

FLORIDA BED BUG WORKGROUP



FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES



FACILITATOR'S SUMMARY REPORT OF MEETING V APRIL 25, 2012

ALACHUA, FLORIDA

FACILITATION, MEETING AND PROCESS DESIGN BY



CONSENSUS CENTER

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FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
SUMMARY REPORT OF THE WORKGROUP’S APRIL 25, 2012 MEETING

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**FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
SUMMARY REPORT OF THE WORKGROUP'S FEBRUARY 14, 2012 MEETING**

SUMMARY OF FLORIDA BED BUG WORKGROUP'S KEY ACTIONS

WEDNESDAY, APRIL 25, 2012

OPENING AND MEETING ATTENDANCE

The meeting was opened at 10:00 AM, and the following thirteen (13) Workgroup members participated:

Agency: Rick Akin, Dale Dubberly, Jon Hamrick, Phil Koehler, and Mike Page.

Industry: Jennifer Fowler, Jennifer Leggett, Geoff Luebke, *Mark Ruff*, Tanya Peak-Smith, Kathy Torian, Jim Warneke, and Louis Witherington.

**Members participating by teleconference are italicized.*

Members Absent:

Agency: Rosanna Barrett, Steven von Bodungen, Faith Oi, and Cheryl Urbas.

Industry: John Cooksey, Monique Donahue, Chip Guy, Scot Haislip, Tom Jarzynka, and Chip Tatum.

FDACS Staff Present

Weldon Collier and Joe Parker.

(ATTACHMENT I—MEETING PARTICIPATION)

(ATTACHMENT II—MEMBERS AND REPRESENTATION)

MEETING FACILITATION

The meeting was facilitated by Jeff Blair from the FCRC Consensus Center at Florida State University.

Information at: <http://consensus.fsu.edu/>



PROJECT WEBPAGE

Information on the project, including agenda packets, meeting reports, and related project documents may be found in downloadable formats at the project webpage below:

<http://consensus.fsu.edu/DACS/bbwg.html>

AGENDA REVIEW AND APPROVAL

The Workgroup voted unanimously, 12 - 0 in favor, to approve the agenda as amended, including the following objectives:

- To Approve Regular Procedural Topics (Agenda, Report, Workplan and Meeting Schedule)
- To Adopt Proposed Teleconference Meeting Participation Guidelines Revisions
- To Engage In Action Planning on Workplan Tasks/Issues
- To Hear an Update on the Development of a Comprehensive Bed Bug Website
- To Hear an Update on Bed Bugs Self-Treatment Fact Sheet Development
- To Hear Reports From *Reference Document Review Stakeholder Sector Teams*
- To Hear an Update Regarding Bed Bug Research Initiatives
- To Hear an Update Regarding EPA Bed Bug Initiatives
- To Hear Reports Regarding School IPM Initiatives
- To Hear Updates Regarding Emerging Bed Bug Topics/Issues/Trends
- To Consider Public Comment
- To Consider Workgroup Member's Comments and Issues
- To Identify Needed Next Steps, Assignments, and Agenda Items For Next Meeting

Amendments:

None were suggested.

APPROVAL OF FEBRUARY 14, 2011 FACILITATOR'S SUMMARY REPORT

The Workgroup voted unanimously, 12 - 0 in favor, to approve the February 14, 2012 Facilitator's Summary Report as presented/posted.

Amendment(s):

None were proposed.

TELECONFERENCE/VIRTUAL MEETING PARTICIPATION GUIDELINES REVISIONS PROPOSAL

Jeff Blair proposed revisions to the Council's adopted Teleconference/Virtual Meeting Participation Guidelines designed to enhance the efficacy of teleconference meetings. Following an overview of the issue, question and answers and discussion, the Council took the following action:

Council Action:

MOTION—The Council voted unanimously, 13 - 0 in favor, to adopt the proposed revisions to the Teleconference/Virtual Meeting Participation Guidelines.

Following are the adopted additional Guidelines:

COME PREPARED. Review the agenda, presentations and background documents ahead of time. Schedule at least 15 minutes to prepare for the meeting/webinar – if you don't need it you can have the time back. Do the pre-work. Make notes and be ready with questions.

Pending Workgroup Review and Approval

TEST THE TECHNOLOGY AHEAD OF TIME. Log in the day before to ensure full access to whatever online technology is being used. Check your headset and/or telephone system.

PARTICIPATION—VIDEO AND AUDIO: If you participate using your computer for audio (using a headset to listen and/or speak) do not use the teleconference call in number (it creates interference). You can listen and/or speak using your headset through the VOIP function of your computer. If you use your computer only for the video/visual function (to view presentations) you will need to call in on the teleconference line to listen and/or speak. Participants who wish to view the presentations will need to use their computers to log-in using the meeting URL provided on the meeting agenda whether they participate with VOIP or the teleconference participation option for audio and video functions.

TURN UP EARLY. Put the web address and teleconference details in your calendar and bookmark the web URL. Set the reminder 15 minutes ahead of the call.

REMOVE DISTRACTIONS. Schedule a quiet place to participate from. Clear your desk and computer desktop. Turn off email & instant messaging. Put your cell phone aside. Put a note on your office door. Create an environment that allows you to fully participate without distractions.

TAKE RESPONSIBILITY FOR YOUR OWN PARTICIPATION. Don't plan to do any "catch up" activities during the call. If you catch myself multi-tasking, close your eyes and listen. Avoid side conversations whether in the room with colleagues or in an online chat space. Keep your phone on "Mute" unless speaking. Never place your phone on "Hold". Be aware that speaker phones transmit background noise and interfere with the meeting.

BE AWARE OF AIR TIME. Fully participate while allowing others to do the same. Speak your name before making a comment.

