

Title Postharvest handling of stock (*Matthiola incana*).
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Abstract

The respiration of flowers of stock [*Matthiola incana* (L.) R. Br.] had a Q₁₀ of 6.9 between 0 and 10 deg C. Simulated transport for 5 days resulted in marked reduction in the vase life of flowers transported at 10 deg C and above. Flower opening, water uptake, and vase life of the flowers increased somewhat in a vase solution containing 50 ppm NaOCl, and considerably in a commercial preservative containing glucose and a bactericide. Exposure to exogenous ethylene resulted in rapid desiccation and abscission of the petals, effects that were prevented by pretreatment with 1-methylcyclopropene (1-MCP). Even in the absence of exogenous ethylene, the life of the flowers was significantly increased by inhibiting ethylene action using pretreatment with silver thiosulfate (STS) or 1-MCP. STS was more effective than 1-MCP in maintaining flower quality.