

**EFFECT OF RED ANGER EXTRACT CONCENTRATION ON
THE GROWTH RATE OF CHOCOA (*Theobroma cacao* L.)
SETCHES FROM ORTHOTROPIC SHOOTS
COCOA (OSC) CLONE SULAWESI 01**

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ABSTRACT

*Cocoa (*Theobroma cacao* L.) is a plantation commodity that plays an important role in the national economy. Cocoa productivity has decreased every year. In 2022, cocoa bean production only reached around 650,612 tons. This is due to the decrease in the area of cocoa plantations that have switched to other commodities due to the lack of quality planting materials. Cuttings are a technique used to grow parts or pieces of plants into new plants. The success of plant propagation through cuttings depends on the ability of the cuttings to form roots. Efforts to encourage root formation in cuttings can be used auxin growth regulators. This study aims to determine the effect of ZPT concentration of shallot extract on the growth of cocoa cuttings from Orthotropic Shoot Cocoa (OSC) clone Sulawesi 01. This research was conducted in August 2024-January 2025 on the land of Jember State Polytechnic. The experimental design in this study is a non-factorial Randomized Group Design (RAK) consisting of 5 treatment levels, namely, BM0 as control, BM1 shallot extract 25% concentration, BM2 shallot extract 50% concentration, BM3 shallot extract 75% concentration, BM4 shallot extract 100 concentration. This research was conducted with 5 replications and 5 treatments on every 5 experimental samples. The results of this study indicate that the provision of ZPT shallot extract in the BM4 treatment (100% concentration) gets significantly different results on the parameters of shoot height and dry weight of stems.*

Keywords: Cocoa, OSC, Red Anger Extract