FOLLOW COUNCIL'S MEETING PARTICIPATION GUIDELINES. Do not speak without acknowledgement from the chair and/or facilitator. Speaking out of turn is very disruptive to a virtual meeting.

SUPPORT THE FACILITATOR. Acknowledge questions and pay attention. Use the raise hand function to speak and wait for the facilitator to invite questions and/or comments. The facilitator will create a speakers list at all appropriate times during the meeting. Keep your phone on "Mute" whenever possible.

UPDATED WORKPLAN AND MEETING SCHEDULE REVIEW AND APPROVAL

Following a review of the Workplan, included as pages 9 – 12 of the agenda packet, and an invitation to propose any updates, the Workgroup took the following actions.

2012 MEETING SCHEDULE		
I.	February 14, 2012	Tallahassee and via teleconference/web
II.	April 25, 2012	Alachua and via teleconference/web
III.	June 19, 2012	Tallahassee and via teleconference/web
IV.	August 22, 2012	Tallahassee and via teleconference/web
V.	October 24, 2012	Tallahassee and via teleconference/web
VI.	December 19, 2012	Tallahassee and via teleconference/web

Workgroup Action:

Motion—The Workgroup voted unanimously, 13 - 0 in favor, to approve the updated Workplan and Workgroup meeting schedule as presented/posted.

Summary of Discussion:

A standing agenda item for each Workgroup meeting is the review and adoption of the Workgroup's *Updated Workplan*. Members are free to propose any revisions and/or additions to the Workplan during the agenda item. The Workgroup will make a decision on all proposed revisions/additions and then move to adopt the Workplan either as presented (if no changes are made to the posted version) or amended (if changes to the posted version are approved). Members should review the Workplan prior to each meeting and identify any needed revisions/additions.

(ATTACHMENT V—UPDATED WORKPLAN)

BED BUG PROJECT WEBSITE DEVELOPMENT UPDATE

Jennifer Gillett-Kaufman and Hallie Payne, UF/IFAS, provided the Workgroup with a presentation regarding development of the comprehensive state of Florida bed bug website titled "Florida Workgroup Website" and answered members questions. The website will be hosted on the University of Florida (UF)/Institute of Food and Agricultural Science (IFAS) Extension website. The URL for the Florida Bed Bug website is: http://webdev.ifas.ufl.edu/sfyl/bed_bugs/index.shtml.

Jennifer and Hallie reviewed a series of screen shots reflecting the various components and functions (topical menus) of the webpage. Following questions and answers and discussion the Workgroup agreed to provide comments on the left navigation panel and to submit them to Jeff Blair for compilation by May 9, 2012. Jeff will compile the comments and send them to Jennifer and Hallie for implementation. The left navigation panel currently contains the following eight topical menus/categories: "Identifying Bed Bugs", "Homeowners & Tenants", "Property Owners & Managers", "Hotels & Travelers", "Pest Management Professionals", "Public Health", "Regulatory", and "State Task Force".

The website Homepage is organized with key audiences in the left navigation panel (organized by the following categories: "Identifying Bed Bugs", "Homeowners & Tenants", "Property Owners & Managers", "Hotels & Travelers", "Pest Management Professionals", "Public Health", "Regulatory", and "State Task Force"), timely articles and videos in the middle column, and important links in the right column (organized by the following categories "Pest Control Resources", "Upcoming Events", and "Media & Resources").

The Workgroup discussed which documents should be included on the website and which URLs should be linked, and agreed that this would be a Workgroup consensus decision. Each of the sector teams (Rental Housing and Retail Industry, Tourism Industry & Hotel/Motel Industry, and Schools) will review sector relevant documents and provide recommendations for the Workgroup's consideration. Approved documents and URLs will be provided to UF/IFAS for inclusion on the statewide Florida Bed Bug Website once the Workgroup evaluates and approves them. The Workgroup will need to decide where data gaps are (if any) and which documents (if any) should be revised and/or developed for the Florida market or for Florida specific conditions.

The complete PowerPoint presentation ("Florida Workgroup Website") is available for review at the Florida Bed Bug Workgroup project webpage. The URL is as follows: <http://consensus.fsu.edu/DACS/bbwg-documents.html>

BED BUG SELF-TREATMENT FACT SHEET DEVELOPMENT UPDATE

Mike Page, FDACS, provided Workgroup members with an overview of the completed fact sheet developed by the UF/IFAS titled: “What Not to Do for Bed Bugs” (ENY 2026) and answered member’s questions. The publication, designed as a two-sided document, provides a list of what not to do regarding self-treatment for bed bugs in English on one side and Spanish on the reverse side.

The Workgroup discussed the publication, and in general the response to the document was favorable. There was some concern expressed regarding providing a list of things not to do regarding self-treatment for bed bugs without a corresponding list of appropriate treatment strategies. The Workgroup discussed that there are not currently easily available and explainable self-treatment strategies to correspond one-to-one with the list of what not to dos, and as a result the Workgroup agreed that the publication could be enhanced by providing explanations and examples of the outcomes for each of the listed not to dos.

The Workgroup agreed that it will be important to review and approve all documents for inclusion on the comprehensive state-wide bed bug website, and that the approved documents should form a comprehensive and complete package of documents and links that work together collectively as a system. Again, all documents and links will be vetted and approved by the Florida Bed Bug Workgroup.

