

**RESPONSE AND GROWTH YIELD OF BASIL (*Ocimum basilicum* L.)
WITH VARIOUS AB MIX CONCENTRATIONS AND PLANTING
MEDIA BY USING *NUTRIENT FILM TECHNIQUE* HYDROPONIC**

By: Fakhriya Musfira

Supervised by: Endah Budi Irawati dan Oktavia Sarhesti Padmini

ABSTRACT

Basil (*Ocimum basilicum* L.) is a spice plant with high market demand, but low production quality. Basil production can be increased with hydroponic cultivation. This research aims to determine the right concentration of nutrient and planting media on the growth and yield of basil plants. The research was conducted from October to November 2022 in Cangkringan, Sleman. The field research method used a split plot design, Completely Randomized Design with 3 replications. The main plots were nutrient concentrations (500 ppm, 1000 ppm, and 1500 ppm) and sub plots were planting media (*rockwool*, gravel, and *hydroton*). Observational data were analyzed using 5% ANOVA and 5% DMRT followed by. The yields showed there was interaction between the treatment on the plant height 2 WAP, number of leaves 1 and 2 WAP, leaf area 1 WAP, and plant dry weight 2 WAP. Nutrient concentration 1500 ppm gave the highest yield on the plant height 2 WAP, number of leaves 1, 2, and 4 WAP, economic weight, dry weight 2 and 4 WAP, and leaf color. *Rockwool* gave the best yields on the plant height 1 WAP, leaf area 1 WAP, dry weight 1 and 4 WAP, and leaf color.

Keyword: basil, *Ocimum basilicum*, hydroponic, nutrient, planting media.