

ABSTRACT

Purple eggplant (*Solanum melongena* L.) is a vegetable crop and belongs to the Solanaceae family. Eggplant production in Aceh is still low because ideally eggplant production can reach more than 40 tons/ha. For example horse manure and lamtoro leaf liquid organic fertilized (LOF). The purpose of the study was to determine the effect of horse manure and lamtoro leaf LOF. This research was conducted at the Experimental Garden of the Faculty of Agriculture, Malikussaleh University. This study used a two-factor Randomized Block Design (RBD) with 3 replications. The first factor was horse manure which consisted of 0, 5, 7,5, and 10 kg/plot. The second factor was concentration of lamtoro leaf LOF 0%, 10%, 20%. The results showed that the single application of horse manure had a significant effect on the variables of plant height at 40 DAP, stem diameter 10-30 DAP, number of leaves 10-30 DAP, leaf area 4 and 6 MST, leaf chlorophyll 20-40 DAP, number of fruits per plant, fruit length, fruit diameter and fruit weight. The best treatment was 5 kg/plot horse manure. The treatment of lamtoro leaf LOF had a significant effect on variables of plant height at 10-40 DAP, stem diameter 10-40 number of leaves at 10-40 DAP, leaf area 4-8 MST, leaf chlorophyll 20-40 DAP, number of fruits per plant, fruit length, fruit diameter and fruit weight. The best treatment was 10% lamtoro leaf LOF. There was an interaction between the treatment combination of horse manure and lamtoro LOF on the variables of the number of fruits per plant, fruit length, fruit diameter and fruit weight. The best treatment was 5 kg/plot and 10% horse manure and lamtoro leaf LOF.

Keyword : *Concentration, Fruit, Organic*