The document/publication (“*What Not to Do for Bed Bugs?*” or “*Que No Hacer contra las Chinches?*”) is available for review at the Florida Bed Bug Workgroup project webpage. The URL is as follows:
<http://consensus.fsu.edu/DACS/bbwg-documents.html>

BED BUG PROJECT REFERENCE DOCUMENTS STATUS REPORTS FROM DOCUMENT REVIEW STAKEHOLDER SECTOR TEAMS

Jeff Blair provided the Workgroup with an overview of the updated project *Reference Documents Tracking Chart* and answered member’s questions. Jeff noted that the Tracking Chart is organized by five document types: federal agency documents, state agency documents, university documents, journal articles and industry documents. Jeff reminded members that in addition to reviewing other document sources the sector teams should review and develop recommendations to the Workgroup regarding which specific documents listed on the *Reference Documents Tracking Chart* should be included on the comprehensive state-wide bed bug website (hosted by UF/IFAS). Once a determination is made by the Workgroup, approved documents will be shifted from the project webpage (hosted by FCRC/FSU) and uploaded to the comprehensive state-wide bed bug website.

At the February meeting the Workgroup formed stakeholder sector teams to review bed bug project documents relevant to their topical stakeholder sectors. Each team will review the existing documents posted to the project webpage and determine if there are any data gaps, whether there is a need to develop any Florida specific documents, which documents should be posted to the project webpage (hosted by FCRC/FSU), and which documents should be posted for the public to view on the comprehensive bed bug website (hosted by UF/IFAS). Team leaders are responsible for organizing the review of their stakeholder sector relevant documents. The stakeholder sector teams agreed to report to the full Workgroup at each meeting as needed.

Sector teams should consult with the scientist/researcher consultants and the pest control operator consultants (see matrix below). Sector teams should also work with the technical consultants to identify

additional documents for review relevant to their sectors and report their recommendations to the Workgroup at the June meeting.

Following are the project document review teams (document review stakeholder sector teams):

SECTOR TEAMS		
SECTOR	MEMBER LEADS	UPDATES
Rental Housing and Retail Industry sectors (Landlords and Residents/Tenants)	Chip Tatum and Chip Guy	<i>Pending</i>
Tourism Industry & Hotel/Motel Industry sectors (Hospitality)	Kathy Torian and Tanya Peak-Smith	Update #1: 4/25/12
Schools sector	Faith Oi, Jon Hamrick and Jennifer Fowler	Update #1: 4/25/12
Public Housing (Section 8) sector	<i>Needed</i>	<i>Pending</i>
Migratory and Transitory Worker's Housing sector	<i>Needed</i>	<i>Pending</i>
CONSULTING TEAMS TO SECTOR TEAMS		
SECTOR	MEMBER LEADS	STATUS
Pest Control Operators (technical support)	Jennifer Leggett, Tom Jarzynka and Jim Warneke	<i>As requested by Sectors</i>
University Scientists/Researchers (technical support)	Faith Oi and Phil Koehler	<i>As requested by Sectors</i>

Summary of Discussion:

At the April 25, 2012 meeting the Workgroup received updates from the “*Tourism Industry & Hotel/Motel Industry*” and “*Schools*” sectors. There were no representatives from the “*Rental Housing and Retail Industry*” sector at the meeting. Dale Dubberly will contact the relevant sector leaders for an update and ensure all sectors provide an update report at the June meeting.

The goal is for sector teams to develop recommendations on the documents included on the *Reference Documents Tracking Chart* for consideration by the Workgroup at the June 19, 2012 meeting. The recommendations should be sent to Jeff Blair by close of business on June 9, 2012 to provide time for posting and distribution in advance of the meeting.

Summary of Sector Reports:

Tourism Industry & Hotel/Motel Industry sectors (presented by Kathy Torian, Tanya Peak-Smith and Geoff Luebkekmann): The group has gotten through most of the reference documents that were put up on the site relevant to the sector. The group is reviewing the documents from the various sub-sectors of their sector’s perspective and to determine what still needs to be developed (data gaps). The group indicated they want to make sure that they have information developed for their employees and information for travelers. They have scheduled a conference call for May 4, 2012 with the intent of getting recommendations to the Workgroup. They will work to get their comments on the left navigation panel by the due date of May 9, 2012.

Schools sector (Jon Hamrick and Jennifer Fowler): need to consider information relevant to the different school related audiences (i.e., teachers, students, staff, visitors, etc.). We have reviewed documents from Ohio, Illinois, North Carolina and Virginia and they seem to all have information relevant to the specific state’s requirements/regulations. From what we have reviewed so far there is not a lot of information

relevant to Florida schools. We will work with Faith on what is needed, and we also need to bring in the health side (school health clinics) for consultation.

Rental Housing and Retail Industry sectors: There was no report on this sector. A report will be available for the June meeting.

The reference documents and presentations are available on the project webpage at the following URL: <http://consensus.fsu.edu/DACS/bbwg-documents.html>

(ATTACHMENT VI—REFERENCE DOCUMENTS TRACKING CHART)

(ATTACHMENT VII—PRESENTATIONS TRACKING CHART)

BED BUG TREATMENT RESEARCH INITIATIVES UPDATE

Phil Koehler, UF, provided Workgroup members with a PowerPoint presentation titled “Bed Bug Monitoring and Detection” focusing on various bed bug monitoring and detection methodologies and technologies and answered member’s questions.

The complete presentation is available on the project webpage at the following URL:

<http://consensus.fsu.edu/DACS/bbwg-documents.html>

EPA BED BUG INITIATIVES OVERVIEW

Dale Dubberly, FDACS, provided Workgroup members with an overview of bed bug initiatives and answered member’s questions.

Dale reported that the US EPA has rolled-out their “Bed Bug Information Clearinghouse” webpage at the following URL: <http://www.epa.gov/opp00001/bedbugs/bedbug-clearinghouse.html>

EPA indicates that: “The information on these pages is intended to help states, communities, and consumers in efforts to prevent and control bed bug infestations. We want you to get the best information that’s available so on this page you will find bed bug outreach from a variety of sources.”

