

Look What's Out There

in

Integrated Pest Management

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Issue 16 May 2009
<http://www.wvu.edu/~agexten>

Why Invasive Plants Take Over

New research shows that two key causes of plant invasion--escape from natural enemies, and increases in plant resources--act in concert. This result helps to explain the dramatic invasions by exotic plants occurring worldwide. It also indicates that global change is likely to exacerbate invasion by exotic plants.

Agricultural Research Service (ARS) ecologist Dana Blumenthal reached these conclusions after studying 243 European plant species and their fungal and viral pests, both in Europe and in the United States. The study was published this week in the Proceedings of the National Academy of Sciences. Blumenthal, based at the ARS Rangeland Resources Research Unit in Fort Collins, Colo., and colleagues at the University of North Carolina and in the Czech Republic showed that fast-growing plant species adapted to moist, nitrogen-rich soils had many fungal and viral pathogens in the areas where the weedy species evolved. Once these species arrived here, they escaped many of their long-time enemies. Such an escape from numerous enemies is thought to provide exotic species with an advantage over native species still burdened by their enemies. This is the first study, however, to show that whether a plant escapes from a few or an unusually larger number of enemies can be predicted from the type of plant: Exotic species that are fast-growing and weedy are likely to have more enemies to escape from.

Unfortunately, these are the same species most

avored by global change. Fast-growing weedy species thrive in environments with ample plant resources. And global change increases key plant resources, such as carbon dioxide and soil nitrogen, through increases in the greenhouse gases carbon dioxide and nitrous oxide, respectively. Fast-growing, weedy exotic species therefore have a double advantage in today's world. Increases in resources enable them to outcompete slow-growing plants. An escape from an unusually large number of enemies enables them to outcompete even fast-growing native plants. As global change proceeds, continuing increases in resource availability are likely to exacerbate such plant invasions. The National Science Foundation, the European Union, and the Czech Republic supported the study. ARS is the principal intramural scientific research agency in the U.S. Department of Agriculture.

(By Don Comis, Agricultural Research Service April 30, 2009)

A Biocontrol for a Wide-Ranging Thrips

A pest with a voracious appetite may have met its match in a predatory mite being evaluated as a biocontrol agent by Agricultural Research Service (ARS) scientists in Fort Pierce, Fla. in collaboration with University of Florida researchers. The chilli thrips is an invasive pest that feeds on leaves, turns them brown, kills new growth and attacks up to 150 crops, including

peppers, strawberries, tomatoes, peanuts, cotton and a variety of ornamentals. Detected in Palm Beach County, Fla. in 2005, it has spread to 24 Florida counties and parts of Texas, damaging roses and other ornamentals in both states. Left unchecked, it could reach west to California and north along the Pacific Coast to Canada, causing losses of up to \$3.8 billion annually. Pesticides are effective, but the chilli thrips may develop resistance with repeated treatments, and pesticides are not an option for organic nurseries and gardeners, according to entomologist Cindy L. McKenzie, at the ARS U.S. Horticultural Research Laboratory in Fort Pierce. Researchers at Fort Pierce and the University of Florida have turned to two mites, *Neoseiulus cucumeris* and *Amblyseius swirskii*, which have been used commercially to combat other pests since at least 2005. The researchers put 30 adult chilli thrips on ornamental pepper plants in greenhouse and outdoor settings, waited a week for thrips larvae to hatch and, in separate treatments, released 30 mites of each species on the plants. They checked the plants weekly for four weeks. Their results, published in *Biological Control*, showed that the mites--particularly *A. swirskii*--significantly reduced the number of thrips. *A. swirskii* left no more than one thrips insect per leaf. That compared with up to 60 thrips larva found on leaves of untreated pepper plants. The work was funded in part by the American Floral Endowment and the Floriculture and Nursery Research Initiative. The researchers have set up a chilli thrips website for gardeners and commercial growers at <http://www.mrec.ifas.ufl.edu/lso/thripslinks.htm>. ARS is the principal intramural scientific research agency of the U.S. Department of Agriculture.

