

CHEMICAL REGULATION OF SENESCENCE IN ORNAMENTALS

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ABSTRACT

The life of ornamentals - cut flowers and potted foliage and flowering plants – usually ends with leaf yellowing, petal wilting and/or abscission of leaves petals, and flowers. A range of plant growth regulators have been developed to prevent or at least delay these symptoms during marketing and display. Premature senescence resulting from exposure to exogenous or endogenous ethylene can effectively be controlled with inhibitors of ethylene action, including silver ion and 1-methylcyclopropene. These inhibitors may also delay petal and leaf abscission, although manipulation of auxin gradients can also be effective. The anti-senescence effects of gibberellins and cytokinins are also employed commercially for preventing premature leaf yellowing. Thidiazuron, a non-metabolized cytokinin, is very effective in extending the life of some potted plants.

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