

EPA's National Bed Bug Summit

Recommendations from the Ten Workgroups

April 14 and 15, 2009

Arlington, VA

*This meeting is being held under the auspices of EPA's
Pesticide Program Dialogue Committee.*

Workgroup 1 Recommendations

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Government

- Form interagency taskforce to address bed bugs
 - Identify priorities
 - Coordinate efforts/ share knowledge
 - Create clearinghouse
 - Provide management guidance
 - Implement Summit recommendations
- EPA website
 - Up-to-date information
 - Improve search capability

Government (cont'd)

- Recognize as a public health pest
- Review efficacy data on all bed bug products
- Streamline path to register bed bug pesticides
- Create regulations for reconditioning/ recycling mattress and mattress components
- Subsidize bed bug control services

Education (Public)

- Improve and coordinate education/ outreach efforts
- Develop bed bug education curriculum for children in schools
- Provide internet-based outreach (podcasts, factsheets)
- Produce Public Service Announcements
- Use Picture-based education
- Key Points: Early detection; Consult a professional; do not treat yourself

Education (PCO)

- Standardize PCO training
- Implement pesticide applicator certification for bed bugs subcategory
- Offer continuing education by independent trainers
- Mandate IPM certification for bed bug control

Research

- Fund research to improve treatment methods
- Target research to develop solutions to real-world problems (e.g. treatment protocols)
- Formulate IPM strategies
- Form public-private partnerships

Property Owners

- Hold property owners liable for known bed bug infestations
- Share cost of abatement
- Add bed bugs to home inspection reports

Workgroup 2 Recommendations



Role of Government

- Involve all Levels of Government
 - Define the role of each level
- Recommend Joint Task Force (CDC/EPA)
- Legislative Support
 - e.g. Mattress regulations
- Support IPM Approach
 - Funding
 - Outreach and education programs
 - Research

Consumer Education and Communication

- NPMA Involvement
 - Provide training on all levels
- National Center for Healthy Homes
- State Pest Extension
- Local Health Departments
 - Bed Bug 101
 - Basic information on identification, biology, prevention, treatment
 - Easy access to consumer groups
 - Safe use of pesticides i.e. how to use, what to use, when to use

PCO Education and Training

- Separate Licensing for Bed Bug Treatment
 - Supported by PMPs present
- Alternative Option
 - Certification/Recertification
- Nationwide Training Standards
- Possibility of Using Funds from Licensing for Research Expansion
- Elevate Status of Bed Bugs to Public Health Pest

Role of Property Owners & Property Managers

- Responsible for Overall Management of Problem in Property
 - Partnership with tenants and PCO
 - Training of staff
- Staying Up to Date on Current Issues
- Awareness of IPM Practices

Research

- Provide More Funding
- Update Current Information
 - Possible natural enemies (Biological Agents)
 - How quickly can they spread?
 - Behavior
- Products for Humans
- Furniture Design to “Build Them Out”
- Utilize New Techniques for Existing Chemicals
- IPM

Workgroup 3

Out Put



Research

Problems:

- Lack of dedicated research funds.
- Lack of bed bug research (ecology, non-pesticide and pesticide, translational) during the last 50 years.
- Lack of cross research and networking between researchers who study other insects whose data/technology may help with bedbug elimination.

Solutions:

- Raise bed bugs to an epidemic level so it becomes a public health pest (CDC) and will receive appropriate federal and state funds for research.
- Fund the Indian Health Services (50 years exposure to bb).
- Create a tracking system for better data from PCO feedback.

Role of Government

Problems:

- Standardize the definition of whether it is a public health problem or not.
- Extension services aren't set up to deal with bed bug problems.
- Lack of coordination between different agencies (CDC, Housing Authority, EPA)

Solutions:

- Creation of national bb foundation.
- Better coordination of government agencies.
- Raising bb to a higher priority level within all government authorities.

Consumer Education & Communication

Problems:

- Consumer misuse of pesticides.
- Policing inaccurate information on the Internet
- Stigma challenge...fear of neighbors finding out you have bed bugs.