(By Dennis O'Brien, Agricultural Research Service April 28, 2009)

Pesticide News Story: Organic Arsenicals Amended RED Available

EPA has revised certain provisions of the 2006 Reregistration Eligibility Decision (RED) for the organic arsenical pesticides MSMA, DSMA, CAMA,

and cacodylic acid. In the 2006 RED, EPA concluded that all uses of the inorganic arsenicals were ineligible for reregistration primarily because of risks to drinking water resources. Additional data received since 2006 supported a decision to allow reregistration of MSMA for use on cotton only, contingent on the development of confirmatory data. In February 2009 EPA reached an agreement in principle with the technical registrants and to address comments received during a public comment period. That voluntary agreement steadily removes from the market all organic arsenical pesticide uses, except the use of MSMA on cotton, for which confirmatory data must be received by August 2010. The agreement also implements new restrictions to protect drinking water resources. Phasing out these uses is expected to accelerate the transition to new, lower risk herbicides. For additional information, please see the Organic Arsenicals Web page. The Federal Register notice announcing these revisions is available at the Web site.

(Source: EPA May 2009)

Pesticide News Story: Clomazone and Fomesafen Ecological Risk Assessments Issued for Comment

EPA has completed and is requesting public comment on draft ecological risk assessments for the pesticides clomazone and fomesafen. Public comment on the clomazone and fomesafen draft ecological risk assessments is invited through June 22, 2009. At the same time, the Agency is initiating consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service ("the Services") regarding these pesticides' potential effects to species listed as endangered or threatened under the Endangered Species Act. These are the first two national ecological risk assessments and effects determinations for conventional pesticides, conducted within the context of EPA's registration review program. The Agency will review and consider both the public comments received on the draft ecological risk assessments and information provided in the Service's biological opinions, in developing proposed registration review decisions for clomazone and fomesafen. Clomazone and fomesafen are herbicides used to control weeds and grasses in a variety of crops and non-crop locations. EPA's

draft ecological risk assessments and endangered species effects determinations for both clomazone and fomesafen indicate that the use of these pesticides is likely to adversely affect a variety of listed species and may affect elements of designated critical habitat influenced by effects to plants. After reviewing comments received, EPA will issue final ecological risk assessments, explain any changes from the draft risk assessments, and respond to comments. Once the final risk assessments are completed, the Agency will issue proposed registration review decisions, considering any biological opinion issued by the Services, for clomazone and fomesafen, and request public comment on any proposed risk mitigation.

For additional information, please see:

- EPA's Federal Register Notice, April 22, 2009
- Clomazone and Fomesafen Web Fact Sheet
- Clomazone docket, EPA-HQ-OPP-2006-0113
- Clomazone registration review Web page
- Fomesafen docket, EPA-HQ-OPP-2006-0239
- Fomesafen registration review Web page
- OPP's Endangered Species Protection Program

(Source: EPA April 2009)

Noted Scientist Says EPA Tests for Endocrine Disruption Outdated

(*Beyond Pesticides*, April 29, 2009) The U.S. Environmental Protection Agency (EPA) announced earlier this month that it is finally ready to move forward with preliminary testing of 67 active and inert pesticide ingredients for possible endocrine disrupting effects. But, according to prominent researcher and author Theo Colborn, PhD, these tests are outdated, insensitive, crude, and narrowly limited, and will fail to detect many serious effects on human development. In an eye-opening opinion-editorial published in *Environmental Health News*, Dr.

Colborn, founder and president of The Endocrine Disruption Exchange, and Co-author of *Stolen Future*, says that EPA's testing protocol is "a pitiful skeleton" of what it needs to be. The tests to be used by EPA were first recommended in 1998. Since then the science has made progress and become more sophisticated. Current research is based on different assumptions than the toxicological assumptions that first drove the EPA test designs. However, EPA has not updated its protocol. Each of EPA's tests and assays was designed under the surveillance of corporate lawyers who had bottom lines to protect and assorted toxicologists who were not trained in endocrinology and developmental biology. For over a decade, EPA ignored the vast wealth of information on endocrine disruption from independent academic researchers funded by the U.S. and other governments in Europe and Asia. Most important, because of the limited scope of its test battery, EPA is not in a position to address endocrine-related disorders that pose a threat to every child born today, according to Dr. Colborn. The methodology undertaken to develop EPA's endocrine disruption screening and test protocols also illustrate political and corporate interference that continue to plague the agency's decision making process. After being tasked to screen chemicals for endocrine disruptive activity under the Food Quality Protection Act (FQPA) of 1996, EPA set up the Endocrine Disruptor Screening Program including a committee with members representing the industries to be regulated, toxicologists, and a few token representatives from non-profit organizations. According to Dr. Colborn, the scientists who discovered endocrine disruption and the hundreds of others, most of whom were not toxicologists and had shifted their research focus to the connections between a mother and her embryo and fetus, were not invited to participate. EPA tried to use traditional toxicology protocols, ignoring that these had failed miserably and allowed endocrine disruptors to get through the government's programs to protect public health. EPA ignored and continues to ignore the growing knowledge about endocrine disruption, and trade associations representing corporations with deep

