

ABSTRACT

The low soybean yield in Indonesia is caused by the lack of productive land carrying capacity and poor soybean cultivation technology. Providing solid decanter and NPK fertilizer can increase the productivity of soybean crops. This study aims to determine the effect of providing solid decanter and NPK fertilizer on the growth and production of soybean plants. It was carried out using the Randomized Block Design (RAK) method with two factors, namely decanter solid $D_0 = 0$ tons/ha, $D_1 = 15$ tons/ha, and $D_2 = 30$ tons/ha and NPK fertilizer $N_0 = 0$ kg/ha, $N_1 = 150$ kg/ha, and $N_2 = 250$ kg/ha. The parameters observed included plant height, number of leaves, stem diameter, leaf chlorophyll, flowering age, number of productive branches, number of pods per plant, number of filled pods per plant, number of empty pods per plant, dry seed weight per plant, weight of 100 seeds per plot and production tons/ha. The results of the study showed that the provision of solid decanters had a very significant effect on the weight of 100 seeds per plot and had a significant effect on the weight of dry seeds per plant and production in tons/ha. The application of NPK fertilizer showed very real results on plant height, number of leaves, dry seed weight per plant, weight of 100 seeds per plot and production of tons/ha. There is an interaction between the provision of solid decanter and NPK fertilizer on plant height and stem diameter.

Keywords: organic fertilizer, inorganic fertilizer, legumes, anjasmoro