

Title Effect of meta-topolin on leaf senescence and rooting in *Pelargonium × hortorum* cuttings
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Abstract

Pelargonium (*Pelargonium x hortorum*) is grown as potted or bedding plants for their colourful, showy flowers and scented foliage. Absence of senescence symptoms in the leaves of *Pelargonium* cuttings, their capacity to initiate roots and continued growth of initiated roots is an important quality attribute. The effects of postharvest treatments with meta-topolin (mT) and thidiazuron (TDZ) to ‘Katinka’ *Pelargonium* cuttings were investigated. Leaves treated with mT or TDZ for 5 d had higher leaf chlorophyll contents than untreated controls. Exposing cuttings to mT had no effect on the rooting proportion (%) and average root diameter. Similarly, 0.05 mM mT had no effect on number of roots per cutting. However, mT slightly reduced root length, root surface area and total volume of the roots. TDZ severely inhibited adventitious root formation, thus it reduced all the root parameters investigated. In conclusion, mT is very active in retarding leaf senescence, and combined with the observed ease of rooting of cuttings after mT treatment, this treatment is a suitable alternative to TDZ in delaying the onset of leaf yellowing in ornamental crops.