Solutions:

- Public Service announcements; TV, Radio, Web, Billboard, Consumer bb Hotline.
- Educate the children to bring home bb info to parents for more awareness.
- Educate nursing home, health care, and hotel industry staff about bb.

PCO Education and Training

Problems:

- No separate certification for bb with supervisor oversight (not just a technician).
- Inconsistent / inadequate training between state and national levels.
- There is no standard level of training on bb between the states.

Solutions:

- NPMA Quality-Pro training for PCO's on bb.
- Separate license certification for bb technology.
- Dedicated bb CEU's for PCO's

Role of Property Owners and Managers

Problems:

- Unprepared for cost of service.
- Unprepared for treatment of property (Clutter).
- Uncooperative and uneducated tenants (“Bed Bug Mary”).

Solutions:

- Create a legal responsibility for control / payment.
- Create legislation for disposal of infested bedding.
- Training and outreach to property owners and managers on bb.

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Work Group 4

Recommendations

Research

- Potential funding sources (HUD, EPA, CDC, HHS) should be tapped for research and outreach efforts. Modify current funding sources to include bedbug research.
- New basic and more applied research to promote more effective products. Basic research is old and may be outdated, applied research not conducted with enough frequency to be useful.
- Have clearinghouse for prevalence data. Should be confidential to prevent depression of real estate or affect commerce. In order to get a sense of the actual number of infestations and be able to map distribution. PCOs could be encouraged to report infestation to confidential database.

Role of Government

- Establish federal, interagency task force.
- Fund research- bedbug bailout.
- Review bedbug efficacy protocols.
- Legislation mandating certification for bedbug treatment.

Role of Government con't

- State-level regulation that clarifies landlord/tenant expectations of cost and clean-up when dealing with infestations. Would protect tenants from incurring costs they ought not bear and ensure landlords deal with infestations.
- Encourage registration of specialized uses rather than allowing off-label use. Incentivize new products and new uses of existing products through expedited reviews and fee reduction, extended period of exclusive use.

Consumer Education and Communication

- Multiagency website, clearinghouse of info. A “bedbug.gov.” Agencies involved EPA, GSA, CDC, HUD, HHS, DOT, FAA. General tips for the public on how to identify and treat; resources for teachers and curriculum for schools; misuses of pesticides for bedbugs- “Dos and Don’ts”; resources for renters, landlords, and PCOs. Site could be organized by stakeholder or sector.
- National PSA campaign, in multiple languages and venues to reach different cultures

PCO Education and Training

- Certification specific to bedbugs. This includes field training, encourage mentorship.

Role of Property Owners & Managers

- Require licensed PCO application, or landlord would have to be licensed PCO to treat their property.
- Certification for property owners to be trained in pest control. If educated would have the knowledge to effectively treat an entire building.

Work Group 5 Recommendations



Research

► Problem

- Lack of funding
- Type of research (chemical, non chemical)
- Lack of bed bug biology research
- The inability to use human subjects

► Option/Solutions

- Establishing bed bugs as public health pest
- Education
- Dispelling myth of who is affected by bed bugs

Research

► Recommendations

- Research to demonstrate that bed bugs are public health problem
- Research quantifying the impact of bed bugs on society similar to cockroach research
- Funding needed from government and private industry

Role of Government (all levels)

► Problem

- Lack of funding
- Lack of legislation
- Scope of problems misunderstood
- 50 years of data gap

Government

► Recommendations

- Work on Legislation/research funding/grants (fed/state)
- Reevaluation of risk assessments to include misuse of pesticides and considering reregistering products for PCO only (fed)
- Sanitary Guidelines specifically for bed bugs (state)
- Public Awareness Programs (all levels)
- Earmark fines to subsidize treatments for those that cannot afford (state/local)
- Requirements to treat used mattress and furniture (state)

Consumer Ed and Training

► Problems

- Misinformation to consumers and medical personnel
- Lack of transparency and disclosure
- Poorly defined roles of stakeholders

Consumer Ed and Training

► Recommendations

- PSA on bed bugs
- Web-based information
- Local Personal Outreach (Baltimore outreach)
- Mini Bed Bug Summit in EPA Regions (EPA Lead)
- Bridging Legislation with Education

