Title Post-harvest alterations in polyamines and ethylene in two diverse rose species

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Abstract

Changes in the concentrations of endogenous polyamines and ethylene were determined in two diverse species of rose viz. *Rosa damascena* and *Rosa bourboniana* during post-harvest periods. At full bloom, the concentrations of free putrescine was significantly higher than rest of the polyamines, i.e. spermine and spermidine in both the species. The concentrations of all the polyamines decreased during subsequent periods upto 48 h after full bloom. Similar situation was also observed in conjugated fraction but in bound fraction, during full bloom, the concentration of spermine was higher than rest of the polyamines. In both the species, ethylene showed higher levels during full bloom with maximum in *R. damascena*, which increased, during post-harvest periods. The possible significance of polyamines, ethylene and their interactions is discussed during post-harvest periods in flowers.