

ABSTRACT

THE EFFECT OF LAMTORO GREEN FERTILIZER (*Leucaena leucocephala* Lam.) ON SOYBEAN GROWTH AND YIELD (*Glycine max* L.)

By

**Sitah Nur Fazriah
185001145**

**Under Guidance:
Yanto Yulianto
Dedi Natawijaya**

Soybeans is one of the most important third food crop commodities after rice and corn. To increase soybean production is needed for organic matter or organic fertilizers to improve physical, chemical and soil biology. One of the organic ingredients that can be used as a green fertilizer is the lamtoro leaves. The leaf of lamoro is known to contain important elements of hara needed by plants. Providing the best dose of green lamoro fertilizer can be an alternative to the problem. This study aims to determine the best dose of lamoro green fertilizer on soybean plants. The study was carried out in April to August 2022, in Nagrog Village, Jayaratu Village, Sariwangi District, Tasikmalaya Regency. This study used the Randomized block design (RBD) which consisted of 6 treatments and repeated 4 times. The treatments consist of: l₀ (without lamtoro green fertilizer), l₁ (dose of lamtoro green fertilizer 5 t/ha), l₂ (dose of lamtoro green fertilizer 10 t/ha), l₃ (dose of lamtoro green fertilizer 15 t/ha), l₄ (dose of lamtoro green fertilizer 20 t/ha), and l₅ (dose of lamtoro green fertilizer 25 t/ha). Data were analyzed using analysis of variance and further tested using Duncan's Multiple Range Test (DMRT). The results showed that the application of lamtoro green fertilizer affected the yield parameters, namely the number of pods per plant, number of pods per plot, number of seeds per plant, seed weight per plant, seed weight per plot, and weight of 100 seeds, but had on effect on growth parameters namely plant height, number of leaves, and the number of root nodules. Applications of 20 t/ha lamtoro green fertilizer resulted in good number of pods per plant, number of pods per plot, number seeds per plant, seed weight per plant, seed weight per plot, and 100 seed weight, but did not produce good growth.

Key word: lamtoro green fertilizer, soybean, soybean growth, soybean yield.