



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

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BIOLOGICAL CONTROL, IPM, AND EXOTIC PESTS PEST CONTROL

**COLORADO STATE UNIVERSITY IDENTIFIES NATURAL
PLANT-PRODUCED HERBICIDE**

(Source: News Release, Colorado State University, June 25, 2002)

A Colorado State University professor has discovered and isolated a chemical in the roots of spotted knapweed that kills surrounding plants. “For years, scientists have talked about spotted knapweed releasing this chemical, but they couldn’t find it in the soil because it was almost impossible to separate from all the other compounds that naturally occur in soil,” said Jorge Vivanco, assistant professor of horticultural biotechnology at Colorado State. “We looked for it in the plant. Spotted knapweed releases catechin into the soil through its roots.” The natural and environmentally friendly herbicide is being used by the scientists to kill other weeds, including diffuse knapweed. “It

is fatal to spotted knapweed only when manually inserted into its cells in a laboratory. In nature, spotted knapweed cells do not permit catechin to reenter the plant once the chemical is produced and released into the soil.” Now that scientists are able to capture the chemical in the laboratory, Vivanco and a team of researchers at Colorado State are investigating several other applications for the chemical.

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

For additional information –

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NEZ PERCE TRIBE TEAMS WITH APHIS IN BIOCONTROL OF INVASIVE WEEDS

(Source: *Inside APHIS* [online], April 8, 2002)

A cooperative agreement has been entered into between Animal and Plant Health Inspection Service (APHIS) and the Nez Perce Bio-Control Center (NPBC) “to increase the availability and distribution of biological organisms used to control such invasive weeds as yellow starthistle (*Centaurea solstitialis*), spotted and diffuse knapweeds (*C. Maculosa* & *C. diffusa*), Dalmatian toadflax (*Linaria dalmatica*), and additional invasive rangeland plants.” NPBC is operated by the Nez Perce Native American Tribe, Lapwai, Idaho. Four major field activities will be carried out between the second quarter of FY 2002 and the second quarter of FY 2003. They include: 1) continue ongoing efforts to establish rearing nurseries to increase the availability of biological control organisms to be used alone or in integrated weed control programs; 2) provide regional technology transfer seminars to Cooperative Weed Management Area (CWMA) partners in Idaho and to other cooperators throughout the region; 3) work to distribute biological control organisms throughout targeted weed infestations on privately managed lands; and 4) monitor target and nontarget effects at selected release sites to document the impact of biological controls. For more information –

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THE EFFECTS OF THINNING ON BEETLES (COLEOPTERA: CARABIDAE, CERAMBYCIDAE) IN BOTTOMLAND HARDWOOD FORESTS (M.D. Warriner, T.E. Nebeker, T.D. Leininger, and J.S. Meadows)

(Source: *Proceedings of the Eleventh Biennial Southern Silvicultural Research Conference*, 2002, General Technical Report SRS-48, USDA Forest Service, Asheville, NC)

“Abstract: The responses of two groups of beetles, ground beetles (Carabidae) and longhorned beetles (Cerambycidae), to a partial cutting technique (thinning) applied to major and minor stream bottom sites in Mississippi were examined. Species diversity of ground beetles and longhorned beetles was greater in thinned stands than unthinned stands two years following thinning. Higher diversity of ground beetles in thinned stands was primarily attributable to the presence of species that prefer open, disturbed conditions. Longhorned beetles that use dead wood as larval host material dominated collections in thinned stands. Although the two beetle groups examined seemed to favor certain habitat conditions brought about by thinning, how other invertebrates (litter fauna, herbivores) respond will require additional investigation.”

For a copy of the article –

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REGULATORY

PINE SHOOT BEETLE – ADDITION TO QUARANTINED AREAS

(Source: *Federal Register*, Vol. 67, No. 117, June 18, 2002, pp. 41307-41310)

“Summary: We are amending the pine shoot beetle regulations by adding 11 counties in Illinois [Marshall and Tazewell], Indiana [Brown, Fayette, Hendricks, and Owen], Maine [Franklin], Michigan [Dickinson], Ohio [Franklin and Monroe], and Wisconsin [Kenosha] to the list of quarantined areas. This action is necessary to prevent the spread of pine shoot beetle, a pest of pine products, into noninfested areas of the United States.”

