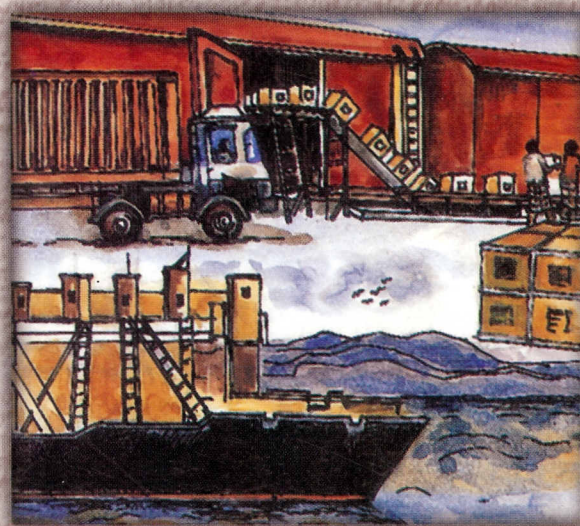
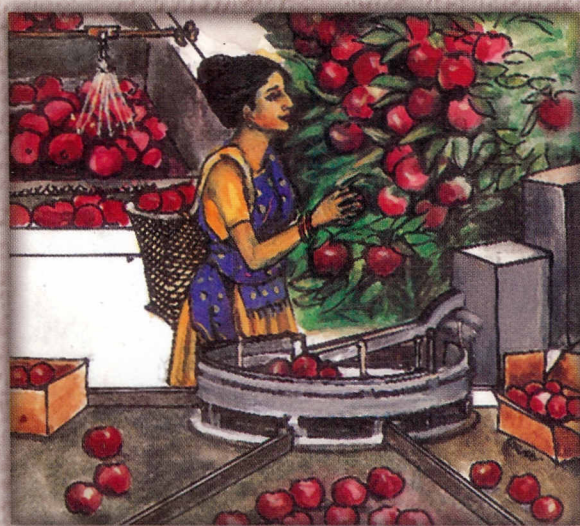




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# Postharvest Management in Agriculture

## SAARC Bibliographical Database



**SAARC Agricultural Information Centre**

# **Postharvest Management in Agriculture** **SAARC Bibliographical Database**

*A S Chandel and R M Kamal*



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**SAARC Agricultural Information Centre (SAIC)**

SAARC Agricultural Information Centre (SAIC)  
BARC Complex, Farmgate, Dhaka 1215, Bangladesh

**Published : 1995**

**Cover design : Mafruha Begum**

**Price :** US\$ 5.00 for SAARC countries  
US\$ 8.00 for other countries

Chandel, A S and Kamal, R M

Postharvest Management in Agriculture: SAARC bibliographical database.

Dhaka: SAARC Agricultural Information Centre, 1995.

ii, 231, xxxv p.

1. Postharvest technology, bibliography. 2. SAARC Agricultural Information Centre. i. Jt. Author.  
ii. Title.

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**Published by :** Director, SAARC Agricultural Information Centre (SAIC)

**Printed at :** Panir Printers, 9 Nilkhet, Dhaka 1205

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of pear cv. Patharnakh. *Haryana Journal of Horticultural Sciences*, 17: 1-2, 63-64; 4 ref.

Mature fruits harvested on 3 Aug. and treated with Aureofungin at 100, 200 or 300 p.p.m. or Bavistin [carbendazim] at 500, 1000 or 1500 p.p.m. were packed in perforated polyethylene bags and stored at 0 to 3°C for 75 days. Data are tabulated on fruit physiological weight loss, decay [pathogen unspecified], TSS, acidity and total sugar content. Decay was least (4.59%) in fruits treated with Bavistin at 1000 p.p.m.

**674 SHARMA, RL.** 1990. **Efficacy of pre-harvest fungicidal sprays in controlling post-harvest diseases of China pear.** *Plant Disease Research*, 5: 1, 109-111; 6 ref.

Pre-harvest sprays with carbendazim (1000 p.p.m.) gave the best control of decay in China pear [*Pyrus pyrifolia*] caused by *Botrytis cinerea*, *Monilinia laxa*, *Penicillium expansum* and *Phacidiopycnis pyre*. The next most effective treatment, thiabendazole, is not available in India.

