

ABSTRACT

Pakchoy (*Brassica rapa* L.) is a widely cultivated mustard green and is easily available and economically viable. This commodity is thought to have significant potential for development due to its essential nutritional content. Pakchoy production in Indonesia increased from 2021 to 2022, reaching 727,467 tons in 2021, 760,608 tons in 2022, and a decline of 686,876 tons in 2023. The decline in pakchoy plant production is influenced by many things, such as soil fertility, excessive use of inorganic fertilizers that can damage soil quality and change the natural ecosystem of the land, as for efforts that can be made to reduce the use of inorganic fertilizers, namely by adding organic fertilizers that aim to maintain soil quality and to reduce the negative impacts of continuous use of inorganic fertilizers. The method used in this study was a randomized block design with 2 factors and 3 replications. The first factor was NASA liquid organic fertilizer with 3 levels and the second factor was pakchoy plant varieties with 3 levels. The variables observed were plant height, leaf length, leaf area, number of leaves, total fresh weight of plants, fresh weight without roots, leaf chlorophyll, and root length. Based on the results of the analysis of variance, it shows that the treatment of NASA Liquid Organic Fertilizer and several varieties has a significant to very significant effect on the growth and yield of pakchoy plants from several varieties due to the administration of NASA Liquid Organic Fertilizer. The best dose of NASA liquid organic fertilizer is P3 (5 ml / liter) which can increase plant height 14 days after planting, number of leaves 28 days after planting, leaf chlorophyll 28 days after planting, leaf area 28 days after planting, fresh weight per plant, fresh weight without roots and root length. The use of varieties has a significant to very significant effect on plant height variables, number of leaves 28 days after planting and the best variety treatment is Naura F1. There is an interaction between the administration of NASA liquid organic fertilizer and pakchoy plant varieties on the variables of plant height at 14 days after planting, leaf chlorophyll, total fresh weight of plants, fresh weight without roots.

Keywords : Pakchoy plants, NASA Liquid Organic Fertilizer, Pakchoy plant varieties