pockets denied it. Consequently, EPA continues to struggle along under the false assumptions that ‘the dose makes the poison’ and that high dose testing is sufficient to detect any chemical that can interfere with endocrine control of development and function. Hundreds of scientific articles have been published across the globe demonstrating how a broad selection of chemicals can interfere with the normal development of a baby at extremely low levels of exposure. Scientists discovered effects for some widely used chemicals at concentrations thousands of times less than federal “safe” levels of exposure derived through traditional toxicological tests. One example, cites Dr. Colborn, is that of atrazine. Atrazine is a herbicide most frequently found in surface and drinking waters in the U.S. It is linked to a host of adverse health effects including endocrine disruption, which has been well documented in frogs and other laboratory animals. Atrazine is already listed on the Colborn List as an endocrine disruptor and has been recognized in the European Union (EU) as a category 1 (evidence of endocrine disrupting activity in at least one species) endocrine disruptor. (The Colborn List and the EU have already tested many chemicals for endocrine disruption, while the U.S. has yet to finalize a protocol for screening.) Dr. Colborn is concerned that under EPA’s protocol atrazine will likely pass the battery of tests with flying colors even though it has been shown to feminize male organisms by turning on the enzyme that converts testosterone to estrogen. Dr. Colborn states that EPA is proposing an assay to detect chemicals that can block that enzyme, but it cannot detect chemicals that turn it on. EPA’s protocol will also not detect chemicals that can alter development and function of the pancreas, and its hormone, insulin, which could lead to diabetes and obesity. It also will not detect chemicals that alter how the brain is constructed and programmed that can undermine intelligence and behavior. Dr. Colborn recommends that scientists, who have proven that they can think outside the box and inside the womb, be given the opportunity and wherewithal to design comprehensive, multi-organ assays to detect the most sensitive

alterations in embryonic and fetal development and function, especially in light of the new administration’s willingness to put science first. For an overview of endocrine disruptors, view Beyond Pesticides’ article, “Pesticides that Disrupt Endocrine System Still Unregulated by EPA.” Also visit Dr. Colborn’s Our Stolen Future and the EU’s endocrine disruptors website for more on endocrine disruptive chemicals.

(Source: *Environmental Health News*)

Lawsuit Seeks to Protect Consumers from Toxic Pet Products

(*Beyond Pesticides*, April 28, 2009) On April 23, 2009, the Natural Resources Defense Council (NRDC) filed a lawsuit, *NRDC v. Albertsons, Inc. et al*, in California against major pet product retailers and manufacturers for illegally selling pet products containing a known cancer-causing chemical called propoxur without proper warning labels. In new scientific analysis also released the same day, NRDC found high levels of propoxur and tetrachlorvinphos (TCVP), another carcinogenic neurotoxin common in household pet products, on pet fur after use of ordinary flea collars. NRDC is also petitioning the Environmental Protection Agency (EPA), calling for the removal of these chemicals from pet products. “Just because a product is sold in stores does not mean it is safe,” said Gina Solomon, MD, NRDC senior scientist and physician. “Under California law, consumers have a right to know if a flea control product exposes them to health risks before they buy it.” NRDC filed its lawsuit in California Superior Court in Alameda County against 16 retailers and manufacturers including Petsmart, PetCo, and Petstore.com, for failing to comply with California’s Safe Drinking Water and Toxic Enforcement Act, known as Proposition 65, which prohibits businesses from knowingly exposing consumers without proper warning to any chemical “known to the state to cause cancer or reproductive harm.” These companies have failed to caution consumers about exposure to propoxur from the use of their products, which should have been labeled with a warning as of August 11, 2007. Proposition 65

