



**SHORT SUBJECTS
AND TIMELY TIPS
FOR PESTICIDE USERS**

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CHEMICAL CONTROL

CALIFORNIA APPROVES TREATMENT FOR SUDDEN OAK DEATH

(Provided by Paul Ries, Region 4, USDA Forest Service, October 26, 2003, Information from SAF)

“A new treatment for trees with Sudden Oak Death has been approved for use by the California Department of Pesticide Regulation (CDPR). Scientists from the University of California say the new phosphate product, which was developed by the Australian company AGRICHEM, reportedly helps infected oaks fight the disease. The CDPR approved two versions of the product – a spray and an injection – for use by professional arborists and foresters. Officially known as *Phytophthora ramorum*, Sudden Oak Death has killed tens of thousands of tan oak, coast live oak, and black oak trees in California and Oregon and has spread to at least 27 other tree and shrub species. However, scientists say most of these species serve as hosts for the pathogen. For further information about the treatment, visit the California Oak Mortality Task Force website at http://nature.berkeley.edu/comtf/html/archived_newsletters.html#October2003.” For more information on the pesticide –

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MOWING IN FALL BEFORE ADDING HERBICIDE MAY HELP CONTROL WEEDS

(Source: Article by David Elstein, USDA Agricultural Research Service, November 25, 2003)

Weed scientist, Michael F. Carpinelli, of the Agricultural Research Service’s Range and Meadow Forage Management Research Unit in Burns, Oregon recently completed a study in which he applied herbicides to Russian knapweed after first mowing to remove the current year’s growth. “By mowing immediately prior to applying herbicide, more of the herbicide goes on the intended target, the soil surface. Rains carry the herbicide into the root zone, where it is taken up by plant roots the following spring to prevent future weeds.” He indicated that expenses associated with the mowing should be offset by the reduction in the amount of chemicals needed to control the weed. For a copy of the article contact Pat Skyler, (916) 454-0817, pskyler@fs.fed.us or access it online at <http://www.ars.usda.gov/is/pr/2003/031125.htm?pf=1>. For additional information about the project –

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REGULATORY

NEW NATIONAL NONPOINT SOURCE GUIDELINES PUBLISHED

(Source: *Cooperative Forestry Newsletter*, USDA Forest Service, Washington, D.C., November 3, 2003)

EPA has published new guidelines for the National Nonpoint Source (NPS) Program implemented under Section 319 of the Clean Water Act. The guidelines completely replace all previous NSP grants guidelines beginning fiscal year 2004. The guidelines focus approximately one-half of section 319 dollars on the remediation of impaired waters through the development of total maximum daily loads (TMDLs), and the development and implementation of watershed-based plans.

These plans provide an analytical framework for assessing the sources of water pollution; estimating the amount of pollutant reduction needed to achieve water quality standards; identifying the management measures whose implementation will enable those reductions to be achieved; and identifying financial and regulatory tools, as appropriate, that will enable the watershed plan's goals to be achieved. The new guidelines are available online at <http://www.epa.gov/owow/nps/>. If you are unable to access the internet and would like a copy of the guidelines –

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UPDATE ON THE PHASEOUT OF METHYL BROMIDE

For the most current information on the phase out of methyl bromide visit EPA's website at <http://www.epa.gov/spdpublic/mbr/>. The 15th Meeting of the Parties to the Montreal Protocol took place in Nairobi, Kenya on November 13, 2003. Decisions were made on several pertinent issues, however, agreement on the following four items will be addressed at an extraordinary Meeting of the Parties in Montreal, Canada, March 24-26, 2004. These items include: Nominations for Critical Use Exemptions (CUEs), Conditions for granting CUEs, Further specific interim reductions of methyl bromide for developing countries, and Consideration of the Methyl Bromide Technical Options Committee's work procedures regarding the future evaluations of CUE nominations.

HUMAN HEALTH

NATIONAL PESTICIDE INFORMATION CENTER BROCHURE AVAILABLE

The National Pesticide Information Center (NPIC), the toll-free pesticide information help line cosponsored by EPA and Oregon State University, recently released its newly designed free brochure for distribution to the general public. The brochure contains important information about NPIC and its valuable, free services. Access it online at <http://ace.orst.edu/info/npic/brochure.pdf> or call EPA at (703) 305-5017. For more than 10 copies, contact NPIC at 1-800-858-7378; Email: npic@ce.orst.edu.

