

ABSTRACT

Tomato (*Lycopersicum esculentum* Mill) is an agriculture commodity plants that has a unique taste, namely a combination of sweet and sour. One of the treatment for cultivating tomato plants is the use of varieties and various doses of egg shell powder. The purpose of this study was to determine the effect of varieties and doses of eggshell powder on the growth and production of tomato plants. The research was carried in Glee Madat Village, Dewantara District, North Aceh Regency and the Laboratory of the Faculty of Agriculture, Malikussaleh University. The research was carried out from December to February 2023. This research used a Randomized Block Design (RBD) with two factors and three replications. The first factors was the variety, consisted of (V1) permata variety and (V2) servo variety. The second factor was doses of eggshell powder, consisted of P0 (0 g/plant), P1 (20 g/plant), P2 (40 g/plant), P3 (60 g/plant), P4 (80 g/plant). The results showed that the type of variety affected the growth and yield of tomatoes on the variables of the number of leaves, fruit diameter and fruit weight. The best treatment was servo variety (V2). The dose of shell powder treatment affected the growth and yield of tomatoes on the variables of plant height, number of leaves, number of fruits and fruit weight. The best treatment was the dose 80 g/plant (P4). The interaction between tomato varieties and the dose of eggshell powder affected the variables of plant height, number of leaves, stem diameter, number of fruits, fruit diameter and fruit weight. The best treatment was the servo variety which was given eggshell powder at 80 g/plant (V2P4).

Keywords : Growth, Production, Tomato, Egg shell