



# PESPWire

The Quarterly e-bulletin of EPA's Pesticide Environmental Stewardship Program SPRING, 2013

## Happy Earth Day!



April 22nd is Earth Day! On Earth Day, EPA reaches out to people of every age, race, and economic status to “own” the environment, to commit to environmental protection as one of your top priorities! Commit to at least 5 actions to protect the environment.

More information at: <http://www.epa.gov/earthday/take-action.html>

EPA also has a list of Earth Day events occurring throughout the country: <http://www.epa.gov/earthday/>

One event is the live streaming of the Green Ribbon Schools winners. [The Green Ribbon School program](#) encourages activities that lead to happier and healthier students. The four cornerstones of a Green Ribbon School are an environmentally-friendly campus, nature adventure, natural classrooms, and health, fitness, and nutrition. Watch live on April 22, at 10 a.m. ET at <http://www.ustream.tv/channel/education-department>

### In This Issue:

- 1 Happy Earth Day
  - National Healthy Schools Day
  - European and Africanized Honey Bees
- 2 Almond Board of California
- 3 Watch for Ticks!
  - Tick Conferences
- 4 Honey Bees Compared
- 5 Africanized Honey Bees IPM
  - EPA/USDA Pollinator Summit
- 6 EPA SIPM Center of Expertise
  - Green Strides Seminar Success
  - SIPM Stakeholder Workshop
- 7 National Pest Management Month
- 8 Grant Opportunities
- 9 Upcoming Events

### Participate in National Healthy Schools Day!

April 30, 2013 is National Healthy Schools Day. Healthy Schools Day is coordinated by the Healthy Schools Network and the EPA's Office of Air and Radiation. Show your commitment to healthy school environments for all children by becoming a Healthy Schools Day partner, hosting an activity or event in your area, and joining in to spread the word. To learn more, visit [www.nationalhealthyschooldays.org](http://www.nationalhealthyschooldays.org)

### Docile or Defensive?

#### *A comparison of European and Africanized Honey Bees*



Now that Spring has arrived, honey bees will become a common sight. Alas, not all bees are perceived equally. European honey bees (EHB) are lauded for their importance in agriculture, while Africanized honey bees (AHB) are referred to as “Killer Bees” due to their more aggressive behavior and are widely feared. Interestingly enough, EHBs and AHBs are the same species and able to breed with each other, though are classified as different sub-species or race. Neither is native to America, yet both sub-species of honey bee provide value to the ecosystems they inhabit.

European honey bees have been cultivated by American beekeepers since the 1600's for a variety of uses (such as honey, beeswax, and pollen). As pollinators, EHBs are *extremely* important in agriculture.

*Continued on page 4*

## The Almond Board of California Works with EPA to Protect Honey Bees

The Almond Board of California, a Silver member of the Pesticide Environmental Stewardship Program (PESP), recently demonstrated their strong commitment to the stewardship of their industry through a rapid response to the threat of the insecticide diflubenzuron to honey bees.

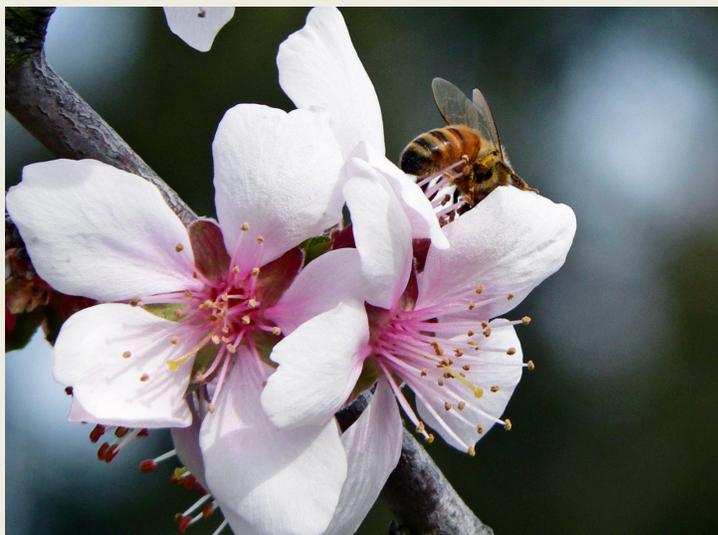
EPA participated in the 2013 North American Beekeeping Conference, and attended a presentation by Reed Johnson of The Ohio State University. In explaining his study, Dr. Johnson discussed using diflubenzuron as a positive control in his study. The expectation with diflubenzuron was that no exposed honey bee queen cells would emerge. Dr. Johnson particularly caught EPA's attention when he reported that diflubenzuron had been detected in pollen samples collected from California almond orchards.

