

ABSTRACT

THE EFFECT OF P FERTILIZER DOSAGE AND VESICULAR ARBUSCULAR MYCORRHIZA ON THE GROWTH AND YIELD OF PEANUT (*Arachis hypogaea* L. Merr)

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Efforts to increase peanut yields in Indonesia can be done by fertilizing P. Elemental P that can be absorbed by plants is only a little because it can be lost through leaching, erosion and most of it is not yet available to plants. Vesicular arbuscular mycorrhiza (VAM) can accelerate the uptake of available P by plants. This study aimed to determine the effect of the dosage of P fertilizer and the vesicular arbuscular mycorrhiza on the growth and yield of peanut (*Arachis hypogaea* L. Merr) variety of Kancil. This research was carried out from April to July 2021 at the experimental garden of the Faculty of Agriculture Siliwangi University, Mugarsari Sub-District, Tamansari District, Tasikmalaya Municipality. This study used a randomized block design (RBD) with a factorial pattern with 2 factors where the first factor was the dosage of P fertilizer which consisted of 3 levels (SP-36 50 kg/ha, SP-36 75 kg/ha, SP-36 100 kg/ha) and the second factor was the arbuscular mycorrhizae consisting of 4 levels (without mycorrhizae, 5 g/plant, 10 g/plant, 15 g/plant). Each treatment was repeated 3 times. Data were analyzed using variance with F test and continued with Duncan's Multiple Distance Test with 5% significance level. The results showed that there was no effect on each parameter of the observation, but there was an independent effect of the dosage of P fertilizer on the number of pods per plant, the number of filled pods per plant and the wet weight of pods per plant.

Keywords: P fertilizer, Vesicular arbuscular mycorrhiza, peanut