

Handbook of Postharvest Technology

Cereals, Fruits, Vegetables,
Tea, and Spices

about the book . . .

From processing, handling, drying, and milling to storage, packaging, and distribution, this reference presents the latest methods in the manufacture and supply of grains, fruits, vegetables, and spices—detailing the physiology, structure, composition, and characteristics of grains and crops, as well as recent cooling and preservation techniques to maintain quality and decrease spoilage and withering of agricultural products.

The *Handbook of Postharvest Technology* outlines useful programs to design the best handling, aeration, and storage equipment...sustain optimal atmospheric composition, temperature, and humidity in storage facilities...select the most appropriate packaging and preservation procedures for extending shelf-life...reduce the occurrence of pests, insects, mold, disease, and deterioration during food storage...prevent temperature variations, water loss, bruising, and contamination during fruit and vegetable transportation...and grade, classify, and evaluate fruits and vegetables...and discusses the conversion of biomass resources into food, feed, chemicals, energy, and other value-added products...the components and function of harvesting and drying machines and systems...and volatile monitoring for early disease detection.

about the editors . . .

AMALENDU CHAKRAVERTY is Professor of Agricultural and Food Engineering, Indian Institute of Technology, Kharagpur, India. Dr. Chakraverty received the B.Sc. (Hons) degree (1962) from Burdwan University, India, the B.Chem.Eng. degree (1966) from Jadavapur University, Calcutta, India, and the Ph.D. degree (1973) from the Indian Institute of Technology, Kharagpur, India.

ARUN S. MUJUMDAR is Professor of Mechanical Engineering, National University of Singapore, Singapore, and Adjunct Professor of Chemical and Agricultural & Bioresource Engineering, McGill University, Sainte-Anne-de-Bellevue, Quebec, Canada. Dr. Mujumdar received the B.Chem.Eng. degree (with distinction) (1965) from the University of Bombay, India, and the M.Eng. (1968) and Ph.D. (1971) degrees from McGill University, Sainte-Anne-de-Bellevue, Quebec, Canada.

G. S. VIJAYA RAGHAVAN is the James McGill Professor and Chair of the Department of Agricultural and Biosystems Engineering, McGill University, Sainte-Anne-de-Bellevue, Quebec, Canada. Dr. Raghavan received the B.Eng. degree (1967) from Bangalore University, Karnataka, India, the M.Sc. degree (1970) from the University of Guelph, Ontario, Canada, and the Ph.D. degree (1973) from Colorado State University, Fort Collins.

HOSAHALLI S. RAMASWAMY is a Professor in the Department of Food Science and Agricultural Chemistry, McGill University, Sainte-Anne-de-Bellevue, Quebec, Canada. Dr. Ramaswamy received the B.Sc. degree (1970) from Bangalore University, Karnataka, India, the M.Sc. degree (1972) from the Central Food Technological Research Institute, Mysore, India, and the M.Sc. (1980) and Ph.D. (1983) degrees from the University of British Columbia, Vancouver, Canada.

Printed in the United States of America



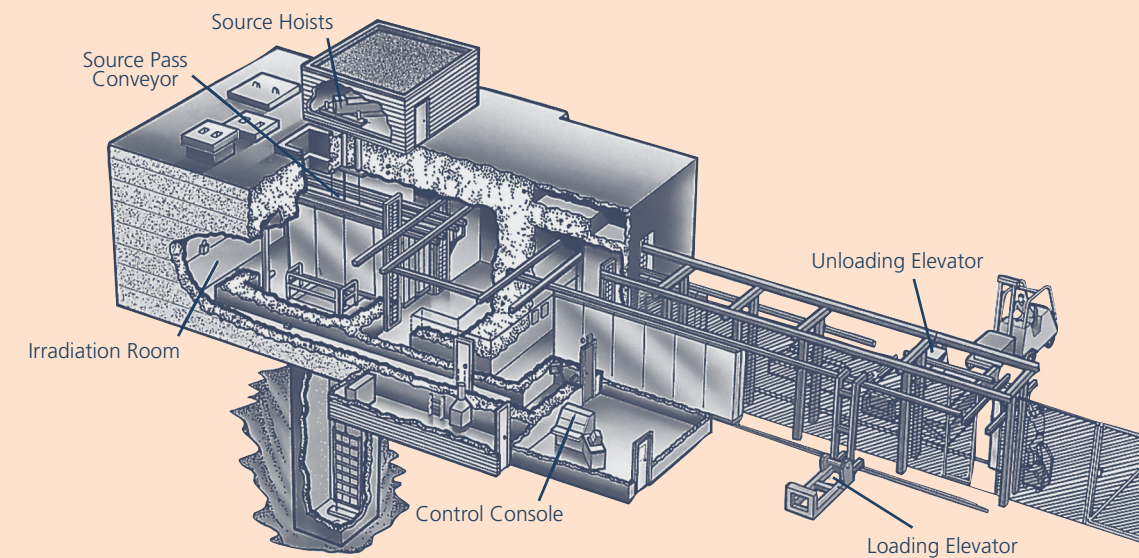
Handbook of Postharvest Technology

Chakraverty
Mujumdar
Raghavan
Ramaswamy



Handbook of Postharvest Technology

Cereals, Fruits, Vegetables,
Tea, and Spices



edited by
Amalendu Chakraverty
Arun S. Mujumdar
G. S. Vijaya Raghavan
Hosahalli S. Ramaswamy