Northeastern IPM Center - IPM Partnership Grants - 2009 - Proposal
Project Description

Title: Community IPM Working Group Plan of Work for 2009

Project Category: IPM WORKING GROUPS
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Project Summary

In the densely populated Northeastern and Mid-Atlantic regions of the US, the environmental and health impacts of pests and pest control are important issues, given the amount of money spent on pesticides, fertilizers, and pest management services. Reaching people who are not affiliated with stakeholder groups, (the average citizen) has represented a challenge for cooperative extension. The Community IPM work group has begun to develop fresh approaches to large-scale public outreach through the use of eye-catching posters with clever messages delivered in public settings and through a mass-transit campaign. In 2009, the group plans to build upon the successes of these projects and learn from the shortcomings in order to plan better outreach and evaluation. For example, the current collection of landscape IPM posters, which were featured in the U.S. Botanical Garden in Washington D.C., will be offered to other botanical gardens using a portfolio to showcase the work. We will develop the means to share these posters through digital media, to allow local cooperative extension offices, stakeholder groups, and others to print and use them. Additional posters for pests of structures will be developed. The mass-transit campaign for www.growinggreenlawns.org will be evaluated and used as a model for outreach for a structural pest site titled www.bughelp.org which will tie in the structural IPM posters. The group will continue to collaborate with the North Central IPM Center, and members are organizing several sessions at the National IPM Symposium. Additionally, the group is joining with EPA's initiative for community-based IPM.

Background and Justification

The Northeast/mid-Atlantic is the most densely populated region of the United States with an average of more than 300 persons living on each square mile of land. In these states and the District of Columbia more than 80% of the population lives in urban areas. In the region there are concerns about negative environmental impacts from the current management of lawns, gardens, buildings, parks and other public and private properties. Homeowners are largely uninformed regarding the use of alternatives to pesticides for controlling pests in and around the home (National Gardening Association Environmental Lawn and Garden Survey 2008). They use sources of information for pest identification and management that are largely unreliable and depend on pesticides as their primary management technique. The adoption of non-chemical tactics under an IPM approach has produced reductions in pesticide use of as much as 99% (Raupp et al. 1992). Pesticide reductions can only help to ameliorate problems such as ground and surface water contamination, the evolution of resistance in pests, human health effects (including asthma and accidental poisonings), and mortality of beneficial insect complexes.

Numerous studies have indicated that the amount of pesticide used by homeowners, renters, pest control operators, and landscape mangers in urban settings is significant and high. In 2007 consumers spent a total of $35.102 billion in retail sales on their lawns and gardens. Consumers spend close to $ 5 billion a year on lawn and garden consumables. About 20% of the dollars are lawn fertilizers (with or without pesticides), 20% are growing media (potting mix and soils, but not including mulch), 10% is grass seed, 7% is garden/houseplant fertilizer, and the remaining 43% is straight pesticide (includes indoor aerosols or indoor pest control and indoor/outdoor products). Roughly 60% of the pesticide dollars are for insecticides (personal communication, Scotts Miracle Gro). Eighty-two million households participated in some sort of Do-it-Yourself lawn and garden activity, including the care of houseplants. There are about 16 million acres of home lawn in the USA and about 40% of total turf in the USA is in home lawns. (National Gardening Survey 2008)

The 2006 National Gardening Survey, conducted for NGA by Harris Interactive Inc., cites retail sales increases in nine of the 16 lawn and garden categories, including:
• Lawn care, up 9%, from $8.887 billion to $9.657 billion
• Flower gardening, up 10%, from $2.735 billion to $3.003 billion
• Vegetable gardening, up 9%, from $1.058 billion in 2004 to $1.154 billion in 2005
• Container gardening, up 8%, from $1.196 billion in 2004 to $1.295 billion last year

In 2006 consumers spent a record $44.7 billion to hire professional lawn and landscape services (National Gardening Survey 2007). The services include lawn care and landscape maintenance, landscape installation and construction, tree care services and landscape design services. The survey also found that 30% of all households (34.5 million) currently hire at least one type of lawn and landscape service. Of this total, 27.8 million were lawn care and landscape maintenance services. According to a report by the American Nursery & Landscape Association (2003), 24.7 million households spent $28,000,000 on professional landscape, lawn, and tree care services in 2002.

Turfgrass has become a major component of the landscape in the Northeast. In New York State alone, 10% of the state is in turfgrass with more than $79,000,000 being spent on pesticides in 2003 to manage turf at homes, golf courses, and schools, (New York Agricultural Statistics Service, 2004). Almost half of this expenditure was by homeowners.

According to Specialty Products Consultants (Nagro 2008), the structural pest control service industry generated $6.628 billion in sales in the United States in 2007. In the Northeast, a rough estimate of the money spent on residential structural pest control is about $1.037 billion. Although some pests are apparently on the decline, such as termites, others are becoming significantly more serious, especially bed bugs. The numbers of bed bug complaints in New York City, for example, has risen from approximately 540 in 2004 to almost 7,000 in the first half of 2007. Many other cities in the U.S. and Canada report similar trends. Raising awareness about bed bugs and their control, and advertising the kind of advice the CIPM working group and others can offer, will go a long way for those who never contact cooperative extension offices. We intend to develop new relationships with the public as a source of reliable, science-based advice on pest and pesticide issues.

