

# Illinois Master Gardener IMAGINE

INFORMATION ♦ NEWS ♦ EDUCATION



Volume 16 No. 1  
January-February 2015

## COORDINATORS' COMMENTS

Happy New Year to all! Included in this newsletter are lots of great continuing education opportunities for this winter and spring. Congratulations to all of you who are continuing to not only seek out personal education chances but also working to educate the public about good gardening practices- even in the cold days of winter.

January is also the time I set aside to remind Master Gardener volunteers about some of our rules and regulations. Sometimes a gentle reminder is a good thing and reviewing the policies is beneficial to you and your fellow volunteers. If it has been a few years since you looked over our state policies- now is as good a time as any to review them. Please remember that your volunteer agreement must be signed annually.

**Reporting Volunteer Hours:** Active Master Gardeners are required to do 30 volunteer and 10 continuing education hours each year. Your contribution may seem small but we need to document EVERYONES hours so we can show the impact of our work to county, state and national funders. In these times of state budget constraints we need to be extra diligent in reporting hours and making the public aware of our great programming efforts. Please follow the deadlines set up by your local MG Coordinator so that your hours from 2014 are included before their deadline.

**Dismissal of Volunteers:** This is a topic we all hate to discuss but occasionally certain volunteers do not fit well with our mission and are released from our program. It is always best to discuss concerns you have with your local coordinator before situations get out of hand. The policies for dismissal were changed in 2009 by the state advisory committee with assistance from Extension administration and the university lawyer.

**Use of the MG title:** The title "University of Illinois Extension Master Gardener" or "Master Gardener" may only be used when you are conducting pre-approved unpaid educational programming. You may not use your title in any form of commercial advertisement or endorse any product or place of business. So if you own a greenhouse or nursery, you may not use your title in your company's ads. Once you cease being active in the program, you must tender your badge to your County Extension office. The title "Master Gardener" is not bestowed for life, so we request that once you leave the program you cease to use the title. You may however call yourself a Master Gardener alumnus and we hope you do!

**Projects and Education:** Projects must focus on educational efforts for the public and must be PRE-APPROVED by your local coordinator. If your project is not pre-approved you will not be covered by Extension's liability insurance. Although community beautification is a nice service, Master Gardener projects MUST go further and have an educational component rather than just planting and maintenance of public areas. If you receive a call on the hotline from a nursery or greenhouse- refer that question to your Coordinator or Extension Educator. Calls about potential spray drift cases should be referred to your Coordinator or the Illinois Dept. of Agriculture.

**Child Protection Class:** The University of Illinois administration and Board of Trustees decreed that all volunteers must take the child protection class and sign the Protection of Minors Acknowledgment form. This only needs to be done once while you are a volunteer. Your local office may offer the training in a group setting or send you the link to take the training online individually. If you have not completed the training, contact your local Extension office or your MG Coordinator for instructions.

Best wishes for a happy and healthy 2015! Monica David, Illinois Master Gardener State Coordinator

## ILLINOIS FIRST DETECTOR PEST WORKSHOPS

Early detection and response is key to managing invasive pests. The Illinois First Detector workshops are aimed at improving first-detector and invasive species awareness. New topics on current and emerging invasive plants, pathogens and insects will be covered. Each location will have sessions covering brown marmorated stink bug, viruses in ornamental plants, invasive plants and their management, as well as a session devoted to discussing invasive pest pathways. In depth training sessions will highlight identification/detection, life cycle/biology, hosts, sampling, management, and commonly confused look-a-likes. These workshops qualify for MG advanced training in IPM.

### Workshop Schedule:

January 29-Collinsville 618-344-4230  
February 3- Wheaton 630-584-6166  
February 4- DeKalb 6815-758-8194  
February 11-Mt. Vernon 618-548-1446  
February 12- Charleston 217-546-3755  
February 18-Macomb 309-837-3939  
February 19- Moline 309-756-9978  
February 26- Bloomington 309-663-8306

All workshops are from 9 am to 3:00 pm. Registration fee is \$40 and includes lunch and training materials. No on-site registrations will be accepted. Registration may be done online at the county website which is hosting the class. These workshops made possible by an Illinois IPM grant and are sponsored by University of Illinois Extension, USDA, The Morton Arboretum, Illinois Natural History Survey, SIU Community Forestry Outreach, Illinois Department of Natural Resources and Illinois Department of Agriculture. For information on the Illinois First Detector Program contact Kelly Estes at [kcook8@illinois.edu](mailto:kcook8@illinois.edu)

