

Ack No.VII/364 Effect of Pulsing on Postharvest Longevity of Cut Leaves of Sprengeri Fern

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Loss of appealing quality characteristics and rapid desiccation within a short period after detaching from mother plants is one of the major problems in cut foliages like *Asparagus densiflorus* 'Sprengeri'. Therefore, this study was conducted to develop possibilities of extending vase life of *Asparagus densiflorus* 'Sprengeri' through pulsing. After pulsing treatment, the vase life was evaluated by keeping the foliages in conical flasks containing 300 ml distilled water. Cut foliages pulsed for 24 hours with 25 mg/l Benzyl adenine + 200 mg/l 8-Hydroxyquinoline citrate + 10% sucrose resulted in higher fresh weight at senescence, minimum physiological loss in weight of cut foliages and highest uptake of water. Foliages treated with 300 mg/l 8-Hydroxyquinoline citrate supplemented with 10% sucrose for 12 hours registered the minimum transpirational loss of water. Maximum water balance, lowest ratio between water loss and water uptake and maximum longevity was experienced by foliages pulsed for 24 hours in Benzyl adenine @ 25mg/l + 8-Hydroxyquinoline citrate @ 200mg/l + Sucrose@10% and holding them in distilled water. Results suggest that application of 10% sucrose + BA(25 ppm)+ 8-HQC (200 ppm) as a pulse treatment for 24 h can be recommended to prolong the postharvest life (17.00 days) through delayed leaf senescence and thus enhance the marketability of cut leaves of Asparagus *densiflorus* 'Sprengeri'

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Streamlining Post Harvest Management of Nutmeg for Export Markets

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Nutmeg is an important spice crop of Kerala, contributing 97% of total country's production and about 92% of area is covered by Ernakulam and Thrissur districts. KVK Thrissur had conducted explorations involving producers, processors, traders, and exporters with active participation of R&D stakeholders. Personal surveys, Key informant interviews, Focused group discussions and Case studies have been carried out. It was found that 53% of the surveyed farmers used budded planting materials, and 83% followed organic crop management. The harvest season coincides with monsoon rains in Kerala, and 32.5% gave regular pre monsoon prophylactic sprays. While harvesting, 82.5% respondents of survey collected split and fallen nuts from soil, with much possibilities of contamination, only 23.25 used driers for processing, and the rest depended on sun drying. The traders informed about occasional bulk deterioration due to fungal infections and exporters—reported cases of produce rejection at overseas destinations due to Aflatoxin contamination beyond permissible levels. KVK Thrissur organized a state level participatory workshop in June, 2014, deliberated and decided to form a Producers' Company. The strategy of intervention launched is to provide a series of trainings to the producers on scientific crop management, hygienic harvest and post harvest handling, proper drying to keep the moisture not exceeding 10% and protecting the Aflatoxin levels below the EU prescription of 10 ppb, and arranged organized procurement and marketing.