

Invigorasi Benih Sawi Pakcoy (*Brassica rapa L.*) Kedaluwarsa pada Beberapa Konsentrasi dan Lama Perendaman Ekstrak Bawang Merah. *Invigoration of Expired Bok Choy Seed (*Brassica rapa L.*) at Several Concentrations and Soaking Time of Shallots Extracts.* Supervisor Maria 'Azizah, SP., M.Si.

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ABSTRACT

One of the efforts to increase seed viability is to use invigoration treatment. The purpose of this study was to determine the effect of the concentration of the solution and the appropriate length of soaking time of shallot extract on the viability of expired pakcoy seeds. This research was conducted from August to October 2022 at the Seed Technology Laboratory, Jember State Polytechnic. The experimental design used was a Factorial Completely Randomized Design (CRD) consisting of 2 factors. The first factor is the concentration of the solution, namely 0% (B1), 25% (B1), 50%, (B2). The second factor is the immersion time, namely 15 minutes as control (L0), 4 hours (L1), 6 hours (L2). The results showed that the concentration of shallot extract had a highly significant different effect on mustard pakcoy seeds which had expired 1 and 3 months on the parameters of germination, growth speed, growth synchrony, maximum growth potential, and vigor index in B2 treatment. The interaction between the concentration of shallot extract and the soaking time had a highly significant different effect on seeds that had expired 1 month on the parameters of growth synchrony, whereas seeds that had expired 3 months had a very significant effect on germination parameters. and maximum growth potential, as well as having a significantly different effect on the parameters of growth synchrony and vigor index. The treatment of shallot extract concentration of 50% with soaking time 6 hours gave the best results.

Key Word : *Bok choy, Concentration of Shallot Extract, Soaking Time*