

ABSTRACT

THE EFFECT OF AZOLLA FERMENTED ORGANIC FERTILIZER DOSAGE (*Azolla microphylla Kaulf*) ON THE GROWTH AND YIELD OF EDAMAME SOYBEAN (*Glycine max* (L.) Merrill)

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Soybean (*Glycine max* (L) Merrill) is a legume that is rich in vegetable protein. Soybeans can be utilized in the form of dry seeds and fresh seeds (vegetable soybean). The most widely consumed fresh soybean variety is edamame. Edamame is a vegetable soybean from Japan whose seeds and pods are bigger than common soybeans. Cultivating edamame soybeans through land intensification is often a problem because of the limited availability of nutrients, especially organic matter. This study aims to determine the dosage of azolla which has a good effect on the growth and yield of edamame soybeans. This research was held in July 2022 until November 2022 on the land of the Faculty of Agriculture, Siliwangi University, Mugasari, Tasikmalaya. This study used an experimental method using a non-factorial Randomized Block Design (RBD) consist of five treatments: 0 tons/ha (control), 2 tons/ha, 4 tons/ha, 6 tons/ha, and 8 tons/ha. Each treatment was repeated 5 times. The results showed that the porasi of azolla 4 tons/ha affected plant height 28 and 42 days after planting, number of trifoliolate leaves 28 and 42 days after planting, number of root nodules, fresh crowns weight, number of pods per plant, pod weight per plant, number of seeds per plant, seed weight per plant and seed yield per plot converted to hectares.

Keywords : azolla, edamame soybean, fermented organic fertilizer