MISCELLANEOUS

HOUSE AND SENATE APPROPRIATORS OK \$225 MILLION TO PREVENT MUDSLIDES, FIGHT BARK BEETLE AND PROVIDE DISASTER RELIEF IN WAKE OF CALIFORNIA FIRES

(Source: Press Release – *News from Senator Dianne Feinstein*, California, November 25, 2003)

“WASHINGTON, DC – A House and Senate conference committee Tuesday approved \$225 million secured by Congressman Jerry Lewis and Sen. Diane Feinstein to prevent mudslides, eliminate a million bark-beetle-killed trees, and provide relief for farmers whose crops were burned in the historic fires that swept Southern California last month.”

“The fire-related provisions approved to be part of the omnibus spending bill include:

- \$150 million for the Emergency Watershed Protection program operated by the Natural Resources Conservation District. The legislation also provides authority for the NRCS to

include removal of trees killed by the drought and bark beetle as part of a watershed protection program.

- \$50 million to expand a program being developed by the Forest Service to remove dead and dying trees from federal lands and from private land surrounding the national forests.
- Language amending the Robert T. Stafford Act to require FEMA to consider hazard mitigation grants for removal of dead and dying trees that pose an extreme danger to public safety.
- \$25 million to the Agriculture Department, including \$12.5 million to replace tree crops and other crops lost to the fires; \$12 million for farmers to avoid soil erosion and other environmental damage; and \$500,000 to help ranchers purchase livestock to replace those destroyed by the fires.”

For a copy of the press release –

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AN UPDATE ON SUDDEN OAK DEATH IN CALIFORNIA

(by: Jeff Mai, Aerial Surveyor, USDA Forest Service, Pacific Southwest Region)

The 2003 aerial survey and subsequent ground visits are the result of a cooperative effort between Cal Poly San Luis Obispo (CPSLO) and the USDA Forest Service to monitor and detect Sudden Oak Death (SOD). This year -

- Approximately 10,000 miles were flown over 13 million acres of potential habitat using fixed-wing aircraft and a digital sketch mapping system.
- 425 acres of hardwood mortality were mapped, totaling approximately 8,200 acres (not necessarily acres of mortality, since some polygons represent only one or two trees).
- Over 100 sites were prioritized for field visits based largely on location within county (generally, at greater distances from currently confirmed).
- Many of the prioritized visits were reflight using a helicopter to get pinpoint GPS locations prior to going into the field.
- One new positive was detected near Plaskett in Monterey County, extending the existing range approximately 15 miles to the south.

Aerial and ground efforts followed the same protocol as last year. The project focused mostly on counties with fewer occurrences of confirmed infection and on uninfested counties bordering infested. The SOD risk map developed by Meentemeyer/Lotz at Sonoma State was used as an aid to further focus the aerial portion of the project. Ground efforts were prioritized toward 1) mortality areas mapped within portions of infested counties at generally greater distances from existing confirmations, and 2) mortality areas mapped within uninfested counties bordering infested.

Additionally, the Sierra Foothills were flown but were not as high a priority for ground checks as the former. The entire survey, along with field results to date, are posted on Oakmapper - <http://kellylab.berkeley.edu/SODmonitoring/OakMapper.htm> - where you can view/print maps of aerial data and see polygon-specific results for field checks (i.e., if site was visited, whether samples were taken, species sampled, lab results, other observations/comments). For additional information

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FIRST INFECTED OAK FOUND IN SUSSEX

(Source: News Release, Department for Environment, Food and Rural Affairs, London, England, November 5, 2003)

A single Southern red oak tree in Sussex, England has been confirmed as being infected by *Phytophthora ramorum*. This is the first confirmed case of this disease affecting an oak tree in the UK. It has been found previously on rhododendron and viburnum and the affected tree was growing in an area where *Phytophthora ramorum* been confirmed causing disease on rhododendrons.

“Roddie Burgess, Head of the Forestry Commission’s Plant Health Service, said: ‘While we are concerned that this disease has now been found on oak, this confirmation is an isolated case and we hope it stays this way.’

Although this may be an isolated case, it is being given very high priority in order to prevent the further spread of the disease.

