Aplikasi Pupuk KCl dan Pemangkasan Pucuk Terhadap Produksi dan Kualitas Benih Mentimun (*Cucumis sativus* L.) KE 440.

Application of KCl Fertilizer and Top Pruning on Production and Seed Quality of Cucumber (Cucumis sativus L.) KE 440**.** Advicer Common : Dr. Ir. Rahmat Ali Syaban, M.Si

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ABSTRACT

To produce quality cucumber seeds can be done with the application of KCl fertilizer. The application of potassium fertilizer at a dose of 300 kg/ha was able to increase the production and quality of Hudah cucumber seeds (2019). In addition, cucumber plants that are not pruned will generally produce a lot of fruit with a small size, this causes the quality of the seeds produced by fruit is not good (Sutapraja (2008)). The combination of treatment between application of potassium fertilizer and shoot pruning is expected to produce quality cucumber seeds. This research was conducted from January to April 2021 at the Jember State Polytechnic Land which is located at Jl. Mastrip No.164, East Krajan, Sumbersari, Kec. Sumbersari, Jember Regency. This research was conducted using a factorial randomized block design consisting of 2 factors. The first factor is the application of KCl (F) fertilizer consisting of 3 levels, namely F1: 300 kg/ha, F2: 350 kg/ha, and F3: 400 kg/ha. While the second factor is shoot pruning (P) consisting of 3 levels, namely P1: 12th segment, P2: 14th segment, and P3: 16th segment. The results showed that. The application treatment of 400 kg/ha KCl fertilizer had a significant effect on the parameters of fruit weight with the best yield of 495.33 grams, the number of seeds with the best yield of 343.15 grains, the percentage of pithy seeds with the best yield of 82.75%, the speed of seed growth with the best yield was 52.68%/etmal, seed germination with the best yield was 87%, and seed production per hectare with the best yield was 475.994 kg. While the shoot pruning treatment gave an effect on all observation parameters except the weight parameter of 1000 grains. The shoot pruning treatment on the 12th segment significantly affected all parameters except the 1000 grain weight parameter, with the best results on each parameter as follows: fruit weight 495.33 gram, the number of seeds 343.15 grains, the percentage of seeds pithy 82.75 %, seed growth speed 51.57%/etmal, seed germination capacity of 85.44%, seed production per hectare 477.423 kg. The treatment interaction between the application of 400 kg/ha KCl fertilizer and pruning of the 12th internode shoots had a significant effect on the parameters of fruit weight with the best yield of 495.33 grams, the number of seeds with the best yield of 343.15%, and the percentage of pithy seeds with the best result is 82.75%.

Key Words : *Application of KCl fertilizer, shoot pruning, cucumber*