Diflubenzuron, commercially known as Dimilin, is used by growers to control the peach twig borer (PTB), a common pest of California almonds that directly attacks the nutmeats. It came to light that diflubenzuron is being applied by almond growers during bloom, when roughly 1.6 million migratory bee colonies are present in the groves providing pollinator services.

EPA staff contacted Gabriele Ludwig, the Associate Director of Environmental Affairs for the Almond Board of California. Dr. Ludwig and the Almond Board are actively involved in pollinator issues, and have collaborated with the EPA in the past.

Dr. Ludwig investigated and confirmed that diflubenzuron had been applied in the past by some almond growers between February 15 and March 15, the height of almond bloom. As a result of discussions with EPA staff about the risks to bees that diflubenzuron applied during the bloom presents, Dr. Ludwig and her colleagues put together a document titled [\*Dimilin Insecticide at Bloom Can be Harmful to Honey Bee Brood\*](#). The document informed almond growers of the new research and instructed them to change the timing of applications of diflubenzuron to delayed dormant (pre-bloom) or spring (post bloom) or to use alternatives to control peach twig borer.

The Almond Board is broadly distributing the document to all constituents, including processors, handlers, and to the pollinator advocacy group "Project Apis-m"; the information will be posted to their website as well (<http://projectapism.org>). The EPA contacted the Almond Board on January 22<sup>nd</sup>, and the memo was posted on February 1<sup>st</sup>. The rapid response demonstrates the Board's commitment to stewardship of their industry and of the environment.



Honey bee pollinating almond blossom

Photo: [Brenda Anderson \(flickr\)](#)

For further information:

<http://thealmonddoctor.com/wp-content/uploads/2013/01/Dimilin-Insecticide-at-Bloom-May-Be-Harmful-to-Honey-Bee-Brood.pdf>

<http://www.almondboard.com/Growers/Pages/BMPMemo.aspx>

## Spring Can be Tick Time: A Tick Awareness Reminder

Spring is here! Remember that tick nymphs are prevalent starting in April and continuing through September. Nymphs are hardest to spot, as they are the size of a poppy seed.

Ticks are more frequently found in humid environments and often occur near the edge of the woods, in leaf litter, and along logs and stone fences. Mowing your lawn regularly to keep the grass short is recommended. For further information on land management practices refer to the following website: <http://www.ct.gov/caes/lib/caes/documents/publications/bulletins/b1010.pdf>

To protect yourself from ticks:

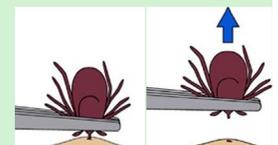
- Perform daily tick checks
- Shower - using a washcloth - soon after being outdoors
- Check your clothing for ticks (clothes must be washed and dried in a dryer to kill hitchhiking ticks)
- Use permethrin-treated clothing when possible
- Choose the right repellent for by visiting <http://cfpub.epa.gov/oppref/insect/>
- Provide vegetation-free play areas for your family

If you find a tick:

1. Use fine-tipped tweezers to grasp the tick as close to the skin's surface as possible.
2. Pull upward with steady, even pressure. Don't twist or jerk the tick; this can cause the mouth-parts to break off and remain in the skin. If this happens, remove the mouth-parts with tweezers.
3. After removing the tick, thoroughly clean the bite area and your hands with rubbing alcohol, an iodine scrub, or soap and water.



