

# Look What's Out There

in

## Integrated Pest Management

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<http://www.wvu.edu/~agexten>

### **Dry Edible Bean Resistant to Bacterial Blight**

A new germplasm line named "ABC-WeiHING" is now available for breeding high-yielding varieties of great northern beans that can resist common bacterial blight. Bacterial blight, caused by the pathogen *Xanthomonas campestris* pv. *phaseoliis*, is an endemic disease affecting bean crops in the eastern United States. Severe outbreaks can cause yield losses of up to 40 percent in susceptible crops. Typical control measures are antibiotic treatment, clean-seed programs and sanitation, but Phil Miklas, a geneticist in the Agricultural Research Service's (ARS) Vegetable and Forage Crops Production Research Unit, Prosser, Wash. notes that crop resistance is the keystone defense. Miklas and Carlos Urrea, a University of Nebraska (UN) bean breeder, developed ABC-WeiHING using marker-assisted selection, a method of detecting inherited genes that is faster than conventional screening of plants for disease resistance and other traits. ABC-WeiHING is the offspring of several crosses the scientists made, starting in 1997, between a Great Northern bean cultivar and "XAN 159," a germplasm breeding line. In greenhouse tests, ABC-WeiHING also resisted eight strains of bean rust, as determined by ARS plant pathologist Marcial Pastor-Corrales, ARS Vegetable Laboratory, Beltsville, Md., and all non-necrotic strains of bean common mosaic. ABC-WeiHING's upright growth also helped protect it from soilborne assault by white mold. Other features include white flowers that bloomed 45 days after planting and seed that was

slightly larger than "Matterhorn," a commercial check variety used in trials in North Platte, Neb., Carrington, N.D., and elsewhere. In those tests, ABC-WeiHING had an average seed yield of 1,869 pounds per acre versus 1,896 pounds per acre for Matterhorn. Detailed information on ABC-WeiHING will appear in an upcoming issue of Crop Science. Urrea is handling seed requests.

(By Jan Suszkiw, USDA ARS June 2007)

### **Potting Mix with Beneficial Fungus Prevents Disease Better Than Fungicide**

Agricultural Research Service (ARS) plant pathologists Leona Horst, James Locke and Charles Krause have found that potting mixes custom-tailored to fight plant diseases can work much better than systemic fungicides. The ingredients for this disease-fighting potting soil are peat, compost and the beneficial fungus *Trichoderma hamatum* strain 382. In a test with begonias, the scientists found that the mix reduced Botrytis gray mold, a common disease of greenhouse floral crops, better than the standard fungicide chlorothalonil did. Begonias grown in this mix had much fewer gray mold symptoms and much higher market value than those grown in straight peat and sprayed with chlorothalonil. The beneficial *Trichoderma* fungus seems to enter the plants through the roots and spread through the entire plant internally. The *Trichoderma* fungus thwarts Botrytis by preventing it from infecting fresh wounds and *Trichoderma* also produces

compounds that keep Botrytis spores from germinating. One advantage of systemic biocontrol—as opposed to spraying the plant leaves with a solution containing beneficial fungi—is that it doesn't leave a residue on the plant that harms plant market value. The improvement in plant quality and market value makes the *Trichoderma*-compost mix very promising for greenhouse operations especially since Botrytis has developed resistance to several fungicides.

*(By Don Comis, USDA ARS June 2007)*

### **Final Registration Review Work Plans Available for Clomazone, Hexythiazox, Lactofen and Sulfosate**

The Environmental Protection Agency (EPA) has posted the Final Work Plans for registration review of clomazone, hexythiazox, lactofen, and sulfosate. These plans are available through EPA's Registration Review Status Page, [http://www.epa.gov/oppsrrd1/registration\\_review/reg\\_review\\_status.htm](http://www.epa.gov/oppsrrd1/registration_review/reg_review_status.htm). Click on the name of the pesticide and follow the link under "docket information," which goes to the Final Work Plans in the Docket. These work plans include the expected time lines for registration review. The plans also address any public comments on the Preliminary Work Plans in the Summary Documents in the initial registration review dockets, or any other comments on these dockets. The Summary Document provided information on what EPA knows about the pesticide and what additional risk analyses and data or information the Agency believes are needed to make a registration review decision. The Agency did not establish a docket for sulfosate because this pesticide does not have any active federal registrations, and therefore is no longer scheduled for registration review. The Agency has begun to implement the new Registration Review program, and plans to review each registered pesticide every 15 years to determine whether it continues to meet the FIFRA standard for registration. Changes in science, public policy, and pesticide use practices will occur over time. The Registration Review program is

intended to make sure that, as the ability to assess risk evolves and as policies and practices change, all registered pesticides continue to meet that statutory standard. The public phase of registration review begins when the initial docket is opened for each case. Information on this program is provided at:

[http://www.epa.gov/oppsrrd1/registration\\_review](http://www.epa.gov/oppsrrd1/registration_review)