Emerging pests of the landscape and community, such as European cranefly, emerald ash borer, Asian tiger mosquito, Asian longhorned beetle, oak wilt, and the brown marmorated stink bug, require persistent and effective outreach to the public. Identification of the species, teaching people where and how to report the pest if necessary, and teaching them what to do and what not to do are important for protecting the environment from further spread and possible damage. The Community IPM working group has the capability, especially through its partnerships with the North Central IPM Center, Audubon International, and stakeholders, to take advantage of these outreach opportunities.

Recently the CIPM working group met with officials from the US EPA. One of the EPA's primary goals is to assure the protection of human health and the environment from pesticides. The FQPA Section 303 requires EPA to implement research, demonstration and education programs that support the adoption of IPM, and to make information on IPM widely available to pesticide users. The EPA Environmental Steward Branch within the Biopesticides & Pollution Prevention Division has reorganized the Pesticide Environmental Stewardship Program. Underneath the new model each partner is categorized into a four simple sections Live, Work, Play and Farm. This customer based model will support use of integrated pest management (IPM) techniques to reduce health and environmental risks in community settings. During FY 2010 EPA will focus their efforts on schools, child care facilities, housing and residential landscaping. The Community IPM working group will work together with EPA PESP program to develop national programs and activities that support community IPM and PESP.

The Community IPM working group sees tremendous potential for impacts to be made through outreach efforts and education that draws in these large-scale audiences through visual media, partnerships with companies, such as Scotts Miracle Gro and others, and a multi-regional cooperative effort to minimize efforts and cost of material development. All IPM educational materials developed in the Northeastern Center's community IPM group will be shared with other regions. We see the potential to develop a relationship with the public and draw them into IPM and cooperative extension through "storefront" websites that are well advertised, attractive, offer good and easy to read information, and link to the massive variety of university-based sites. Evaluation of such tools as the landscape posters nestled among horticultural displays at the US Botanical Garden will require effort and possibly different evaluation tools, but the impact is there. People are reading these posters as they linger to look at garden displays. By consulting with evaluation specialists (Carol Pilcher and William Coli in 2008) and having members of our working group involved with the IPM Evaluation working group, we intend to refine the very challenging process of measuring change in attitudes and practices of the public.

Objectives and Procedures

1) The Community IPM Working Group will continue an outreach and communications plan to develop and extend novel ways of educating the public on implementing IPM in their homes, lawns, and landscapes.

The working group will continue to develop outreach and communications projects for residential IPM in collaboration with stakeholders from environmental groups, pest management industry, Master Gardeners, the US EPA and others. The primary goal is to develop a common language for IPM recommendations and to compile effective and new

outreach methods to deliver them to residents, pest control and landscape/lawn care companies. Several members of our working group plan to be members of the IPM Evaluation working group of the Northeastern IPM Center in order to learn and develop more effective evaluation techniques.

a. Continue the use of Growing Green Lawns bus banners in Rhode Island and Pennsylvania and track ridership and activity on www.growinggreenlawns.org site.

Through contract with Direct Media, Inc., which maintains transit sole-source contracts in several small markets in the United States, members of the Community IPM group will re-use Growing Green Lawns bus banners in markets in Providence, Rhode Island, and in University Park, PA in 2009. Ridership numbers are increasing due to economic forces, and Direct Media, Inc. will provide those numbers to the group, helping estimate the numbers of potential viewers of the materials. Additionally, visits to the site www.growinggreenlawns.org, which is directly linked to the bus banners, can be counted and used to show impact (if they read the material and come to the website, we've engaged them). The website, maintained by the North Central IPM Center, will be improved and expanded over the coming year.

Additionally, leaders of the Cooperative Sanctuary Program at Audubon International have decided to promote a subset of posters on turfgrass care to their members, such as golf courses, to fulfill the public outreach requirement of the program's membership. Audubon International would also like to explore how to incorporate IPM poster materials into Audubon International's Green Neighborhoods program (for more information see: http://gn.audubоninternational.org/) and the Sustainable Communities Program (http://scp.audubоninternational.org/).

b. Develop a portfolio of the landscape and bloopers posters developed for and used in the USBG that will be used to solicit the project to other public gardens and non-traditional venues, such as zoos. Evaluate the impact of posters on perception and potential for IPM adoption by the audience.

The success of the outreach project at the U.S. Botanical Gardens will be multiplied though the development of a portfolio of the posters available, photos of people reading them, a description of the project and how it was accomplished, plus letters of recommendation from staff organizers at the USBG. The portfolio will be shopped around to places, such as the Minneapolis Landscape Arboretum, the Missouri Botanical Garden in St. Louis, and possibly the New York Botanical Garden (Bronx, NY), and other places as they are identified. The posters can be reproduced individually, in many ways to withstand weather, and at a variety of sizes. We plan to determine the most effective process for measuring impact of the posters. Several methods have been used to date.

c. Development of 3-5 new posters capturing core messages related to structural pest management.

