



### **Major Vegetable Crops**

The course provides the essential knowledge on the commercial production of major vegetables in open fields and/or greenhouses. Growth physiology is examined in relation to plant structure and function, environment, and cultural practices, with emphasis on control of water, carbon dioxide assimilation, radiant energy, temperature, and photoperiod. Students are guided to carry out a scientific review of all factors influencing production systems. Farm and business management topics are analyzed comparing organic and conventional growth systems with focus on sustainability and development of students' skills on designing cropping systems and decision-making on cultural practices relevant to environmental parameters and production orientation. Other topics include crop plant origin and cultivation history, seed germination and vegetative development, flowering, development of fruit and other edible plant parts, ripening and commercial quality, plant disorders, harvesting and postharvest handling, marketing, and economic considerations. The course also provides laboratory training and hands-on experience on cropping in greenhouses or open fields. Students conduct field and laboratory experiments and operate high tech laboratory equipment for plant feature measurements and tissue analysis. An all-day visit to a competent vegetable production enterprise in our region completes the course.