

Abstract:

An investigation was carried out to study the effect of sucrose in combination with metal salts on the postharvest life of pulsed (20% sucrose for 24 hours) gladiolus spikes cv. White Prosperity. Combination of sucrose (Su) and metal salts increased the vase life of cut gladiolus spikes from 8.5 days in control to 13.0 days in sucrose (5%) + 8-hydroxyquinoline citrate (8-HQC) 600 mg/L, 12.5 days in sucrose (5%) + aluminium sulphate (AS) 300 mg/L, 11.1 days in sucrose (5%) + cobalt chloride (CC) 300 mg/L and 11.0 days in sucrose (5%) + silver nitrate (SN) 200 mg/L combinations. Number of florets fully opened was observed maximum (8.4) in spikes treated with 8-hydroxyquinoline citrate in combination with sucrose followed by aluminium sulphate (8.1), cobalt chloride (8.0), silver nitrate (8.0) in combination with sucrose and minimum in control (7.6). Floret diameter was highest (7.8 cm) in sucrose 5% +8-HQC 600 mg/L and lowest (7.2 cm) in control, recording 7.6 cm, 7.5 cm and 7.5 cm in Su 5% + AS 300 mg/L, Su 5% + CC 300 mg/L and Su 5% + SN 200 mg/L, respectively. Water uptake was noticed maximum (72.5 ml) in spikes treated with 8-HQC in combination with sucrose followed by $\text{Al}_2(\text{SO}_4)_3$ + sucrose (53.3 ml), AgNO_3 + sucrose (50.0 ml), CoCl_2 + sucrose (49.2 ml) and minimum in control (40.0 ml).