

# Effect of exogenous putrescine treatment on internal browning and colour retention of pear fruit

Veerpartap Singh, S. K. Jawandha and P. P. S. Gill

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## Abstract

The putrescine (PUT) efficacy in preserving the postharvest quality, regulating the bioactive compounds and internal browning (IB) was examined during ambient storage of pear fruit. To reduce the internal browning and preserve the colour of pear fruit during ambient storage, preharvest PUT @ 1 mM, 2 mM and 3 mM application was given 14 days before harvest and fruit were stored at ambient conditions ( $31 \pm 2$  °C,  $78 \pm 5\%$  RH) for 15 days. PUT at 2 mM & 3 mM delayed the IB and reduced the polyphenoloxidase enzymatic activity compared with the control fruit. PUT also maintained total phenolics content and enhanced the peroxidase enzymatic activity. These treatments preserved chlorophyll content and suppressed the carotenoids synthesis led to delay in colour changes as compared with control. Results suggest that 2 mM & 3 mM PUT reduced IB incidence and PPO activity and maintained the pear fruit colour during ambient storage.