Deer Tick Nymph



Courtesy of the [CDC](http://www.cdc.gov)

### EPA and CDC Host Conference on IPM to Prevent Tick-Borne Disease

On March 5 and 6 in Arlington, VA, EPA and CDC co-hosted a conference on IPM to Prevent Tick-Borne Disease (TBD-IPM). For the March 5 session, 53 federal partners focused on completing a white paper with recommendations to develop systematic survey methods to estimate effective IPM tools. On March 6, 73 participants received an overview of scientifically sound tick IPM methods and discussed future research needs.

Dr. Willy Burgdorfer, world renowned for discovery of *Borrelia burgdorferi* (the pathogen that causes Lyme disease), attended the conference. Follow-up material will soon be available.

[http://www.epa.gov/pestwise/events/2013\\_tick\\_meeting.html](http://www.epa.gov/pestwise/events/2013_tick_meeting.html).



### EPA Presents Tick IPM Workshop in Maryland

On February 8 and 9, 2013, EPA coordinated a workshop titled "Integrated Pest Management for Tick-Borne Diseases" at the 2013 Maryland Association of Environmental Outdoor Education (MAEOE) Annual Conference in Ocean City, MD. Additional presenters included the US Department of Agriculture, National Park Service, Old Dominion University and Friends Community School. The attendees included school administrators, universities, and representatives of that National Geographic Society and National Wildlife Federation. There were valuable discussions on effective tick IPM tools and potential partnerships.

## European and Africanized Honey Bees Compared

*Continued from page 1*

Approximately one third of the human diet comes from insect-pollinated plants, and according to the USDA, 80 percent of that pollination comes from honeybees.

African honey bees were imported to Brazil in the 1950's for their large honey crops, and ended up breeding with feral European honey bees, creating "Africanized" honey bees. In the 1990's, these bees expanded north and entered the United States. Africanized honey bees have a much stronger defensive behavior than European honey bees, and their colonies are typically smaller, enabling them to nest in a larger variety of sites. This increases the chance of encounters with the AHB in urban areas.

Africanized honey bees are currently found in the southern U.S. extending into southern Colorado, Nevada, southern California, Texas, Oklahoma, Florida, Louisiana and Arkansas. Feral bee populations in these regions may have a high likelihood of being Africanized. It is extremely difficult to positively distinguish AHB's from EHB's—either a genetic analysis or up to twenty different body part measurements are needed. Therefore, it is best to assume that feral bee populations in these regions may be Africanized and should be treated with caution.

Though one may think the sting of an Africanized honey bee is more potent than that of a European honey bee, that is not the case. The main difference between the two subspecies of honey bees and what makes the Africanized honey bee so dangerous is that while a disturbed EHB nest may result in 10-20 stings, a disturbed AHB nest may result in 100-1000 stings. Fortunately, Africanized honey bees will only act aggressive when they feel that their hive is threatened. When foraging or searching for a new

nest location, Africanized honey bees are no more dangerous than the European honey bee. However, when AHBs are at their nest, the safest minimum distance to keep from their hive is approximately 100 feet, or the width of a four-lane highway.