EPA indicates that the “Clearinghouse” currently includes only material from federal agencies, state and local governments, extensions services and universities.

The EPA states that when reviewing material for inclusion in the Clearinghouse, they consider

- The accuracy of information
- The discussion on pesticides
- The appropriateness for the audience
- How well the information is communicated, i.e., clarity of language, graphics, layout.

The information is organized by the following menu topics: audience, topic, type of resource, publications of general interest and publications in other languages.

Dale suggested that sector teams should review the various materials, documents, links and videos to determine whether any of them should be considered for inclusion on the Florida Bed Bug Website.

Mike expressed concern with linking to EPA's "Bed Bug Information Clearinghouse" until certain issues regarding some of the information is resolved. Mike suggested that documents from the site should be considered individually on their own merits.

Dale reported that the US EPA conducted a "Green' Bed Bug Training for Health Departments and Health Care and Social Service Providers". The webinar analysis report is included as "Attachment VIII" of this Report.

Dale reported that the US EPA also provided a written response to questions asked regarding the webinar. The report of questions and answers is included as "Attachment IX" of this Report.

(ATTACHMENT VIII—BED BUG TRAINING WEBINAR REPORT)

(ATTACHMENT IX—WEBINAR QUESTIONS AND ANSWERS REPORT)

DUVAL COUNTY SCHOOLS IPM INITIATIVES UPDATE

Erin Harlow, Duval County Extension/IFAS, provided Workgroup members with a PowerPoint presentation titled "The Jacksonville Bed Bug Task Force" and answered member's questions.

The complete presentation is available on the project webpage at the following URL:
<http://consensus.fsu.edu/DACS/bbwg-documents.html>

ORANGE COUNTY SCHOOLS IPM INITIATIVES UPDATE

Jennifer Fowler, Florida School Plant Managers Association, provided Workgroup members with a PowerPoint presentation titled "Orange County Public Schools Integrated Pest Management Update" and answered member's questions.

The complete presentation is available on the project webpage at the following URL:
<http://consensus.fsu.edu/DACS/bbwg-documents.html>

EMERGING BED BUG RELEVANT TOPICS/ISSUES/TRENDS UPDATE

Dale Dubberly, FDACS, provided Workgroup members with an update on emerging bed bug relevant issues and answered member's questions.

Summary of Report and Discussion:

- Dale Dubberly: FDACS gets a lot of calls regarding landlord/tenant responsibilities. An example is a quadruplex where the owner has one tenant who is constantly bringing the nuisance pest back in and doesn't care – he knows the landlord's responsible for control. This has been going on for four years and the landlord has paid out over \$50,000 for treatment costs.
- Dale Dubberly: Another issue, the more I talk to people regarding performing heat treatment, the more concern I have with them doing them. They have been covering fire alarm sprinkler heads them with insulation and all kinds of things to keep them from going off. My concern is that they are manipulating these systems. They tell me it costs \$150 per head to have a service technician come out

and change them out. Look at the room we are on – that’s about \$1,000 – it adds a tremendous cost to the use of heat for control.

- Jennifer Leggett: then again, what if six months down the road after they’ve manipulated the head, and it fails – it’s their liability.
- Dale Dubberly: What can we do to get the word to these people to not tamper with the sprinkler systems. It’s against the state fire marshal’s regulations to deactivate a fire sprinkler system.
- Mike Page: the Bureau has been drafting a memo advising them that tampering with fire systems in order to use heat is not legal. The issue has been on my radar.
- Member Comment: it’s also related to electrical issues. I don’t know the difference between a 50 amp circuit and some of these heaters take up to 7-40 amp circuits.
- Dale Dubberly: those are just a few examples of current and emerging issues. Another big issue is off-label use of pesticides. People are using 15 foggers inside a house to try to kill bed bugs, this problem exists in persons who can’t afford professional pest control services. And also all of the ineffective pest control products like we already have discussed.
- Jennifer Leggett : is it within the scope of the Workgroup to make recommendations regarding Section 83.51 F.S. regarding landlord responsibility? Can we look at that as a Workgroup? We should discuss the rights of tenants and landlords – both sides.
- Jeff Blair: the Workgroup can make recommendations that would require changes to legislation but they would of course have to be approved and supported by FDACS.
- Mike Page: it’s likely that some of the issues we face, we won’t be able to deal with, but we can maybe direct it to a higher authority. This particular one, the landlord tenant – we as a group are capable of drafting a letter to another authority, so it’s not impossible to think that the Workgroup will have to deal with some of these types of issues.

GENERAL PUBLIC COMMENT

Jeff Blair invited members of the public to address the Workgroup. Following are general public comments:

There were no public comments offered.

WORKGROUP MEMBER COMMENTS AND ISSUES

Workgroup members were offered an opportunity to make any additional comments they wished to offer. Following are Workgroup member’s comments and relevant answers:

There were no additional member comments offered.

AGENDA ITEMS FOR THE JUNE 19, 2012 MEETING

- Summary report of the April 25, 2012 meeting—Blair
- Review of updated *Workplan*—Blair
- Review of updated *Reference Documents Tracking Chart*—Blair
- Updates from sector reference documents review teams—BBWG
- Update and discuss comprehensive State-Wide Bed Bug Website—Oi/BBWG
- Update on Bed Bugs Self-Treatment fact sheet revisions—Oi
- Updates regarding emerging bed bug topics/issues/trends—Dubberly

ASSIGNMENTS FOR THE JUNE 19, 2012 MEETING

- Create a Workgroup contact list with e-mails and phone numbers—Blair
- Update on contacting migrant worker representatives regarding Workgroup participation/consultation—Dubberly
- Update on contacting DOH regarding their participation status—Page/Dubberly
- Update on contacting DOH regarding representation/consultation for Section 8 housing, nursing home, hospitals health care, and childcare facilities—Page/Dubberly
- Update on contacting elder affairs representatives regarding Workgroup participation/consultation—Page/Dubberly

NEXT MEETING DATE AND LOCATION

June 19 2012—Tallahassee, Florida and Teleconference
 Members are requested to attend the April meeting in person.