PCO Education and Training

- ▶ In general the group did not find lack of PCO Ed and training to be part of the problem

Role of Property Owner/Managers

► Problems

- Stigma Issues
- Potential for abuse of tenants
- Money Concerns
- Lease Agreements
- Lack of Education – self treatment
- Language barriers

Property Owner/Mgrs

► Options/Solutions

- Acknowledgement of bed bug problem
- Establishment of action plan
- Communicating contents of action plan and responsibility to tenants/guests
- Open communication with tenants
- Notification to tenants of bed bug problem

Property Owner/Managers

► Recommendations

- Proactive involvement
- Action Plan to include regular inspections, training of employees, tenant responsibilities
- Lease Language addressing bed bugs and various responsibilities
- Providing Education Material to tenants

Group 6

Research

- Extend exclusive use duration

Role of Government

- Incentivize Treatments
- Furniture Disposal Regulation (especially mattresses)
- Separate trucks for delivery and removal of mattresses
- Encourage rental furniture business to address issue of infested furniture transfer
- Regulate mattress packing used for transit
- Give priority to bed bug product registration and label amendments
- Outreach and education

Consumer Education/Outreach

- EPA/Government Website/ Fact Sheets specific for consumers/PCOs/Property Managers
- Provide Demographic information on infestations to remove stigma
- School programs to educate and reduce stigma
- Travel advisories/Airport signage
- Rapid reporting of infestation to property management
- Debunk myths (treatments that don't work and negative stigma)

PCO Education/Training

- Bedbug certification program through industry or state licensure requirement enhanced
- Improve inspection/detection techniques/equipment
- Complete treatment
- Vacuum, Steam, Encase, Heat, Chemical, etc...
- "Clover Leaf"
- Respond promptly to service requests (1 week)
- Prep Sheets & Post Sheets for Residents

Property Managers/Owners

- Education of Tenants
 - How to identify bed bugs
 - Prevention
 - How to solve problem/What to do
- Educate Staff
 - How to identify bed bugs
 - Prevention
 - How to solve problem/What to do
 - Have a key contact at property who is informed about bed bug
- Inspect between each tenant
- Participate in program outside own company for exchange of information and ideas
- Rapid/Comprehensive Response
- Maintain contact with extension agency/land grant university

Group 7

- Facilitator – Meredith Laws
- Note taker – Autumn Metzger
- Spokesperson – Ted St. Amand

Research

- Need money – EPA has some funding available for grants
- Need new chemicals but none in pipeline
- No silver bullet expected (need to utilize tools better)
- Old chemicals worked; need to review all options for our toolbox

Role of Governments (all levels)

- **#1 – Government officials and legislators need education**
 - Take federal employees, legislators & stakeholders on tours/jobs to see for themselves and better understand
 - Greater need for an understanding of the complexities surrounding a bed bug infestation
- **EPA needs to take the leadership role for all stakeholders**

Consumer Ed. & Comm.

- **Need for education to be targeted to specific organizations:**
 - Hoteliers, Dorms, Hospitals, Nursing homes
 - Medical Professionals (misdiagnoses)
 - Social Workers/Home attendants/First Responders
- **Proper identification of a bed bug**
- **EPA bed bug specific website & standardized fact sheet**