provides for penalties of up to \$2,500 for every violation. NRDC's new report, *Poison on Pets II*, found flea collars containing TCVP and propoxur pose serious neurological and cancer risks. These chemical-laden flea collars expose humans to highly hazardous chemicals that can damage the brain and nervous system and cause cancer. Children are particularly at risk from these pesticides because their neurological and metabolic systems are still developing. They are also more likely than adults to put their hands in their mouths after petting an animal, leading to the ingestion of hazardous residues. [*Poison on Pets II*](#) tested the fur of dogs and cats wearing flea collars to measure the invisible pesticide residues left on the pets from these collars. This analysis, which was the first study of propoxur residues on pet's fur, found that propoxur levels are so high in some products that they pose a cancer risk in children that is up to 1,000 times higher than the EPA's acceptable levels, and up to 500 times higher for adults. The study also showed that after three days, 100 percent of the pets wearing collars containing propoxur and 50 percent of the pets wearing collars with TCVP posed a significant neurological risk to toddlers. Testing also revealed that unsafe levels of pesticide residue remain on a dog's or cat's fur two weeks after a collar is put on an animal. Families with multiple pets that wear flea collars have even greater exposure risks. EPA has never compiled data on pesticide levels found on a pet's fur after use of flea collars. NRDC's testing and careful calculations reveal that the EPA's decision to leave these products on the market may create a significant health risk to pet owners, most notably young children. The availability of many effective and safer alternatives for flea and tick control makes the continued use of these pesticides an unnecessary risk. NRDC's 2000 report "Poison on Pets" led to the ban of six other pesticides in pet products, but products containing TCVP and propoxur are still on store shelves. "The EPA's evaluation of these chemicals was dangerously flawed and underestimates the risks to children," said Miriam Rotkin-Ellman, NRDC scientist. "There is no reason to use carcinogens and neurotoxins to fight fleas and ticks when there are other safer

and effective treatments available. The EPA should not allow these toxic chemicals in pet products." Safe flea and tick control include the frequent use of a flea comb, regular bathing of pets, as well as vacuuming and washing of their bedding regularly. Read *Beyond Pesticides* factsheet, *Pesticides and Pets: What you should know to keep your pets safe*. See NRDC's flea and tick product guide for pet owners that ranks more than 125 products, categorizing products by the level of their potential health threat, at NRDC's consumer-oriented Green Paws website: www.greenpaws.org.

British Coalition Pledges Funding to Bee Decline Research

(*Beyond Pesticides*, April 23, 2009) Pollinators, including honey and bumble bees, butterflies and moths, play an essential role in putting food on our tables through the pollination of many crops and other flowering plants. These insects are susceptible to a variety of disease and environmental threats, including a variety of common pesticides, some of which have increased significantly over the last five to ten years. As a result, the numbers of pollinators have been declining steadily in recent years, with the number of bees in the United Kingdom alone falling by between 10 and 15 per cent over the last two years. This decline has led some to request a ban on certain pesticides suspected of contributing to Colony Collapse Disorder (CCD). To gain a better understanding of why this is happening, some of the UK's major research funders have joined together to launch an important new research program. The biggest challenge will be to develop a better understanding of the complex relationships between biological and environmental factors which affect the health and lifespan of pollinators. The funding will be made available to research teams across the UK under the Living With Environmental Change (LWEC) partnership, the major initiative by UK funders to help the UK respond effectively to changes to our environment. This is a joint initiative from the Biotechnology and Biological Sciences Research Council (BBSRC), the UK Department

for Environment, Food and Rural Affairs (Defra), the Natural Environment Research Council (NERC), the Wellcome Trust and the Scottish Government. Environment Secretary Hilary Benn said, "Aristotle identified bees as the most hard working of insects, and with one in three mouthfuls coming from insect-pollinated crops, we need to support bees and other pollinators. I announced in January that Defra would put an extra £2M into research funding, and I am delighted our partners have agreed to boost this to up to £10M. This funding will give some of Britain's world-class researchers the chance to identify the causes of the decline we're seeing in bee numbers, and that will help us to take the right action to help." Professor Douglas Kell, BBSRC Chief Executive said, "We are facing a fundamental problem with the decline of bees and other pollinators. They have an absolutely crucial role in pollinating many of our important crops. Without effective pollination we will face higher food costs and potential shortages. This program will help us to understand why numbers have decreased and the steps we could take to reverse this. Complex problems such as this require a modern systems biology approach, a strategy at the core of BBSRC's vision. This will also feed into BBSRC's wider food security research program which aims to deliver the science necessary to provide the nutritious and affordable food we need for the future." Professor Alan Thorpe, Chief Executive of NERC, "Through the Pollinator Initiative, the LWEC partners will address what is a complex multidisciplinary problem. We need to conduct research that will help us to understand the links between bees and other pollinators and the range of environmental factors that affect them in various ways. This research will provide vital insights into why there has been a steep decline in these insect populations in recent years and help us to find solutions to the problem." Sir Mark Walport, Director of the Wellcome Trust said, "It is extremely important that we move swiftly to understand and try to reverse the decline in the populations of bees and other pollinating insects. The devastating effect that this decline may have on our environment would almost certainly have

