

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

<u>Topic</u>	<u>Page</u>
<b>BIOLOGICAL CONTROL, IPM, AND EXOTIC PESTS PEST CONTROL</b>	
Asian Longhorned Beetles	1-2
Phytoremediation – Using Plants to Clean up Soils	2
<b>PEST CONTROL</b>	
Winning with Herbicides	2-3
<b>HUMAN HEALTH</b>	
Arenavirus Infection Linked to Deaths in California	3
<b>MISCELLANEOUS</b>	
California Department of Pesticide Regulation Offers \$1.4 million to Reduce Pesticide Use, Risks	3-4
USGS Diagnoses Causes of Many U.S. Amphibian Die-Offs	5
California Department of Pesticide Regulation Surface Water Database Goes Online	5
Forest Research in Canada	6
<b>ON THE INTERNET</b>	6-7
<b>PUBLICATIONS</b>	7-9
<b>UPCOMING EVENTS</b>	9
<b>CALL FOR ARTICLES</b>	10

**BIOLOGICAL CONTROL, IPM, AND EXOTIC PESTS PEST CONTROL**

**ASIAN LONGHORNED BEETLES**

(Source: *Agricultural Research*, Vol. 48, No. 6, June 2000)

“Monitoring the munching sounds made by Asian longhorned beetles (ALB) may help scientists home in on which trees are infested. This is just one of several new tactics that Agricultural Research Service scientists are now exploring to find ways to control these wood-boring pests.”

Agricultural Research Service entomologist Michael T. Smith “is fast becoming one of the world’s experts” on ALB. “He has spent considerable time over the past 2 years in interior China, conducting collaborative field studies with his Chinese colleagues on key aspects of the beetle’s behavior, as well as its natural enemies.”

The article also discusses other tactics being examined by ARS and other scientists. For additional information contact Michael T. Smith, USDA-ARS Beneficial Insects Introduction Research Laboratory, 501 South Chapel Street, Newark, DE 19713-3814, (302) 731-7331, ext. 41, fax (302) 737-6780.

For a copy of the article –

CONTACT: PAT SKYLER (CA)

(916) 454-0817  
pskyler@fs.fed.us

### **PHYTOREMEDIATION - USING PLANTS TO CLEAN UP SOILS**

(Source: *Agricultural Research*, Vol. 48, No. 6, June 2000)

“Phytoremediation is the use of green plants to remove pollutants from the environment or render them harmless.”

For 13 years, Agricultural Research Service (ARS) plant physiologist Leon V. Kochian has been researching “mechanisms used by certain plants to take up essential mineral nutrients and toxic heavy metals from soils.”

He is “an international expert on plant responses to environmental stress, plant mineral nutrition, and use of plants to clean up or remediate soils contaminated with heavy metals and radioisotopes.” Kochian’s “research may also shed light on an important nutritional concern: how to prevent toxic metals from entering the food chain.” For additional information contact Leon V. Kochian, USDA-ARS Plant, Soil, and Nutrition Laboratory, Cornell University, Tower Road, Room 121, Ithaca, NY 14853-2901, (607) 255-2454, fax (607) 255-2459, email: lvk1@cornell.edu.

For a copy of the article –

CONTACT: PAT SKYLER (CA)

(916) 454-0817  
pskyler@fs.fed.us

### **PEST CONTROL**

#### **WINNING WITH HERBICIDES** (David Moorhead, Extension Forester)

(Source: *Forest Resources*, The University of Georgia Extension, Forest Resources, June 2000)

“The Use of herbicides for vegetation control in forestry has become well established in recent years. The development of more effective herbicides and application equipment has increased the use of this forest management tool. Vegetation control studies show that economically-

significant growth and improved survival are possible when woody and herbaceous competition is controlled.”

