ABSTRACT

Mungbean is an important food crop in Indonesia due to its high nutritional content and economic value. However, its productivity remains relatively low because the use of superior varieties is still limited and nutrient absorption by plants has not been optimal. One of the efforts to increase mung bean production is through the use of superior varieties combined with the application of mycorrhiza This study was conducted to evaluate the effects of different mung bean varieties, application mycorrhiza, and their interaction on the growth and yield of mung bean. The experiment was carried out at the Experimental Farm of the Faculty of Agriculture, Malikussaleh University, from February to May 2026 using a Factorial Randomized Complete Block Design (F.RCBD). The first factor consisted of three mungbean varieties, namely Vima 1, Vima 3, and Vima 5, while the second factor consisted of three Arbuscular Mycorrhizal Fungi (AMF) application rates: M0 (control), M1 (33.6 g plot^{-1} or equivalent to 200 kg ha^{-1}), and M2 (37.8 g plot^{-1} or equivalent to 225 kg ha^{-1}). The findings revealed that the varieties had a significant effect on most growth and yield parameters. application significantly influenced leaf chlorophyll content, number of flowers, 100-seed weight, and root volume. A significant interaction between varieties and application mycorrhiza was found for the number of productive branches, pod length, number of seeds per pod, and 100-seed weight. Among the tested varieties, Vima 3 showed the best performance, producing the highest seed weight per plot and grain yield per hectare.

Keywords: Arbuscular, infection, nutrient, productivity, seed.