Santa Cruz County Farm Bureau Ask Laura Newsletter Column
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Q: What significant new plant disease has been found in California nurseries?

A: First identified in North America at a Monterey County nursery in 2012, *Phytophthora tentaculata* has since been found on nursery stock in Alameda, Butte, Placer, and Santa Cruz Counties and on outplanted stock in restoration sites in Alameda County**.** Affected plants in California include *Mimulus auranticus* (sticky monkey flower), *Frangula californica* (California coffeeberry), *Heteromeles arbutifolia* (toyon), and *Salvia sp.* In 1993, the pathogen was first detected in Germany on *Chrysanthemum sp., Delphinium sp.* and *Verbena sp.*. Since the first detection, the host list has increased to include *Gerbera jamesonii, Origanum vulgare*, *Santolina chamaecyparissus, Lavendula angustifolia*, *Chichorium intybus*, *Auklandia lappa,* and *Calendula arvensis.*

Q: What are the disease symptoms caused by *Phytophthora tentaculata*?

A: *Phytophthora tentaculata* is causing similar symptoms as many other *Phytophthora* species that are soil or water inhabiting. *Mimulus aurantiacus* symptoms include root and stem rot, with the roots and stem collars developing necrotic and sunken lesions with few feeder roots. In Europe and China, the pathogen is reported to cause crown, root, and stalk rot of nursery plants. Subsequently, above-ground symptoms include stunting, leaf russeting and yellowing to browning (chlorosis), defoliation and dieback of twigs, brown to black lesions girdling the basal stem, and eventually plant death.

Q: Why is *Phytophthora tentaculata* of particular concern?

A: These detections raise concern for our forest and wildland health. The infested California nurseries specialize in producing native plants for restoration purposes. This is where a landowner or public agency would use native plants to re-vegetate or enhance a site for erosion control, visual buffers, or other ecological reasons. Unfortunately plants move directly from these infested nurseries to wildlands, so risk of pathogen introduction to forests is very high.

The USDA Forest Service, Pacific Southwest Research Station, and Forest Health Protection, Washington Office; California Department of Food and Agriculture; and Phytosphere Research are cooperating on a survey to check restoration sites to determine the extent of introduced infestations. A few conservation nurseries will also be surveyed.