

RESPONSE OF ROBUSTA COFFEE SEEDLINGS (*Coffea canephora*) TO THE APPLICATION OF KNO₃ AND SHALLOT EXTRACT

Mentored by Fandyka Yufriza Ali, S.P., M.P.

Rinta Eka Damayanti

Study Program of Coffee Plantation Management
Department of Agricultural Production, Jember State Polytechnic
e-mail : rintaekaa@gmail.com

ABSTRACT

Coffee is one of the plantation commodities that has a high economic value among other plantation commodities and plays an important role as a source of foreign exchange. Seedling quality determines plant growth and productivity in nurseries. Optimal seedling growth can be obtained through a good nursery system. One way to accelerate growth is by applying KNO₃ and shallot extract. KNO₃ is one way to optimize the provision of nutrients. Giving shallot extract which contains auxin. This study aims to determine the effect of KNO₃ and shallot extract on the growth of robusta coffee seedlings. This implementation was carried out in February - May 2024 at the Jember State Polytechnic Wirehouse using a Randomized Group Design (RGD) 3x3 factorial pattern with 3 replications. Factor 1 is the provision of KNO₃ concentration consisting of 3 levels, namely control (P0) 0% (P1) 0.5% (P2) 1% and factor 2 is the provision of shallot extract concentration consisting of 3 levels, namely control (B0) 0% (B1) 50% (B2) 75%. Each experimental unit consists of 4 robusta coffee seedlings. Data were analyzed using a Randomized Group Design (RGD) with analysis of variance. If the treatment is significantly different, then further tests will be carried out with the Least Significant Difference at the 5% level (BNT). The results showed that the provision of KNO₃ and shallot extract had an effect on the growth of Robusta coffee seedlings in the parameters of plant height, number of leaves, stem diameter, root length, wet weight and dry weight, the use of a combination of 1% KNO₃ treatment with 50% shallot extract (P2B1) gave the best results on Robusta coffee seedlings.

Keyword: *KNO₃, Red Onion Extract, Coffee seeds, Robusta*