A copy of the press release is available at <http://www.defra.gov.uk/news/2003/031105b.htm> or contact Pat Skyler (916) 454-0817, pskyler@fs.fed.us. For further information –

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SUMMARY OF A SURVEY OF THE LITERATURE ON THE ECONOMIC IMPACT OF AQUATIC WEEDS

(H.W. Rockwell, Jr., Ph.D, for the Aquatic Ecosystem Restoration Foundation)

(Source: *The Economic Impact of Aquatic Weeds*, August 2003)

“Abstract: Invasive aquatic plants affect aesthetics, drainage for agriculture and forestry, commercial and sport fishing, drinking water quality, fish and wildlife habitat, flood control, habitats for other plants, human and animal health, hydropower generation, irrigation, navigation, recreational boating, swimming, water conservation and transport, and, ultimately, land values. Because most invasive aquatic plants species have been introduced to this country from abroad, they do not have natural control agents or competitors and they tend to dominate the aquatic systems to which they are exposed. The magnitude of only a few of their impacts has been measured and then, generally, over limited areas. A few well-documented studies, however, provide a basis for estimating the general scale of these affects for the nation as a whole, and might serve as a guide for an appropriate magnitude of response.

There are difficulties in estimating the economic impacts of aquatic weeds (or, conversely, the benefits of their control) due to the "public-good" nature of aquatic resources and the resulting fact that few of these impacts or benefits pass through economic markets. In spite of these difficulties, it can be conservatively estimated that the values-at-risk from aquatic invasive plants in the US is in the range of billions of dollars per year.

Significant sums (at least \$100 million) are spent each year in the control of aquatic weeds, however, and the estimated benefits of control are consistently reported to be much higher than these costs. Given the continuing spread of problem species and the difficulty of organizing collective action to control aquatic weeds, it seems likely that too little is being spent on control rather than too much.

Furthermore, much could be done to facilitate the further development and use of aquatic weed control techniques.

Although the costs and environmental effects of aquatic weed control have been intensively studied, new technologies for their control are continually being evaluated and developed. Continued attention seems warranted to develop weed control techniques and strategies that moderate costs, meet competing objectives, and minimize the potential for unintended environmental harm. In addition, an accelerated invasion of exotic animal species suggests a more integrated approach to the management of aquatic ecosystems.”

Available online at <http://aquatics.org/pubs/economics.htm> or -

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**DIAZINON AND CHLORPYRIFOS LOADS IN PRECIPITATION
AND URBAN AND AGRICULTURAL STORM RUNOFF
DURING JANUARY AND FEBRUARY 2001 IN THE
SAN JOAQUIN RIVER BASIN, CALIFORNIA**
(C. Zamora, C.R. Kratzer, M.S. Majewski and D.L. Knifong)

(Source: USGS Water-Resources Investigations Report 03-4091, Sacramento, CA 2003)

“Abstract - The application of diazinon and chlorpyrifos on dormant orchards in 2001 in the San Joaquin River Basin was 24 percent less and 3.2 times more than applications in 2000, respectively. A total of 16 sites were sampled during January and February 2001 storm events: 7 river sites, 8 precipitation sites, and 1 urban storm drain. The seven river sites were sampled weekly during nonstorm periods and more frequently during storm runoff from a total of four storms. The monitoring of storm runoff at a city storm drain in Modesto, California, occurred simultaneously with the collection of precipitation samples from eight sites during a January 2001 storm event. The highest concentrations of diazinon occurred during the storm periods for all 16 sites, and the highest concentrations of chlorpyrifos occurred during weekly nonstorm sampling for the river sites and during the January storm period for the urban storm drain and precipitation sites. A total of 60 samples (41 from river sites, 10 from precipitation sites, and 9 from the storm drain site) had diazinon concentrations greater than 0.08 µg/L, the concentration being considered by the California Department of Fish and Game as its criterion maximum concentration for the protection of aquatic habitats. A total of 18 samples (2 from river sites, 9 from precipitation sites, and 7 from the storm drain site) exceeded the equivalent California Department of Fish and Game guideline of 0.02 µg/L for chlorpyrifos. The total diazinon load in the San Joaquin River near Vernalis during January and February 2001 was 23.8 pounds active ingredient; of this amount, 16.9 pounds active ingredient were transported by four storms, 1.06 pounds active ingredient were transported by nonstorm events, and 5.82 pounds active ingredient were considered to be baseline loads. The total chlorpyrifos load in the San Joaquin River near Vernalis during January and February 2001 was 2.17 pounds active ingredient; of this amount, 0.702 pound active ingredient was transported during the four storms, and 1.47 pounds active ingredient were considered as baseline load. The total January and February diazinon load in the San Joaquin River near Vernalis was 0.27 percent of dormant application; the total January and February chlorpyrifos load was 0.02 percent of dormant application. The precipitation samples collected during the January 2001 storm event were analyzed for pesticides to evaluate their potential contribution to pesticide loads in the study area. When the average concentrations of diazinon and chlorpyrifos in the precipitation samples were compared with concentrations in urban storm runoff samples, 68 percent of the diazinon concentration in the runoff could be accounted for in the precipitation. Chlorpyrifos, however, had average precipitation

concentrations that were 2.5 times higher than what was detected in the runoff. Although no firm conclusions can be made from one storm event, preliminary results indicate that pesticides in precipitation can significantly contribute to pesticide loads in storm runoff.”