For a copy of the article –

CONTACT: PAT SKYLER (CA)

(916) 454-0817  
pskyler@fs.fed.us

## **HUMAN HEALTH**

### **ARENAVIRUS INFECTION LINKED TO DEATHS IN CALIFORNIA**

(Source: California Department of Health Services, News Release 40-00, August 3, 2000)

“SACRAMENTO – Three deaths in California during the past 14 months have been linked to an arenavirus, a rare virus never before acquired by humans in North America, State Health Director Diana M. Bonta, R.N., Dr.P.H., announced today.”

In one patient, arenavirus was confirmed and in the other two deaths, arenavirus was “highly suspected based on initial laboratory tests. Further testing is underway.”

Believed to be transmitted to humans by inhalation of dust contaminated with urine, feces or saliva of infected rodents “human infection with arenavirus is also likely to be very uncommon.”

Currently studies are being conducted to learn more about the virus and about medicines that may be effective. For further information contact Ken August or Lea Brooks at (916) 657-3064.

For a copy of the News Release and a question and answer page –

CONTACT: PAT SKYLER (CA)

(916) 454-0817  
pskyler@fs.fed.us

## **MISCELLANEOUS**

### **CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION OFFERS \$1.4 MILLION TO REDUCE PESTICIDE USE, RISKS**

(Source: California Dept. of Pesticide Regulation News Release, July 25, 2000 (00-16))

“SACRAMENTO – Seeking the best ideas to cut pesticide use and reduce risks to people and the environment, the California Department of Pesticide Regulation (DPR) today announced applications are available for about \$1.4 million in grants in the coming year.

DPR priorities include finding alternatives to highly toxic pesticides, reducing worker exposure to pesticides, protecting surface and ground water quality, exploring alternatives to methyl

bromide and other fumigants, and promoting integrated pest management (IPM) in public schools and other public buildings.

DPR expects to award more than 30 grants during this fiscal year. The Department recently reorganized its grant programs to encourage step-by-step adoption of reduced-risk pest management on the farm and in urban areas. Grants fall into three main categories:

1. Pest Management Grants help non-profit organizations, private groups, university researchers, government entities, and others address pest management challenges on a local or regional scale. These grants will be awarded for demonstration and applied research projects.

Demonstration projects involve reduced-risk practices on private or public property (such as farms, nurseries, schools, and parks). Grant awards range up to \$50,000 per year, with preference for projects that offer matching funds or in-kind services. Funding is available for approximately ten projects. Applied research projects will generate the data needed to develop future demonstration projects. Grant recipients qualify for up to \$30,000 per year, and funding is available for about eight applied research projects. Pest Management Grant applications are due by October 6.

2. Pest Management Evaluations provide a bridge to DPR's next grant level, which typically involves a two-year process. In the first year, interested groups apply for DPR assistance to evaluate their existing pest management systems, with an emphasis on reduced-risk methods. Groups that qualify for evaluations may receive one-time DPR funding of up to \$10,000, and funding is available for up to ten evaluations. (Evaluation applications are due by September 14.)

Recipients then work with DPR staff to complete their evaluations, which are a prerequisite for Pest Management Alliance proposals in the second year.

3. Pest Management Alliances are broad-based, public-private partnerships that address major pest management issues. Applicants who successfully complete evaluations and meet other DPR criteria may apply for Alliance grants of up to \$100,000 per year. At a minimum, applicants must match their DPR grants dollar-for-dollar. Funding is available for approximately eight to ten projects. Alliance applications are due by November 1.

**More detailed information on each grant option is included in the request for proposals (RFP). Instructions for downloading complete RFP packages can be found online at <<http://www.cdpr.ca.gov/dprgrants.htm>>. Interested parties may also obtain an RFP from Bob Elliott by phone (916) 324-4100, e-mail <[belliot@cdpr.ca.gov](mailto:belliot@cdpr.ca.gov)> or fax (916) 324-4088.**

Since 1995, DPR has awarded almost \$5 million in grants to promote reduced-risk pest management practices.

One of the six departments and boards within the California Environmental Protection Agency, DPR protects human health and the environment by regulating pesticide sales and use and fostering reduced-risk pest management.”