MEETING DATES AND LOCATIONS

2012 MEETING SCHEDULE		
I.	February 14, 2012	Tallahassee and via teleconference/web
II.	April 25, 2012	Alachua and via teleconference/web
III.	June 19, 2012	Tallahassee and via teleconference/web
IV.	August 22, 2012	Tallahassee and via teleconference/web
V.	October 24, 2012	Tallahassee and via teleconference/web
VI.	December 19, 2012	Tallahassee and via teleconference/web

ADJOURN

After checking for any final comments and a vote of 12 – 0 in favor for adjournment, Jeff Blair, Workgroup Facilitator, adjourned the meeting at 2:40 P.M.

<p>ATTACHMENT I</p> <p>MEETING PARTICIPATION</p>
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MEMBER	AFFILIATION
STATE AGENCIES/LOCAL GOVERNMENT	
Rick Akin	DBPR (Division of Hotels and Restaurants)
Dale Dubberly	FDACS (Division of Agricultural Environmental Services)
Jon Hamrick	Florida Department of Education (Office of Educational Facilities)
Phil Koehler	University of Florida (Department of Entomology and Nematology)
Mike Page	FDACS (Division of Agricultural Environmental Services)
INDUSTRY/ASSOCIATIONS/OWNERS	
Jennifer Fowler	Florida School Plant Managers Association (BCSB)
Jennifer Leggett	Pest Control Operator
Geoff Luebke	Florida Restaurant and Lodging Association
Tanya Peak-Smith	Entertainment Industry
<i>Mark Ruff</i>	Legal Advisor to Pest Control Industry
Kathy Torian	VISIT FLORIDA (Tourism)
Jim Warneke	Cruise Ship Industry Pest Management & Resort Industry
Louis Witherington	Pest Control Operators
FDACS STAFF	
Weldon Collier	FDACS
<i>Joe Parker</i>	FDACS
FACILITATION AND PROCESS DESIGN	
Jeff Blair	FCRC Consensus Center @ Florida State University
<i>Allen Eugler</i>	FPMA
Erin Harlow	UF/IFAS
Jennifer Gillett-Kaufman	UF
Hallie Payne	UF
<i>Italicized names indicate participation by teleconference.</i>	

ATTACHMENT II
WORKGROUP MEMBERS AND REPRESENTATION/AFFILIATION

MEMBER	AFFILIATION
STATE AGENCIES/LOCAL GOVERNMENT	
Rick Akin {Alternate: Steven von Bodungen}	DBPR (Division of Hotels and Restaurants)
Rosanna Barrett	Florida Department of Health (Healthy Homes)
Dale Dubberly {Alternate: Mike Page}	FDACS (Division of Agricultural Environmental Services)
Julie Dudley	Florida Department of Health (Public Housing)
Jon Hamrick {Alternate: Darrell Phillips}	Florida Department of Education (Office of Educational Facilities)
Phil Koehler	University of Florida (Department of Entomology and Nematology)
Faith Oi	University of Florida (Department of Entomology and Nematology)
Cheryl Urbas	Florida Department of Health (Healthy Homes/Public Housing)
INDUSTRY/ASSOCIATIONS/OWNERS	
John Cooksey	Pest Control Operator
Monique Donahue	American Hotel and Lodging Association
Jennifer Fowler	Florida School Plant Managers Association (OCPS)
Clifford (Chip) Guy	Rental Industry (Rent-To-Own/Rental Industry)
Scot Haislip	National Apartment Association
Laura Heiselman {Alternate: Chip Tatum }	Florida Apartment Association
Tom Jarzynka	Pest Control Operator
Jennifer Leggett	Pest Control Operator
Geoff Luebke	Florida Restaurant and Lodging Association
Tanya Peak-Smith	Entertainment Industry
Mark Ruff	Legal Advisor Pest Control Industry
Kathy Torian	VISIT FLORIDA (Tourism)
Jim Warneke	Cruise Ship Industry Pest Management & Resort Industry
Louis Witherington	Pest Control Operator
FACILITATION AND PROCESS DESIGN	
Jeff Blair	FCRC Consensus Center @ Florida State University

ATTACHMENT III
KEY TO COMMON ACRONYMS

ACRONYM	DEFINITION
AES	Agricultural Environmental Services (Division of FDACS)
BMP	Best Management Practices
DACS or FDACS	Florida Department of Agriculture and Consumer Services
DBPR	Department of Business and Professional Regulation
DEP or FDEP	Florida Department of Environmental Protection
DOE or FDOE	Florida Department of Education
DOH or FDoH	Florida Department of Health
EPA	U.S. Environmental Protection Agency
FAW	Florida Administrative Weekly
FBBWG	Florida Bed Bug Workgroup
FCCMC	Florida Coordinating Council on Mosquito Control (FDACS)
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
IFAS	University of Florida Institute of Food and Agricultural Sciences
IPM	Integrated Pest Management
NIH	National Institutes of Health
NSF	National Science Foundation
PCEAC	Pest Control Enforcement Advisory Council (FDACS)
PCO	Pest Control Operator
PRC	Pesticide Review Council (FDACS)
RUP	Restricted Use Products (pesticides)

ATTACHMENT IV
FBBWG MEETING AGENDA—APRIL 25, 2012

FDACS—FLORIDA BED BUG WORKGROUP
APRIL 25, 2012—ALACHUA, FLORIDA
MEETING V
ALACHUA REGIONAL SERVICE CENTER—EAST BUILDING—TELECONFERENCE/WEBEX
14101 NORTHWEST HIGHWAY 441—ALACHUA, FLORIDA 32615—
1.386.418.5500

