

## PLANT SCIENCE DEPARTMENT

### FACULTY

Harry P. Karle, *Department Chairman*

Sayed A. Badr ■ Wayne E. Biehler ■ James R. Brownell ■ O. J. Burger ■ Allan A. Hewitt ■ Gary M. Koch ■ Arthur J. Olney ■ Vincent E. Petrucci ■ David J. Redgrave ■ Gary L. Ritenour ■ Marinus Van Elswyk, Jr. ■ Julian W. Whaley

The Department of Plant Science offers programs of study in the plant sciences, including all aspects of agriculture and applied biology related to the fields of agronomy, horticulture, ornamental horticulture, and viticulture. These include management and production factors as related to environment (soil, water and atmospheric effects, air pollution), cultural modifications and adaptations, protection against pests and diseases, storage and handling practices, utilization, marketing, and mechanization. Careers in modern scientific agriculture include positions in management, sales and service, research, teaching, and government agencies.

The courses offered in the disciplinary areas listed below provide the necessary background to prepare students for career objectives.

*Plant Science (Plant)* provides study in subject areas designed to complement the production disciplines in preparing students for work opportunities in soils, irrigation, propagation, breeding, and related areas.

*Plant Protection (Plant)* provides a broad selection of courses for training in physical and biological sciences, plant diseases, insects, weeds, agricultural inspection of food crops, and laws regulating food production. They are designed to prepare students for careers in agricultural chemical industries and private or governmental agencies dealing in crop care and crop protection. In addition, these courses provide a foundation for advanced study in preparation for careers as college teachers, extension specialists, and research scientists in experiment stations and industry.

*Agronomy (Plant)*, including field crops and soil science, prepares students for specific crop production and general farming involving combinations of crops and livestock. They may also prepare students to qualify for employment opportunities in service and sales in seeds, pesticides, and fertilizers; agronomic research; gin management; farm management; and field work or research for county, state, and federal government agencies.

*Horticulture (Plant)* prepares students for general fruit farming, as managers of orchards, as inspectors in fruit processing plants, for supervisory positions in fruit packing plants, and for careers with county, state, and federal agencies.

*Ornamental Horticulture (Plant)* prepares students for the nursery industry, landscaping and grounds work, floral industry, and a variety of sales positions. The subject matter serves to enhance participation in farm and home landscape gardening and floral design as an avocation.

*Vegetable Crops (Plant)* prepares students for specialized farming in vegetable crops, processing and marketing, and regulatory inspection. The growth of the industry in the San Joaquin Valley offers a wide variety of employment opportunities. A vegetable garden is maintained with both fall and spring crops grown for student observation. Land is also available for vegetable projects.

*Viticulture (Plant)* is one of two instructional programs of its kind in the United States that prepare students for employment as viticulturists in such capacities as vineyard farmers, managers, and developers and positions in related fields of research, inspection, teaching, and packinghouse management for both fresh and dried grapes.

In addition, a selected variety of plant science courses will provide the necessary background for the following career objectives:

*Natural Resources.* Provides education in physical and biological sciences as they apply to the management of the renewable natural resources (soils, water, forests) designed for the student interested in an understanding of those parts of the environment managed by man or preparation for employment in soil conservation service, land use planning, waste disposal management, or graduate study.

*Postharvest Physiology.* Provides an education to prepare students for research work in the area of handling fresh fruits and vegetables for domestic as well as foreign markets.