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Postharvest Management in Agriculture

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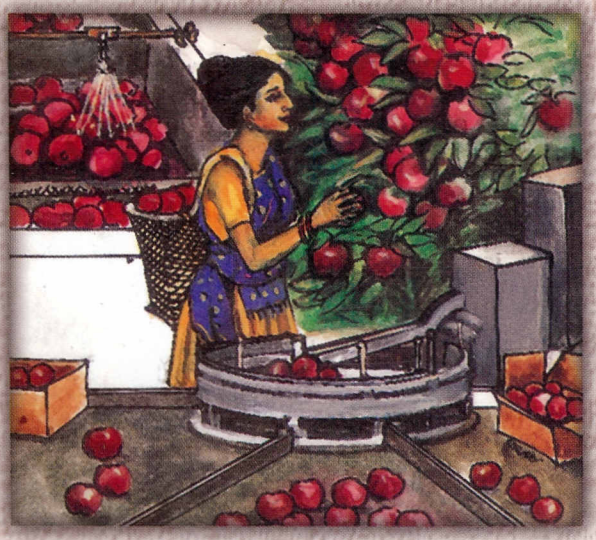

SAARC Agricultural Information Centre

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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.

Published by : Director, SAARC Agricultural Information Centre (SAIC)
Printed at : Panir Printers, 9 Nilkhet, Dhaka 1205

CONTENTS

months on nutrient agar sealed with mineral oil and kept in a refrigerator. The bacteria survived 24 months in sterilized soil and 4 months in unsterilized soil.

860 RAOOF, MA; OM PRAKASH. 1986. **Effectiveness of pre-harvest field sprays of various chemicals against post-harvest diseases of mango**. *Ind. Jrl. of Plant Path.*, 4: 2, 189-190.

The most effective treatments included Bancop, thiabendazole, Agrimycin and Aureofungin while Bavistin [carbendazim] was ineffective.

861 SRIVASTAVA, VP. 1984. **Efficacy of some fungicides and hot water treatment in control of post harvest decay of mango fruits (1982)**. *Pesticides*, 18: 1, 63-64; 4 ref.

Decay of Dashehari mangoes was reduced by postharvest dip in 0.1% Bavistin or 0.2% captan for 2 or by hot water treatment (50°C) for 5 min.

Packaging

862 ADSULE, PG; ROY, SK. 1974. **Tin pick-up in mango of different varieties**. *Indian Food Packer*, 28: 6, 51-52.

863 JOSHI, GD; ROY, SK. 1984. **Standardisation of packaging of fresh mango fruits for transportation and storage**. *National conference on packaging of fresh and processed foods*. (Calcutta: 1984: 2-3 March). India: Association of Food Scientists and Technologists.

864 ROY, SK; PAL RK. 1991. **Multilocational studies to reduce postharvest losses during harvesting, handling, packaging, transportation and marketing of mango in India**. *Acta Hort.*, 291: 499-507.

Processing

865 ADSULE, PG; ROY, SK. 1978. **Physico-chemical studies of some important commercial varieties of mango of north India with reference to processing**. *1st Indian Convention of Food Scientists and Technologists*. Mosore: AFST, CFTRI.

866 PAL, RK; ROY, SK. 1988. **Studies on biochemical changes in mango as affected by combined effect of precooling and chemicals**. *2nd International Food Convention*. 1988: 18-23 Feb. Mysore:

867 ROY, SK. 1973. **A simple rapid method for estimation of total carotenoid pigments in mango**. *J. Fd. Sci. Technol.*, 10: 1, 45.

868 SINGH, RV; TEWARI, JD; CHAUHAN, BBS. 1993. **Effect of combinations of nitrogen, phosphorus and potassium fertilizers on the quality of fresh and canned mangoes**. *Journal of Food Science and Technology (India)*, 30: 6, 468-470.

NUTS

869 BADYAL, K. 1991. **Post harvest fungal diseases of almond from Jammu**. *Andhra Agricultural Journal (India)*, 38: 2-3, 282-283.

870 BATTCOCK, M. 1990. **A future for solar drying?**. *Appropriate Technology*, 17: 2, 21-24; 12 ref.

Methods and problems of solar drying in developing countries are summarized. Structures for solar drying eliminate some of the problems of product quality, dust contamination, damage from sudden rainstorms, animals or birds, etc. Such structures include the Brace drier for fruit and vegetable drying, chimney driers for rice, tent drier for fish and forced convection drier for red peppers. Reasons cited for the unpopularity of solar driers are lack of capital for construction, loss of valuable ground area while they are operating, extra labour required for loading and unloading, heavy trays that cannot be lifted by women. Further arguments against solar drier use are that higher quality products do not necessarily mean higher prices, and that crop losses are often exaggerated by certain agencies. Although solar driers are successful for cashew nuts in Honduras anddesiccated coconut in Bangladesh, there is little future for driers for high vol., low value crops; only large driers processing 1 t/d are likely to be useful.

871 BOPAIAH, BM. 1984. **Microbial spoilage of cashew apples and its prevention**. *Indian Cashew Journal*, 16: 2, 15, 17; 3 ref.

Five yeast spp. were identified as primary invaders of *Anacardium occidentale* fruits through injuries at harvest and at least 4 fungal spp. as secondary invaders. Microbial spoilage can be checked by careful harvesting, washing the fruits after harvest, dipping them in low concn antibiotics (griseofulvin or cycloheximide) and extracting the juice soon after harvesting.

