PETAL COLOR FADING AND WILTING, SYMPTOMS OF PETAL SENESCENCE IS DIFFERENTLY REGULATED IN CUT TWEEDIA CAERULEA FLOWERS

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Cut flowers of Tweedia caerulea were treated with STS (0.4mM; 4h) or sucrose (5%) and were exposed with 0 or 1 or 10µl/L ethylene concentration. Days to petals color fading, days to wilting, petal color, anthocyanin, ethylene and sugars were measured. Sucrose significantly delayed petal fading whereas petal wilting was significantly delayed by STS. Although sucrose slightly affected anthocyanin, hue angle was maintained at initial level by this treatment. Sucrose significantly increased glucose, fructose and sucrose and suppressed ethylene production. When Cut flowers was exposed to 1 or 10µl/L ethylene, STS significantly delayed petal wilting but slightly delayed petal fading whereas sucrose was in effective. Petal fading was associated with decreased sugar concentrations whereas petal wilting was associated with ethylene action. Thus petal fading and petal wilting are differently regulated.