AHB on left, EHB on right  
USDA, Scott Bauer

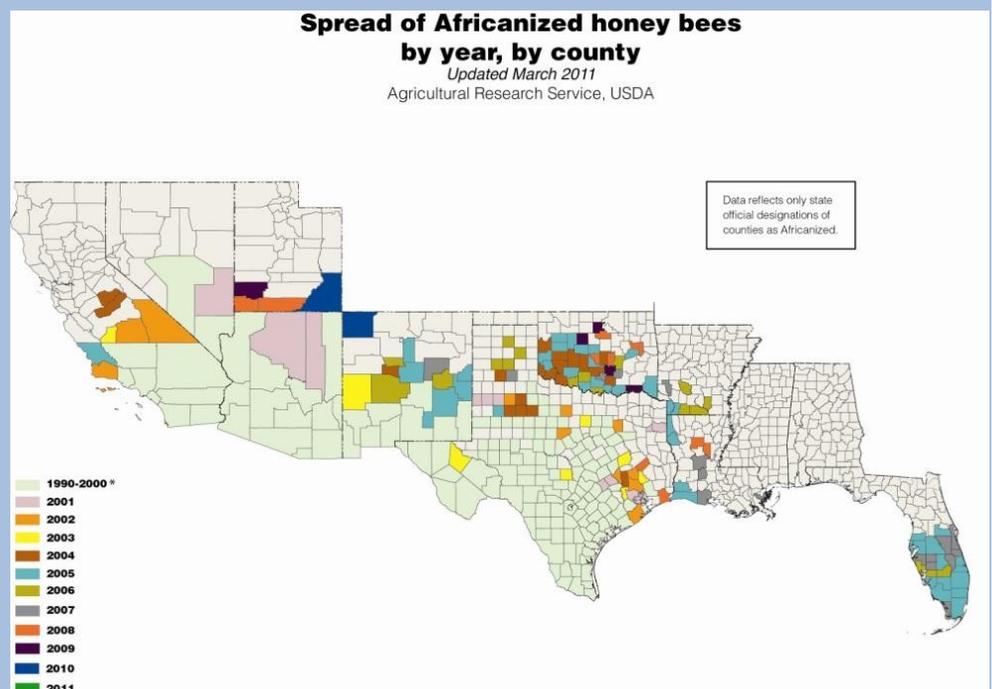
Africanized honey bees are as beneficial to the environment as European honey bees. Although both subspecies of honey bees are an introduced species to the United States, both are very effective pollinators and positively impact plant diversity. In agricultural areas where Africanized honey bees are established, the AHBs will just as readily pollinate crops as EHBs. For those who live in an area colonized by AHBs,

education on techniques for avoiding contact with the more aggressive bees will allow people to safely live with these beneficial, albeit territorial, insects.

Detailed information on bee-proofing your property can be found at <https://edis.ifas.ufl.edu/in741>

Information on swarm trapping for pest management professionals can be found at <https://edis.ifas.ufl.edu/in785>

More information on Africanized and European honey bees found at <http://www.oda.state.ok.us/cps-bees.htm> and <http://edis.ifas.ufl.edu/in784>



## How to Protect Your Home and Family from the Africanized Honey Bee

### *Bee proof your home and yard:*

- Remove potential nesting site
- Inspect exterior walls and eaves
- Seal openings greater than 1/8-inch or install screens (1/8-inch hardware cloth) over vents, rain spouts, water meter/utility boxes, tree cavities, etc.
- During peak swarming season (spring through fall) inspect once or twice a week for any bee activity. If you see a swarm of bees that is focusing on one place for 48 hours or more, it is likely they have selected it as their new nest. Call a pest control company to have it removed before they become defensive.



Bee Swarm

Photo: M. K. O'Malley, University of Florida

### *Educate your family to follow general precautions and have a bee safety plan:*

- Listen for buzzing and look for bees entering or leaving an area, indicating a nest or swarm
- Carefully enter areas where bees might be nesting (garages, sheds, old cars, etc.)
- Examine area prior to using noisy power equipment (lawn mowers, blowers, chain saws, etc.)
- Examine areas before tying or penning pets and livestock
- Never disturb a swarm or colony of bees -- contact a pest control company or your Cooperative Extension Agent for assistance
- If bees start flying around you, run away. Do not swat at the bees, this will encourage them to sting. Also do not freeze in place, this will also encourage stinging
- If bees attack, don't try to escape by jumping into water – the bees will wait for you to come up for air. Instead, run away and find shelter in a house or car. If there is no shelter, run through bushes or high weeds.
- A honey bee will leave its stinger in your skin if it stings you. Get the stinger out by raking your fingernail across it. Don't pinch or pull the stinger out. Put ice on a sting to reduce the swelling.
- For detailed information and pictures, please visit <https://edis.ifas.ufl.edu/in741>