The interim rule became effective June 18, 2002 and the Animal and Plant Health Inspection Service, USDA will consider all comments received on or before August 19, 2002. The document is available online at http://www.access.gpo.gov/su_docs/fedreg/a020618c.html or contact Pat Skyler, (916) 454-0817, pskyler@fs.fed.us. For additional information –

CONTACT: JONATHAN JONES (MD)

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HUMAN HEALTH

PESTICIDE SAFETY BINGO FOR CHILDREN

(Source: EPA, Region 6)

Keeping children safe from pesticides is a concern for all of us and to address this issue, EPA has developed a Pesticide Safety Bingo Game. The Game is designed to serve as an educational tool for K-6. Learning objectives of the Game are pest prevention, thereby diminishing the need for pesticides; safe pesticide management and storage; and alternatives to chemical pesticides in order to prevent pesticide poisoning and misuse. An enhanced understanding of the health risks associated with pests and pesticides is an additional educational result provided by the Game. An instructor’s manual which includes lesson plans and instructions is also available. The Game can be viewed and downloaded at <http://www.epa.gov/region6/bingo> – or

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BEAR CANYON VIRUS: AN ARENAVIRUS NATURALLY ASSOCIATED WITH THE CALIFORNIA MOUSE (*Peromyscus californicus*)

(C.F. Fulhorst, S.G. Bennett, M.L. Milazzo, H.L. Murray Jr., J.P. Webb, Jr., M.N.B. Cajimat, and R.D. Bradley)

(Source: *Emerging Infectious Diseases*, Vol. 8, No. 7, July 2002)

“Abstract: Thirty-four rodents captured in southern California were studied to increase our knowledge of the arenaviruses indigenous to the western United States. An infectious arenavirus

was isolated from 5 of 27 California mice but none of the 7 other rodents. Analyses of viral nucleocapsid protein gene sequence data indicated that the isolates from the California mice are strains of a novel Tacaribe serocomplex virus (proposed name ‘Bear Canyon’) that is phylogenetically most closely related to Whitewater Arroyo and Tamiami viruses, the only other Tacaribe serocomplex viruses known to occur in North America. The discovery of Bear Canyon virus is the first unequivocal evidence that the virus family *Arenaviridae* is naturally associated with the rodent genus *Peromyscus* and that a Tacaribe serocomplex virus occurs in California.”

The article is available online at <http://www.cdc.gov/ncidod/EID/vol8no7/01-0281.htm> or –

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MISCELLANEOUS

SUDDEN OAK DEATH HITS TWO MORE CALIFORNIA COUNTIES

(Source: News Release, California Oak Mortality Task Force, July 8, 2002)

The addition of Humboldt and Contra-Costa Counties has increased to twelve the number of counties in California known to be infested with Sudden Oak Death. The latest findings were confirmed by University of California researchers Dave Rizzo and Matteo Garbelotto through DNA analysis and laboratory culturing. The Contra Costa confirmation came from samples on California bay and coast live oak trees; the Humboldt County’s confirmation came from samples on California bay. For a copy of the news release contact Pat Skyler, (916) 454-0817, pskyler@fs.fed.us.

For additional information on Sudden Oak Death visit the California Oak Mortality website at <http://suddenoakdeath.org> or -

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CLOPYRALID AND COMPOST

(Source: Dow AgroSciences LLC, Indianapolis, IN)

(Also reference Short Subjects and Timely Tips for Pesticide Users, Issue No. 02-4, pp. 2-3, “California Department of Pesticide Regulation Acts to Protect Compost From Herbicides”.)