a serious impact on our health and well being. Without pollinating insects, many important crops and native plants would be severely harmed." Richard Lochhead, Cabinet Secretary of the Scottish Government said, "It is vital that we increase our understanding of the issues affecting populations of bees and other pollinators such as wasps, butterflies and beetles and in particular whether these are due to climate change. The impact these insects have on our rural industries, such as the soft fruit sector, and on plant biodiversity across Scotland cannot be under-estimated. Any reduction in numbers could have catastrophic consequences not just for our environment but also for our economy. I welcome this initiative and am confident the results of the program will enhance our knowledge and help prevent further declines in bee numbers." Elin Jones, Minister for Rural Affairs of the Welsh Assembly Government said, "Honeybees and other pollinators are vital for local food production, which is the key to environmentally sustainable farming. By working with the other partners in this initiative Defra have shown their commitment to safeguarding the population of the honeybee in the UK." The funding program will be administered through BBSRC. The NERC Centre for Ecology and Hydrology will provide post-award coordination for the program and contribute special expertise in long-term and large-scale ecology that will strengthen the research effort. The European Union (EU) and its member states have passed a number of protective measures for bees and other pollinators in recent years. The European Parliament approved designated "recovery zones" across Europe: pesticide-free areas where bees can forage. Germany banned eight pesticides linked to bee declines. In the US, the Department of Agriculture has developed an action plan for managing CCD, and the Environmental Protection Agency (EPA) has been sued for withholding information on how pesticides impact honey bees. For more information on CCD and pesticides, please read our article, "Pollinators and Pesticides: Escalating crisis demands action."

(Sources: CNN, Defra)

U.S. and Canada to Increase Scrutiny of Flea and Tick Pet Products

(Washington, DC - April 16, 2009) The U.S. Environmental Protection Agency is intensifying its evaluation of spot-on pesticide products for flea and tick control for pets due to recent increases in the number of reported incidents. Adverse reactions reported range from mild effects such as skin irritation to more serious effects such as seizures and, in some cases, the death of pets. Flea and tick products can be appropriate treatments for protecting your pets and your family's health because fleas and ticks can transmit disease. While many people use the products with no harm to their pets, EPA recommends that pet owners take precautions when using these products. People should carefully follow label directions and monitor their pets for any signs of an adverse reaction after application, particularly when using these products for the first time. Pet owners may also want to consult a veterinarian about the responsible and effective use of flea and tick products. Incidents with flea and tick products can involve the use of spot-on treatments, sprays, collars and shampoos. However, the majority of the incidents reported to EPA are related to flea and tick treatments with EPA-registered spot-on products. Spot-on products are generally sold in tubes or vials and are applied to one or more localized areas on the body of the pet, such as in between the shoulders or in a stripe along the back. This advisory pertains only to EPA-registered spot-on flea and tick products; these products have an EPA registration number on the label. Health Canada has identified similar concerns about the use of spot-on flea and tick products. Health Canada and EPA will meet shortly with spot-on product manufacturers to address the issue, including whether further restrictions are necessary to protect the health of pets. EPA recommends that veterinarians use the National Pesticide Information Center's Veterinary Pesticide Adverse Effects Reporting portal to report incidents: <http://npic.orst.edu/vet> More information on pet products and safety tips: <http://www.epa.gov/pesticides/health/pets.htm>

Contact Information: (News media only) Dale Kemery, 202-564-7839/4355 / kemery.dale@epa.gov (Other inquiries: Doug Parsons, 202-564-0341 / parsons.douglas@epa.gov)

(Source: EPA April 2009)

Solicitation of Input From Stakeholders on the Roadmap for Agricultural Research, Education, and Extension

The Research, Education, and Extension Office (REEO) of the Research, Education, and Economics (REE) Mission Area of the Department of Agriculture (USDA) is requesting written stakeholder input on the preparation of a roadmap for agricultural research, education, and extension at USDA. The preparation of the Roadmap is mandated by the Food, Conservation, and Energy Act (FCEA) of 2008. By this notice, the Under Secretary for Research, Education, and Economics has been designated to act on behalf of the Secretary of Agriculture (Secretary) in soliciting public comment from interested parties regarding the preparation of the Roadmap.

