

Pengaruh Konsentrasi dan Interval Waktu Pemberian Pupuk KNO₃ Terhadap Produksi dan Mutu Benih Mentimun (*Cucumis sativus* L.)

Effect of Concentration and Time Interval of KNO₃ Fertilizer on Production and Seed Quality of Cucumber (*Cucumis sativus* L.) Advisor: Ir. Suwardi, M.P.

Sony Firmansyah

Study Program of Seed Production Technique

Majoring of Agricultural Production

Program Studi Teknik Produksi Benih

Jurusan Produksi Pertanian

ABSTRACT

*Cucumber is a plant that belongs to the Cucurbitaceae family. One of the most popular vegetables in the world is cucumber. This study aims to determine Effect of Concentration and Time Interval of KNO₃ Fertilizer on Production and Seed Quality of Cucumber (*Cucumis sativus* L.). Implemented at PT. Aditya Sentana Agro Jl. Zentana No.87, Karangploso, Girimoyo, Kec. Karang Ploso, Malang, East Java. The research was carried out in September 2021 - Desember 2021. KNO₃ is a chemical fertilizer containing potassium and nitrogen, Plants require efficient fertilization for growth and production. Fertilization must pay attention to the 4t elements, namely the selection of the right type, at the right time, at the right dose, and appropriate. The research design used was a factorial Randomized Block Design (RAK) with 3 replications, the main factors being the Concentration of KNO₃ dan Time Interval Fertilizer, the first treatment consisted of 3 levels, namely K1: 5 g/l, K2: 7,5 g/l, 10 g/l, and the second factor consists of 3 levels, namely I1: 3 day, I2: 5 day, I3: 7 day. Data were analyzed using F test (ANOVA). If there is a significant difference between treatments, it is continued with Duncan's Multiple Range Test (DMRT) with an error rate of 5%. The parameters observed were fruit length, fruit diameter, fruit weight per plant, number of seeds per plant, seed weight per plant, weight of 1000 seeds, seed germination, The KNO₃ concentration treatment of 10 g/l (K3) gave the highest yield on the seed germination parameters with a yield of 97,39%. The treatment interval of 7 days (I3) gave the highest yield on the parameters of the number of seeds per plant, seed weight per plant, seed production per hectare with successive yields of 383,80 seeds, 9,58 gr, 300,5 kg. The interaction of treatment with KNO₃ concentration and time interval of application did not significantly affect all parameters.*

Key word: cucumber, KNO₃ fertilizer, time interval application