PERTUMBUHAN DAN HASIL KEDELAI HITAM *(Glycine max (L.) Merril.)* PADA PEMBERIAN DOSIS DAN FREKUENSI PUPUK NITROGEN

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ABSTRACT

black Soybeans are an important commodity because they are a source of vegetable protein which can be made into various kinds of preparations. Black soybeans contain isoflavones and 8 important amino acids needed by the human body. However, soybean productivity in Indonesia has fluctuated in recent years, due to many factors, one of which is the availability of nutrients. One way to overcome the decline in soybean productivity is to improve land processing methods and optimize crop yields with the right dosage, fertilization must also match the level of plant needs for nutrient availability in the soil. One of the appropriate cultivation techniques to increase soybean yields is by administering the dose and frequency of nitrogen fertilizer.

The research was carried out at the Experimental Garden of the Faculty of Agriculture, Jambi University and the parameters observed were plant height, number of root nodules, number of pods planted, number of pods containing plants, weight of 100 seeds and yield per hectare. This research was conducted from June to September 2023 using a randomized block design (RAK) with 6 treatments and 4 replications so that there were 24 experimental plots. The treatments used in this research were N1: 50 kg ha-1 (1x); N2 : 50 kg ha -1 (2x); N3 : 100 kg ha -1 (1x); N4 : 100 kg ha -1 (2x); N5 : 150 kg ha -1 (1x); N6 : 150 kg ha-1 (2x). The experimental plots measure 1.8 x 1.5 meters with a planting distance of 30 x 25 cm, so that the population of soybean plants in each experimental plot is 36 soybean plants with 24 soybean plants in the sample plot. The research data were analyzed using the Duncan Advanced test at a significance level of 0.05

The results of this research show that the dose and frequency of nitrogen fertilizer can have an influence on plant height, number of pods planted, number of filled pods, root nodules, and yield per hectare. Providing a dose and frequency of nitrogen fertilizer of 100 kg ha-1 (1x) showed the best results with a yield of 3.27 tons.

Keywords : Black Soybeans,Nitrogen, frequency