## **USGS DIAGNOSES CAUSES OF MANY U.S. AMPHIBIAN DIE-OFFS**

(Source: USDI, U.S. Geological Survey, News Release, August 8, 2000)

“U.S. Geological Survey (USGS) scientists are making headway in unraveling clues to the causes of massive die-offs of frogs and other amphibians. The agency announced today that a little-understood, emerging iridovirus disease associated with large die-offs of frogs and salamanders in the Midwest and the East has caused another recent die-off in North Dakota.”

Other hypotheses are also actively being investigated to help explain worldwide declines. These include increased exposure to ultraviolet radiation due to ozone thinning, spread of non-native predators, contamination from pesticides and other chemicals, and rising temperatures.

For additional information see the article on FrogWeb in the “On The Internet” section below.  
For a copy of the news release –

CONTACT: PAT SKYLER (CA)

(916) 454-0817  
pskyler@fs.fed.us

## **CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION SURFACE WATER DATABASE GOES ONLINE**

(Source: California Department of Pesticide Regulation News Release 00-19, August 25, 2000)

“SACRAMENTO – As part of a continuing commitment to make pesticide information more accessible to the public, the California Department of Pesticide Regulation has released nine years of surface water monitoring data that may be downloaded from DPR’s web site or ordered on CD-ROM.”

The database contains “details on more than 4,600 water monitoring samples collected by various agencies.” Samples have been taken from rivers, creeks, Delta waterways, agricultural drains, sloughs, and urban storm drains in 16 counties.

A description of the database and instructions for downloading may be found at:

<<http://www.cdpr.ca.gov/docs/surfwatr/surfddata.htm>>

or the files may be ordered from DPR on CD-ROM for \$12 by sending payment to: Cashier, California Department of Pesticide Regulation, 830 K Street, Sacramento, CA 95814-3510. For additional information about the data contact Keith Starner, (916) 324-4167, fax (916) 324-4088.

For a copy of the press release –

CONTACT: PAT SKYLER (CA)

(916) 454-0817  
pskyler@fs.fed.us

## **FOREST RESEARCH IN CANADA**

SERG, the Spray Efficacy Research Group, is an association of forest managers, regulatory and research agencies, and pesticide suppliers interested in forest pest management. The primary aim of SERG is to improve application technology and pest management methods associated with the use of pest control products in the context of integrated forest pest management. SERG facilitates efficient use of resources by providing a co-ordinated scientific approach to research to meet the needs and priorities of forest managers.

SERG co-ordinates research in the following areas:

- ❖ Forest pest management products
- ❖ Improvement of application technology and techniques
- ❖ Environmental impact and benefit of forest pest management
- ❖ Developing forest pest management strategies

SERG reports (quantity 1) are available free of charge and can be ordered through their website:  
<http://www.sergreport.net>

For further information –

CONTACT: BOB MICKLE

(519) 632-5006

[Bob.Mickle@sergreport.net](mailto:Bob.Mickle@sergreport.net)

### **ON THE INTERNET**

Pacific Southwest Library monthly alert of publications:

<<http://library.psw.fs.fed.us/moncurrent.shtml>>

### **WEST NILE VIRUS WEBSITES**

Interactive maps, which detail down to county level and are updated weekly, can be found at:  
<<http://www.nationalatlas.gov/virusmap.html>>

The document *Epidemic/Epizootic West Nile Virus in the United States: Guidelines for Surveillance, Prevention, and Control* contains a description of the emergency national West Nile virus surveillance plan developed by the Center for Disease Control and numerous collaborators. The document can be found at:

<[http://www.cdc.gov/ncidod/dvbid/arbovirus\\_pubs.htm](http://www.cdc.gov/ncidod/dvbid/arbovirus_pubs.htm)>

or contact Pat Skyler at (916) 454-0817, email: [pskyler@fs.fed.us](mailto:pskyler@fs.fed.us).

