

COURSE GOALS:

To provide an opportunity for an intensive study of current technological procedures used for postharvest handling of fruits, nuts, vegetables, and ornamentals in California.

TEXTS USED:

Kader, A. A. (editor). 1992. Postharvest technology of horticultural crops. Univ. of Calif., Div. of Agric. and Nat. Resources, Special Publ. 3311, 296 p.

ENTRY LEVEL:

Open to all graduate and upper-division undergraduate students interested in postharvest technology. Prior completion of Plant Biology 172 or equivalent is recommended.

COURSE FORMAT:

One week of intensive lectures and discussions followed by a week-long field trip to visit selected packinghouses, cooling and storage facilities, distribution centers, etc., in California. P/NP grading only. ***To be given during the two weeks immediately following spring quarter.**

TOPICAL OUTLINE:

1. An overview of postharvest biology of horticultural crops
2. Harvesting systems; maturity and maturity indices
3. Preparation for market: packinghouse facilities and equipment, packaging, containers, unitization, etc.
4. Cooling prior to shipment: methods, evaluation of efficiency
5. Storage: methods, facilities, equipment, management of environmental conditions including controlled atmospheres
6. Ethylene: treatments, exclusion and removal
7. Transport: systems, loading patterns, environmental control, use of modified atmospheres
8. Sanitation and other procedures related to decay and insect control
9. Standardization and inspection, quality evaluation and control
10. Energy use in postharvest technology procedures
11. Marketing of fresh horticultural crops
12. Harvesting and postharvest handling systems for various commodity groups

INSTRUCTORS:

1. Elizabeth J. Mitcham, Department of Pomology (Coordinator)
2. Mary Lu Arpaia, Department of Botany and Plant Science, UCR
3. Marita Cantwell, Department of Vegetable Crops
4. Roberta Cook, Department of Agricultural and Resource Economics
5. Carlos Crisosto, Department of Pomology
6. Adel A. Kader, Department of Pomology
7. Michael S. Reid, Department of Environmental Horticulture
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9. James F. Thompson, Department of Biological and Agricultural Engineering

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