MEETING OBJECTIVES

- ✓ To Approve Regular Procedural Topics (Agenda, Report, Workplan and Meeting Schedule)
- ✓ To Adopt Proposed Teleconference Meeting Participation Guidelines Revisions
- ✓ To Engage In Action Planning on Workplan Tasks/Issues
- ✓ To Hear an Update on the Development of a Comprehensive Bed Bug Website
- ✓ To Hear an Update on Bed Bugs Self-Treatment Fact Sheet Development
- ✓ To Hear Reports From *Reference Document Review Stakeholder Sector Teams*
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- ✓ To Hear an Update Regarding EPA Bed Bug Initiatives
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- ✓ To Hear Updates Regarding Emerging Bed Bug Topics/Issues/Trends
- ✓ To Consider Public Comment
- ✓ To Consider Workgroup Member’s Comments and Issues
- ✓ To Identify Needed Next Steps, Assignments, and Agenda Items For Next Meeting

APRIL AGENDA—WEDNESDAY, APRIL 25, 2012

All Agenda Times—including Adjournment—are Approximate and Subject to Change

10:00	Welcome and Introductions • Workgroup Member Introductions	Page
10:20	Agenda Review and Approval	Blair
10:25	Review and Approval of February 14, 2012 Facilitator’s Summary Report	Blair
10:30	Teleconference Meeting Participation Guidelines Revisions Proposal See proposal on page 7 of the Agenda Packet	Blair
10:40	Review and Approval of Workplan and Meeting Schedule	Blair
10:45	Workplan Issues/Topics Discussion	Blair

Pending Workgroup Review and Approval

11:00	Bed Bug Project Website Development Update {Jennifer Gillett-Kaufman and Hallie Payne—University of Florida/IFAS}	JG-K/HP
11:15	Bed Bugs Self-Treatment Fact Sheet Development Update {Mike Page—FDACS}	MP
11:25	Bed Bug Project Reference Documents Status Reports From Reference Document Review Stakeholder Sector Teams <ul style="list-style-type: none"> • Rental Housing and Retail Industry Sectors • Tourism Industry & Hotel/Motel Industry (Hospitality) Sectors • Schools Sector 	Teams
12:00	<i>Working Lunch—On Campus</i>	
12:30	Bed Bug Treatment Research Initiatives Update {Phil Koehler—University of Florida}	PK
1:00	EPA Bed Bug Initiatives Overview {Dale Dubberly—FDACS}	DD
1:15	Duval County Schools IPM Initiatives Update {Erin Harlow—Duvall County Extension/IFAS}	EH
1:45	Orange County Schools IPM Initiatives Update {Jennifer Fowler—Florida School Plant Managers Association}	JF
2:00	Emerging Bed Bug Relevant Topics/Issues/Trends Updates {Dale Dubberly—FDACS}	DD
2:45	Public General Comments	Blair
2:50	Member General Comments	
2:55	Next Steps and Agenda Items for Next Meeting <ul style="list-style-type: none"> • Review action items and assignments • Identify agenda items for June 19, 2012 meeting in Tallahassee • Identify any needed information and/or background documents 	Blair
3:00	<i>Adjourn</i>	

ATTACHMENT V
WORKGROUP'S UPDATED PROJECT WORKPLAN
(ADOPTED UNANIMOUSLY APRIL 25, 2012)

WORKPLAN BY TOPICS (A-G)

A. WORKGROUP FUNCTIONALITY—COMMUNICATION, PLANNING, PARTICIPATION, REPRESENTATION, PROCESS, DECISION-MAKING
The Bed Bug Workgroup shall strive to achieve consensus on substantive recommendations made to FDACS, other agencies and state universities. The Bed Bug Workgroup shall operate under clear, concise, consistent, and fair policies and procedures.
1. Workgroup adopted procedures and polices, and consensus-building and decision-making procedures September 2011.
2. Workgroup shall meet bi-monthly, as needed.
3. Workgroup will develop, prioritize and maintain a project <i>Workplan</i> with relevant <i>Topics, Tasks</i> and <i>Sub-Tasks</i> , and completion milestones. A. Workgroup conducts <i>Workplan Prioritization Exercise</i> annually at the October meeting. B. Workgroup conducts <i>Effectiveness Assessment Survey</i> annually at the October meeting.
B. RESEARCH AND FUNDING PRIORITIES AND STRATEGIES
Recommend, based upon review of state Bed Bug laws and regulations, appropriate scientific studies regarding the control, prevention and treatment of Bed Bugs.
1. Economic impact analysis of the cost(s) of bed bugs to Florida (cost/benefit analysis of providing funding for research, training, education, PSAs/public outreach).
2. Research Subcommittee to the BBWG to vet all documents (research, guidelines, BMPs, fact sheets, etc.) posted to project website (and the eventual Comprehensive Bed Bug Website), and to recommend research priorities based on identified data gaps. The subcommittee should evaluate, catalog and compile currently available bed bug information (research, guidelines, BMPs, principles, fact sheets, etc.). a.) Workgroup reviewed Project Reference Documents tracking chart February 2012. b.) Workgroup formed stakeholder sector teams to review project reference documents 2/12.
3. Develop safe and effective, practical and affordable treatment strategies.
4. Develop recommendations for specific funding mechanisms. A. Federal Funding: develop strategy for Florida to collaborate with other states and urge the NIH, NSF and USDA to fund research at a level commensurate to the potential economic importance of this pest. B. Evaluate a tourist tax surcharge to fund research strategies. C. Evaluate a government allowance program to reduce the cost of treatment to consumers for PCOs that are collaborating with the development of cost effective strategies.