## EPA and USDA co-host Pollinator Summit



On March 5th, the Office of Chemical Safety and Pollution Prevention, in conjunction with the United States Department of Agriculture, facilitated a public meeting with parties engaged in activities to reduce potential acute exposure of pesticides to honey bees and pollinators. Presenters provided briefings on current activities in improving seed treatment techniques, reducing the generation of dust that occurs during planting operations; and raising awareness of current best management practices that are available to mitigate potential acute pesticide exposure to pollinators. Presenters included growers, bee keepers, academic and government researchers, seed treatment industry representatives, and seed planting equipment manufacturers.

Pollinators are an important part of agricultural production. They are critical to food and ecosystems (plants must be pollinated to produce fruit or seeds), and must be protected so that they can continue to play this important role. In person and online, participants shared information while discussing areas of collaboration to lessen the unintended impacts of pesticides on pollinators during coming and future growing seasons. This meeting complemented EPA's ongoing work through the Pesticide Program Dialogue Committee to support and take action to improve pollinator health. Over 100 individuals attended the pollinator conference in person with nearly 200 participating via webinar.

EPA's Steve Bradbury and USDA's Sheryl Kunickis closed out the summit discussing progress, lessons learned, next steps, and future opportunities for collaboration. A main focus area for next steps concerns reducing exposure to honey bees from pesticide-treated seeds and their potentially contaminated dust. Follow-up steps are being developed to compliment other pollinator-related efforts underway by the Agency, including labeling, training, education, and best management practices.

[http://www.epa.gov/oppfead1/cb/csb\\_page/updates/2013/pollin-summit.html](http://www.epa.gov/oppfead1/cb/csb_page/updates/2013/pollin-summit.html)

## EPA Announces Launch of Center of Expertise for School Integrated Pest Management

Last month, EPA announced the launch of its Center of Expertise for School Integrated Pest Management (IPM). The Center will provide leadership and expertise to carry out the Agency's goal of ensuring that millions of children in our Nation's schools benefit from verifiable IPM practices and programs. The Center will serve as a national resource on school IPM, as well as a facilitator of activities amongst key school IPM stakeholders at the local, regional, and federal level.

Situated at EPA Region 6 in Dallas, TX, the Center is an arm of the Office of Pesticide Programs' Biopesticides and Pollution Prevention Division - Environmental Stewardship Branch.

Protecting children's health where they live, learn, and play is a top priority for the EPA. Children in the United States continue to face potential risks arising from exposure to pests and pesticides in school settings. School IPM is an approach to managing pests that schools can use to reduce pest and pesticide risk for students and staff. The EPA's recently released [Strategic and Implementation Plans for School IPM](#) demonstrate how the EPA will promote the goal for all of the nation's children to be covered by a verifiable and ongoing school IPM program.

The Center of Expertise will focus on a wide range of school IPM activities including:

- Developing and refining national program direction
- Coordinating Regional activities to achieve national goals
- Creating and maintaining web-based resources
- Coordinating with other EPA national programs

Center staff includes Thomas Cook (Lead), Sherry Glick, Brad Miller, and Brian Davidson.



### EPA's Green Strides Webinar on School IPM a Success!

On March 6, over 140 attendees including school officials, facility managers, university extension, local, state, regional and federal government officials and parents participated in the Green Strides Webinar on Integrated Pest Management in Schools: Protecting Children in Schools from Pests and Pesticides. EPA is part of the US Department of Education's Green Strides webinar series which offers insight and expertise on Healthy Programs for schools. The webinar focused on the basics of school IPM, potential health, environmental and economic benefits and what it takes to put it all into practice. Protecting children's health where they live, learn and play is a top priority for the EPA. To access the webinar, visit this url for the power point presentation and audio recording. <https://epa.connectsolutions.com/p8ke29owvt4/>

### EPA Participates in Ohio School IPM Alliance Workshop

On March 26, OPP Director Steven Bradbury addressed the Ohio School IPM Alliance Spring Workshop in Westerville, OH. This was the inaugural meeting of the Alliance, an organization being formed through the work of the Ohio State University Extension (OSU) and Improving Kids' Environment, Inc. (IKE) with support from an EPA cooperative agreement.