“Introduction: Weed-control products containing clopyralid have been used safely and effectively for more than 14 years. Recently, incidents have been reported in which clopyralid traces were detected in compost material at a level sufficient to cause damage to sensitive plants grown in the compost medium. These incidents appear to involve unique or unusual circumstances. Nevertheless, Dow AgroSciences, the manufacturer of clopyralid products, is concerned and committed to resolving issues regarding the use of clopyralid. The company is working with university researchers, the compost industry and grower groups to develop a thorough understanding of actual use practices of the products and the potential of the products to contribute residues to compost materials. The labels on all Dow AgriSciences clopyralid products state that manure and foliage treated with clopyralid should not be used as a source for compost. Dow AgroSciences is working with the U.S. Environmental Protection Agency to further emphasize the label language, and the company is developing an educational program to increase awareness of this compost restriction among farmers, ranchers, homeowners and lawn care providers who use clopyralid

products.” The [report](#) is available online or -

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**RELATIONSHIP BETWEEN EARLY FAMILY-SELECTION
TRAITS AND NATURAL BLISTER RUST CANKERING IN
WESTERN WHITE PINE FAMILIES**

(R.S. Hunt)

(Source: *Canadian Journal of Plant Pathology*, 24:200-204, 2002)

“Abstract: Blister rust (*Cronartium ribicola*) cankering incidence was compared among half-sib families of both artificially and naturally inoculated western white pine (*Pinus monticola*). In the first test, artificially inoculated seedlings of six families had their individual infection spots tallied and any infected needles were removed before cankers developed. These healthy seedlings were classified as high or low spotters and were planted in row plots with four high spotters paired with four low spotters. After 7 years, 2 pairs had equal cankers, 12 had more rust on the high spotters, and 12 had more rust on the low spotters. The mean number of cankers per tree was 22 and 23 for high and low spotters, respectively. In the second test, 203 artificially inoculated western white pine families were ranked for their relative susceptibility to blister rust based on (i) family mean counts of individual infection spots per seedling (spotting) and (ii) the presence of only small cankers (slow canker growth resistance). These results were compared with the natural cankering incidence of the same families in eight plantations. There were few significant differences in spotting incidence among inoculated families. The range in field cankering in the test plantations (15-63 families each) was 22-88%. Seven plantations, including two with families significantly different in infection-spotting incidence, lacked a significant correlation (Spearman, $P < 0.05$) between percentage field cankering and spotting incidence from inoculations. Although one plantation had a significant correlation (r_s value = 0.64; $P < 0.005$) between spotting incidence from inoculation and cankering in a plantation, there was no overall trend across plantations. Incidence of slow canker growth resistance from artificial inoculation ranged from 0 to 18%. There was a significant positive correlation between field cankering and slow canker growth resistance, as determined by inoculation only in three of eight plantations. However, when the families were placed into slow canker growth classes, there was a trend of reduced cankering with increasing class of slow canker growth resistance (mean Spearman’s r_s value = 0.87 ($P < 0.01$) across all plantations). These studies indicate that selection on the basis of slow canker growth resistance resulted in less cankering in plantations than selection on the basis of reduced infection spotting.”

For a copy of the article –

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ON THE INTERNET

Research on deformed amphibians is currently being done at Hartwick College, Oneonta, NY. Information is available through their Department of Biology website located at http://www.hartwick.edu/biology/def_frogs/index.html. The website discusses the researchers’ perspectives on deformed amphibians, background information and information on their current research. The site includes original photographs and other illustrations.

The All Species Foundation is a non-profit organization dedicated to the complete inventory of all species of life on Earth within the next 25 years – a human generation. The species search engine, the first phase of the All Species Toolkit Project, was just completed. It currently has more than 1 million entries, with each name linked to the databases which contain information about that specific species. The website is located at <http://www.all-species.org/>.

PUBLICATIONS

2001 Forest Insect and Disease Conditions for the Southern Region, is available online at <http://fhpr8.srs.fs.fed.us/2001conditions/index.html> or contact Pat Skyler (916) 454-0817, pskyler@fs.fed.us.

