

Title Postharvest application of auxins to control calyx senescence in Clementine submitted to degreening treatment

Author Salvador A, Navarro P, Monterde A and Martinez-Jávega JM

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Abstract

The effect of the postharvest application of different synthetic auxins on the incidence of calyx senescence induced by the degreening treatment in early season Clementine cultivars was studied. Prior to degreening (2 ppm of ethylene, 21°C, 95% RH, 144h), fruit were dipped with different doses of 2,4-dichlorophenoxyacetic acid (2,4-D), buthyglycol ester of 2,4-dichlorophenoxy propionic acid (2,4-DP), 3,5,6-trichloro-2-pyridyloxyacetic acid (3,5,6-TPA). ‘Oronules’ and ‘Clemenules’ cv showed more susceptibility to calyx senescence than ‘Clemenpons’. All the tested auxins reduced calyx senescence, nevertheless, this reduction was higher for 2,4-D and 3,5,6-TPA. For 3,5,6-TPA treatments, in general, the higher the doses, the lower percentage of affected fruit with calyx alterations symptoms. In all studied cultivars, the delay in color evolution observed when using auxin treatment had no negative effect from a commercial point of view, since after degreening, all treatments reached color index commercially acceptable. No sensory alteration was observed in any treatment.