Effects of ethylene biosynthesis inhibitors on the senescence of *Tropaeolum majus* flowers

T.P. Silva, L.S. Oliveira, A.P.S. Ferreira, F.L. Finger

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Abstract

In this work the effects of 2-aminoethoxyvinylglycine (AVG), aminooxyacetic acid (AOA) and acetylsalicylic acid (ASA) on the postharvest senescence of nasturtium flower were investigated. Flowers were harvested when petals were freshly opened. Afterwards, individual flowers were dipped for a minute in 0.5, 1.0, 1.5 and 2.0 mM AVG or AOA, and in 5, 10, 15 and 20 µM ASA solutions; controls were dipped in distilled water. Flowers were afterwards kept with their bases in distilled water, at 22°C, and under 10 µmol m^{-2} s^{-1} white fluorescent light. AVG induced a higher loss of fresh matter as compared to control flowers. Regardless the concentration of AOA, lower rate of fresh matter loss was observed, while ASA had no effect on the fresh mass loss. Except for the 2 mM AOA treatment, which resulted in a slight improvement of petal longevity, AVG and ASA did not exhibit any effect on rate of flower senescence.