

Practical class experience report: Use of phytohormone in mint germination

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ABSTRACT

Mint is an aromatic herb that is widely exploited and used in many regions due to its extensive demand in the plant-based food, beverage, cosmetics, and hygiene products industry. Consumed *in natura* or in essence form, it is used to relieve digestive problems, headaches, nausea and cold symptoms. Oilseed phytohormones are essential compounds (hormones) that regulate plant growth and development. The objective of this experiment was to evaluate the germination rate of peppermint seeds by applying phytohydrium produced from White Beans. 400 mL of distilled water with 100 g of white beans was placed in a blender, allowing it to blend for about 5 minutes. Afterwards, the mixture was filtered in a strainer and separated the mass from the liquid, then the liquid was filtered again using paper to better separate the liquid from the substrate. From there, the treatments were separated into T1 - 3 mL, T2 - 6 mL and T3 - 9 mL of the liquid per substrate bag, where Carolina Soil® substrate with stones at the bottom was placed in the bag. After waiting 10 minutes, mint was sown, with 3 seeds per bag, for later thinning. These bags were taken to the nursery for evaluation after 15 days of sowing, and the experiment was carried out in triplicate and then Tukey's test was applied at 5% probability. It was observed that treatment 3 (9 mL) showed a better response when applied to the soil, thus increasing the speed of mint germination in relation to the other two treatments (3 mL and 6 mL), this can be reinforced, as it understands that the minimum use of fertilizer and hormone in the soil is the maximum production.

Keywords: Mint, Phytohormones, Germination, Sustainability.

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