

A REQUEST FOR PROPOSALS
TO CONDUCT RESEARCH ON
SUDDEN OAK DEATH/*PHYTOPHTHORA RAMORUM*
MARCH 2005

Sudden Oak Death (SOD), caused by a newly described pathogen, *Phytophthora ramorum*, continues to spread both locally and regionally in the coastal forests of California and Oregon. In 2004, *P. ramorum* was intercepted in over 20 states after inadvertent shipment on nursery stock. With the current host range spanning over 65 species and detection of infected forest trees in Europe, other forests worldwide are also at risk from this disease. In January 2005, a federal Emergency Order for *P. ramorum* expanded regulations to include all nurseries shipping interstate from California, Oregon, and Washington.

From 2001 through 2004, the USDA Forest Service, Pacific Southwest Research Station, in conjunction with the California Department of Forestry and Fire Protection, funded over \$6 million in research projects on Sudden Oak Death/*Phytophthora ramorum*. Results from this research program have provided much of the fundamental understanding for this new disease. However, additional information is critically needed on the biology, epidemiology, and behavior of *P. ramorum*; development of new treatment strategies; pathogenicity and resistance; and short- and long-range spread.

In addition, there are concerns about the potential for serious ecological, social, and economic impacts. Knowledge gained from studies addressing these yet unanswered concerns will be used to guide development and implementation of regulatory policies, monitoring programs, and management scenarios to expand treatment strategies, as well as minimize landscape and nursery spread.

The Pacific Southwest Research Station, USDA Forest Service is requesting that interested researchers submit proposals for funding within one of the following topics of interest; however, proposals outside of the listed subject areas will also be considered. The order of topics presented does not reflect priority.

BIOLOGY, EPIDEMIOLOGY, AND BEHAVIOR

- Determine susceptibility and inoculum production capabilities of eastern and southern plant species
- Determine longevity of inoculum
- Determine inoculum thresholds necessary for infection
- Determine why oaks in the white oak group appear less susceptible
- Determine origin of pathogen

DISEASE DETECTION AND SPREAD

- Identify pathways of spread, especially into yet uninfested areas
- Identify potential means of long-distance dispersal
- Develop and apply current knowledge of *P. ramorum* to risk models across various scales of time and space (i.e., local, regional, continental and global)
- Evaluate implications of pathogen recovery from water courses

DISEASE MANAGEMENT AND RESOURCE UTILIZATION

- Develop and evaluate various wildland eradication strategies
- Evaluate landscape-scale treatments

DISEASE IMPACTS ON ECOSYSTEM COMPONENTS

- Evaluate and quantify landscape level impacts

ECONOMIC AND SOCIAL IMPACTS

- Evaluate economic/social impacts of control alternatives

NATIVE AMERICAN ISSUES

- Identify human risks associated with the ingestion of infected host plants
- Determine the likelihood of *P. ramorum* spread by cultural use of host plants
- Evaluate potential non-chemical treatments (heat treatment, etc) for treating culturally important host plants

OUTLINE OF PROGRAM

Approximately \$1 million will be available to fund selected projects. Multi-year, collaborative projects are encouraged.

All proposals meeting the program guidelines will be peer reviewed. A selection panel comprised of representatives from the USDA Forest Service Research and Development; and USDA Forest Service, Forest Health Protection, will evaluate the reviewed proposals for relevance to research needs, scientific approach and quality, and probability of timely success. Principal investigators will be notified about funding status on or about June 1, 2005. Anonymous reviewer comments will be furnished on request.

PROPOSAL PROCESS

Principal investigators are encouraged to review a copy of the Pacific Southwest Research Station (PSW), Sudden Oak Death, “A 5-year Research Plan, Addressing the Emerging Threat, December 2002,” available at the PSW website (<http://www.psw.fs.fed.us/SOD>).

Proposals are limited to no more than 3,500 words (which is approximately 6 single-spaced pages). This page limit does not include budget pages and brief CVs of investigators. All proposals must follow the format outlined below:

- I. a. Principal Investigator(s)
 - b. Institution
 - c. Address
 - d. Phone, fax number, and email address
 - e. Name, phone and fax number, and email address of grants contact person
 - f. Identify which topic the proposal addresses
- II. Justification Statement
- III. Background/Problem Statement
- IV. Objective(s)
- V. Methodology and Geographic Location of Research
- VI. Schedule of Events/Reporting
- VII. Budget
 - Salaries
 - PI's
 - Post-doctoral
 - Technicians
 - Benefits (tuition costs are not allowable)
 - Supplies (list all items when costs exceed \$5,000)
 - Equipment (list all items when costs exceed \$5,000; non-expendable equipment costs above \$5,000 are strongly discouraged)

Travel (list dates IF international travel is anticipated)

VIII. Abbreviated CV(s) for investigator(s)

Cooperator cost share may be required (20% Total Project Costs).

For multi-year projects, include a budget for each year of the project so all project costs are displayed.

PROPOSALS MUST ARRIVE AT PSW RESEARCH STATION, IN ALBANY ON OR BEFORE 4:00 PM, APRIL 15, 2005.

PROPOSALS THAT DO NOT FOLLOW THESE GUIDELINES WILL NOT BE CONSIDERED FOR FUNDING.

All proposals must be submitted as Microsoft Word documents. Submit 1 copy via email and 3 hard copies via overnight courier to:

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Sudden Oak Death Research Program
USDA Forest Service
Pacific Southwest Research Station
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West Annex Building
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A confirmation of submission will be sent to the primary author within one week of receipt.

Questions should be addressed to Susan Frankel at 510-559-6472 or via email at: sfrankel@fs.fed.us.