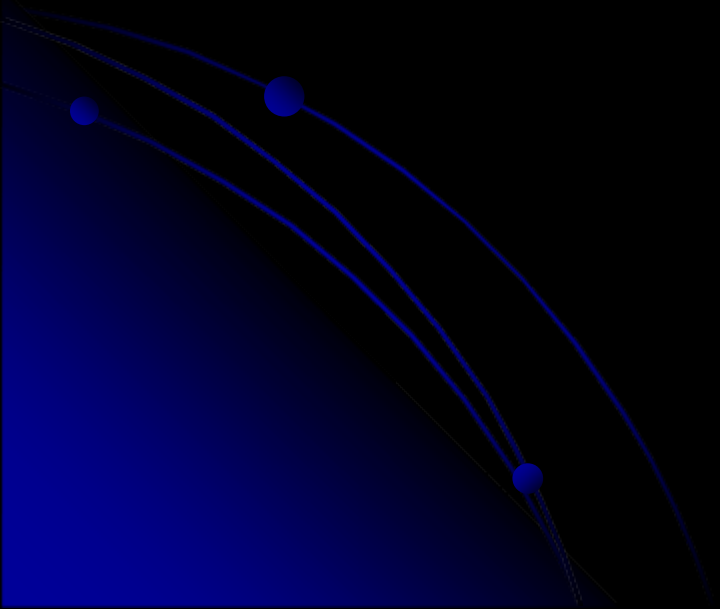
PCO Ed. & Training

- Resources are available
- Self-policing – reporting misinformation, misapplication, illegal products (including web sales)
- Beneficial aspect of having government/unbiased perspective at certification programs or state pest control association meetings

Role of Property Owners and Managers

- Refer back to consumer education & outreach
- Bring HUD into field
- Create landlord fact sheet
 - Standard industry practices
 - FAQs
 - Service frequency
 - Legalities

Group 8 summary



First topic: Government Responses

- Many agencies have a stake, but no single agency is taking the lead on bed bug issues
- Environmental Health lead agency differs by state and locality: no agency wants the lead on bed bugs
- Coordinated research/grant opportunities exist for public and private organizations—awareness is low and there is no central resource for information
- Development of a bed bug response flow chart would be useful for agencies such as HUD
- Should bed bug info be integrated into homebuyer information (such as is done for termites and fleas)?
- Oversight on used cars? (other varied harborage items)

2nd topic: Consumer Ed and Comm.

- Best practices need to be harmonized over different jurisdictions
- The largest information battle is mis-information: bogus claims, products, websites, etc.
- An IPM training module is on the way from CDC (6 month window)
- IPM training module for multi-family housing is on the way, but not focused on bedbugs (multi-agency)
- A single clearinghouse for information (same issue as finding a 'lead' agency) interagency bedbug task force
- HUD 'eco-wise' newsletter is open to article submissions on bed bugs

3rd Topic: Research

- Bedbug lure should be a top research priority because it could be quite effective while minimizing household residues.
- Need for both applied and basic research to tackle the problem—funding is limited due to the non-public health perception of bedbugs.
 - A good example is a VT effort for development of a bed bug life table
- More info and evaluation is needed on the potential for vectoring, which is still poorly understood
- Allergenic effects, mechanical transmission of diseases, etc.
- Development of mathematical models for bedbug populations
- Studies with real field strains rather than susceptible lab strains
- There is a need for social sciences to investigate these problems—the interaction of entomology with sociology
- No rapid assays are available for ID of insecticide sensitivity

Topic 4: Role of property owners/managers

- The problem of re-infestation, after much money has been spent
- What constitutes an 'infestation'?
- What is a realistic treatment threshold: legal definition vs. a biological one?
- Bed bugs present a challenge to traditional confines of 'IPM'
- The CSI problem: infestations are case-specific and the ability to trace-back the source of the problem
- Detachment of pest management issues from the social stigmas
- Issues of moving: should 'bedbug free' certification be required by landlords for incoming tenants

Topic 5: PCO Education/Training

- Homeowner preparation is key to success of any control effort
- Should there be a centralized certification program solely for bed bugs?
- A PCO is only as effective as their training
- Onus of education falls to PCO's while public education is not adequate: PCOs end up trying to educate the public, which is a futile effort.
- PCO's are the front line in battling rampant misinformation.

National Bed Bug Summit

Report of Workgroup 9

April 15, 2009

Overarching Recommendation:

- Form a committee or panel to explore adopting best practices & guidelines for the pest control industry (PMPs) drawing from previously developed materials such as those of Doggett in Australia, AFPMB, etc...

