

**Effect of Concentration and Soaking Time of Onion Extract
as natural ZPT against the growth of cuttings
Pepper (*Piper nigrum* L.)**

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ABSTRACT

Good quality pepper seedlings can be obtained through vegetative propagation using single-segment stem cuttings derived from climbing vines. One of the natural growth regulators that can be used in the seeding of pepper plant cuttings is red onion extract, because onions contain growth regulators that can stimulate the growth of pepper plant roots. This study aims to determine the effect of the best concentration and soaking time of shallot extract. This research was conducted at the Jember State Polytechnic plantation cultivation area, from August 2019 to December 2019. This research was conducted using a factorial randomized block design (RBD). The treatment given was the concentration of shallot extract which consisted of 4 levels, while the soaking time consisted of 3 levels. The first factor is the concentration of shallot extract (K) which consists of 4 levels, namely: K0 = 0%, K1 = 20%, K2 = 40%, K3 = 60%. The second factor of immersion time (P) consisted of 3 levels, namely: P1 = 9 hours, P2 = 12 hours, P3 = 15 hours. This study used 12 treatments, so that 36 experimental units were obtained, each experimental unit consisting of 20 cuttings so that the total was 720 cuttings. In the experimental unit, 5 plants were randomly assigned as the observation sample. The application of shallot extract with a concentration of 40% and 60% resulted in a higher percentage of live cuttings compared to other treatments. The percentage of live cuttings was lower at 0% onion extract concentration.

Keywords: Pepper, Concentration, Soaking Time of Shallot Extract