

**THE EFFECT OF NPK DOSAGE AND AMINO ACID POC CONCENTRATION
ON THE GROWTH AND PRODUCTION OF Voor-Oogst TOBACCO
(*Nicotiana tabacum* L.)**

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ABSTRACT

*Voor-Oogst tobacco (*Nicotiana tabacum* L.) is a high-value plantation commodity whose quality and production are greatly influenced by the availability of nutrients. Efforts to increase tobacco growth and production can be done through NPK fertilizer and the addition of liquid organic fertilizer (POC) with amino acids. This study aims to determine the effect of NPK fertilizer dosage and amino acid POC concentration, as well as their interaction on the growth and production of Voor-Oogst tobacco. The study was conducted from August to December 2025 at the Jember State Polytechnic Innovation Garden using a two-factorial Randomized Block Design (RAK). The first factor was the dose of NPK 16:16:16 fertilizer consisting of three levels, namely 0 g/plant, 5 g/plant, and 10 g/plant. The second factor was the concentration of amino acid POC consisting of 0%, 2%, and 4%, with a dose of 250 ml/plant 4 WAP and 500 ml/plant 6-10 WAP. The parameters observed included plant height, stem diameter, leaf area, leaf weight per plant, and tobacco leaf production per hectare. Data were analyzed using analysis of variance (ANOVA) followed by a 5% BNJ test. The results showed that NPK fertilizer application had a significant effect on all tobacco growth and production parameters. Amino acid POC had a significant effect on plant height, leaf area, leaf weight per plant, and tobacco leaf production per hectare. The interaction between NPK dosage and amino acid POC concentration had a significant effect on plant height at 4, 8, and 12 weeks after planting (WAP) and leaf weight per plant. The combination of 10 g/plant NPK and 4% amino acid POC treatment provided the best growth and production results for Voor-Oogst tobacco plants.*

Keywords: *Amino Acid POC, NPK Fertilizer, Voor-Oogst Tobacco*