

ABSTRACT

Eggplant (*Solanum melongena* L.) is an important agricultural commodity needed in Indonesia, because eggplant has quite complete nutritional content as a food ingredient. The low yield of eggplant plants is caused by various factors, including weeds. The presence of weeds among cultivated plants can cause competition for nutrients, water, light and growing space. Weed management is carried out with the aim of limiting investment in weeds so that plants can be cultivated productively. Control that can be done is by using herbicides and adjusting plant spacing. This research aims to determine the effect of oxyfluorfen herbicide and plant spacing and their interaction on weed growth and eggplant production. This research used a factorial randomized block design consisting of 2 factors with 3 replications. The first factor was the herbicide dose (without herbicide application, dose 360 g/ha, 240 g/ha), the second factor was the planting distance (30 x 30 cm, 35 x 30 cm). The results of the research showed that there were 6 species of weeds that dominate eggplant plantations, consisting of four species of broad-leafed weeds and two species of narrow-leafed weeds. The best dose of oxyfluorfen herbicide and plant spacing for the growth and production of mustang variety eggplant plants was a dose of 360 g/ha with a plant distance of 35 x 30 cm. The herbicide dosage and planting distance were also among the best treatments for suppressing weed growth. The herbicide oxyfluorfen has an effect on weed growth and eggplant production but had no effect on eggplant plant height. Setting plant spacing affects the percentage of weed cover and eggplant production but did not affect the dry weight of weeds. There was an interaction between the application of oxyfluorfen herbicide and setting plant spacing on the percentage of weed cover at 28 and 42 DAP.

Keywords : Eggplant, Growth, Oxyfluorfen, Plant Spacing, Production, Weeds