Structural pest management posters will be developed over the coming year, with inputs from entomologists and structural pest management professionals. They will be marketed to residents for common pest control issues in the home, such as rats, mice, cockroaches, ants, and bed bugs. The posters will contain the web address: www.bughelp.org, which will be used to indirectly measure impact (through site traffic) and to develop a relationship with the public by providing them with a clear portal to the information we want them to have from Land Grants and other science-based sources. The process for developing posters with core messages is well defined and efficient, using the Community IPM work group and its stakeholders.

d. Create a new web portal titled www.bughelp.org, which will be a hub of general audience IPM and pest information, linking back to consumer-friendly extension information for each state in the Northeast, and possibly the North Central region. **

Through marketing campaigns using the structural IPM posters, www.bughelp.org will be advertised to help determine impacts of the posters. Can we bring people to the website? Ultimately, the goal is to have posters and advertisement of the website in mass transit ad spots in one or more metropolitan area of the Northeast. We envision ants and bed bugs wrapped on buses or walking down the middle aisle, leading to www.bughelp.org. Additional funding will be sought to support greater mass advertising.
** Development of this website may depend on the availability of funds for some basic web design.

e. Collaborate with the EPA PESP efforts to focus on community IPM issues.

By including EPA officials in working group meetings and communications, sharing pest-specific information, and providing outreach activities and opportunities the Community IPM working group will help further EPA's efforts to focus on IPM where people live, work, and play, (three of the four sections in their new initiative). In return, EPA collaboration gives the Community IPM working group greater scope and possible funding sources for cooperative projects.

2) Meet with the North Central IPM Center's Director and Consumer Horticulture work group to discuss collaborations on residential and landscape IPM projects.

The Community IPM work group is tentatively planning to hold the next planning meeting in conjunction with the Consumer Horticulture work group of the North Central IPM Center. Locations and dates are to be worked out. The groups have a common mission, and collaborations to date have been effective, time saving, and very positive.

3) Members of the working group are organizing several mini-symposia, workshops and a roundtable for the Sixth National IPM Symposium, March 2009, Portland, Oregon.

Sessions include:

- "It's Not Easy to be Simple"- Delivering IPM Lawn Care Outreach Messages, Mary Kay Malinoski
- "Bed Bugs and Public Health: Establishing the Connections", Jody Gangloff-Kaufmann, Steve Jacobs, and Tim Gibb.
- "Structural Pest Control and Water Quality: Issues, Needs, Approaches, Collaborations", Lynn Braband and Dave Tamayo.
- "Tools for Fostering IPM Success in Residential Environments", Lori Bushway
- "Urban IPM Implementation - Emerging Opportunities for Strategic Partnerships", Lyn Garling
- "Beyond the Links: Golf Courses as a model for residential IPM", Joellen (Zeh) Lampman

Anticipated Impacts

The National IPM Roadmap states under "Implementation and Adoption of IPM" that "…homeowners must willingly adopt IPM practices for these programs to reach their full potential, and the public must have information to fully understand these programs."

The current focus of the Community IPM working group is residential IPM promotion and adoption. However, measuring impacts with the general public is very challenging.

Activity	**Preliminary Impacts**
1. Outreach and communications plan	Increased awareness of IPM, cooperative extension, and universities as science-based sources of helpful information
a. Growing Green Lawns bus banners	Simple messages improve audience understanding of how to grow grass and care for their lawns. Website offered to further engage viewers in other topics. Reduction of impacts of pesticides, fertilizers on water quality. Increase visibility of IPM and the Northeastern IPM Center.
b. Posters portfolio	Expand the audience for landscape and other posters, offering simple messages on how to manage plants and pests correctly. Simple changes in practices improves health of plants, reducing inputs. Greater exposure of the public to posters further increases visibility of IPM, the Northeastern and North Central IPM Centers, and cooperative extension.
c. Three to five new structural posters	Grab the attention of more suburban and urban dwellers, who may not have landscapes to manage. Reduce pesticide uses in the home, in favor of IPM practices. Introduce cooperative extension to urban and suburban audiences as a science-based source of needed pest information.
d. Web site	Create an interface with the public that leads them to IPM

www.bughelp.org development	Centers and cooperative extension information, but does it in an attractive and very easy-to-read way. Measure impact through website views coming directly from the poster campaign.
e. Collaborate with EPA PESP	Further the priorities of the IPM Roadmap by incorporating EPA resources into residential, school, and workplace IPM activities.
2. Meet with North Central IPM work group	Create a collaboration between centers that allows members to make use of the other's materials, and to conduct multi-regional efforts in IPM promotion.
3. Organize sessions at National IPM Symposium	Network with others doing similar work, give others ideas, and get ideas for what can be done. Develop or refine current priorities in community IPM.

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