<p>C. DEVELOPMENT AND DISSEMINATION OF INFORMATION—CONTROL, PREVENTION AND TREATMENT</p>
<p>Coordinate agency efforts to develop a consistent message (among state agencies and industries) targeted toward the development of “bed bug awareness” for consumers in Florida.</p>
<p>1. Develop and maintain a comprehensive, fully searchable, integrated and linked, “one stop” database website for consumers (homeowners, tenants, students, travelers, tourists), pest control operators, property owners, and regulators. Include a comprehensive listing of federal, state and local services and resources for bed bugs. Include reporting and tracking functionality. {Include: IPM, BMPs, guidelines, fact sheets, response flow charts, tracking registry, relevant links (URLs), etc.}</p>
<p>2. Evaluate, and as needed, develop/compile BMPs, Guidelines and Principles for all stakeholders (homeowners, tenants, rental housing, students, travelers, tourists, pest control operators, regulators) for prevention, detection, control, and treatment.</p> <p>A. Develop/compile sound <i>bed bug management principles</i> that stress integrated pest management (IPM) relevant to avoidance and control (to educate the public and change behaviors).</p> <p>B. Develop/compile and disseminate information on effective control methods as part of “bed bug awareness”.</p> <p>C. Develop/compile a series of pamphlets/brochures that help people understand how to react to and control bed bugs.</p> <p>a.) Self-treatment fact sheet development (UF) discussed February 2012.</p> <p>D. Develop/compile materials for reacting to and treating specific circumstances, such as for homeowners, hotels, movie theaters, transit facilities, schools (day care), fireman and first responders, assisted living and nursing homes, and other medical establishments, and government.</p> <p>E. Develop/compile guidelines specific to the hospitality industry (prevention, detection, control and treatment).</p>
<p>3. Develop/compile strategies for dissemination of science-based information.</p> <p>A. Evaluate using UF IFAS’ Cooperative Extension service to assist with the dissemination of information.</p> <p>B. Develop targeted PSAs regarding prevention, detection, control and treatment strategies.</p>

D. COORDINATION AND TRACKING—COMMUNICATION AND COOPERATION BETWEEN AND AMONG RESPONSIBLE AGENCIES AND AFFECTED INTERESTS

Provide advice or information to appropriate governmental agencies, including the State University System, with respect to those activities related to their responsibilities regarding regulating and controlling Bed Bugs.

1. Compile a flowchart of all existing agencies/entities authorities and responsibilities (regulation, enforcement, response, and education).
 - A. Evaluate, and as needed, develop flowchart (above) to determine whether changes are needed to provide a unified, coordinated and consistent approach to response, treatment and prevention of bed bugs across all agencies and entities with bed bug responsibilities.
 - B. Evaluate, and as needed, develop and coordinate consumer protection activities.
2. Evaluate, and as needed, develop a means of tracking and reporting bed bug infestations to help control the spread of bed bugs, helping to identify trends in areas where resources can be focused to prevent the spread of this pest. {Part of Task C.1}
3. Evaluate and compile a comprehensive catalog of bed bug stakeholders and their particular stakeholder segment's perspectives.

E. ENHANCING COMMUNICATION BETWEEN AND AMONG AGENCIES, INDUSTRY AND PUBLIC

The Bed Bug Workgroup shall serve as an accessible liaison between the Division of Agricultural Environmental Services, the regulated industry, and consumers thereby protecting the interests of the public.

1. Evaluate, and as needed, develop a consistent communication strategy and message for all agencies/entities with bed bug authorities and responsibilities.
2. Evaluate, and as needed, develop and disseminate clear guidelines detailing the rights and responsibilities of landlords, tenants and homeowners.
3. Evaluate, and as needed, develop a media strategy to ensure factual science-based information is conveyed to the public.

F. DEVELOPMENT OF REGULATION AND ENFORCEMENT STRATEGIES

1. Evaluate the current regulatory and enforcement framework for consistency and efficacy. Identify gaps, redundancies, conflicts and deficiencies and recommend strategies for enhancements to the regulatory and enforcement structure (i.e., coordination, consistency, effectiveness, health and safety, affordability)
2. Develop incentives for PCOs to collaborate in the development of effective, safe, and cost effective treatment strategies and methodologies.
3. Evaluate, and as needed, develop/recommend bed bug inspection standards for the use of K-9 scent dogs.

G. EDUCATION AND TRAINING—DEVELOPMENT AND DISSEMINATION
Develop training for state and local government personnel/inspectors on how to avoid contact with bed bugs and serve as messengers to disseminate information related to the prevention of and control of bed bugs. Promote public education regarding Bed Bug prevention and treatment.
1. Evaluate, and as needed, develop factual science-based educational materials targeted to specific venues (i.e., home, hotel, workplace, rental properties, transportation) and stakeholders {i.e., consumers (homeowners, tenants, students, travelers, tourists), pest control operators, property owners, and regulators}. A. Develop toolkits that can be used to educate others. B. Develop targeted fact sheets (appropriately displayed) for posting at various venues (fire stations, schools, day care, assisted living, dorms, hotels, rental properties, etc.).
2. Evaluate, and as needed, develop coordinated comprehensive training materials and programs. A. Develop joint training opportunities. B. Evaluate training opportunities at hospitality industry functions.
3. Evaluate, and as needed, develop recommendations for post treatment and monitoring (to prevent re-infestation from occurring).
4. Evaluate, and as needed, develop materials specifically for professionals that potentially will come into contact with bed bugs.
5. Evaluate, and as needed, develop guidelines for proper use and handling of pesticides (include facts on misuse).

