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

Lauren Necochea
Baltimore City Health Department
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
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
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

Output
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.
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.
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
Recommendations

- Research to demonstrate that bed bugs are a 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
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
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