Dr. Bradbury provided an overview of EPA's school IPM program, along with historical information and future plans. OSU, IKE, and local school facility managers and consultants provided several presentations covering topics such as bed bugs in schools, turf and landscape IPM, and local case studies. Management and staff from BPPD's Environmental Stewardship Branch were also in attendance and participated in a discussion on alliance building and stakeholder expansion.

## Recognizing National Pest Management Month and Bed Bug Awareness Week

April is National Pest Management Month, an observance that has been formally recognized for more than 30 years to acknowledge the pest management industry's commitment to the protection of public health, food and property from common household pests. During National Pest Management Month, the National Pest Management Association (NPMA) encourages public awareness of pests and reminds home and business owners to pest-proof this spring.

Pests, such as insects and rodents are not just annoyances, but many can transmit disease and otherwise negatively impact human health. Because of the health risks posed by pests, the Environmental Protection Agency and other federal agencies have named a pest-free home as one of the eight most important factors in a healthy home.

Home and business owners can find pest-proofing tips on [PestWorld.org](http://PestWorld.org). Pest management professionals can contact the NPMA for additional support on how to educate consumers about Integrated Pest Management and the importance of pest prevention.



Also in April, the professional pest management industry has designated the last week of the month (22<sup>nd</sup>-26<sup>th</sup>) as Bed Bug Awareness Week. According to the 2013 *Bugs without Borders* report issued by the NPMA and the University of Kentucky, bed bugs continue to plague communities across the country. In fact, 94 percent of survey participants reported an increase in bed bug work over the prior year. Bed bugs are often treated in single-family homes, apartments and lodging establishments, but with increasing regularity, they are also found in what were once considered atypical locations. For instance, the survey showed that 41 percent of pest professionals treated schools and day care centers for bed bugs over the past year, 46 percent indicated they treated nursing homes and 33 percent serviced hospitals for bed bugs.

Bed Bug Awareness Week serves as an important reminder for the public to become educated and vigilant in protecting against these blood-sucking pests. NPMA's [All Things Bed Bugs](#) portal and [EPA's Bed Bug Clearinghouse](#) offer everything you need to know about bed bugs, including suggested protocols for schools, offices, and lodging facilities and best management practices.

### NPMA and EPA Offer Webinar for Bed Bug Awareness Week

Join the EPA's Office of Pesticide Programs and NPMA for a bed bug webinar on Thursday, April 25 from 1:00 p.m. to 2:00 p.m. EDT that will address:

- Proactive Approaches to Planning for Bed Bugs
- Bed Bug Hot Spots in Schools
- Bed Bug Management Strategies
- Monitoring and Inspecting for Bed Bugs in Schools
- School IPM and Bed Bugs
- Communication to Families and Staff About Bed Bugs at School
- What to Expect in Working with a Pest Management Professional

This program is being offered as part of NPMA's Bed Bug Awareness Week. Register at <https://www2.gotomeeting.com/register/775395562>





## Grant Opportunities

### EPA Regional Agricultural IPM Grants

EPA is preparing to release a request for applications for its Regional Agricultural IPM Grants program. The goal program is to reduce the risks associated with the use of pesticides through stewardship efforts aimed at increasing IPM adoption in agriculture. This program helps to formalize and expand public-private stewardship and collaborative pest and pesticide risk reduction efforts. Proposals will be accepted from eligible states, state agencies, and tribes. Please keep an eye on [Grants.gov](http://Grants.gov) for the announcement!