Education and Communication:

- Design national outreach and education campaign to be led by EPA in partnership with other organizations (e.g., ASPRO, CDC, NPMA/PPMA, NAA, ESA, medical & consumer groups)
- Educate consumers on OTC products – what approaches work and what don't
- Educate the medical community to prevent misdiagnosis
- Design national outreach and education program (website) for first responders
 - Message – seek professional identification; here are identification resources
 - Will save time & money
 - Professional species identification – critical to encourage first responders to seek professional identification

PMP Education and Training:

- Establish voluntary standards at a national level for accreditation for bed bug specialists (PMPs) to help people find qualified PMPs (example – QualityPro approach); Agency could apply economic incentives/recommendations.

Research:

- Dedicate more money for bed bug research on the following major areas:
 - Resistance
 - Mode of behavior
 - Population ecology
 - Possibility of disease transmission
 - Population – effect of temperature, season
 - Role of alternate hosts
 - Interaction with other insects
- Survey of bed bug problems and consumer behavior across the US to establish baseline of information

Government:

- Ask CDC to consider classifying bed bugs as a public health pest because of psychological considerations; asthma.
- Update bed bug efficacy guidelines for better testing procedures
 - Including testing of resistant populations

Government, continued:

- Federal government should be a clearinghouse for state and local governments (will help if CDC makes bedbugs a public health issue)
- Require efficacy testing of products exempt from regulation under 25(b)
- Increase monitoring and enforcement of pesticides sold over the internet
 - False claims
 - Unregistered products

Further recommendations:

- ASPRO should establish national model legislation on bed bug management in consultation with EPA, CDC, & others
 - tenant and/or landlord responsibilities
 - resale of secondhand furniture & mattresses
- Hold a 2nd Bed Bug Summit or other communication action as a follow-up to this summit



Workgroup 10
Recommendations

Research

- Defining the biology
 - Behavioral mechanisms to find host, etc.
- Identify existing pesticides that may be efficacious against bedbugs
- Coordinate research



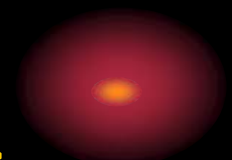
Role of Government



- Consistency of message/rules within local governments
- Develop best management practices, central “clearing house” of information for local governments/consumers
- Legislation to clarify everyone’s responsibility
 - Landlord, tenant, homeowner, commercial sector, etc.
- Easier/cheaper registration process for pesticides to control bedbugs
- Educate the medical community, especially dermatologists and pediatricians

Consumer Education and Communication

- To reduce stigma:
 - Education in schools/colleges, PSA's, education about the biology
 - public event information sessions (in light-hearted manner)
- To promote early detection/control:
 - Education of landlords/property owners
 - Cost-comparisons of timely v. delayed action
- To minimize the spread of bedbugs:
 - Consumer education about used furniture
 - Travel advisories
 - Bedbug life cycle and behavior education



PCO Education and Training

- Voluntary continuing and specialized education opportunities for PCOs
 - Provided by CDC, NPMA, EPA, etc.
- Encourage consumer-driven PCO choices:
 - Hire PCOs that specialize in bedbug control
 - Encourage public participation in consumer rating systems, such as Angie's List, etc.



Role of Property Owners/Managers

- Educate about identification, control, prevention, and inspection
- Clarifying legislation for roles and responsibilities
- ID sources of financial aid/tax credits
- Use mediators to try to resolve disputes



Overarching Issues



- High cost of control
 - Discourages early identification and subsequent control
 - Limits money available for research
 - Encourages disputes over responsibility
- Education for all concerned, from the consumer to the PCO to the healthcare community to government

EPA'S NATIONAL BED BUG SUMMIT

Participant Recommendations

April 15, 2009

The goals of EPA's National Bed Bug Summit included encouraging communication among diverse stakeholders, and developing recommendations on how to address the myriad of problems posed by the bed bug resurgence. EPA achieved these goals through the effective use of EPA-facilitated workgroups.

During the afternoon of Tuesday, April 14th, Summit attendees were divided into ten workgroups. EPA assigned attendees to workgroups according to their affiliation in order to ensure that each group had a mix of professionals from pest control companies; universities; public health organizations; federal, state, and local government agencies; and others.

