

Title Studies on brassinosteroid mediated response on post harvest vase life in ornamental sunflower (*Helianthus annuus*), cvs. Amit and Orit

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Abstract

An experiment was conducted to see the brassinosteroid mediated response on post harvest vase life of ornamental sunflower (*Helianthus annuus*) cultivars, Amit and Orit. The experiment was conducted in the years, 2006 and 2007, on the crop sown in the October, week number two and day 5, employing a plant density of 42 plants m⁻² and fertigated under drip. The plants with emerging buds were foliar sprayed with 0,2,4,6,8 and 10 ppm of brassinosteroid solution in distilled water. The cut flower stems were harvested with 80 cm length in morning hours, pulsed with 4 % sucrose for 30 minutes before they were kept in distilled water at room temperature (24.5 degrees). It was noted that the cut flower stems harvested from the plants sprayed with 4 ppm brassinosteroid exhibited the longest life (13.8 and 13.2 days) in vase in the cultivars, Amit and Orit, respectively. However the flower stems harvested from the plants treated with 8 and 10 ppm could show lowest vase life in Amit (7.2 and 7.0 days, respectively) and Orit (7.6 and 7.4 days, respectively), followed by control in Amit (7.5 day) and Omit (7.9 day). Weight loss determined for the cut flowers stems did not differed significantly among them for the treatment containing brassinosteroid @ 4,6, 8 and 10 ppm (8.2, 9.5,11.3 and 11.6 g for Amit and 8.7,9.9,11.9 and 12.0 g in Orit, respectively) and remained at par with control (9.7 and 9.9 g in Amit and Orit, respectively). However the minimum (4.2 and 4.7g in Amit and Orit, respectively) weight loss was recorded in the cut flower stems from the plants sprayed with brassinosteroid @ 2 ppm.