Aplikasi Konsentrasi dan Lama Perendaman  $H_2SO_4$  terhadap Perkecambahan dan Pertumbuhan Awal Bibit Kopi Arabika Lini S 795 (*Coffea arabica* L.). (Application of Concentration and Soaking Duration of  $H_2SO_4$  on Germination and Early Growth of Arabica Coffee Seeds Line S 795 (Coffea arabica L.). Supervised by: Dosen Pembimbing Ir. Sri Rahayu, MP.

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## **ABSTRACT**

This research aims to determine the effect of concentration, soaking duration, and interaction between concentration and soaking duration of H<sub>2</sub>SO<sub>4</sub> on germination and early growth of arabica coffee seeds (Coffea arabica L.). This research was conducted in December 2018 to April 2019 at field of State Polytechnic of Jember, Jember Regency, East Java. It was applied Randomized Complete Block Design with 2 factors and 3 replications. The first factor was concentration (K) consisted 3 levels, control  $(K_0)$ , concentration of 10%  $((K_1), 20\% (K_2), \text{ and } 30\%$  $(K_3)$ . The second factor was duration of soaking consisted 3 levels, 15 minutes  $(L_1)$ , 30 minutes  $(L_2)$ , and 45 minutes  $(L_3)$ . The data was analyzed by using Analysis of Variance (ANOVA) and followed by Duncan's Multiple Range Test (DMRT) 5% and LSD 5%. The result of this research shows that concentration of  $H_2SO_4$  20% (K2) is significant on viability (100%), growth speed (5,38%/days) and growth simultaneously (86,67%). Duration of soaking (L) is non significant for all parameters. The interaction between  $H_2SO_4$  concentration 20% and soaking duration of 45 minutes ( $K_2L_3$ ) is significant on parameter weight of gross stover of 1,88 grams and dry stover of 0,54 grams.

*Key words*: Arabica Coffee, Concentration of  $H_2SO_4$ , Duration of Soaking,