All ten workgroups were given the same assignment. They were to consider five topics:

1. Research
2. Role of Government (all levels)
3. Consumer Education and Communication
4. Pest Control Operator Education and Training
5. Role of Property Owners and Property Managers

For each of the five topics above, all ten workgroups were asked to:

- Identify the most significant factors contributing to the problem.
- Identify and discuss options and solutions.
- Identify their workgroup's recommendations.

EPA compiled the recommendations of all ten workgroups by topic. The compiled recommendations are provided in the five topic-specific text boxes, below. Wednesday morning (April 15), all Summit participants reconvened and together they reviewed the compiled recommendations for each topic. An open discussion session followed the review of each topic's compiled recommendations, and all participants were welcomed to share their views. A brief summary of the comments and discussion from these open sessions are also provided below for each topic.

Topic 1. Recommendations for Research (compiled from all ten workgroups)

| |
|---|
| Fund research: HUD, EPA, CDC, HHS, private industry |
| Form public-private partnerships |
| Formulate IPM strategies |
| Target research to develop solutions: products for humans, design improvements, study vectoring, luring, allergic reactions, population models, rapid assays for insecticide sensitivity, resistance, mode of behavior, disease transmission possibilities, alternate hosts, interaction with other insects |
| New and emerging technologies and techniques |
| Create a tracking system/clearinghouse for data (include PCO feedback) |
| Leverage existing sources of funding to include bed bugs |
| Demonstrate bed bugs are public health problem; impacts on society |
| Review past control strategies |

Topic 1 -- Brief summary of comments and discussion from the open discussion session:

- Targeted research funding should include asthma. This will encourage CDC to include bed bugs as a public health pest. (Similar to cockroach data.)
- There should be a safety/occupational safety issue as well as a public health issue for bed bugs, due to loss of sleep for pilots, flight attendants, other professionals, etc.
- Species-specific considerations may be confusing. There needs to be clarification on bed bugs, bat bugs, and bird bugs, and whether it is appropriate to consider these separately, or as a common genus.
- IPM is a common thread. IPM research should also ensure that IPM is being practiced as it is intended to be. IPM is generally not used properly because it is not well understood. Do more research and develop better IPM education.
- Public health needs a more holistic definition. What is the regulatory mechanism for changing the public health definition, or broadening the definition to include overall wellness, mental health, etc.?
- There is a difference between public health issues and disease vectors. Joint EPA/CDC statement already recognizes that bed bugs are a pest of public health importance.
- Need to define IPM strongly. There should be a community-based component. There are already community-based IPM programs around cockroaches. Communities need to be involved at the beginning.
- CDC has not addressed the issue of bed bugs as possible disease transmitters. Existing data are equivocal. In-depth investigation of existing literature is needed.
- Specific RFPs do not address bed bugs. There is a need for bed bug-specific RFPs. There needs to be emphasis on very basic biology/behavior research for bed bugs.

Topic 2. Recommendations for the Role of Government (compiled from all ten workgroups)

| |
|---|
| Form interagency federal taskforce (EPA, CDC, HHS, etc.) |
| Involve all levels of government: collaborate, coordinate, cooperate |
| Create national foundation |
| EPA bed bug specific website |
| Legislative support: regulations for addressing recycled/refurbished mattresses; dealing with infested items |
| Legislation: bed bug certification for pest control operators |
| Provide funding: research, education, training |
| Provide subsidies for bed bug control: include underserved communities; utilize fine money as a source of funding |
| State regulations to clarify roles and responsibilities: tenants/owners/managers |
| Regulatory changes to streamline registration process; incentives for new products; encourage specialized uses; reevaluation of risk assessments to include risks of misuse |
| Recognize bed bugs as public health pest (classify as epidemic level) |
| Update efficacy guidelines for better testing procedures |
| Support IPM approach |
| Educate government officials and elected officials |
| Develop a response flow chart |
| Monitor and enforce products sold over internet: false claims, unregistered products |
| ASPCRO/other stakeholders establish national model legislation on bed bug management |
| Hold a Second Bed Bug Summit |

Topic 2 -- Brief summary of comments and discussion from the open discussion session:

- In addition to education of government officials, there is a strong need to have these officials in the field and experience the reality of the bed bug situation. Aside from PCOs, many stakeholders have never actually seen a bedbug.
- Legislation for bed bug certification would be counterproductive. Professional association already has “self-policing” methods. Bedbug certification would be a burden to industry. Industry could create its own registration of Quality Pro. Certification is an unnecessary cost to PCOs.