872 JYOTI SAXENA; MEHROTRA, BS. 1987. **Mould infestation of walnut flowers and fruits in field and storage**. *National Academy Science Letters, India*, 10: 11, 375-377.

The fungi associated with walnut (*Juglans regia*) flowers

in the field and walnuts in storage in a Nainital survey are tabulated. The most common storage fungi were *Aspergillus* and *Penicillium spp*, *Trichoderma glaucum* and *Cladosporium oxysporum*.

873 KUMAR, GK; ARAVINDAKSHAN, M. 1985. **Studies on some qualitative aspects of cashew apple**. *Indian Cashew Jrl.*, 17: 1, 19-21; 7 ef.

Ten cultivars were assessed for fruit colour, shape, weight, length, diameter, percentage juice recovery, TSS, acidity, reducing sugars and ascorbic acid content. The data are tabulated. Cultivars noted for high TSS (14.13%) were Sawantwadi and BLA-256-1, for high reducing sugar (14.16%) K-27-1, and for ascorbic acid BLA-1 (328.19 mg/100 g) and M-6-1 (321.81 mg/100 g). Acidity in the range 0.39-0.42% is considered highly desirable for processing; cultivars within this range were K-27-1, BLA-139-1, BLA-1 and Sawantwadi.

874 MIR, NA; BHAT, AR; SOFI, AA. 1989. **Harvest management in walnuts by use of ethephon (2-chloroethyl phosphonic acid)**. *Indian Journal of Plant Physiology*, 32: 2, 133-138; 7 ref.

Ethephon at 500, 1000, 1500 or 2000 p.p.m. was used as a pre-harvest spray on young, bearing walnut trees or as a dip for harvested walnuts to test its possible usefulness in inducing earlier hull dehiscence. At the highest rate, spraying with ethephon reduced hull dehiscence time from 28 to 17 d compared with a reduction from 13 to 6 d for the dipping treatment.

875 RAIKAR, NA; MURTHY, HGS. 1991. **Processing of cashewnuts in Karnataka**. *Agricultural Situation in India*, 46: 3, 127-131; 3 ref., 5 tab.

Cashew nut production and processing is mainly carried out in Karnataka, Kerala and Tamil Nadu as the southern states of India are climatically suited to the crop. This paper evaluates the economic aspects of processing cashews in Karnataka where the activity first originated. The different stages of processing are described, with details of the changes in technology adopted over the years. Investment required for the process is assessed and the costs of producing cashew nuts and cashew kernels are estimated. Data for the study pertain to Uttar Kannada and Dakshina Kannada districts in the year 1988/89.

876 RAO, TSS; REDDY, TH; JAYARAMAN, KS. 1993. **Studies on the development of cashewnut *burfi***. *Journal of Food Science and Technology - Mysore*, 30: 6, 462-464.

Method of preparation, preservation and packing of cashewnut *burfi* has been described. Formulation for preparation and preservation of cashewnut *burfi* was standardised with incorporated preservatives like butylated hydroxy anisole and sorbic acid. The *burfi* had ashen-life of 3 months at 37° degrees C and 6 months at ambient temperature, with added preservatives and when packed in polypropylene and paper-aluminium-foil-polyethylene laminate pouches.

877 SUMBALI, GEETA. 1989. **Post harvest fungal disease of *Prunus amygdalus* from Jammu**. *National Academy Science Letters*, 12: 1, 5; 2 ref.

Storage rot of almonds caused by *Trichothecium roseum* is reported from India for the first time.

878 THOMPSON, MM; BRENNER, D. 1990. **Northern Pakistan explored for temperate fruit and nut germplasm**. *Diversity*, 6: 2, 12-13; 3 ref.

An exploration trip involving US and Pakistani scientists during May-December 1988 to the mountainous regions of northern Pakistan collected 285 seed accessions, 274 scion accessions and 313 herbarium specimens. These included seeds and/or scions of 63 fruit and nut species, notably in the genera *Prunus* (12 species), Rubus (6), *Cotoneaster* (5) and Ziziphus (4), as well as seeds of 31 other species, including some with ornamental potential. Variation was greatest in walnut (*Juglans regia*), apricot and grape. Particularly noted were *Vitis jacquemontii*, which is tolerant of diseases in humid conditions, and a clone called Shorghori of *Pyrus pyrifolia* which exhibited outstanding storage ability.

COCONUTS

879 ASIAN AND PACIFIC COCONUT COMMUNITY AND THE SRI LANKAN COCONUT DEVELOPMENT AUTHORITY, SRI LANKA. 1990. **Proceedings of a workshop on coconut shell carbonization waste heat recovery, Colombo, Sri Lanka, 20-22 September 1989**. 69 p.

The workshop was sponsored by the Asian and Pacific Coconut Community and the Sri Lankan Coconut Development Authority. The technology discussed was developed initially in the UK by the NRI and transferred to Sri Lanka. The workshop aimed to publicize the technology for other coconut producing countries and to seek views on the suitability of the techniques for use in other countries. Technical papers are presented for the development and field testing of the NRI coconut shell carbonization and waste heat recovery unit, transfer of this technology to the commercial sector in Sri Lanka, operation and maintenance instructions for the unit and