Forest Pest Conditions in California – 2001. A publication of the California Forest Pest Council is available online at http://www.r5.fs.fed.us/fpm/fhp_doc.htm or contact John Dale, (USDA Forest Service), jdale@fs.fed.us or Jesse Rios (CA Dept. of Forestry), jesse_rios@fire.ca.gov.

Proceedings of the 5th Symposium on Oak Woodlands: Oaks in California's Changing Landscape are now available online at <http://danr.ucop.edu/ihrmp/proceedings.html>. Included are 70 peer reviewed scientific articles, abstracts from 12 poster presentations, and eight papers on Sudden Oak Death. The symposium was a joint effort between the University of California and USDA Forest Service, Pacific Southwest Research Station. If you are unable to access the internet, a CD-ROM containing all the papers, color photos and maps is available for \$10 (includes tax and shipping). Make checks payable to UC Regents and send to University of California, Integrated Hardwood Range Management Program, 145 Mulford Hall #3114, Berkeley, CA 94720-3114. The proceedings are also available free (while supplies last) in black and white printed copy. The citation is: Standiford, R.B., D. McCreary, K.L. Purcell, technical coordinators. 2002. Proceedings of the fifth symposium on oak woodlands: Oaks in California's changing landscape. October 22-25. San Diego, CA. Gen. Tech. Rep. PSW-GTR-184. Send a request to the USDA Forest Service, PSW, P.O. Box 245, Berkeley, CA 94701-0245.

The Council for Agricultural Science and Technology (CAST) has made available online a scientific paper that provides policymakers and others with a nine-step guide to curtail the impact of non-native pests, including diseases, insects, and animals. The paper is available at <http://www.cast-science.org/> or printed copies are available for \$5.00 from CAST, 4420 West Lincoln Way, Ames, IA 50014-3447, (515) 292-2145, Fax (515) 292-4512. (Source: Utah Pesticide and Toxic News, Utah State University Extension, Vol. XX, No. 5, May 2002).

Proceedings of the Eleventh Biennial Southern Silvicultural Research Conference, published by the USDA Forest Service, Southern Research Station, Asheville, NC, February 2002, can be accessed online at http://www.srs.fs.fed.us/pubs/gtr/gtr_srs048/index.htm.

The Centers for Disease Control has made available online a document on Rocky Mountain Spotted Fever. It can be accessed at <http://www.cdc.gov/ncidod/dvrd/rmsf/Index.htm>.

UPCOMING EVENTS

29 July – 1 August 2002. Southern Forest Insect Work Conference, Roanoke, VA. Contact: Brian Sullivan, (318) 473-7206, Email: briansullivan@fs.fed.us or visit their website at <http://www.sfiwc.org/2002/index.html>.

28-31 July 2002. American Society of Agricultural Engineers Annual International Meeting,

Chicago, IL. Contact: Brenda West, (616) 428-6327, Email: west@asae.org or visit their website at <http://www.asae.org/meetings/am2002/index.html>.

31 July–1 August 2002. National Spray Model and Application Working Group Meeting (held in conjunction with the American Society of Agricultural Engineers Annual International Meeting), Chicago, IL. Contact: Harold Thistle, (304) 285-1574, Email: hthistle@fs.fed.us or Pat Skyler (916) 454-0817, Email: pskyler@fs.fed.us.

15-16 August 2002. California Conference on Biological Control III, University of California, Davis, CA. Contact: Brenda Nakamoto, (530) 752-1606 or visit their website at <http://www.biocontrol.ucr.edu/CCBCIIIa.html>.

18-22 August 2002. [224th American Chemical Society Meeting](#), Boston, MA. Contact: Ann Nelson (202) 872-4396, Email: a_nelson@acs.org.

2-5 September 2002. Methodology of Forest Insect and Disease Survey in Central Europe, Krakow, Poland. Contact: Michael McManus, (203) 230-4321, Email: mlmcmamus@fs.fed.us or visit their website at <http://iufro.boku.ac.at/iufro/iufro.net/d7/wu70310/krakow/>.