Topic 2 -- Brief summary of comments and discussion from the open discussion session (continued):

- EPA should take more responsibility and a leadership role. Taxpayer dollars should not be used to address the problem. Solutions should start with EPA and not rely on cross-government cooperation.
- Should provide guidelines for workers in occupations with high chances of bedbug transport/transmission (e.g. firefighters, social workers, etc.).
- Possibility of bringing back old products. We need more effective chemicals. EPA needs to make it easier and cost effective for registrants to bring products back. Some products were lost not due to risk, but because of costs. Need economic incentives. Products can be targeted to bed bugs only to minimize risk, but then it is not cost effective. Less effective chemicals are applied more frequently. EPA should consider more efficacious chemicals that can be applied less frequently.
- Medical entomologists in North Carolina help oversee mattress recycling/reuse, bedding, and furniture. Need a working group to develop model legislation for states to used mattress sanitation efforts.
- Need for additional labeling requirements on mattresses and enforceable fines for mishandling.
- Need a well-funded core of change agents to implement IPM programs to empower people to carry out IPM for public health issues. Includes supporting state extension, but this is subject to USDA's mission. May need a separate environmental/public health extension service.
- There are laws in Virginia against selling used bedding and furniture but only 3 officials in the state of VA to enforce. VA requires a sanitizer permit for resale of used beds and furniture.
- Bed bugs need to be moved to top of the list. The word epidemic should be used cautiously...pandemic may be more appropriate.
- EPA should look at reduced-risk pesticides and OP alternatives for new uses, rather than new products.
- EPA and CDC should issue a specific statement regarding bed bugs being a public health problem, since this is unclear.
- Government should be wary of the burden posed by an additional/separate certification for PCOs to treat bed bug infestations.
- EPA regulations already exist, but the lawmakers don't understand what is involved in the pest management industry. Pest control in schools requires an IPM program.
- HUD should be included in the interagency federal task force.

| Topic 3: Recommendations for Consumer Education & Communication (compiled from all ten workgroups) |
|--|
| Develop targeted bed bug education curriculum (i.e., children in schools, nursing homes, health care, hotel industry, medical professionals, dorms, home care providers, first responders) |
| Develop and disseminate information: identification, biology, prevention, safe treatment options, do's and don'ts, dispel myths, sanitary guidelines, best practices |
| Internet-based outreach/clearinghouse (i.e., factsheets, podcasts, key points in dealing with bed bugs) |
| Public service announcements: TV, web, radio, billboard, hotlines (multiple languages) |
| Collaborate at all levels (industry, associations, federal, state, local, etc.) |
| Multiagency website (EPA, GSA, CDC, HUD, HHS, DOT, FAA) |
| Mini bed bug summits in EPA regions |
| IPM training module |

Topic 3 -- Brief summary of comments and discussion from the open discussion session:

- Should emphasize pictures of early development stages of bed bug. Most people are only familiar with pictures of adult bedbugs.
- An IPM training module for bed bugs has been developed by Pennsylvania IPM Program.
- Internet-based outreach should include blogs, Facebook, YouTube, and other popular media.
- 2nd Bedbug Summit should include all stakeholders.
- Consumer education should focus on a long-term goal of having residents/"hosts" be partners of pest management. Need a "demand-side" IPM rather than "supply-side." Pesticide dependence leads to pesticide resistance.
- Educational materials should include guidance on detection of low-level infestations and early intervention.
- Need to reconsider USDA extension services as partners. USDA does have healthy housing outreach. Infrastructure already exists and should be taken advantage of.
- Mandatory education of property managers through webinar. Local PCOs provide information to communities with ongoing bedbug issues.
- Extension agents largely do NOT deal with public health pests. The majority deal with agriculture, although only a small percentage of the population is engaged in agriculture. Extension should be reevaluated to meet the needs of the general population.
- California is working with consumer education partners who already do lead education and other outreach activities. The outreach infrastructure already exists, and bed bug materials can be distributed through these means.
- The term IPM is not clear to the public, and in many cases, excludes the use of any pesticides. This has made it difficult for PCOs to treat infestations. The definition of IPM should make it clear that all available tools should be utilized, starting with low-risk tools, but not excluding other options.