**675 SHARMA, SUSHIL; AGARWALA, RK; SHARMA, S.** 1987. **A note on post-harvest biochemical changes in pear fruits due to *Glomerella cingulata*.** *Haryana Journal of Horticultural Sciences*, 16: 3-4, 227-228; 6 ref.

Total soluble solids, titratable acidity, total sugars, reducing sugars, total phenols and ortho-dihydric phenols declined faster in fruits inoculated with 7-d-old cultures of *G. cingulata* than in uninoculated controls.

**676 SHARMA, SUSHIL.** 1986. **Ammonia and sulphur dioxide fumigation of pear fruits in the control of bitter rot of pear caused by *Glomerella cingulata*.** *Indian Journal of Mycology and Plant Pathology*, 16: 1, 73-74; 5 ref.

All the test fumigants were effective in checking the decay; the best results were achieved with SO<sub>2</sub> fumigation using sodium metabisulphite followed by ammonia-producing chemicals.

**677 SHARMA, SUSHIL; AGARWALA, RK; SHARMA, S.** 1990. **Post-harvest biochemical changes in pear fruits due to *Glomerella cingulata*.** *Haryana Journal of Horticultural Sciences*, 19: 1-2, 137-138; 6 ref.

A gradual decline in total soluble solids and titratable acidity occurred with increase in incubation period in both inoculated and uninoculated fruits, but the rate was more pronounced in diseased than in healthy tissues.

The loss of total reducing and nonreducing sugars was greater in inoculated than in healthy fruits. The reduction of ortho-dihydric phenols was greater than total phenols in both inoculated and control fruits.

**678 TEWARI, DK; BIHARI LAL; ARYA, ARUN; AGARWAL, RASHMI.** 1987. **A new storage-rot of nakh caused by *Cytospora ambiens* and its chemical control.** *Indian Phytopathology*, 40: 2, 254-256; 3 ref.

A previously unreported rot of pear fruits was observed in Nov. 1981 during a survey of fruit markets of Faizabad. The causal organism was isolated and identified, and pathogenicity confirmed experimentally. The rot was controlled by Bavistin and benomyl at 1500 p.p.m.

## APRICOTS

### Drying and storage

**679 SHARMA, RC; KAUL, KL; JINDAL, KK.** 1990. **Studies on post-harvest diseases of apricot and chemical control of whiskers rot.** *Indian Phytopathology*, 43: 3, 385-388; 13 ref.

Of 7 postharvest apricot diseases recorded (caused by *Rhizopus stolonifer*, *Penicillium expansum*, *Aspergillus niger*, *Alternaria alternata*, *Trichothecium roseum*, *Aspergillus flavus* and *Cladosporium herbarum*) causing heavy losses during storage and marketing in Solan and Rajgarh, Himachal Pradesh, India, whiskers rot (*R. stolonifer*) was the most prevalent and severe. Storage of apricots at 5°C reduced losses due to fungal pathogens. At this temp. only *P. expansum* could infect the fruit. Six fungicides (benomyl, carbendazim, dicloran, diphenylamine, sodium o-phenylphenate and thiabendazole) were applied as post-inoculation dip treatments to control *R. stolonifer*. Only dicloran provided complete control.

**680 SHARMA, RL; KAUL, JL.** 1989. **Effect of post-harvest fungicidal treatments on brown rot of apricot.** *Pl. Disease Research*, 4: 1, 54-58; 7 ref.

In tests of 4 systemic and 3 non-systemic fungicides on cv. New Castle fruits inoculated with *Monilinia laxa* and *M. fructigena*, the best control (89.5%-100%) was given by carbendazim at 750 p.p.m. Non-systemics were less effective than systemics. The fungicides were more effective as protectants than as curative treatments.

**681 SHARMA, TR; SEKHON, KS; SAINI, SPS.** 1993. **Colour changes during drying of apricot.**

*Journal of Food Science and Technology - Mysore*, 30: 4, 306-308.

Effect of pretreatments viz, heat application, chemical dipping and sulphur fumigation, during drying of apricots to prevent discolouration was investigated. Maximum yield was recorded in control followed by steam-blanching fruits. Lye-peeled apricots retained lower moisture than steam-blanching fruits. Maximum and minimum brownings were observed in untreated samples and the fruits subjected to sulphur fumigation, respectively. Non-enzymatic browning showed statistically significant differences among varieties and treatments. 'Chuli' - a wild variety had the maximum browning, while 'Sufraida' the least. Among various pretreatments, sulphur fumigation and lye-peeling were more effective than the rest, while 'Kaisha' variety was rated as the best.

