Title Impact of 1-methycyclopropene (1-MCP) on storage life and quality of peach cv Shan-i-Punjab

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Abstract

Peach cultivar Shan-i- Punjab is an important and economical fruit of Punjab, gaining popularity among farmers, traders and consumers for its pleasant flavour and attractive appearance. It is harvested in the month of April and May when temperature is very high which interferes with its marketing, shelf life and leads to glut in the market. Hence, there is need to suggest suitable measures to enhance its marketing period so that postharvest losses can be avoided and quality fruits are made available to consumers in domestic and distant markets. Peach cv. Shan-i-Punjab was harvested at colour break stage. The fruits were sorted and healthy, uniform sized and blemish free fruits treated with 1-MCP (500 ppb and 1000 ppb) gaseous vapours in enclosed chamber for 24 hours at 20ºC. Thereafter, the fruits were packed in corrugated fiber board boxes of 2 Kg capacity and stored at 0-1ºCand 90-95% RH. The control fruits were also kept under same conditions without any treatment. The observations for various physiological and biochemical constituents were recorded at weekly intervals till 4 weeks. The data revealed that fruits treated with 1-MCP (1000 ppb) resulted in minimum weight loss, retained acceptable texture and maintained desirable organoleptic quality till four weeks of storage with post-storage shelf life of 4 days at 20ºc and 2 days at ambient temperature (28-30ºC). On the other hand, the control fruits maintained acceptable quality only up to two weeks with post-storage shelf life of 2 days at 20ºC. The study indicated a potential role of I-MCP in manipulating the storage life and quality of peach fruits.