

Practical class experience report: Use of soybean phytohormone in herb germination – Basil

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ABSTRACT

Basil is a medicinal herb cultivated since ancient times, in addition to having medicinal, antibacterial, antioxidant, antispasmodic properties and is good for the digestive system, insect bites and bad breath in addition to having great utility in the food industry. Oilseed phytohormones are essential compounds (hormones) that regulate plant growth and development. Among the main phytohormones are auxins, gibberellins, cytokinins, abscisic acid, and ethylene, each of which play specific roles. Therefore, the objective of this work was to evaluate the germination of Basil using different dosages of soybean phytohormones. 400 mL of distilled water with 100 g of soybeans was placed in a blender, leaving it to beat 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, basil was sown, with 3 seeds per bag, for later thinning. These bags were taken to the nursery for evaluation in 15 days, the experiment was applied in triplicate and then Tukey's test was applied at 5% probability. It was observed that treatment 1 (3 mL) showed a better response when applied to the soil to increase the speed of basil germination in relation to the other two treatments (6 mL and 9 mL), this can be reinforced, as it understands that the minimum use of fertilizer and hormone in the soil is the maximum production.

Keywords: Basil, Phytohormones, Germination, Sustainability.

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