## 2015 STATE CONFERENCE TO BE HELD SEPTEMBER 17-19 IN SOUTHERN ILLINOIS

The Master Gardeners of Madison, Monroe and St. Clair counties invite you to join them for fun and education next September at the Hilton Garden Inn in O'Fallon Illinois. The conference will feature 2 days of classes plus hands-on sessions. Classes will feature topics which will interest both Master Gardeners AND Master Naturalists. Tours will highlight the best of local Horticulture and Natural Resource areas, nurseries and gardens.

Keynote speaker for the conference is **Rosalind Creasy**, author of 18 popular gardening books. Rosalind's first book, *The Complete Book of Edible Landscaping*, won the Garden Writers Quill and Trowel award and coined the term "Edible Landscaping" which is now a part of every gardener's vocabulary. She was awarded a 2011 American Horticulture Society Book Award for her updated book titled *Edible Landscaping*. She is a garden and food writer, photographer and landscape designer with a passion for vegetables and ecologically sensitive gardening.

## MASTER GARDENER PROJECT MINI-GRANTS DUE JANUARY 31

The Master Gardener state advisory committee is offering the opportunity for counties/units to apply for mini-grants through the state office. The mini-grants program is supported by the silent auction held each year at the annual state conference. The mini-grants were designed to supply start-up or continuation funds for your local endeavors. Existing projects or new projects will both be considered for grant funds. Maximum grant is \$1200 but most all grants will be for smaller amounts of money. Grants will be awarded annually. A maximum of 1 grant per county per year. The state office will reimburse unit offices for expenses up to the amount of the mini-grant.

The grant funds are to be used for horticulture programs which meet the goals of the Master Gardener program and should be based on one of the Extension priorities—energy and environmental stewardship; food safety and security; economic development and work force preparedness; family health and wellness and youth development. Preference will be given to programs which make multiple contacts with their audiences— rather than single day events.

There is an application procedure to follow and applications should be submitted electronically to the state office by January 31. All those applications which are not submitted correctly or do not follow the guidelines will not be considered. The state MG advisory committee will judge the applications and winners will be announced on March 1. Applications **MUST** be written in collaboration with Extension staff and Master Gardeners. The application form calls for a project narrative and a proposed budget and will be heavily weighted to those projects which demonstrate impact and follow-up. The instructions and application can be found on the MG website under "For IL Master Gardeners".

## HERB DAY 2015

University of Illinois Herb Day will be held on Saturday, Jan. 17, from 8 am to 4:30 pm at the Wyndham Garden Hotel and Conference Center (formerly the Holiday Inn) near Lincoln Avenue and I-74 in Urbana. An impressive line-up of speakers has been booked for the annual event.

Kirk R. Brown of Orefield, Pennsylvania, is an accomplished speaker, garden writer, and actor, who will present “John Bartram, America’s Premier Plantsman”, an in-character, costumed, discussion of the life and works of this pioneering botanist of America, and “Landscaping with Herbs”, as himself, about how herbs can be used creatively and effectively in our yards, gardens, and public spaces.

John Forti is the newly hired director of the Massachusetts Horticultural Society in Wellesley, Massachusetts. For the past 12 years, Forti was the Director of Strawberry Banke Museum, in Portsmouth, New Hampshire. He will give two presentations: “The Herbalist’s Garden”, an illustrated talk, which brings history to life through the exploration of heirloom herbs; and “Garden Craft: Preserving and Enjoying the Artisanal Skills of Farm and Garden”.

Bob Rowe, the “catering czar” from Classic Events Catering in Urbana, will share his take on cooking with herbs.

An exhibit area will offer a wide variety of herb, spice, and gardening products for sale as well as books and products from the presenters.

This year online registration by credit card or check is available at <http://tinyurl.com/pnjrp3w>. For questions contact Linda Harvey at 217-244-1693 or by email at [lh Harvey@illinois.edu](mailto:lh Harvey@illinois.edu).

Advance registration of \$60, which includes an herb-themed lunch buffet (including vegetarian options), must be received by Jan. 9 to guarantee lunch.

On-site registration on Jan. 17 begins at 8 a.m. and will continue only as long as space allows. On-site registration does not include lunch. The first educational session begins promptly at 9 a.m.

