

**REPORT TO THE CALIFORNIA OAK MORTALITY TASK FORCE AND THE
MARIN OAK MORTALITY TASK FORCE
JANUARY 2001**

SCIENTIFIC UPDATES

CAUSE

Dave Rizzo has completed **Koch's postulates**, the standard procedure to prove a pathogen as the casual agent of a disease. The new *Phytophthora* causes bleeding cankers on the stem of inoculated trees. His data is consistent with field observations that tanoak appears to be more susceptible to this new *Phytophthora* sp. than coast live oak.

Tanoak and coast live oak were inoculated in July on Mt. Tam. After 4 months the mean canker length for tanoak was 45 cm with the **largest** canker being **71 cm** long. Two trees (25 and 44 cm dbh) were girdled. Mean canker length for coast live oak was 28 cm with the **largest** canker being **57 cm**. One tree was girdled. Radial spread of the pathogen was in most cases very similar to the height of the canker.

Variation in tree response indicates there may be some **natural resistance** present in tanoak and coast live oak populations.

POTENTIAL FOR SPREAD

This new *Phytophthora* prefers cool temperatures and moisture. **Matteo Garbellotto** analyzed spread of the pathogen in inoculated saplings in the summer vs. the fall and showed that the growth rate was substantially faster in the fall. This indicates that the pathogen does prefer cooler climates and will be potentially be more dangerous in the cool months.

A preference for cool, moist conditions is reflected in its distribution, currently being isolated to six central coastal counties: Monterey, Santa Cruz, Marin, Napa, Sonoma and now San Mateo. Although the fall/winter provided ideal conditions for recovering the organism, sampling has NOT brought confirmation of the new *Phytophthora* in Humboldt or Mendocino Counties

Jenny Davidson successfully recovered *Phytophthora* from **plant debris** indicating the potential for spread via this material. Rizzo's lab also isolated the fungus from 60 ft up in a tanoak that did not have any visible cankers lower down on the trunk. This indicates the pathogen may be **airborne** or at least has some mechanism for infecting high above the ground. This hypothesis is further supported by the new finding that our species of *Phytophthora* appears to be genetically similar to one causing branch dieback on rhododendrons in Germany and the Netherlands – the European *Phytophthora* is also known to produce aerial cankers.

IDENTIFICATION

The bleeding symptom used to identify sudden oak death, while still the best indicator, often leads to false-positive reports. The bleeding is the host response to wound or infection by any pathogen and is not diagnostic for sudden oak death.

QUARANTINE

OREGON. On January 4, 2001 Oregon Department of Agriculture issued an emergency quarantine for Sudden Oak Death. It is in effect for 90 days and covers primarily unprocessed oak materials (logs, firewood, mulch, acorns) and nursery stock from known infested counties for movement into Oregon. It also includes a buffer so quarantines unprocessed oak materials from Mendocino and Humboldt Counties even though sudden oak death has never been found in those counties. The quarantine may be extended after it expires.

FEDERAL. A preliminary pest risk assessment for the new Phytophthora was completed for the United Nations, North American Forestry Commission, Insect and Disease Working Group. The report found high potential for spread of the new Phytophthora but also rated the level of uncertainty as “very uncertain” due to a lack of some basic scientific information.

CALIFORNIA The California Board of Forestry has instructed staff to look into setting up a Zone of Infestation for sudden oak death.

FUNDING

Four bills for Sudden Oak Death were introduced in the California Assembly and Senate.

- **Chesbro – SB 31** \$10 million (\$5 million to hazard tree removal)
- **Wiggins – AB 53** \$10 million (\$5 million to hazard tree removal)
- **Nation ASR 5 no funding – Identifies support for addressing SOD**
- **Migdon – AB 62** \$5 million.

They are all urgency bills and are being consolidated into 2 identical bills – one for the Assembly and one for the Senate.

MEETINGS

- **The next full California Oak Mortality Task Force meeting is Jan 31 and Feb 1 at the Marin Center in San Rafael.** On Jan 31 we are hosting a workshop on hazard tree programs and Sudden Oak Death. On Feb 1, committees will meet in the morning, followed by a general information session for the full task force in the afternoon. All members are invited and encouraged to attend. Registration forms are available online at <http://cemarin.ucdavis.edu/events.html>