*(Northeastern IPM Center July 2007)*

### **Funding Opportunity**

- **EPA Development of Environmental Health Outcome Indicators.** The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, is seeking applications proposing research that uses existing data sources of environmental (ambient), exposure, biological and/or health-related data to develop indicators that reliably signal the impact of changes in environmental conditions, management approaches or policies on human health. Key to the development of such indicators is a clearer understanding of the sequence of events that link changes in the environment to human exposure and adverse health outcomes. There is approximately \$2 million total with a potential of \$500,000 per award. Public nonprofit institutions/organizations (includes public institutions of higher education and hospitals) and private nonprofit institutions/organizations (includes private institutions of higher education and hospitals) located in the U.S., state and local governments, Federally Recognized Indian Tribal Governments, and U.S. territories or possessions are eligible to apply. Applicants may submit either a paper application or an electronic application (but not both) for this announcement. The necessary forms for submitting a STAR application will be found on the National Center for Environmental Research (NCER) web site, <http://www.epa.gov/ncer/rfa/forms/>. To apply electronically, you must use the application

package available at [Grants.gov](http://Grants.gov). For additional information, go to:  
[http://es.epa.gov/ncer/rfa/2007/2007\\_star\\_health\\_indicators.html](http://es.epa.gov/ncer/rfa/2007/2007_star_health_indicators.html)

- **National Science Foundation: Grant Opportunities for Academic Liaison with Industry (GOALI).** The GOALI initiative aims to synergize university-industry partnerships by making funds available to support an eclectic mix of industry-university linkages. Special interest is focused on affording the opportunity for: (1) faculty, postdoctoral fellows and students to conduct research and gain experience with production processes in an industrial setting, (2) industrial scientists and engineers to bring industry's perspective and integrative skills to academe, and (3) interdisciplinary university-industry teams to conduct long-term projects. This initiative targets high-risk/high-gain research with a focus on fundamental topics that would not have been undertaken by industry, new approaches to solving generic problems, development of innovative collaborative industry-university educational programs, and direct transfer of new knowledge between academe and industry. For more information go to:  
<http://www.nsf.gov/pubs/1998/nsf98142/nsf98142.pdf>

- **National Research Initiative - Arthropod and Nematode Biology and Management: Organismal and Population Biology.** Several emerging issues are challenging our ability to provide high quality food and fiber to the Nation's global economy. This unprecedented level of population growth will necessitate increased production and protection of agricultural commodities. Our ability to respond to and recover from pests and diseases that threaten our food supply has recently assumed paramount importance. Fundamental knowledge is needed to form the basis of novel management strategies for pests, which will lead to better utilization of beneficial species. Applicants are strongly encouraged to read the entire Program

Description section for current priorities and additional information relative to the programs of interest. This program accepts a wide range of applications, please carefully review the budget guidelines to ensure application acceptance. For more information go to:

<http://www.csrees.usda.gov/fo/fundview.cfm?fonum=1103>

## Agricultural and Environmental News

### Additional Funding for Emerald Ash Borer and Potato Cyst Nematode Eradication

Agriculture Secretary Mike Johanns has announced the availability of an additional \$11.3 million in emergency funding for the emerald ash borer (EAB) program and \$500,000 for the potato cyst nematode (PCN) program in Idaho. Johanns states that the emerald ash borer funding is for enhanced early detection efforts and strict quarantine enforcement while the potato cyst nematode money brings the program one step closer to eradication of the pest in Idaho.

USDA will provide emergency funding to states with established EAB programs and quarantines to support pest detection, control, and regulation of host material that will mitigate the risk of further spread of the pest, as well as outreach and education to the general public. A portion of the funding will also be provided to targeted uninfested states at risk for EAB for additional survey and response if a detection of the pest should occur. Early detection of new infestations is critical to enhancing USDA's ability to eradicate such incursions and contain the pest within quarantine areas.

EAB is an invasive species of wood-boring beetles, native to China and eastern Asia that targets ash trees in North America. It was first detected in July of 2002 in southeastern Michigan and has spread to Ohio, Indiana, Maryland, Illinois and most recently in Pennsylvania. EAB has been responsible for the death and decline of more than 25 million ash

trees in the United States.

The \$500,000 for PCN is in addition to nearly \$24 million in emergency funding that has already been dedicated toward PCN surveillance and eradication activities in Idaho--the only state with PCN. Specifically, the funding will advance intensive survey activities in seed potato fields, packing facilities and storage sheds. State and federal agricultural officials will also continue soil fumigations and quarantine enforcement to eradicate PCN in Idaho. PCN, *Globodera pallida*, is a major pest of potato crops in cool-temperate areas. It primarily affects plants within the potato family including tomatoes, eggplants and some weeds. If left uncontrolled, nematodes can cause up to 80 percent yield loss.