## **FROGWEB WEBSITE**

Log onto <<http://www.frogweb.gov>> for the most recent information on Amphibian Decline. The site includes press releases, scientific research, and much more.

U.S. Department of Health and Human Services, Public Health Service, National Toxicology Program's **9<sup>th</sup> Report on Carcinogens 2000** is available in pdf format at:

<<http://ehis.niehs.nih.gov/roc/>>

Labels and Material Safety Data Sheets for over 70 chemical companies can be found at

<<http://www.cdms.net/manuf/manuf.asp>>

## **PUBLICATIONS**

### **METEOROLOGY FOR THE RESOURCE MANAGER AERIAL SPRAYING? PRESCRIBED BURN?**

**Just published** – *Mountain Meteorology: Fundamentals and Applications*, Oxford University Press, New York and Oxford. Authored by C. David Whiteman, the book was written for the resource manager whose everyday field work is influenced positively or negatively by weather. The book, designed to serve as a textbook, training manual and reference manual, resulted from a recommendation developed by the USDA Forest Service, Forest Health Protection steering committee. It is published in hardback and has 355 pages of text, illustrations, glossary, bibliography and index. Most of the 274 illustrations are in color. Sections of the book include: Mountain Climates, Atmosphere Descriptions, Mountain Winds, Applications – prescribed fire, fire weather in complex terrain, critical fire weather, monitoring fire, smoke management and aerial spraying.

Publication of this book was managed by the USDA Forest Service, Forest Health Technology Enterprise Team, in cooperation with its co-sponsors, U.S. Army, National Weather Service, and Battell Pacific Northwest Laboratory (U.S. Department of Energy contractor). This book is recommended to all resource specialists who are involved in planning and field applications.

For a **FREE COPY** (as long as supplies last) –

CONTACT: PAT SKYLER (CA)

(916) 454-0817  
pskyler@fs.fed.us

## HAZARDOUS MATERIALS GUIDES

The *Everyday Hazmat User's Guide* provides guidance on the safe storage, dispensing, transportation, and disposal of hazardous materials commonly encountered in the Forest Service. Some of these materials include flammable and combustible liquids, flammable solids, paints, pesticides, and compressed gases. The *Hazmat Designer's Guide* is intended for employees who are responsible for designing and operating hazmat facilities. The guide will provide an easy-to-read, condensed version of the major national codes for facilities, hazmat, and safety.

For more information or to request a copy of the above guides –

CONTACT: WES THROOP (MT)

(406) 329-3957

wthroop@fs.fed.us

or STEVE ORAVETZ (MT)

(406) 329-1037

soravetz@fs.fed.us

**For a copy of the following publications** contact Pat Skyler, (916) 454-0817, pskyler@fs.fed.us

Ammons, R., H. Thistle, and J. Barry. 2000. Optimized Pesticide Application. *Journal of Agricultural Engineering Research*, Vol.75, 155-166.

Esterly, D.M. and M.P. Lee. 2000. The development of an environmental impact statement for the New York City Department of Health - Mosquito-borne disease control plan adult mosquitoes. Presented at the *National Spray Model and Application Technology Working Group Annual Meeting*. Milwaukee, WI.

Miller, D.R. and T.E. Stoughton, K. Thorpe, J. Podgwaite, W.E. Steinke, E.W. Huddleston and J.B. Ross. 1999. Air stability effects on spray drift. ASAE Paper No. AA99-003. St. Joseph, MI:ASAE.

Teske, M.E. and H.W. Thistle. 2000. Droplet size scaling of agricultural spray material by dimensional analysis. *Atomization and Sprays*, Vol. 10, 147-158.

Teske, M.E. and H.W. Thistle. 2000. Modeling detailed aircraft wake effects near the ground. ASAE Paper No. 001052. St. Joseph, MI:ASAE.

Teske, M.E., H.W. Thistle, A.J. Hewitt, and I.W. Kirk. 2000. Conversion of droplet size distributions from PMS optical array probe to Malvern laser diffraction. Presented at the *Eighth International Conference on Liquid Atomization and Spray Systems*. Pasadena, CA.

