

Title Studies on the possible involvement of Polyamines in the shelf life of grapes (*Vitis vinifera* L.)
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Abstract

Three experiments were conducted to elucidate the involvement of polyamines in the shelf life of grapes. Thompson Seedless had significantly longer shelf life followed by Kishmish Rozavis and Anab-e-Shahi. Putrescine was the major polyamine in grapes followed by spermidine and spermine. There was a general decline in the intensity of polyamine, and particularly spermine declined to undetectable levels during the storage in the varieties or treatments with shorter shelf life. Storage of Anab-e-Shahi grapes at 4°C extended the presence of spermine and resulted in increased shelf life. Undetectable levels of spermine spell the end of shelf life in grapes. Regarding various physico-chemical parameters, Thompson Seedless and Sonaka recorded significantly lowest PLW, berry shatter and highest TSS and acidity.