horticultural commodity to be developed. Fertilizing and pruning the shoots is a way to increase tomato production. This research aims to determine the interaction between the use of bokashi fertilizer and shoot pruning, determine the best doses of bokashi fertilizer, and the effect of shoot pruning on growth and yield of tomato plants. This research using a factorial Randomized Complete Block Design (RCBD). The first factor is the doses of bokashi fertilizer, namely without bokashi fertilizer, 20 tons/ha, 30 tons/ha, and 40 tons/ha. The second factor was the time of pruning the shoots, namely 14 HST and 28 HST. Data were analyzed using analysis of variance (ANOVA) then continued with Duncan Multiple Range Test (DMRT) level of 5%. Based on research results, there was an interaction between the 40 ton/ha bokashi treatment and shoot pruning at 28 HST on plant height parameters aged 21 HST, 28 HST, and 35 HST, number of fruits per plant, fruit weight per fruit, and fruit weight per plant. Bokashi dosage 40 tons/ha and shoot pruning at 28 HST gave the best results on plant height parameters aged 14 HST, 21 HST, 28 HST, and 35 HST, flowering age, number of fruits per plant, number of dompols, fruit weight per fruit, fruit weight per plant, fruit weight per plot, fruit weight per plot, fruit weight per hectare, header dry weight, and dry weight of the roots.

Keyword: bokashi fertilizer, pruning shoots, tomato