

Research Article

## ***Aloe Vera* Gel Coating of *Brassica juncea* and *Lactuca sativa* Microgreens to Reduce Microbial Rotting and Extend Postharvest Shelf Life**

**Anusree Sobhanan<sup>1</sup>, Rekha Meena<sup>1\*</sup>, Bharat Raj Meena<sup>2</sup>, GP Mishra<sup>3</sup>**

<sup>1</sup>Department of Agriculture and Environmental Sciences, National Institute of Food Technology Entrepreneurship and Management, Kundli, Sonapat, Haryana, 131 028 India; <sup>2</sup>Division of Plant Quarantine, ICAR-National Bureau of Plant Genetic Resources, New Delhi 110 012, India; <sup>3</sup>Division of Seed Science and Technology, ICAR- Indian Agricultural Research Institute, New Delhi 110 012, India; \*Email: rekha.kr110@gmail.com

### **Abstract**

Microgreens are high valued crops. The demand for microgreens is growing due to higher nutritional value and health benefits. However, its expansion at an industrial level is restricted owing to its short shelf life. In the present research study, *Aloevera* gel (AVG) coating was evaluated to analyse the effect on shelf life of mustard (*Brassica juncea*) and lettuce (*Lactuca sativa*) microgreens. Postharvest treatments of AVG coating (25, 35 and 45%) were applied to both microgreens, packed in polyethylene terephthalate clamshell (PET-CS) containers with control (non-treated) samples and stored (5C, 85-90% RH) for 12 d. The 25 and 35 per cent AVG coated microgreens exhibited reduced microbial spoilage, weight loss. The 25 and 35per cent AVG coating concentrations also preserved visual quality with higher chlorophyll, total phenol and protein. Moreover, lower PAL and PPO was observed in 25 and 35per cent AVG coated microgreens. Hence, 25 and 35per cent AVG coating can be a safer option for reducing microbial spoilage and for prolonging the shelf-life of microgreens.

**Key words:** Microgreens, microbial spoilage, postharvest quality, shelf life

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