Teske, M.E., H.W. Thistle, and R.E. Mickle. 2000. Modeling finer droplet aerial spray drift and deposition. *Applied Engineering in Agriculture*, Vol. 16(4):351-357.

Thistle, H., R. Karsky, and A. Trent. 2000. MTDC/Forest Health Protection fiscal year 1999 achievements. 0034-2806-MTDC. USDA Forest Service, Missoula Technology and Development Center, Missoula, MT.

Thistle, H., M. Teske, and D. Twardus. 2000. Forest spraying modules in AgDRIFT/FS. ASAE Paper 001051. St. Joseph, MI:ASAE.

### **UPCOMING EVENTS**

25-28 September 2000. **North Central Forest Pest Workshop**, Rhinelander, WI. Workshop theme is “Implementation of forest pest management to protect the diverse values that our forests provide.” Contact: Kyoko Shimizu, (715) 365-8934, email: shimik@dnr.state.wi.us

22-24 October 2000. **California Agricultural Production Consultants Association 26<sup>th</sup> Annual Pest Management & Nutrient Conference and Agri-Expo**, Disneyland Hotel, Anaheim. Contact: CAPCA Office (916) 928-1625, Fax (916) 928-0705 or visit their website at: <<http://www.capca.com/uc3.html>>

31 October – 2 November 2000. **Western North American Defoliator Working Group**, Portland, OR. Contact: John Wenz, (209) 532-3671, ext. 323, email: jwenz@fs.fed.us

6-9 November 2000. **2000 International Research Conference on Methyl Bromide Alternatives and Emissions Reduction**, Clarion Plaza Hotel, Orlando, FL. Contact: Rosemary Obenauf, (559) 447-2127, email: robenauf@agrc.cnchost.com

16-20 November 2000. **2000 Society of American Foresters National Convention**, Washington Hilton & Towers, Washington, DC. Contact: Society of American Foresters, (301) 897-8720, Fax (301) 897-3690, email: safweb@safnet.org or visit their website at <<http://www.safnet.org/calendar/future.html>>

3-6 December 2000. **2000 JAM – the Joint Annual Meeting of the Entomological Society of Canada, Societe d’ Entomologie du Quebec and Entomological Society of America**, Montreal, Quebec. Contact: Entomological Society of America (301) 731-4535, Fax (301) 731-4538, email: meet@entsoc.org, or visit their website at : <[www.entsoc.org/annual\\_meeting/2000/2000.html](http://www.entsoc.org/annual_meeting/2000/2000.html)>

14-18 May 2001. **North American Forest Insect Work Conference**, Crowne Plaza-Chateau Lacombe Hotel, Edmonton, Alberta. Contacts: Jan Volney (780) 435-7329, Hideji Ono (780) 427-6807, John Spence (780) 492-3003 or check out their website at <<http://nofc.cfs.nrcan.gc.ca/nafiwc/>>

2-5 August 2001. **The Practice of Biological Control: Importation and Management of Natural Enemies in the New Millennium**, Bozeman, MT. For additional information contact: Tim Kring (501) 575-3186.

## **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:

CONTACT: PAT SKYLER (CA)

(916) 454-0817/Fax (916) 454-0820

Email: [pskyler@fs.fed.us](mailto:pskyler@fs.fed.us)

---

The Washington Office, Forest Health Protection, Forest Health Technology Enterprise Team sponsors, compiles, edits, and distributes this informal newsletter as a means of providing current information to forestry pesticide users. Comments, questions, and items of input are welcome and may be sent to Pat Skyler, Editor, USDA Forest Service, Remote Sensing Lab, 1920 20<sup>th</sup> Street, Sacramento, CA 95814, or by E-mail: [pskyler@fs.fed.us](mailto:pskyler@fs.fed.us). Reference to a commercial product or source in this newsletter 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 newsletter. 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.

---