

SUMMARY

Rangga Fariyana Son. 0910480134. Dose Effect of Fertilizer and Growing Media on Growth of Plant Pak Choy (*Brassica rapa L. var chinensis*) in polybag, Under the Guidance Dr.Ir. Yudo Setyono Tyasmoro, Ms. as the main supervisor.

Pakcoy (*Brassica rapa L. var chinensis*) is a vegetable that is beneficial to the human body because of its nutrient content. Additionally, mustard commonly found on farms in Indonesia. The production data pak choy in Indonesia is increasing every year. The period of 2009 - 2011, pak choy production increased from 562 838 tonnes to 591 225 tonnes (the Central Bureau of Statistics, 2011). The central area of deployment pakcoy among others, Cipanas, Lembang, Canning, Malang, and Tosari. Especially areas that have a height above 1,000 masl. Society generally prefer fresh vegetables. This requires distribution and proper handling, so that the product pak choy is not damaged or wilted. To support the planting medium fertility inorganic fertilizer application is also required. Inorganic fertilizer containing nitrogen and are common elements include urea and ZA. With the provision of inorganic fertilizers or artificial fertilizers, especially fertilizers ZA, is expected to add to the content of N in the soil and can overcome the shortcomings of N in the soil, where ZA is very sour and is expected to lower the pH of the soil, thus increasing the levels of soil N, N uptake and pak choy crop. Urea is a fertilizer while the amine-containing organic compounds that have hygroscopic properties and are not easily terdenitrifikasi (Tisdale et.al, 1990). Another factor that can affect the growth of pak choy, namely the growing medium, because of the growing media is the most important factor before we do the planting. In the composition of planting pak choy composition planting medium used consisted of soil, compost and straw. Expected combination of the composition of the growing medium to optimize the growth of seedlings. Based on the description above, the writer interested in conducting research on the response research on influence of some degree of shade and growing media on plant growth pak choy (*Brassica rapa L. var chinensis*) in polybags. The purpose of the research was to determine the effect of the application of fertilizers and growing media on growth that occurs in plants pak choy (*Brassica rapa L. var chinensis*). The hypothesis of this study was the effect of a given dose of fertilizer and growing media on plant growth pak choy (*Brassica rapa L. var chinensis*).

This research was conducted in June to August 2016 in UB Faculty of Agriculture land, located in a residential Griyasanta, with the media's treatment of planting soil, compost, husk and also use fertilizers for plant growth mustard or pakchoi. The tools used, polybags, buckets, shovels, lux meter, mica, bamboo, markers, writing equipment. While the materials used are of superior vaeietas mustard seed, soil, compost, ash, urea, ZA fertilizer, pesticides, water. The study was conducted using a factorial randomized design. The design of treatment consists of two factors, with three replications. The first factor is fertilization (P) consists of three levels, namely P0 = Without fertilization, P1 = NPK 50 kg / ha + Urea 75 kg / ha + ZA 50 kg / ha, P2 = NPK 75 kg / ha + Urea 100 kg / ZA ha + 75 kg / ha, P3 = 100 kg NPK / ha + 125 kg urea / ha + ZA 100 kg / ha. The second

factor is the growing media (M) consists of three levels, namely M1 = Media planting soil: compost: chaff in the ratio 6: 3: 1, M2 = Media planting soil: compost: chaff in the ratio 3: 2: 1, M3 = media planting soil: compost: chaff in the ratio 1: 1: 1. Of these two factors combined treatment obtained 12. Observations using two non-destructive and destructive ways. Observations non destructive include plant height, number of leaves planting, stump diameter, light intensity (%). Observations were made on the age of the plant 7 hst, 14 hst, 21 hst, 28 hst. Observations destructively include leaf area, wet weights per plant, dry weight per plant, carried out when the plants are ready for harvest. Analysis of the observed data using the F test method Fingerprint Car (ANOVA) If there is no interaction do LSD 5% performed at an average yield of single treatment that mempunyai influence on observation variables.

No interaction between treatment administration of multiple doses of fertilizers and growing media on the observation parameters plant height, fresh weight, dry weight and leaf area, but the number of leaves there is interaction between administration of multiple doses of fertilizers and growing media are significantly different. Weekly surveys obtained perlakuan giving several doses of fertilizer there is no interaction with the planting medium on parameters number of leaves that are not significantly different at 7-28 days after planting. In observation of fresh weight, dry weight and leaf area of plants pak choy, obtained the highest results that kobinasi treatment by comparison dosage of NPK fertilizer 100 kg / ha: Urea 125 kg / ha: ZA 100 kg / ha (P3) and the planting medium ground , compost, husk with a ratio of 1: 1: 1 (M3).