## ILLINOIS SENATE MAKES 2015 THE YEAR OF VOLUNTEERISM

**by Chris Enroth, Extension Hort Educator Unit 10**

The Illinois Senate has declared 2015 the “Year of the Volunteer”. This is not a random labeling of a year, but one that takes into account the benefits of volunteerism. According to the November 2014 Harvard Health Letter, volunteering allows an individual to “let go of the inward focus [and] focus on others”, which is associated with lessening of physical and emotional aches and pains. Studies of volunteers indicate healthy outcomes such as lower blood pressure, less depression, greater well-being, and higher self-esteem. Studies even indicate those that volunteer or give support to others have a 22 percent reduction in the risk of dying. (Harvard Health, Nov 2014)

So what is the function of an Extension volunteer? Those Master Gardener, Master Naturalist, or 4-H leaders reading this probably know what I’m about to write. The duty of an Extension volunteer is to extend the knowledge of the university. To accept an obligation to do right by their community. Embrace a willingness to help others. And hopefully have a little fun along the way.

What comes with being an Extension volunteer? We train and prepare you for things known and unknown. I have found it is the unknowns that usually result in the most thrilling and greatest learning experience. What comes after training is often immeasurable. Yes, hours are reported and attendance numbers submitted, but how do you quantify the impact of teaching a child a new skill? Seeing hands, crippled with age, come alive as they touch the soil? Teaching a family how to grow their own food? Indeed these items are immeasurable and testament to the Harvard studies that volunteerism can give back to the volunteer.

I want to thank all those volunteers (Extension and otherwise) for the work you do in our communities. 2015 is here and the spotlight is on you. Let’s make it a great year!

Visit Chris’ blog at <http://web.extension.illinois.edu/hkmw/eb285/>

## IMPORTANT DATES

**January 7:** Illinois Specialty Crops, Agritourism and Organic Conference, Crowne Plaza, Springfield. Pre-registration closed December 26 but you may register on site. <http://www.specialtygrowers.org/iscaoc-conference.html>

**January 10, 17, February 7, 21 and March 7:** You Don't Know a Tree 'Til You See It Naked, January 10@10 am Ray Fosse Park, Marion and @ 1 pm Herrin City Park, Herrin; January 17 @1 pm Murphysboro; Feb 7 @1 pm Benton; Feb 21 @ 1pm Pinckneyville and March 7 @ 1pm in Red Bud. Join SIU and U of I Extension staff for these outdoor hikes. Other forestry aspects such as tree care, urban forestry and forest health will be covered. There is no charge but registration is required. Limit 20 per hike. To register contact Sonja Lallemand at 618-687-1727 or [lalleman@illinois.edu](mailto:lalleman@illinois.edu)

**January 17:** Beginner Beekeeping Class, 8 am to Noon, Extension Office, Ottawa. Cost is \$5. Go to <http://web.extension.illinois.edu/blmp> or 815-433-0707.

**January 24:** Mid-Winter Horticulture Workshop, 9 am to Noon. First Lutheran Church, Geneseo. The \$12 fee (\$15 at the door) includes three sessions-Deer Departed; Cut Flowers From Your Yard and All About Owls. Sponsored by the Rock Island Co. MGs. Register at <http://web.extension.illinois.edu/hmrs>.

**January 27-28:** Gateway Green Industry Conference, Gateway Convention Center, Collinsville. Keynote addresses by Sam Wortman, Professor at the University of Illinois, who will speak on Urban Agriculture and Thomas Rainer, Landscape Architect, who will discuss Designed Plant Communities. Two days of sessions include: Fungal and Canker Diseases, Landscaping for Wildlife; Weed Control; Pollinators; Composting; Invasive Ornamentals Plants and much more. MG admission with ID card or letter of active status is \$45 for 1 day and \$65 for 2 days. <http://web.extension.illinois.edu/mms> or 618-344-4230.

