

**EFFECT OF FISH-BASED AMINO ACIDS LEMURU
TO GROWTH OF TOBACCO PLANTS
(*Nicotiana Tabacum* L.) VOOR-OOGST
KASTURI VARIETIES**

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ABSTRACT

Tobacco (*Nicotiana tabacum* L.) is one of the important plantation commodities that plays a major role in the national economy through excise taxes and employment. One of the main factors affecting tobacco growth and productivity is fertilization. Excessive use of chemical fertilizers can reduce soil fertility and have a negative impact on the environment. An alternative organic fertilizer is needed, such as amino acids derived from lemuru fish, which contain organic nitrogen and bioactive compounds that are beneficial to plants. This study aims to determine the effect of lemuru fish amino acids and determine the optimal concentration for the growth of Kasturi tobacco plants. The research was conducted at the Field Laboratory of the Jember State Polytechnic from June to September 2025. The experimental design used in this study was a non-factorial randomized block design (RAK) with four treatments: P0 (control), P1 (20 ml/l), P2 (40 ml/l), and P3 (60 ml/l). The parameters observed included plant height, stem diameter, number of leaves, leaf area, and fresh leaf weight. The results showed that the application of lemuru fish amino acids affected the growth of tobacco plants in terms of plant height, stem diameter, number of leaves, leaf area, and fresh leaf weight.

Keywords: Kasturi tobacco, Amino Acids, Plant growth