The report is available online at <http://water.usgs.gov/pubs/wri/wri034091/> or –

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AQUATIC AND RIPARIAN WEEDS OF THE WEST

(J.M. DiTomaso and E.A. Healy)

Published by the University of California, Agriculture & Natural Resources this 2003 publication “is the first comprehensive identification manual for aquatic and riparian weeds west of the Rocky Mountains.” The guide (Product Code 3421, ISBN 1-879906-59-7) contains over 560 photographs and covers 171 aquatic plant species consisting of 58 plant groups. For further information visit their website at <http://anrcatalog.ucdavis.edu/merchant.ihtml?pid=5572&step=4> or call ANR Communication Services (510) 642-2431.

WEED MODELS

The Center for Invasive Plant Management has available for educational and outreach purposes lifelike weed models of four of the most troublesome western weeds – yellow starthistle, knapweed, leafy spurge, and Dalmation toadflax. They can be viewed at <http://www.weedcenter.org/weedmodels.html>. The models may be ordered through the Montana State University Extension Publications Office, Bozeman, MT (406) 994-3273, Email: orderpubs@montana.edu.

ON THE INTERNET

The *Kid's Journey to Understanding Weeds* is a curriculum created for 3rd grade students. It includes pictures, activities, and educational information that teaches students about the effects of invasive weeds on habitats, productive lands, and healthy waterways. Produced by the Intermountain Agriculture Foundation, the packet can be downloaded in pdf format at <http://www.weedcenter.org/kidsjourney/kids.html>. A video is also available to schools by writing or faxing a request to – A Kid's Journey to Understanding Weeds Project, 2219 Carey Avenue, Cheyenne WY 82002-0100, (307) 777-6585, Fax: (307) 777-6593.

The recently introduced manual, *Urban Tree Risk Management: A Community Guide to Program Development and Implementation*, which was developed by the USDA Forest Service, in cooperation with several agencies, states and commercial arborists is available online at <http://www.na.fs.fed.us/spfo/pubs/uf/utrm/index.htm>. Included in the guide is a system that is used to calculate a relative risk rating for the surveyed tree. Additional Hazard/Risk Tree publications are available online from the USDA Forest Service, St. Paul Field Office at <http://www.na.fs.fed.us/spfo/hazard/pubs.htm> and the Northeast Center for Urban and Community Forestry at <http://www.umass.edu/urbantree/hazard/index.shtml>.

The Center for Urban Forest Research, Pacific Southwest Research Station, USDA Forest Service has recently published its newest tree guide *Northern Mountain and Prairie Tree*

Guide: Benefits, Costs and Strategic Planting. The guide is the fifth in a series of Tree Guides for the Western United States. View it and the other guides online at <http://cufr.ucdavis.edu/guides.asp?Action=search&SearchArea=products&ProductTypes=20>.

West Nile Virus Activity – United States, September 25-October 1, 2003 is a report which summarizes West Nile virus surveillance data reported to the Center for Disease Control through ArboNET. Access the report at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5239a4.htm>.

“Protect Yourself from Bites and Stings” is a publication of The University of Georgia, College of Agriculture & Environmental Sciences, Cooperative Extension Service. It is available online at http://www.ent.uga.edu/publications/protect_against_bites.htm.

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*Note: For information on how to obtain a copy of a publication contact Pat Skyler (916) 454-0817, pskyler@fs.fed.us.

UPCOMING EVENTS

11-15 January 2004. 84th American Meteorological Society Annual Meeting, Seattle, WA. Contact: AMS (617) 227-2425, Email: amsinfo@ametsoc.org or visit their website at

<http://www.ametsoc.org/MEET/84annual/>.

12-14 January 2004. California Weed Science Society Annual Conference, Sacramento, CA. Contact: Pam Geisel (559) 456-7554 or Judy Letterman (831) 442-0883.

20-22 January 2004. 25th Annual Forest Vegetation Management Conference, Redding, CA. Contact: Sherry Cooper (530) 224-4902, Email shcooper@ucdavis.edu.