9-13 September 2002. 50th Annual Meeting of the Western International Forest Diseases Work Conference, Powell River, B.C. Canada. Contact: John Muir, Fax: (250) 387-8740, Email: john.muir@gems1.gov.bc.ca or visit their website at <http://www.fs.fed.us/foresthealth/technology/wif/index.html>.

12-15 September 2002. California Urban Forest Conference – Planning California’s Urban Forests, Visalia, CA. Sponsored by California Urban Forests Council and California ReLeaf. Contact: Mel Johnson, (415) 647-4207, Email: caufc@attbi.com or Martha Ozonoff, (916) 557-1673, ext. 12, Email: martha.ozonoff@tpl.org or visit their website at <http://www.ufe.calpoly.edu/data/cufc/2002AnnualConference.pdf>.

11-13 October 2002. California Exotic Pest Plant Council Symposium, Sacramento, CA. For information visit their website at <http://caleppc.org/symposia/02symposium/symposium2002.html>.

22-23 October 2002. Aquatic Weed School 2002, UC Davis, CA. Learn about the biology, ecology, and management of important aquatic weeds and algae. All methods of practical management including mechanical, biological, cultural, and chemical will be discussed. Contact: Kitty Schlosser (530) 752-7091, Email: wric@vegmail.ucdavis.edu or visit their website at <http://wric.ucdavis.edu/education/aquaticweedschool02.html>.

27-30 October 2002. Invasive Plants – Global Issues, Local Challenges, Chicago Botanic Garden’s Annual Conservation Symposium, Chicago, IL. Contact: Dr. Kay Havens (847) 835-8378, Email: khavens@chicagobotanic.org.

4-7 November 2002. Annual Gypsy Moth Review, Niagara Falls, Canada. Contact: Patricia Cuglietta (613) 225-2342, Email: cuglietta@inspection.gc.ca.

6-9 November 2002. Methyl Bromide Annual Conference, Orlando FL. Contact: Methyl Bromide Alternatives Outreach, (559) 447-2127 or visit their website at <http://www.mbao.org/>.

7-9 November 2002. Spray Efficacy Research Group (SERG) workshop, Niagara Falls, Canada.

Contact: Patricia Cuglietta (613) 225-2342, Email: cugliettap@inspection.gc.ca.

17-20 November 2002. Entomological Society of America Annual Meeting, Ft. Lauderdale, FL. Contact: ESA, 9301 Annapolis Road, Lanham, MD 20706-3115, (301) 731-4535, Email: esa@entsoc.org or visit their website at http://www.entsoc.org/annual_meeting/2002/index.html.

21-22 November 2002. 51st Annual Meeting of the California Forest Pest Council, Sacramento, CA. Contact: Brian Barrette (916) 332-5617, Bbarre5812@aol.com, or visit their website at http://www.caforestpestcouncil.org/events_&_field_tours.htm.

20-23 January 2003. California Weed Science Society Conference, Santa Barbara, CA. Contact: Lars Anderson (530) 752-7870, Bruce Kidd (909) 698-3081, Pam Knoepfli (775) 626-7470 or visit their website at <http://www.cwss.org>.

11-13 March 2003. Western Society of Weed Science Annual Meeting, Poipu Beach, Koloa, HI. Contact: Wanda Graves (510) 790-1252, Email: Wgraves431@aol.com or visit their website at <http://www.wsweedscience.org/events>.

8-10 April 2003. [4th National Integrated Pest Management Symposium](#), Indianapolis, IN. Contact: Elaine Wolff, (217) 333-2881, Fax: (217) 333-9561, Email: ipmsymposium@ad.uiuc.edu

21-28 September 2003. XII World Forestry Congress, Quebec, Canada. Contact: 1 (418) 694-2424, Fax: 1 (418) 694-9922, Email: sec-gen@wfc2003.org or visit their website at <http://www.wfc2003.org/>.

3-8 November 2003. 7th International Conference on the Ecology and Management of Alien Plant Invasions, Miami, FL. Contact: tkoop@fig.cox.miami.edu or visit their website at <http://www.bio.miami.edu/iiirm/emapi7/>.

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. Recent copies 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.