

ABSTRACT

Purple eggplant (*Solanum melongena* L.) is a plant that comes from the tropics, especially from Southeast Asia including Indonesia. The low yield of eggplant plants is caused by weeds. One way to overcome the weed population is by weeding and using the right planting distance. The purpose of the study was to determine the effect of weeding time and spacing on weed growth and eggplant production. This research was conducted in Alue Bili village, Nisam District, North Aceh Regency. Laboratory analysis was conducted at the Agroecotechnology Laboratory, Faculty of Agriculture, Malikussaleh University, from December to March 2025. Tools and materials that will be used in the research are polybags, hoes, meters, paddles, analytical scales, ovens, stationery, cameras and purple eggplant seeds of the Antaboga variety Using Randomized Group Design (RGD) with two factors and three replications. The first factor is weeding time consisting of (H0) clean, (H1) 14, 28 and 42 DAP and (H2) 28 and 42 DAP. The second factor is planting distance (J1) 30 x 30 cm and (J2) 40 x 30 cm. Parameters observed were percentage of weed cover, weed dry weight, plant height, number of leaves, flowering age, number of fruits and fruit weight. The results of the analysis of variance showed that the weeding time treatment singly had a very significant effect on the dry weight of weeds at the age of 28 DAP, the percentage of weed closure at all observation ages and the number of leaves at the age of 35 DAP and had a significant effect on the variable dry weight of plants at the age of 42 DAP and plant height at 28 and 35 DAP. The best treatment was found in weeding practices 14, 28 and 42 HST. Plant spacing treatment did not show significantly different effects on all observed variables. There was no interaction between the treatment of weeding time and plant spacing on all variables observed.

Keywords: cropping patterns, horticulture, purple eggplant and weeds