

ABSTRACT

FOUR TYPES OF COMPOST EFFECT ON SOYBEAN PRODUCTION OF THREE VARIETIES (*Glycine max* [L.] Merr.)

By

Andi Triyanto

Soybean (*Glycine max* [L.] Merr.) Is a food crop and source of vegetable protein that is needed by the people. Soybean demand every year increase with population growth and development of agro-industries in need of raw materials soybean. Beginning in July 2010, BPS estimate of soybean production in 2010 based on the Forecast Figures II reached 927,38 thousand-ton. The amount is equivalent with 40% of national demand (2,2 million tons). This means that 60% of the total national demand is still dependent from import. Various efforts were made to increase the production of soybean by way of the use of improved varieties, fertilization is an effective and efficient.

This study aims to (1) compare the production between the three types of soybean varieties, (2) compare soybean production is given a compost without bioaktivator with soybean production is given by bioaktivator compost, and (3) determine whether soybean production depends on the type of compost with the bioaktivator different.

This research has been done in the garden experiment at Polytechnic Lampung (Polinela) from June to September 2011. Arranged in a factorial treatment (4 x 3) with three replications in a complete randomized group design (RKTS). The first factor is the type of compost used is k0 (natural + compost), k1 (compost + EM4), k2 (compost + Golden Harvest), and k3 (compost + M-Dec). The second factor are soybean varieties v1 (Tanggamus), v2 (Argomulyo), and v3 (Grobogan). Data were analyzed for homogeneity range of the Bartlett test and the additivity of model with Tukey test. If the assumptions are complete, data were analyzed and followed by a range of Class Comparison test at the level of 5% and 1%.

The results showed that (1) there is no difference between the three varieties of soybean production is used, (2) application of compost with different types biaktivator have not been able to increase the production of three soybean varieties when compared with natural compost, and (3) the production of three

soybean varieties do not depend on giving the type of compost with different bioaktivator.

Key words: bioaktivator, compost, soybeans.