**January 29-31:** Illinois Grape Growers and Vintners Annual Conference and Tradeshow, Crowne Plaza, Springfield. <http://www.illinoiswine.org/> or contact Bradley Beam at [bradleybeam@gmail.com](mailto:bradleybeam@gmail.com)

**January 31:** A Winter Day in the Garden, Highland Church of Christ, Robinson. Sessions include "Vertical Gardening" by Mark Dwyer; "Creating a Private Space and Healthful Gardening in Any Available Space" by Melinda Myers; "Garden Beneficials" by Tom Turpin and "Gardening in Miniature" by Kathryn Newman. Registration is \$35; \$45 after January 16. Breakfast and lunch are included. Sponsored by the Crawford County MGs. 618-546-1549 or <http://web.extension.illinois.edu/cce/crawfordmg/>

**February 3:** Southern Illinois Commercial Tree Fruit School, Holiday Inn, Mt. Vernon. Contact Laurie George at [ljgeorge@illinois.edu](mailto:ljgeorge@illinois.edu)

**February 4:** Southwestern Illinois Commercial Tree Fruit School, Knights of Columbus Hall, Hardin. Contact Ken Johnson at [kjohnso@illinois.edu](mailto:kjohnso@illinois.edu)

**February 6:** Updates on New Ornamental Plant Species, 9 am to Noon, Lilac Cottage, Bowen Park, Waukegan. Northeast IL Invasive Plant Partnership is sponsoring this event. Contact Cathy McGlynn at [cathy.mcglynn@niipp.net](mailto:cathy.mcglynn@niipp.net) or 847-242-6423 to register.

**February 7:** Community Gardening and Urban Farming Workshop, 9 am to 1:30 pm at IL Dept of Agriculture Bld., Springfield. A facilitated panel discussion by partners in community gardening including Grow Springfield Members. Class topics include: "Using Gardening as a Tool to Enhance Community"; "Strategies to Help People Garden at Home and in Public Spaces"; "Soil Fertility for Urban Gardens" and "Urban Farming in Columbia, MO". Fee is \$15 which includes lunch and handouts. Register by Feb 5. <https://web.extension.illinois.edu/registration/?RegistrationID=11263>

**February 10-11:** Gateway Small Fruit and Vegetable Conference, Regency Conference Center, O'Fallon. Contact Elizabeth Wahle. 618-344-4230 or [wahle@illinois.edu](mailto:wahle@illinois.edu).

**February 14:** Gardening Insights, 9 am to 4 pm. Richland Community College, Decatur. Keynote speaker is Kerry Mendez who will talk on information from her new book *The Right Sized Flower Garden: Exceptional Plants and Design Solutions for Aging and Time-Pressed Gardeners*. Break-out sessions include: Orchids; Composting; Houseplants; Making a Pot Topiary; Gardening with Children; Herbs and much more. \$25 for classes, keynote and lunch. Sponsored by the Macon Co. MGs. 217-877-6042 or <http://web.extension.illinois.edu/dmp/>

## IMPORTANT DATES CONTINUED

**February 21:** Joys of Gardening, Highland Community College Student Conference Center, Freeport. The event begins at 8:30 with a keynote talk by Martha Smith. Three breakout sessions follow with each session offering 6 unique garden classes to choose from. Registration is \$25 for full day with lunch or \$15 for a half day- no lunch. Sponsored by the Stephenson Co. MGs. Registration opens January 5 at <http://web.extension.illinois.edu/jsw> or call 815-235-4125

**February 21:** Weekend Gardener, 8:30 am to 2:30 pm. Shrine of Our Lady of the Snows, Belleville. Choose from 16 exciting workshops including Rain Gardening; Orchids; Pruning; Herbs; Bulbs; Natives and more. Fee is \$40 and includes lunch. Pre-registration required. Sponsored by the Unit 22 MGs. 618-939-3434.

**February 21:** How to Build a Bee Hive From the Ground Up, 8 am to Noon. Extension Office, Ottawa. Cost is \$5. <http://web.extension.illinois.edu/blmp>

**February 25-27:** iLandscape, The Renaissance Schaumburg Convention Center, Schaumburg. This event is hosted by the IL Landscape Contractors Association and the Wisconsin Green Industry Federation. The show features vendors & educational sessions which include Sustainable Landscaping; Conifers for the Upper Midwest; Proven Perennials; Urban Trees, Roses; Unique Tropicals; Edibles and more. Tradeshow & education pass is \$79 before 2-2-15. <http://www.ilandscapeshow.com/>

