EFFECT OF GROWING MEDIA AND FOLIAR APPLICATIONS ON GROWTH, YIELD, AND SHELF LIFE OF MUSTARD (*Brassica nigra* L.) MICROGREENS

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Microgreens are vegetable greens harvested just after 12-14 days of seed sowing. They have gained increasing popularity in recent years as a nutrition supplement, a flavor, and a texture enhancer. Although mustard microgreens are one of the popular microgreens, the scientific evidence is less on the effect of media and foliar sprays on their growth, yield, and sensorial characteristics. Therefore, nine treatments of three growing media (coir dust, tissue papers, coir dust 1: compost 1) and foliar sprays (water, 0.01% Albert's solution and 0.01% Ca $(NO_3)_2$) were tested in a completely randomized design. Microgreens were assessed for growth, yield, shelf life, and sensory properties. The highest germination percentage (78%) was recorded in coir dust medium + Albert's solution spray, while the lowest (40.3%) was recorded in tissue papers + foliar spray of water. Shoot fresh weight ($4.21 g 100^{-1}$ shoots) and shoot dry weight ($0.73 g 100^{-1}$ shoots) were significantly higher in mustard microgreens cultivated with coir dust medium + Albert's solution spray treatment than the other treatments. The highest shoot height (7.3cm) was recorded in coir dust medium + Albert's solution spray. Keeping quality of refrigerator stored samples was significantly greater than the room temperature stored samples. The highest weight loss percentage (83.86%) was recorded from tissue papers + foliar spray of water treatment, stored under room temperature conditions, and the lowest weight loss percentage (31.96%) was recorded from coir dust + Albert's solution spray treatment, stored under refrigerated (5^0C) conditions. The highest values for sensory properties tested for taste, odor, color, and overall acceptability were recorded in coir dust + Albert's solution spray. In conclusion, cultivation of mustard microgreens in a coir dust medium with Albert's solution spray and keeping harvested microgreens under refrigerated conditions (5^0C) are found to be the best practices for the mustard microgreens.

Keywords: Albert's solution spray, Coir dust medium, Keeping quality, Refrigerated conditions, Sensory properties