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Postharvest Management in Agriculture

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1131 SINGH, J; DHANKAR, BS. 1991. Effect of nitrogen, potash and zinc on storage loss of onion bulbs. *Vegetable Science*, 18: 1, 16-23.

1132 SINGH, J; DHANKAR, BS. 1994. Effect of preharvest chemical treatment on storage loss of onion. *Advances in Hort. and For.*, Vol. 4/ edited by KL Chadha. New Delhi: Malhotra Pub.

1133 SINHA, P; SHARMA, RP; ROY, MK. 1994. Management of storage rot in onion through gamma-irradiation and chemicals. *Journal of Food Sc. and Tech. - Mysore*, 31: 4, 341-343.

Pre-harvest sprays of bavistin (50% carbendazim) at 100, 200 and 400 g a.i./ha were ineffective in the control of *Aspergillus niger* van Tieghem in onion. The combination of gamma irradiation (0.1 kGy) with bavistin dust (0.33g a.i./kg bulbs) was effective to an extent of about 79% in reducing storage losses due to sprouting and rottage. This combination treatment was better than dust treatment alone and highly cost effective. Bavistin, when used as pre-harvest spray, did not leave any residue in the tissues, whereas the compound was seen to move deep into the tissues, when used as post-harvest dust treatment. Higher concentrations of carbendazim residues (2.1-3.4 mg/kg bulb) were detected in the outer scales of the bulbs, as compared to that of inner scales (0.6-1.6 mg/kg), and the residue decreased slightly with passage of storage time.

CAULIFLOWERS

1134 DASGUPTA, S; DASGUPTA, J; MANDAL, RK. 1993. Cloning and sequencing of 5' flanking sequence from the gene encoding 2S storage protein, from two *Brassica* species. *Gene (Netherlands)*, 133: 2, 301-302.

1135 GOYAL, M; MATHEW, S. 1990. Physico-chemical characteristics of cauliflower dried under different drying conditions. *Indian Journal of Nutrition and Dietetics*, 27: 2, 39-46.

Cauliflower is available only during the winter season in most of India but can be made available throughout the year by drying. The effect of 3 methods of drying (open sun drying, shade drying, and by means of a solar drier), with or without blanching, on the quality of the dried product was investigated. All dried samples were analysed for proximate composition, ascorbic acid, water soluble sugar, tryptophan, iron, phosphorus, sodium, potassium and calcium. Results showed that blanching followed by solar drying produced the shortest

drying time, best organoleptic properties and the lowest nutrient losses.

1136 ROY, SK; KHURDIYA, DS. 1983. Standardizing the pretreatment for solar drying of cabbage. *Third Indian Convention of Food Scientists and Technologists*. Mysore: CFTRI.

1137 SINGH, KK; SHUKLA, BD. 1990. Drying, packaging and storage of cauliflower. *Proceedings of the International Agricultural Engineering Conference and Exhibition*. (Bangkok, Thailand : 1990: 3-6 December)/edited by VM Salokhe and SG Ilangantilebe. Bangkok: Asian Institute of Technology, p. 581-589; 4 ref.

A batch type mechanical dehydrator for cauliflower was developed and the results of trials are reported. Three types of packaging material, polypropylene (100 gauge), low density polyethylene (300 gauge) and a mixed component material, were used for the dehydrated cauliflower and m.c. at different temp. and RH during an 8 month storage period were measured. Results are discussed. The economics of small scale dehydration in rural areas of India and of employment generation are considered.

1138 VIJAY, S; ANAND, JC. 1984. Effect of mustard and its components on the fermentation of cauliflower. *Indian Food Pack.*, 34: 4, 41-46.

TOMATOES

Storage

1139 BALASUBRAMANIAN, T; SADASIVAM, S. 1983. Effect of temperature on biochemical components during storage of tomato fruits. *South Indian Horticulture*, 31: 2/3, 89-94; 14 ref.

Storage life at 27°C (70% of fruits still sound) was seven days for CO1 and 13 days for Marutham, an induced mutant of CO1. Storage life was extended by two weeks in CO1 and one week in Marutham by exposing the fruits to 33°C for four days prior to storage at 27°C. The lower pectinesterase activity of Marutham may have contributed to its longer storage life.

1140 DOIJODE, SD; RATURI, GB. 1990. Effect of hydration-dehydration on storability of tomato and radish seeds. *Indian Journal of Plant Physiology*, 33: 2, 172-174.