

EFFECT OF FOLIAR SPRAYS ON GROWTH, YIELD AND POSTHARVEST QUALITY OF RADISH (*Raphanus sativus* L.)

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An investigation was carried out to evaluate the effect of organic foliar sprays on the growth, yield, and sensory properties of radish. Panchagavya (4%), vermicompost tea (10%), effective microorganism (EM) (0.1%), and Maxicrop liquid seaweed (1%) were foliar sprayed at 10, 20, and 30 days after sowing of radish. Foliar spraying of water was the control. The treatments were arranged in a Randomized Complete Block Design with three replicates. The shelf life of the harvested crop was assessed at room temperature and refrigerated conditions (5°C). Sensory properties were analyzed for taste, colour, texture, and overall appearance using an untrained panel of 30 members. The results revealed that the tuber length, tuber diameter, and plot yield were not significantly different among treatments. However, the spraying of vermicompost tea recorded the longest tuber, the highest plot yield, and the highest tuber diameter. Plant height, plant diameter, and tuber fresh weight were significantly increased by the vermicompost tea application. Leaf weight was significantly increased with both vermicompost tea and panchagavya. The lowest damage by flea beetle was recorded in the control and Maxicrop-treated plots. No damage was recorded by leaf-eating caterpillar in panchagavya-applied plots. The lowest weight loss under room temperature and refrigerated conditions was caused by Maxicrop and EM, respectively. Sensory evaluation revealed that the Maxicrop- and EM-treated crop produced a high-quality radish. Therefore, it can be concluded that the application of vermicompost tea can be used to enhance growth and yield while Maxicrop and EM help to improve the sensory properties of radish cultivated in the mid-country wet zone (WM_{3b}) of Sri Lanka.

Keywords: Organic foliar sprays, Sensory properties, Shelf life, Vermicompost tea