Topic 4: Recommendations for PCO Education & Training

(compiled from all ten workgroups)

Standardize PCO training (national training standards)

Implement pesticide applicator certification for bed bug category

Mandate IPM certification for bed bug control

Consider licensing funds to support research and education

Establish voluntary standards for accreditation (specialist)

Dedicated bed bug CEUs

PCO self-reporting: illegal products, misapplications, statistics

Topic 4 -- Brief summary of comments and discussion from the open discussion session:

- Manufacturers should be partners in education. Some manufacturers have their own certification programs. Manufacturers are in a good position to educate PCOs on product use.
- PCO and customers need to develop a relationship. Public-relations training is needed for PCOs.
- Certification should be voluntary and run by trade associations or PCO industry. A National Association should be a clearinghouse for such information.
- Education of PCOs is inconsistent. Additional certification would be a burden for competent applicators. Continuing education, rather than an isolated certification course, is key.
- Numerous specialty certifications makes it difficult to address problems in a holistic manner.
- Universal technicians do a variety of tasks. A bedbug certification/accreditation will help companies specialize.
- NPMA has Quality Pro programs that provide certifications that are inexpensive.
- Additional bedbug certification is a “green light” for consumers. It helps consumer locate qualified PCOs. An accreditation is a tool for consumer protection.
- Third-party certification programs (Green Shield and EcoWise) can add bed bug programs to the list of already existing programs.
- Certification programs are too easy and do not measure actual PCO knowledge and skills. Rather than add additional categories, the existing categories should be more stringent.
- Clarify whether certification is for company or individual applicator.
- PCOs have an obligation to apply materials properly and educate customers.
- Certification should be based on a foundation of research. Certification for detection dogs is based on 10-years of research from University of FL.
- PCO certification will drive up operating costs; money is already a burden for public housing.
- Certification will affect different income classes in different ways. May be more of a benefit to those who are burdened by costs.
- Certification is a non-issue if bed bugs are recognized as a public health pest. Public health pest certification already exists.
- NYC Health Department has voluntary certification. Consumers can still find certified applicators, but the certification is not mandatory.

Topic 5: Recommendations for the Role of Property Owners and Managers
(compiled from all ten workgroups)

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| Training of owners, staff, managers; outreach and notification to tenants |
| Provide action plan: proactive, inspections, training |
| Education (fact sheet), communication, training for tenants |
| Awareness of IPM practices |
| Hold property owners responsible for treatment and/or for known infestations (legal responsibility) |
| Share cost of abatement: partnerships |
| Help with legislation: funding, disposal of infested items |
| Require licensed PCO application including owners |
| Certification for property owners |

Topic 5 -- Brief summary of comments and discussion from the open discussion session:

- Educate property managers about how to hire quality PCOs. “You get what you pay for.”
- Property owners and managers have the power to impose or remove stigma. Property managers need to encourage openness about reporting bed bug problems.
- Request for clarification: What is meant by certification for property owners? Response: That owners must be certified PCOs to treat their property.
- Give out ratings/grades/stamps to indicate the quality or vigor of pest management strategies taking place on a particular property.
- Create certification or guidance for property managers to do inspections and ensure that properties are bedbug-free between tenants.
- PCOs and health departments should be involved in training property managers.
- Units need to be inspected before they are vacated so infestations can be treated while the “host” is still present.
- Residents are a problem and are sometimes unwilling to cooperate or engage in behaviors to manage pests.
- Preventative and ongoing inspection is necessary to address the problem, however this is difficult to do in hotels, dormitories, and private apartments because residents and property managers do not cooperate or do not consider pest inspections to be a priority.