

ABSTRACT

(*Solanum melongena* L.) is a horticultural crop that is highly favored by the Indonesian people. This study aimed to determine the effect of NPK fertilizer dosage on the growth and yield of three purple eggplant varieties. The research was conducted from November 2024 to January 2025 at the Experimental Garden of the Faculty of Agriculture, Malikussaleh University. The study used a two factor Randomized Complete Block Design with three replications. The first factor was the NPK fertilizer dosage: 0, 15, and 20 grams per polybag. The second factor was the eggplant varieties: Mustang, Lezata, and Antaboga. The observed variabels included plant height, number of leaves, leaf chlorophyll content, number of fruits, fruit length, fruit diameter, fruit weight, and yield (tons/ha). The results showed that the NPK fertilizer dosage had a highly significant effect on plant height at 21, 28, 35, and 42 days after (DAT), number of leaves at 28, 35, and 42 DAT, leaf chlorophyll content at 28 DAT, fruit diameter, fruit weight per plant, and yield (tons/ha). The variety treatment also had a highly significant effect on plant height at 14, 28, and 35 DAT, as well as the number of leaves at 7, 14, and 28 DAT. The best treatment was obtained with an NPK fertilizer dosage of 15 g/polybag. There was an interaction between NPK fertilizer dosage and eggplant variety on fruit diameter. The combination of 15 g/polybag NPK fertilizer and the Mustang variety produced the best yield.

Keywords: Production, NPK 16:16:16 and Mustang, Lezata, Antaboga.