**February 28:** Gardeners Pathway, 7:30 am to 3:30 pm, Kishwaukee College Conference Center, Malta. The keynote address is by retired U of I educator Greg Stack who will present "Myth or Fiction: Things I've Heard Over the Years About How to Grow". A second keynote will be Amanda Thomsen, blogger and author of *Kiss My Aster* who will present the latest garden buzz in her "Weeders Digest" presentation. Breakout sessions include Armatures; Butterflies; Unusual Vegetables; Hypertufa; Hydrangeas and more. Fee is \$60. Sponsored by DeKalb Co. MGs. <http://web.extension.illinois.edu/bdo/>

**February 28:** Nursery School-Lessons in Gardening, iwireless Center, Moline. 8 am to 4 pm. The keynote speaker will be Guy Sternburg, director of the Starhill Forest Arboretum who will present "The Aesthetics of Trees". Choose from 16 different classes including Building a Rock Garden; Ground Covers; Landscape Top Ten;

Ramping Up for Raised Beds and more. \$45 fee (before Feb 7) includes breakfast, lunch, snacks, vendors and handouts. Sponsored by the Rock Island Co. MGs. 309-756-9978 or <http://web.extension.illinois.edu/hmrs/>

**March 7:** Home, Lawn and Garden Day 2015, Central Catholic High School, Bloomington. Attendees select 3 workshops from 35 topics and 1 of 8 "Master Gardener Mini-Sessions" and attend the general session. Keynote speaker is Mark Dwyer, Director of Horticulture at the Rotary Gardens in Janesville, WI who will talk on "Vertical Gardening". A \$50 registration fee includes workshops, vendors and exhibitors, lunch, door prizes, mystery photo contest and silent auction. Sponsored by the McLean County MGs. Online registration opens January 12 at <http://web.extension.illinois.edu/lmw>

**March 7:** Gardening For Food, Flowers and Fun, NIU campus, Rockford. Keynote address given by U of I Instructor and author Dianne Noland "Floral Design to Music- A Dynamic Presentation for the Senses". Join them for the early rite of spring- an educational venture presenting fresh horticultural ideas, insights and techniques. \$40 cost includes keynote presentation and admission to all breakout session. \$40 includes keynote, 3 sessions and lunch. Sponsored by the Winnebago Co. MGs. Registration at <http://web.extension.illinois.edu/jsw>

**March 7:** Leopold Education Project and BirdSleuth Ambassador Workshop, 9 am to 3:30 pm. Shawnee National Forest Headquarters Office, Harrisburg. This workshop will introduce the Leopold Education Project conservation and environmental education curriculum as well as the Cornell Lab of Ornithology BirdSleuth program. Cost is \$57 and includes 3 curricula. Registration deadline is February 17. To register, please contact Amanda Patrick at 618.253.1031 or at [apatrick@fs.fed.us](mailto:apatrick@fs.fed.us)

**March 9:** Growing ProHort, Illinois Central College, East Peoria. The keynote speaker is Jim Nau from Ball Seed. Keynote and four other workshops for a fee of \$30.

**March 14-22:** Chicago Flower and Garden Show, Navy Pier, Chicago. Garden displays, shopping and lots of educational sessions. <http://chicagoflower.com>

**March 14:** IVCC Spring Garden Seminar, 8 am to 3:30 pm. IL. Valley Community College, Oglesby. There are 16 programs offered in four different sessions. Sponsored by the Unit 8 MGs. <http://web.extension.illinois.edu/blmp> or 815-433-0707.

## IMPORTANT DATES CONTINUED

**March 14:** Garden Day Workshop and Spring Festival, 8 am to 2 pm. Crossroads Christian Church, Danville. This award winning event includes garden themed speakers, vendors, door prizes, a silent auction and a home-made lunch. The keynote will be delivered by Nicholas Staton from Monrovia Plants and he will discuss "What's New in 2015". The fee of \$25 includes lunch, speakers and educational information. Sponsored by the Vermilion Co. MGs. 217-442-8615 or <http://web.extension.illinois.edu/cfv/>

**March 14:** Ready..Set..Grow, Sauk Valley College, Dixon. 8 am to 3 pm. A keynote presentation on "Four Star Plants" will be given by Richard Hawke, Plant Evaluation Manager at CBG. Attendees may participate in three hands-on sessions: Stepping Stones, Herbal Vinegars and Self-watering Containers. Other workshops include: Seed Saving; Hummingbirds; Heirlooms, Shade Gardening, Square Foot Gardening and more. Registration cost is \$40. Sponsored by the Carroll, Lee, Ogle and Whiteside County MGs. <http://web.extension.illinois.edu/bdo>

**March 14:** Russel Allen Garden Day, 9 am to 12:30 pm. Meyers-Evans Student Center, Lincoln College, Lincoln. Keynote speaker Guy Sternburg from Starhill Forest Arboretum will present "Tough Trees for the Landscape." Other topics include: Pruning and Care of Hydrangeas; Succulent Gardening; Native Plants; Landscaping and Composting. Fee is \$10 before March 6 and \$12 at the door. Sponsored by the Logan Co. MGs. To register visit: <http://web.extension.illinois.edu/lms>. 217-732-8289.

