

ABSTRACT

Raihana Mutamimah. 2026. Effectiveness Test of Eggshell Powder on the Growth of White Bird's Eye Chili Plants (Capsicum frutescens L.). Supervised by Dr. Yusuf Ibrahim, M.Pd., M.P. as Supervisor I and Dr. Fitri Aryanti, S.T., M.Pd. as Supervisor II.

Chili production in Indonesia still faces various obstacles, one of which is low soil fertility that can affect plant growth and productivity. An effort that can be made to improve the growth of white bird's eye chili plants is by utilizing eggshell waste as a source of calcium and as a material to improve soil fertility. This study aims to determine the effectiveness of eggshell powder application on the growth of white bird's eye chili plants (Capsicum frutescens L.). The research used an experimental method with a Completely Randomized Design (CRD) consisting of 5 treatments and 4 replications. The treatments given included A (control), B (5 grams of eggshell powder), C (10 grams of eggshell powder), D (15 grams of eggshell powder), and E (20 grams of eggshell powder). The parameters observed included plant height, number of leaves, and soil pH. Data were analyzed using analysis of variance (ANOVA) and followed by Duncan's test at a 5% significance level. The results showed that the application of eggshell powder affected the growth of white bird's eye chili plants. The treatment with a dose of 15 grams gave the best results for plant height growth and number of leaves compared to other treatments. Thus, eggshell powder is effective as an alternative organic material to improve the growth of white bird's eye chili plants.

Keywords: Capsicum frutescens L., Eggshell Powder, Plant Growth, White Bird's Eye Chili,