All written comments must be received by 5 p.m. EST, May 31, 2009, to be considered.

(USDA April 2009)

DOCUMENT ACTION: Notice of public comment period for written stakeholder input.

The Research, Education, and Extension Office (REEO) of the Research, Education, and Economics (REE) Mission Area of the Department of Agriculture (USDA) is requesting written stakeholder input on the preparation of a roadmap for agricultural research, education, and extension at USDA. The preparation of the Roadmap is mandated by the Food, Conservation, and Energy Act (FCEA) of 2008. By this notice, the Under Secretary for Research, Education, and Economics has been designated to act on behalf of the Secretary of Agriculture (Secretary) in

soliciting public comment from interested parties regarding the preparation of the Roadmap. All written comments must be received by **5 p.m. EST, May 31, 2009**, to be considered. For more information: <http://www.thefederalregister.com/d.p/2009-04-01-E9-7252>

Funding Opportunity

- Agriculture and Food Research Initiative Competitive Grants (general program announcement). This is a Program Announcement (PA) for the Agriculture and Food Research Initiative (AFRI). AFRI combines elements of the former National Research Initiative (NRI) and Initiative for Future Agriculture and Food Systems (IFAFS) programs and is the new core competitive grant program for research, education, and extension. It is anticipated that the complete Request for Applications, which will contain the application submission instructions and be accompanied by required application forms, will be made available in early 2009 on the CSREES Web site and the Grants.gov Web site. This AFRI PA contains opportunities for support of research, education, and extension priorities. This PA is being released prior to the passage of the Fiscal Year (FY) 2009 Agricultural Appropriations Act. The release of this PA is to inform the applicant community of upcoming research, education, and extension opportunities through the AFRI program to fund issues critical to agriculture. The enactment of the FY 2009 Appropriations Act may impact the overall level of funding for the AFRI program. Hence, the Cooperative State Research, Education, and Extension Service (CSREES) reserves the right to amend, delete, or otherwise alter any programs. Depending on the FY 2009 Appropriations Act, CSREES may be issuing a supplemental RFA to address topics already identified in this PA. **Deadline: ??????** Updated information about the AFRI program will be made available on the AFRI Web site: <http://www.csrees.usda.gov/funding/afri/afri.ht>

ml and the CSREES funding
page <http://www.csrees.usda.gov/fo/funding.cfm>

- USDA - CSREES – AFRI. Enhancing Ecosystem Services from Agricultural Lands: Management, Quantification, and Developing Decision Support Tools. This program is offered in partnership with the Science to Achieve Results (STAR) program of the Environmental Protection Agency (EPA). Proposals must be submitted through EPA. The program will support research on the ecosystem services in agricultural settings, including both agroecosystems and ecosystems that are impacted by agriculture, with the goal of quantifying these services, identifying risks due to different stressors, and developing strategies to reduce negative environmental impacts while enhancing ecosystem services provided by working lands. Ecosystem services are the goods and services derived from natural and managed ecosystems upon which human welfare depends. Because of the global intensification of land use, these services are in decline, especially in agricultural ecosystems. Ecosystem services of interest will be related to climate change, water availability, reactive nitrogen, pests, weeds, invasive species, and soil and land degradation. **Deadline: May 26, 2009.** For more information: <http://www.csrees.usda.gov/fo/enhancingecosystemservicesafri.cfm>
- USDA - CSREES – AFRI. Rapid Response Food and Agricultural Science for Emergency Issues. This program provides a mechanism to quickly provide the science necessary to more effectively respond to important emerging issues vital to agriculture, food science and related natural and human resources. Considerable effort in working with stakeholders goes into structuring the programs and priorities for the Agriculture and Food Research Initiative (AFRI) Request for Applications (RFA) across the six emphasis areas. However, as time moves on there are emerging issues in agriculture and food science that are so critically important that a rapid response before the next AFRI RFA release is

justified. This program is designed to meet that need. **Deadline: July 30, 2009.** For more information:

