Title Evaluation of postproduction performance of Salvia Splendens potted plants for interiors use

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Abstract

In recent years, herbaceous flowering potted plants have widely been used to be planted in garden area but these species might be also used as interior plants. Post production performance of flowering potted plants under interior conditions has become a research area of great interest. The aim of this work was to evaluate whether Salvia splendens may have a potential use as short-term colour source in interior environments. S. splendens cv. Flamex 2000 were grown in greenhouse until to reach the commercial stage, then they were transferred to a room with interior environment conditions (14 hours photoperiod, 15-25°C night/day, light intensity 10 µmol m⁻² s⁻¹). Moreover, plants were treated with water (Control) or solutions containing 1 mM 1aminocyclopropane-1-carboxylic acid (ACC), 1 mM amino-oxyacetic acid (AOA) or 500 µM Benzyladenine (BA). During the experiment period ornamental quality parameters such as flower longevity, inflorescence length, number of abscised flowers and ethylene production were determined. Salvia plants under interior conditions showed reduced their longevity to half compared to those plants kept in the greenhouse. Results showed that ornamental quality was acceptable for more than two weeks. This period is long enough for classifying salvia as interior plants. The main symptoms of flower senescence were the incomplete flower opening on the spikes and the following abscission of flowers, which cause a reduction of the ornamental value of the plants. Anyway, our results suggest that salvia potted plants might be used in interior environments and open new market opportunities for this ornamental species.