

## ABSTRACT

**RISKHI NIBRASI MAHMASANI**, this research is entitled " **The Effect of AB Mix Nutrient Concentration and Liquid Organic Fertilizer (POC) on Growth and Yield of Pakcoy Nauli F1 (Brassica rapa L.) in a Wick Hydroponic System** " Advisor I. Nanik Lutfiyah, S.Si., M.Si. II. Agus Fahmi, S.P., M.Si.

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This study aims to investigate the effect of Azolla pinnata liquid organic fertilizer (POC) and goat manure on the growth and yield of pakcoy (*Brassica rapa* L.) in a hydroponic wick system, as well as the effect of POC concentration on the plants. The research was conducted from March to August 2022 in Mojokerto, using a Completely Randomized Design (CRD) with 6 treatments and 5 replications. The treatments included variations of POC and AB Mix concentrations, ranging from no POC (P0) to a combination of AB Mix and POC (P5).

The results showed that the concentration of POC and AB Mix significantly affected the number of leaves, leaf area, and fresh weight of the plants. The P5 treatment (75% AB Mix + 25% POC) produced the best results in terms of leaf number and leaf area as well as fresh weight. The 100% AB Mix concentration (P2) also showed optimal results. Azolla POC alone could not be used as a primary fertilizer, as applying POC alone was insufficient to stimulate optimal pakcoy growth.

In conclusion, the combination of Azolla POC and AB Mix provided better growth for pakcoy in a hydroponic wick system. Future research is recommended to increase the doses of POC and AB Mix and to explore other fertilizer combinations to achieve more optimal results.

**Key words** : Pakcoy, POC, AB MIX