<http://www.csrees.usda.gov/fo/rapidresponseafri.cfm>

- Northeastern IPM Center - Vegetable IPM Working Group: Vegetable and Strawberry IPM Travel Grants. Would you like to visit another state to see the field work that is being done in Vegetable or Strawberry IPM? Do you wish you had funds to get to a twilight meeting, field day, or spend a few days with a colleague in another state in the Northeast or another region? The Northeast Vegetable IPM Working Group, funded by the Northeastern IPM Center, offers IPM Travel Grants that will pay up to \$800 for qualified expenses to help agricultural professionals in the Northeast learn about and share integrated pest management practices in vegetables and strawberries. The application process is simple. Write an application letter and state your work or job, how your travel will help you learn about IPM and how you will share what you learn with growers back at home. Funds are available for agriculture professionals in the private sector as well as those who work for public universities. For complete information on how to apply, see the Request for Applications at the following link:
http://northeastipm.org/work_vegtravelgrants.cfm

Don't Forget to Take Advantage of Online First Detector Training

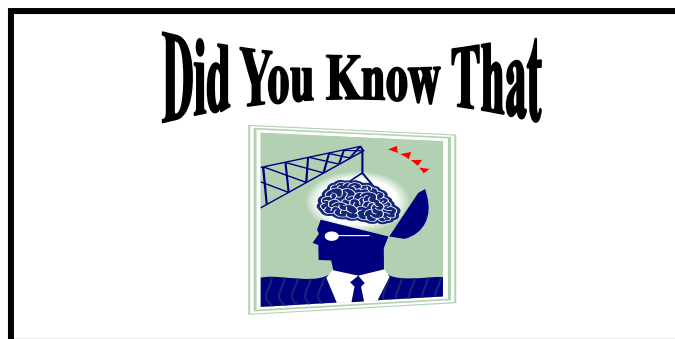
The National Plant Diagnostic Network (NPDN) is pleased to announce that the Online First Detector Training modules are up and running and can be found at: <http://cbc.at.ufl.edu/>. The site allows anyone to participate in the First Detector Program. The course is composed of several modules, and includes topics such as:

- The NPDN Mission
- Agricultural Biosecurity
- Purpose of a First Detector
- Monitoring for Exotic Pests

- How to Submit a Suspicious Sample
- The Art and Science of Plant Pest Diagnostics
- And more....

Each module takes anywhere from 40 to 60 minutes and the course can be completed at your own pace. To get started, first register for the First Detector Training Workshops to get your user name and password.

The general goal of the program is to get the public involved in protecting our plant related industries and our natural plant resources from being impacted by exotic and potentially damaging plant pests be they insects, weeds or pathogens. Upon completion of the training, First Detectors receive a certificate of training completion. Trained First Detectors are also provided with the opportunity to receive the national NPDN First Detector newsletter as well as pest alerts via e-mail through the National First Detector registry. For more information, go to <http://cbc.at.ufl.edu/> or contact Dr. John Baniecki at: John.Baniecki@mail.wvu.edu.



There are diagnostic kits available for easy field detection of pathogens

Several organizations provide quick and easy diagnostic kits for viral, bacterial, and fungal plant pathogens. Hydros Inc., EnviroLogix, Agdia Inc., and the USDA Agricultural Research Service are a few organizations that may be contacted for kits applicable to garden and crop plants. These kits utilize biochemical features to detect plant pathogens and can easily be used and interpreted by most anyone. There are numerous variations, but the key feature is pathogen detection through color changes on a test strip or some kind of test material, much like pH test or drug screening kits.

Events



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Questions?

If you have any comments or questions regarding any of the material presented, please let us know by sending an e-mail to:

John.Baniecki@mail.wvu.edu

FIFRA Scientific Advisory Panel Meeting on mechanism of action of pyrethroid pesticides - June 16-18, 2009, Arlington, VA

For information contact: Joseph E. Bailey, DFO, Office of Science Coordination and Policy (7201M), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001; telephone number: (202) 564-2045; fax number: (202) 564-8382; e-mail address: bailey.joseph@epa.gov.

Soil and Water Conservation Society 2009 Annual Conference

July 11-15, 2009, Dearborn, MI

For information:

http://www.swcs.org/en/conferences/2009_annual_conference/program_committee/

5th National Small Farm Conference September 15-17, 2009 Springfield, Illinois

For information contact: Deborah Cavanaugh-Grant, Conference Chair Extension Specialist, Small Farm and Sustainable Agriculture University of Illinois Extension SARE Coordinator
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USDA/CSREES Grantsmanship Workshops November 18-19, 2009, Washington, D.C.

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