

**GROWTH RESPONSE OF PEPERMINT PLANT (*Mentha piperita* L.) TO
THE ORIGIN OF CUTTING MATERIAL AND MEDIA TYPE OF PLANT
BY HYDROPONIC FLOATING SYSTEMS**

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ABSTRACT

The need for mint plants is very large, but it has not been fulfilled due to limited land and planting material caused by plants that are difficult to fertilize so it is difficult to do generative propagation in producing mint plants. One way that can be done is with a hydroponic system and cuttings. The study aims to determine the origin of cuttings and planting media that are suitable for the growth of mint plants. The research was conducted at Maju Makmur Hydroponics, Yogyakarta Special Region. The method used was a field experiment using a Split Plot Design. The main plot was the origin of the cuttings material (shoots, middle stems and rootstocks) and the sub plot was the type of planting medium (rockwool, hydroton, and brick). The data were analyzed using ANOVA and then further tested using DMRT at the 5% level. There is an interaction between the treatment of cuttings material origin and planting media on the growth of peppermint plants in hydroponic floating rafts on the parameters of the number of shoots 6 weeks after planting, the number of leaves (2, 4 and 6 weeks after planting), leaf wet weight and leaf dry wet weight. The treatment of shoot cuttings gave good growth in the parameters of the number of shoots 2 weeks after planting and root volume. The treatment of center stem cuttings gave good growth in the parameter of the number of shoots 2 weeks after planting. The treatment of rockwool planting media gives good growth in the parameters of percentage of life, time to appear buds, number of buds (2 and 4 weeks after planting), root length and root volume. The treatment of brick planting media gives good growth in the parameters of the number of shoots 2 weeks after planting and root length.

Keywords: mint plants, hydroponics, cuttings material, planting media