

## **ABSTRACT**

*A research entitled "The Effect of the dose of spraying seaweed extract to the growth and yield of shallot (*Allium ascalonicum*)" has been carried out in the Experimental Field and Research Laboratory of the Faculty of Agriculture Muhammadiyah University of Yogyakarta from January to March 2019. The objective of this research were to determine the effect of giving growth hormon from seaweed extract to the growth and yield of shallot and determine the right dose of seaweed extract to increase the growth and yield of shallot.*

*Research method used was a field experiment method with a design single factor treatment arranged according to the Randomized Complete Block Design (RCBD) with trials that were tried in the form of doses seaweed extract includes: P0 (Without Spraying Seaweed Extract), P1 (Spraying 5.5 Liter / Hectare), P2 (Spraying Seaweed Extract 11 Liter / Hectares), and P3 (Spraying 22 Liter / Hectares of Seaweed Extract. Parameter which were observed included plant height, the leaf number, leaf area, the fresh and weight of leaf, the fresh and dry weight of tuber per clump, the fresh and dry weight per tuber, number of tubers, tuber diameter, tuber length, tuber weight loss, root length, the fresh and dry weight of roots, and yield potential per hectare.*

*The results showed that spraying seaweed extract had not been able to give a real effect on the growth of shallot plants, but it was able to significantly increase the fresh weight of shallot bulbs. Spraying seaweed extract at a dose of 22 liter/hektar tends to increase the growth and yield of shallots.*

**Keywords:** *Fitohormon, Sargassum, Dose*