**March 17- April 21 (Mondays):** Spring Series of Home Horticulture, Extension Office, Milan. 7 to 9 pm. Topics include Planning a Community Garden, Small Fruits & Backyard Orchard, Native Plants, Perennial Garden Maintenance and more. \$5 per class or \$25 for all 6. Register at <http://web.extension.illinois.edu/hmrs>.

**March 21:** Calhoun, Cass, Morgan and Scott County Gardener's Day. 9 am to 3 pm. Morning session includes 3 breakouts: Pollinators; Cover Crops for the Home Gardener and Saving Seeds/ Heirloom Vegetables. Hands-on Seed Starting Session in pm. \$10 for full day & \$5 for either am or pm session only. Register online at <https://web.extension.illinois.edu/registration/?RegistrationID=11408>.

**March 28:** A Day in the Garden Patch, Livingston County Extension Office, Pontiac. The morning will feature talks on Butterflies, Containers and New Plants of 2015. Registration is \$20. Visit <https://web.extension.illinois.edu/registration/?RegistrationID=11354>

**April 5:** Think Spring Horticulture Workshop, Blackhawk Outreach Center, Kewanee. The event will feature sessions on African Violets; Think Differently About Your Garden; and Containers and New Plant Materials for 2015. \$15 for the public, \$10 for MGs and MNs. <http://web.extension.illinois.edu/hmrs/>

**April 11:** Gardeners Big Day, Dickson Mounds Museum, Lewiston. 8:45 am to 4 pm. Keynote speaker is Father Dominic Garramone, the Bread Monk. Many breakout sessions will be offered. Sponsored by the Fulton County MGs. <http://web.extension.illinois.edu/fmpt/>

**April 11:** Gardenfest 2015, McHenry County College, Crystal Lake. The keynote address "The Know Maintenance Perennial Garden" will be given by Roy Diblick. Classes include: Pocket Gardening; Gardening with Conifers; Hypertufa; Hardscaping; Hydroponics and Aquaponics; Tropical Plants; Top Twenty Weeds and many more. Sponsored by MCC and the McHenry County MGs. Visit [www.mchenry.edu/gardenfest](http://www.mchenry.edu/gardenfest) or 815-455-8764.

**April 18:** Woodford Gardener's Gathering, 11 am to Noon. Woodford County Extension Office, Eureka. Join Horticulturist Ella Maxwell for a talk on annuals and perennials to use for a stunning container garden. Fee is \$20. Register at <https://web.extension.illinois.edu/registration/?RegistrationID=11360>

**April 23:** Small Changes with Big Impacts: How Gardeners Can Help Native Plants and Animals, 6 to 8 pm. Lilac Cottage, Bowen Park, Waukegan. Please register with Cathy McGlynn at [cathy.mcglynn@niipp.net](mailto:cathy.mcglynn@niipp.net) or at 847-242-6423.

**May 2:** Proven Winners Outdoor Living Extravaganza, 8:30 am to 4 pm. Chicago Botanic Garden. This workshop will feature nationally known speakers Marshall Dirks and Rick Schoellhorn from Proven Winners; Kerry Mendez, garden author; Stacey Hirvela from Spring Meadow Nursery and Jamie Durie, author and TV Host. Registration price of \$80 includes lunch, gift bag, free plants and giveaways. <https://www.provenwinners.com/Outdoor-Living-Extravaganza-2015>

## VENOM GETS GOOD BUZZ AS POTENTIAL CANCER-FIGHTER

Bee, snake or scorpion venom could form the basis of a new generation of cancer-fighting drugs, scientists from the University of Illinois at Urbana-Champaign report. They have devised a method for targeting venom proteins specifically to malignant cells while sparing healthy ones, which reduces or eliminates side effects that the toxins otherwise would cause.

