

Pengaruh Konsentrasi dan Lama Perendaman Ekstrak Bawang Merah Terhadap Pertumbuhan Setek Tanaman Lada (*Piper nigrum* L.). *The effect of concentration and soaking time of red onion extract on the growth of pepper crop cutting (*Piper nigrum* L.).* Advisor: Dr. Ir. Nurul Sjamsijah, MP

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ABSTRACT

Pepper is high value economic crops. But, pepper multiplication especially by cutting often fails in growing the root. The solution that can solve the problem is administration of red onion extract or plant growth regulators. The purpose of this study was to determine the concentration effect, soaking time, concentration interaction, and soaking time of red onion extract on the growth of pepper crop cutting. This study was conducted in November 2018 to January 2019 at State Polytechnic of Jember Plant nursery, Jember Regency, East Java. This study used Factorial Completely Randomized Design with 3 replications. The first factor used concentration that was consisted of K_1 (50%), K_2 (60%) and K_3 (70%). The second factor used concentration that was consisted of L_1 (11 hours), L_2 (12 hours) dan L_3 (13 hours). The data was analyzed by Analysis of Variance (ANOVA) stage 1% and 5% and continued by LSD (Least Significance Different). The result showed the concentration gave very significant effect to leaf width by the top average was 4,77 cm on K_1 (50%), number of roots by the top average was 10,62 on K_2 (60%) and the length of roots by the top average was 8,64 on K_2 (60%). The concentration treatment gave significant effect to life percentage of cutting by the top average was 97,78 on K_1 (50%), the top average of sprouts was 1,51 on K_2 (60%), the top average of leaves was 4,22 leaves on K_2 (60%) and the top average of leaves length was 9,59 on K_2 (60%). Soaking time gave significant effect to the number of sprouts by top average was 1,51 on L_1 (13 hours). Both concentration interaction and soaking time of red onion extract have no significant effect to all observed parameter of the pepper cutting growth.

Key words : *pepper, cutting, red onion extract, concentration, soaking time*