

## **ABCs of Plant Pathology (in Spanish)**

Escondido (10/14), Ventura (10/15), and Watsonville (10/21)

7:30 am – 3:00 pm

Presenters: Maria de la Fuente and Don Merhaut

We will be conducting three plant pathology workshops in Spanish to present growers with information about the different types of pathogens that affect ornamental and floriculture crops. The overall goal is to teach growers about the production of crops with minimal incidence of pathogen infections and minimal use of pesticides. This goal will be met by educating growers about proper selection of pathogen-resistant or tolerant plant material, proper cultural practices, and control of pathogen-carrying vectors, and proper use and of pesticides. The six-hour workshops will be divided into eight sections:

- 1) Introduction to plant pathogens** – This section will introduce the audience to the disease triangle and the mechanisms that are required for a disease to occur.
- 2) Plants as hosts and how they are affected by pathogens** – This section will discuss plants, including how different species and cultivars of species are more susceptible to diseases than other species or cultivars of the same species. We will also discuss what makes a host susceptible to diseases and the different stages of plant development, and the susceptibility of those stages to diseases.
- 3) Disease organisms and their life cycles** – This section will cover bacteria, viruses, fungi, nematodes, and phytoplasmas. We will discuss the life cycles of the different types of pathogens. We will also discuss ways to control different stages of the pathogen life cycle and how different stages of the pathogen's life cycle affect the host plant.
- 5) Environment** – In this section, we will discuss the environmental influence on a host's susceptibility to pathogens in addition to the reactions of pathogens to environmental cues. We will also cover ways to control environment to minimize disease, in an effort to minimize the use of pesticides.
- 6) Disease diagnosis** – In this section, various methods to diagnose an infection from a pathogen, and the symptoms and signs of pathogen infection will be presented. We will also discuss methods of properly collecting and shipping plant samples for off-site disease diagnosis.
- 7) Disease control** – We will provide information about a proactive approach to control diseases, in an effort to control plant disease without the use of pesticide. We will discuss regulating the environment to optimize plant health and minimize development of the pathogen, proper selection of resistant plant species and cultivars, and infrastructural modifications of the nursery to minimize disease transmission.
- 8) Reducing pesticide runoff** – This portion of the program will cover the proper methods of storing and handling pesticides to prevent contamination in runoff water. Also, we will discuss BMP programs to minimize the likelihood of pesticides entering runoff water. This will include information about proper irrigation techniques and programs to minimize pesticides entering the runoff water.