Determinasi Status Hara N.P,K untuk Rekomendasi Pemupukan dan Prediksi Produksi Manggis

(The Determination of Nitrogen, Phosphor and Potassium Status to Make a Fertilizer Recommendation and Predict Mangosteen Yield)

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ABSTRACT

Mangosteen (*Garcinia mangostana* L.) knows as one of the most delicious fruit in the word, it's call as "Queen of fruits". The problems in mangosteen culture are low productivity and low fruit quality due to less developed technical culture, especially on fertilizer. There is a little information available on mangosteen fertilizer recommendation standards based on scientific experiment. Nitrogen fertilizer increased vegetative growth and production of mangosteen. Nitrogen status in leaf tissues being decreases in generative stage and then increase in vegetative stage. The mangosteen response to nitrogen showed linear response for almost vegetative parameters. On the other hand, phosphor fertilizer increased growth especially in generative stage of mangosteen. Phosphor increases the number of flowers and fruits set. It also decreases number of flowers and fruits drop, with linear response. Potassium fertilizer increases mangosteen growth, both at vegetative and generative stages. Potassium increases percentage of total flowers and fruits set, and also increase numbers of percentage flowers and fruits drop. All fertilizer treatments increase growth, yield and improve the quality of fruits. It indicates mangosteen trees absorb nitrogen, phosphor and potassium to increase the vegetative growth and support production. Fertilizers increase nitrogen, phosphor and potassium concentrations in leaf tissues. Leaf tissues analyses showed status of nitrogen in leaf tissues at medium status, phosphor at very low status, and potassium at low and medium status. This status has a correlation to the yield. The higher the nutrients concentration in the leaf tissues, the higher the mangosteens yield in the next harvest.