24-30 January 2004. Society for Range Management 57th Annual Meeting – Rangelands in Transition, Salt Lake City, UT. Contact: (303) 986-3309, Email: amharris@rangelands.org or visit their website at <http://srm2004.byu.edu/>.

9-12 February 2004. Weed Science Society of America Annual Meeting, Kansas City, MO. Contact: Bill Bertges (816) 242-0363, Email: bill.bertges@bayer.com or visit their website at <http://www.wssa.net/2004mtng.pdf>.

21-26 February 2004. American Mosquito Control Association Annual Meeting, Savannah, GA. Contact: Henry Lewandowski (912) 790-2540 or visit their website at <http://www.mosquito.org/annualmeeting.php>.

9-11 March 2004. Western Society of Weed Science Meeting, Colorado Springs, CO. Contact: Wanda Graves (510) 790-1252, Email: Wgraves431@aol.com.

21-24 March 2004. 16th Biennial International Plant Resistance to Insects Workshop/Conference, Baton Rouge, LA. Contact: M. Stout (225) 578-1634, Email: mstout@agctr.lsu.edu or visit their website at <http://www.oznet.ksu.edu/ipri>.

28 March – 1 April 2004. 227th American Chemical Society National Meeting, Anaheim, CA. Contact: Nancy Todd (202) 872-6009, Email: n_todd@acs.org or visit their website at <http://www.chemistry.org/portal/a/c/s/1/acdisplay.html?DOC=meetings\national\index.html>.

27 June – 2 July 2004. 1st World Congress of Agroforestry – Working Together for Sustainable Land-Use Systems, Orlando, FL. Contact: Mandy Padgett Stage, University of Florida/IFAS (352) 392-5930, Email: mrpadgett@ifas.ufl.edu or visit their website at <http://conference.ifas.ufl.edu/WCA/>.

28-30 June 2004. Riparian Ecosystems and Buffers: Multi-scale structure, function, and management, Squaw Creek, Olympic Valley, CA. Contact: Richard Lowrance (229) 386-3894, Email: lorenz@tifon.usda.gov or visit their website at <http://www.awra.org>.

1-4 August 2004. American Society of Agricultural Engineers Annual International Meeting, Ottawa, Ontario, Canada. Contact: ASAE (269) 429-0300 or visit their website at http://www.asae.org/meetings/am2004/present_4/call_papers_4.html.

10-13 August 2004. IUFRO Conference - “Forest Diversity and Resistance to Native and Exotic Pest Insects”, Hanmer Springs, New Zealand. Contact: Eckehard Brockerhoff +64-

3-364 2949, Email: eckehard.brockerhoff@forestresearch.co.nz or visit their website at <http://iufro.boku.ac.at/iufro/iufro-net/d7/wu70307/nz/>.

3-5 October 2004. Fourth Eastern Native Grass Symposium, Lexington, KY. Contact: Thomas Barnes, University of Kentucky, (859) 257-8633, tbarnes@uky.edu or visit their website at http://www.uky.edu/Agriculture/Forestry/grass_symposium.

14-17 November 2004. Entomological Society of America Annual Meeting, Salt Lake City, UT. Contact ESA (301) 731-4535, Email: esa@entsoc.org or visit their website at http://www.entsoc.org/Green/Annual_Meeting/2004/ameeting.htm.

CALL FOR ARTICLES

Please forward to me all articles, meeting announcements, publications, reports, or other items of interest that you would like included in the next issue of Short Subjects & Timely Tips for Pesticide Users. Please include the name, State, and telephone number of the individual who can be contacted for further information:

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The Washington Office, Forest Health Protection, Forest Health Technology Enterprise Team sponsors, compiles, edits, and distributes this informal information letter as a means of providing current information to forestry pesticide users. Previous issues can be viewed online at <http://www.fs.fed.us/foresthealth/pesticide/news.htm>. Comments, questions, and items of input are welcome and may be sent to Pat Skyler, Editor, USDA Forest Service, Remote Sensing Lab, 1920 20th Street, Sacramento, CA 95814, or by E-mail: pskyler@fs.fed.us. Reference to a commercial product or source in this information letter does not constitute endorsement by the USDA Forest Service. Information should be verified by contacting the original source of information as neither the editor nor the USDA Forest Service guarantees the accuracy of the information provided in this information letter. Pesticides can be injurious to humans, domestic animals, desirable plants, and fish or wildlife if they are not handled or applied properly. Use all pesticides in accordance with label precautions.

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