*(Andrea McNally and Keith Williams, USDA News Release No. 0193.07 July 2007)*

### **Notice of Hearing on Request to Reduce Pre-Harvest Interval (PHI) for EBDC Fungicides on Potatoes**

The EPA issued a Hearing Notice under the authority set forth in 40 CFR part 164 subpart D (subpart D hearing). A subpart D hearing is required when a registrant wants to modify an existing cancellation order that was issued after the opportunity for a hearing. In 1992, EPA issued a Notice of Intent to Cancel (NOIC) registrations containing EBDCs for use on certain crops. The crop at issue for this hearing notice is potatoes. The NOIC stated that use of EBDCs on potatoes would be canceled unless the registrants modified their pesticide product labels. At issue in this notice is the 1992 requirement to extend the preharvest interval (PHI) to reduce the dietary risk. EPA issued the 1992 NOIC with an opportunity for a hearing. EPA and the registrants reached a settlement, including the agreement to amend labels to extend the PHI to 14 days. The purpose of this notice is to announce that EPA has determined that the petition requesting a modification of the cancellation order has merit and to announce an opportunity for a hearing. Requests to participate in the hearing announced by this

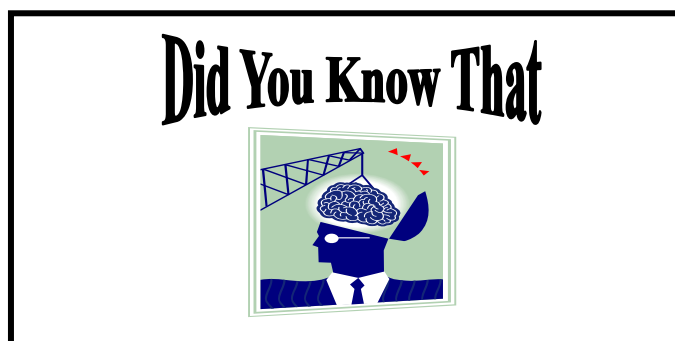
notice must be received by the Office of the Hearing Clerk at the address given below by August 10, 2007. A pre-hearing conference will be held and the evidentiary hearing will commence as soon thereafter as practicable, according to the schedule outlined herein. Submit your request to participate in the hearing, identified by docket identification (ID) number EPA-HQ-OPP-2007-0181, by the following method:

- Mail: Office of Hearing Clerk, USEPA, 1200 Pennsylvania Ave., N.W., Washington, DC 20460.
- Hand delivery: Office of the Hearing Clerk, 1099 14th St., NW., Suite 350, Washington, DC 20005.

For more information go to:

<http://www.epa.gov/fedrgstr/EPA-PEST/2007/July/Day-11/p13471.htm>

*(EPA July 2007)*



The growth of the ivory-marked beetle can be so slow that adult beetles have been found emerging from furniture and flooring many years after being placed in a building. In one instance, an adult beetle emerged from a bookshelf that was 40 years old. This beetle is a common wood boring beetle that feeds on many different hard wood species including ash, oak, maple, hickory, and chestnut.

*(William F. Lyon, Ohio State University Extension Fact Sheet HYG-2127-94)*

# Events



**August 6-9 2007**

**International Symposium on Adjuvants for Agrochemicals**, "Adjuvants in Our World" will be held in Columbus, Ohio. For more information contact Jim Hazen at Jim.Hazen@akzonobel-chemicals.com or go to: <http://www.isaa-online.org/isaa2007.htm>

**August 7-9, 2007**

**Managing Vertebrate Invasive Species**. Hilton Hotel, Fort Collins, Colorado. For more information go to <http://www.aphis.usda.gov/ws/nwrc/symposia/invasives/index.html>

**August 19-23, 2007**

**234th ACS National Meeting**

The topic for the meeting is: Rodenticides for the protection of public health, agriculture and natural resources and will be held in Boston, MA. For more information go to: <http://northeastipm.org/ontarget/2007/rodenticidepapers.pdf>

**September 10-12, 2007**

**Convergence of Genomics and the Land Grant Mission: Emerging Trends in the Application of Genomics in Agricultural Research**. Purdue University, West Lafayette, Indiana. For more information go to: <http://northeastipm.org/ontarget/2006/GenomicsConf1stAnnounce.pdf>

**October 22-26, 2007**

**North American Plant Protection Organization's Annual Meeting**

St. John's Newfoundland and Labrador – Canada. For more information go to: <http://www.nappo.org/annualmtg/2007/Annualmtg07-e.htm>

**October 28-31 2007**

**13th International Research Conference on Methyl Bromide Alternatives**, San Diego, CA. For more information go to <http://www.mbao.org>

**February 10-13 2008**

**International Plant Resistance to Insects Workshop**, Fort Collins, CO. For more information contact Frank Peairs by sending an email to Frank.Peairs@colostate.edu or by phone at 1-970-491-5945.

**February 11-15 2008**

**4th Hemlock Woolly Adelgid Symposium** Harford, CT. For more information send an email to DSouto@fs.fed.us or call 1-603-868-7717.

## Comments or Questions?

If you have any comments or questions regarding any of the material presented, please let us know by sending an e-mail to: [jbanieck@wvu.edu](mailto:jbanieck@wvu.edu). Thank you.