The report was presented during the 248th National Meeting of the American Chemical Society (ACS), the world's largest scientific society. Attended by thousands of scientists, the meeting runs August 11 through 14 and features nearly 12,000 reports on new advances in science and other topics.

"We have safely used venom toxins in tiny nanometer-sized particles to treat breast cancer and melanoma cells in the laboratory," says Dipanjan Pan, Ph.D., who led the study. "These particles, which are camouflaged from the immune system, take the toxin directly to the cancer cells, sparing normal tissue."

Venom from snakes, bees and scorpions contains proteins and peptides which, when separated from the other components and tested individually, can attach to cancer cell membranes. That activity could potentially block the growth and spread of the disease, other researchers have reported. Pan, an assistant professor in the Department of Bioengineering at the University of Illinois at Urbana-Champaign, and his team say that some of substances found in any of these venoms could be effective anti-tumor agents. But just injecting venoms into a patient would have side effects. Among these could be damage to heart muscle or nerve cells, unwanted clotting or, alternately, bleeding under the skin. So Pan and his team at Illinois set out to solve this problem.



He says that in the honeybee study, his team identified a substance in the venom called melittin that keeps the cancer cells from multiplying. Bees make so little venom that it's not feasible to extract it and separate out the substance time after time for lab testing or for later clinical use. That's why they synthesized melittin in the lab. To figure out how melittin would work inside a nanoparticle, they conducted computational studies. Next, they did the test and injected their synthetic toxin into nanoparticles. "The peptide toxins we made are so tightly packed within the nanoparticle that they don't leach out when exposed to the bloodstream and cause side effects," he explains. What they do is go directly to the tumor, where they bind to cancer stem cells, blocking their growth and spread, he adds. He says that synthetic peptides mimicking components from other venoms, such as those from snakes or scorpions, also work well in the nanoparticles as a possible cancer therapy.

Pan says the next step is to examine the new treatment approach in rats and pigs. Eventually, they hope to begin a study involving patients. He estimates that this should be in the next three to five years.

Reprinted from University of Illinois, Department of Bioengineering News. Also see the CNN report on Dr. Pan's research at [http://go.bioengineering.illinois.edu/venom\\_report\\_cnn](http://go.bioengineering.illinois.edu/venom_report_cnn)



### NEW OUTSTANDING AND SUSTAINED EXCELLENCE AWARD WINNER PINS RELEASED

All past (currently active) and future winners of the state Outstanding Master Gardener and Sustained Excellence awards are eligible to receive the *new* pins recently released by the State Master Gardener office. Contact your local MG Coordinator and they will place an order for the pins with the state coordinator. The state office is providing the pins free of charge to the award winners.

## THE NEW PEST IN TOWN: SPOTTED LANTERNFLY

International trade has brought another exotic pest to North America. The spotted lanternfly, *Lycorma delicatula*, has been detected in parts of Pennsylvania. Native to China, India, Japan, and Vietnam, it already is an invasive pest in Korea.

This planthopper uses its tubular mouthparts to pierce phloem tissues of foliage and young stems on trees and other woody plants and suck out very large quantities of liquids. Because the insect prefers species with high concentrations of sugar in their sap, mold can grow on sites where feeding has occurred. The feeding and potential mold growth can hinder the growth of the tree and could eventually cause mortality.



Although the lanternfly is not a strong flier, it is an excellent jumper and easily moves from one place to another when people transport egg masses laid on smooth surfaces such as cars or smooth-barked trees like tree-of-heaven. Egg masses will be present in October and hatch as early as April.

Host species for the spotted lanternfly include apple, birch, cherry, dogwood, grape, lilac, maple, poplar, stone fruits, and tree-of-heaven. The insect's first preferred host is tree-of-heaven, most likely due to its high concentrations of cytotoxic alkaloids, which may protect egg masses from predation.

What to do: Be on the lookout for suspicious egg masses on smooth outdoor surfaces. They tend to include 30 to 50 small eggs in a gray, waxy, mudlike coating. Hatched eggs appear as brownish seedlike deposits in four to seven columns about 1 inch long. Trees attacked by the spotted lanternfly often will show a gray or black trail of moldy sap down the trunk.

Watch plants carefully during the growing season for signs of stress or wilt and for excess dew or residue buildup on the bark. Report potential pests to the University of Illinois Plant Clinic. Information about the Plant Clinic can be found at: <http://web.extension.illinois.edu/plantclinic/>



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