### EPA School IPM Grants

In the coming weeks, EPA expects to announce its call for proposals for School IPM Grants from eligible states, state agencies, and tribes. The goal of these grants is to increase the adoption of IPM practices in schools with the aim of reducing risks associated with pests and pesticides in the school environment. The EPA School IPM Grant program advances a wholesale approach to formalize and expand collaborative pesticide risk reduction efforts in accordance with EPA's Strategic and Implementation Plan for School IPM. The announcement will be issued through [Grants.gov](http://Grants.gov).

### USDA-NIFA Regional Integrated Pest Management Grants

USDA-NIFA has released the FY13 Regional IPM Grants Program Request for Applications. Proposals are due by May 16, 2013. The RIPM program supports projects that develop individual pest control tactics, integrate individual tactics into an IPM system, and develop and implement extension and education programs. The program is administered by the land-grant university system's four regional IPM Centers (North Central, Northeastern, Southern, Western) in partnership with NIFA. For information, see the summaries of the RIPM Grants Program with links to the USDA-NIFA page:

Northeastern IPM Center: <http://www.nifa.usda.gov/fo/regionalintegratedpestmgtnortheastern.cfm>

North Central IPM Center: [www.nifa.usda.gov/fo/regionalintegratedpestmgtnorthcentral.cfm](http://www.nifa.usda.gov/fo/regionalintegratedpestmgtnorthcentral.cfm).

Southern IPM Center: [www.nifa.usda.gov/fo/regionalintegratedpestmgtsouthern.cfm](http://www.nifa.usda.gov/fo/regionalintegratedpestmgtsouthern.cfm)

Western IPM Center: [www.nifa.usda.gov/fo/regionalintegratedpestmgtwestern.cfm](http://www.nifa.usda.gov/fo/regionalintegratedpestmgtwestern.cfm)

## Upcoming Events

### NPMA and EPA Bed Bug Webinar

April 25, 1:00 p.m. to 2:00 p.m. EDT

<https://www2.gotomeeting.com/register/775395562>



### National Healthy Schools Day

April 30, 2013

Nationwide

<http://www.nationalhealthyschoolsday.org/>

### Strategic Conservation Planning Using a Green Infrastructure Approach

May 20-24, 2013 (Registration Deadline April 26)

Shepherdstown, WV

[https://salsa3.salsalabs.com/o/50714/p/salsa/event/common/public/?event\\_KEY=68428](https://salsa3.salsalabs.com/o/50714/p/salsa/event/common/public/?event_KEY=68428)

### International Conference on IPM in Museums, Archives and Historic Houses

June 5-7, 2013

Vienna, Austria

<http://www.ipm-conference-vienna2013.at/>

### Biology and Control of Vectors and Public Health Pests: the Importance of Integrated Pest Management

June 18-20, 2013 in Tahlequah, OK

August 7-9, 2013 in Anchorage, AK

<http://www.neha.org/research/irprogram.html#attend>

### Biodiversity and Integrated Pest Management: Working Together for a Sustainable Future

July 4-7, 2013

Manado, North Sulawesi, Indonesia

<http://www.oired.vt.edu/ipmcrsp/biodivipm2013/>

### National Pest Management Association's Academy 2013

July 17-19, 2013

Phoenix, Arizona

<http://www.npmapestworld.org/events/academy.cfm>

### 2013 International Conference on Pollinator Biology, Health and Policy

August 14-17, 2013

State College, PA

<http://agsci.psu.edu/pollinator-conference>

### Texas School IPM Coordinator Training

September 18-19, 2013 in Tyler, TX

October 15-16, 2013 in Houston, TX

<http://schoolipm.tamu.edu/training/>

### PestWorld

October 22-25, 2013

Phoenix, AZ

<http://www.npmapestworld.org>

### Entomology 2013: Entomological Society of America Annual Meeting

November 10-13, 2013

Austin, TX

<http://www.entsoc.org/entomology2013>

### Mark Your Calendars

8th International IPM Symposium

March 24-26, 2015

Salt Lake City, UT