**682** SUD, G; BHUTANI, VP. 1989. **Effect of nutrients and growth-regulators on the nutrient status of 'New Castle' apricot (*Prunus armeniaca*) fruits under cold storage.** *Indian Journal of Agricultural Sciences*, 59: 6, 410-412; 7 ref.

In 2-year studies with the cv. Newcastle, 18 treatments involving H<sub>3</sub>BO<sub>3</sub>, CaCl<sub>2</sub>, KNO<sub>3</sub>, GA, MH and succinic acid 2,2-dimethyl hydrazide, in different combinations, were applied to the trees at the pit-hardening stage of fruit development. Changes in the nutrient composition of the fruits were assessed after 30 days of storage at 0°C. Data are tabulated on fruit N, P, K, Ca and Mg contents in fresh and stored fruits. N was highest in fruits previously treated with CaCl<sub>2</sub> at 0.5% and lowest in the control. The P content did not change appreciably with treatments or storage time. K increased during storage, especially in those fruits treated with 0.5% CaCl<sub>2</sub> + GA (50 p.p.m.). Ca and Mg also increased during storage but different treatments had no appreciable effect.

## PEACHES

### Storage and storage decay

**683** BADYAL, K; SUMBALI, G. 1990. **Post harvest pathology of peach fruit from Jammu.** *Indian Jrl. of Mycology and Plant Pathology*, 20: 1, 79.

Rotted peaches from the local fruit market yielded isolates of *Botryodiplodia theobromae* and *Rhizopus oryzae*, both newly recorded in India.

**684** JOSHI, VK; BHUTANI, VP. 1994. **Peaches.** *Handbook of World Fruits; Cultivation, Storage and*

*Processing*/edited by DK Salunkhe; SS Kadam. USA: Marcel Deckers,

**685** KUMAR, J; SHARMA, RK; MISHRA, BP. 1987. **Effect of ethylene absorbent on shelf life of peach (*Prunus persica*) cv. Flordasun.** *Research and Dev. Reporter*, 4: 2, 218-222; 9 ref.

Fruits harvested at 2 maturity stages (half ripe and fully ripe) and packed in wooden boxes with paper lining pretreated with 500, 1000 or 2000 p.p.m. KMnO<sub>4</sub> (an ethylene absorbent) were stored at room temperature. All KMnO<sub>4</sub> concentrations were effective in reducing physiological weight loss and decay. TSS, acidity and ascorbic acid increased with increasing storage time (2-6 days).

**686** MANGAT, GURDEEP SINGH. 1989. **Effect of calcium on post-harvest life of Flordasun peach (M.Sc: thesis).** Punjab Agricultural University, Ludhiana. 79 p.

Calcium nitrate @ 0.5, 1.0, 1.5, 2.0 and 2.5 percent was applied 4,3 and 2 weeks before harvesting of *Flordasun peach*. Second and third sprays were superimposed on the trees sprayed previously. Physico-chemical changes were recorded at harvesting time and after 14, 28 and 42 days of cold storage. The pre-harvest calcium nitrate sprays had no marked effect on fruit colour, and fruit and stone characters at harvesting. Organoleptic rating, total soluble solids and total sugars were higher, whereas acidity was lower in untreated fruits. Calcium content of the fruits got increased significantly with the increase in concentrations and spray intensities of calcium nitrate. All the calcium nitrate treatments decreased the physiological loss in weight, spoilage and acidity, but increased the total soluble solids and total sugars during 42 days in cold storage. Among the various concentrations, 2% was the best which maintained the highest organoleptic rating, total soluble solids and total sugars. In case of spray intensities, two sprays were adjudged the best as they maintained the highest organoleptic rating and total sugars, whereas total soluble solids and acidity were at par with three sprays. Physiological loss in weight and spoilage were minimum in fruits which received three sprays.

**687** SHARMA, RK; KUMAR, J; RAN SINGH; MISHRA, BP. 1988. **Shelf life of peach as affected by different packing and cushioning materials.** *Research and Development Reporter*, 5: 1-2, 71-75; 5 ref.

Fully ripe fruits of cv. Flordasun were stored at room temperature in wooden or cardboard boxes with shred-