Growth of Mint (*Mentha spicata* L.) Plants With Various Concentrations of AB Mix Nutrients and Auxin Using Floating Raft Hydroponics

By: Arlenda Iskandar Putra

Guided by: Ari Wijayani and Tuti Setyaningrum

ABSTRACT

Efforts to increase the production of mint plants include a hydroponic system. Floating raft hydroponics can overcome uncontrolled environmental conditions and demand which continues to increase along with the increase in population in Indonesia. The research aims to examine the interaction between auxin concentration and AB Mix and determine the best auxin and AB Mix concentration. The research was carried out in February – April 2023 in Miliran Village, Muja Muju, Yogyakarta. The research method is a field experiment, prepared using a two-factor Split Plot Design. The main plot is auxin concentration, consisting of 3 levels, namely auxin concentration of 5 ppm, 10 ppm and 15 ppm. The sub plot is the AB Mix concentration, consisting of 3 levels, namely 1100 ppm, 1250 ppm and 1400 ppm. Data were analyzed using a 5% variance test, followed by a 5% DMRT test. The results showed that there was no interaction between the AB Mix nutrient concentration treatments and auxin. AB mix concentrations of 1250 ppm and 1400 ppm produced better growth in the parameters of plant height 4 WAP, plant height 5 WAP and fresh leaf weight. Auxin concentrations of 10 ppm and 15 ppm resulted in better growth in the parameters of plant height 4 WAP, plant height 5 WAP and fresh leaf weight.

Keywords : Mint, Auxin, AB Mix, Floating Raft Hydroponics