

**APPLICATION OF VARIOUS CONCENTRATIONS OF AB-MIX
NUTRITION AND PLANTING MEDIA ON GROWTH AND THE
YIELD OF ROMAINE Lettuce (*Lactuca sativa* L.) WITH
NUTRIENT FILM TECHNIQUE HYDROPONIC
SYSTEMS (NFT)**

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ABSTRACT

Industrial development is advancing at a rapid pace, shifting a lot of agricultural land. The impact is that agricultural land is getting narrower but the need for agricultural products is increasing. One alternative is plant cultivation using a hydroponic system. The study aimed to determine the concentration of AB-Mix nutrients and the best planting media for the growth and yield of romaine lettuce hydroponic NFT system and their interaction. The method used was a field experiment using a split plot design. The main plot is the concentration of AB-Mix nutrient, namely: 800, 1200, 1600 ppm and the subplots were planting media namely: Rockwool, hydroton, sponge. Data were analyzed using Analysis of Variance and then further tested using Duncan Multiple Range Test at the 5% level. There is an interaction between nutrient concentration treatment and planting media on the growth and yield of romaine lettuce hydroponically NFT on the parameters of plant height (3 weeks, 4 weeks, and 5 weeks) and the number of leaves 4 weeks. The treatment of 1600 ppm AB-Mix nutrient concentration gives good results in the parameters of plant height, number of leaves, leaf growth rate, fresh weight, root volume, and economic weight. Rockwool planting media gave good results in the parameters of plant height, number of leaves, fresh weight, root volume, and economic weight, but the use of sponge planting media gave good results in the growth rate of leaves 3-4 weeks after planting.

Keywords: *Romaine lettuce, AB-Mix nutrient, Growing media, NFT Hydroponics Systems.*