ATTACHMENT VI
BED BUG WORKGROUP REFERENCE DOCUMENTS TRACKING CHART

DOCUMENT	AUTHOR	STATUS
FEDERAL AGENCY DOCUMENTS		
Acute Illnesses Associated With Insecticides Used to Control Bed Bugs	Center for Disease Control and Prevention	Posted
HUD Guidelines on Bed Bug Control and Prevention	HUD	Posted
Joint Statement on Bed Bug Control in the U.S.	CDC and EPA	Posted
Citizens Guide to Bed Bugs	USEPA	Posted
Bed Bugs Efficacy Data Development & Testing {Presentation}	USEPA	Posted
Bed Bug Clearinghouse Documents By Audience	USEPA	Posted
Bed Bug Clearinghouse Documents By Topic	USEPA	Posted
STATE AGENCY DOCUMENTS		
Bed Bug Identifications and Inspection	State of Illinois	Posted
Bed Bugs in Healthcare Facilities	State of Illinois	Posted
Bed Bugs in Multi-Unit Housing	State of Illinois	Posted
Bed Bugs in Office Buildings	State of Illinois	Posted
Bed Bugs in Schools and Day Care Centers	State of Illinois	Posted
If You Enter Places That Might Have Bed Bugs	State of Illinois	Posted
If You Get Bed Bugs	State of Illinois	Posted
Subcommittee on Bed Bugs Report (2011)	State of Illinois	Posted
Ohio Bed Bug Workgroup Report (2011)	State of Ohio	Posted
Guidelines for Bed Bug Response In a School Building	State of Ohio	Posted
Bed Bugs Facts	State of Colorado	Posted
Bed Bugs Facts	State of New Jersey	Posted
UNIVERSITY DOCUMENTS		
Bed Bugs Fact Sheet I	University of Florida	Posted
Bed Bugs Fact Sheet II	University of Florida	Posted
A New Option: Localized Heat Treatments	University of Florida	Posted
Lethal Effects of Heat Treatment and Use of Localized Heat Treatment for Control of Bed Bug Infestations	University of Florida	Posted
Bed Bugs: Containerized Fumigation and Heat Treatment	University of Florida	Posted
GHP Control Applicator Training Manual	University of Florida	Posted
What Not To Do For Bed Bugs	University of Florida/IFAS	Posted
Bed Bugs Advisory to Returning Students	University of Minnesota	Posted
Control of Bed Bugs in Residences (Operators)	University of Minnesota	Posted
Control of Bed Bugs in Residences (Owners/Tenants)	University of Minnesota	Posted

Pending Workgroup Review and Approval

DOCUMENT	AUTHOR	STATUS
UNIVERSITY DOCUMENTS		
Inspecting Your Hotel Room for Bed Bugs	University of Minnesota	Posted
What Can I Do to Prevent Bringing Bed Bugs Home?	University of Minnesota	Posted
Bed Bugs IPM In and Around the Home	University of California	Posted
Bed Bugs Facts	University of California	Posted
Bed Bugs Fact Sheet	Ohio State University	Posted
Bed Bugs Facts	University of Kentucky	Posted
Bed Bugs: Biology and Public Health Risk	Purdue University	Posted
Bed Bug Management Flow Chart	Harvard	Posted
Bed Bugs Fact Sheet	Penn State	Posted
Nonchemical Bed Bug Treatment	Virginia Tech	Posted
Bed Bugs Prevention Methods	Virginia Tech	Posted
Bed Bugs Treatment Using Chemicals	Virginia Tech	Posted
Guidelines for Prevention of Bed Bug in Shelters and Group Living Facilities	Cornell University	Posted
An Introduction To the Bed Bug Problem In Schools {Presentation}	Texas Agricultural/Mechanical (TAMU)	Posted
JOURNAL ARTICLES		
Bed Bug Infestations in an Urban Environment	Journal: Emerging Infectious Diseases	Posted
History of Bed Bugs Management	Journal: American Entomologist	Posted
Bed Bugs 101	Journal: American Entomologist	Posted
Bed Bugs Identification Chart	Bugs: Pictorial Guide to Species That May Bite Man	Posted
INDUSTRY DOCUMENTS		
2011 Bugs Without Borders Survey	NPMA	Posted
Best Management Practices for Bed Bugs	NPMA	Posted
Pulling Back the Sheets on the Bed Bug Controversy	American Society for Healthcare Environmental Services	Posted

ATTACHMENT VII
BED BUG WORKGROUP PRESENTATIONS TRACKING CHART

PRESENTATIONS TO BED BUG WORKGROUP	AUTHOR/PRESENTER	STATUS
FEDERAL AGENCY PRESENTATIONS		
Bed Bugs for Health Departments and Health Care Providers Webinar report	USEPA (reported by Dale Dubberly)	Posted
STATE AGENCY PRESENTATIONS		
Addressing Florida's Bed Bug Problem	FDACS (Mike Page)	Posted
Florida Bed Bug Survey 2011 Results	FDACS (Dale Dubberly)	Posted
LOCAL GOVERNMENT PRESENTATIONS		
Orange County Public Schools Integrated Pest Management Update	Orange County Public Schools (Jennifer Fowler)	Posted
UNIVERSITY PRESENTATIONS		
Canine Detection of Bed Bugs	University of Florida (Faith Oi)	Posted
Ability of FDACS to Enforce Bed Bug Treatments	University of Florida (Phil Koehler)	Posted
Bed Bug Research Update	University of Florida (Faith Oi)	Posted
Bed Bug Monitoring and Prevention	University of Florida (Phil Koehler)	Posted
Florida Bed Bug Workgroup Website	UF/IFAS (Hallie Payne and Jennifer Gillett-Kaufman)	Posted
The Jacksonville Bed Bug Task Force	UF/IFAS (Erin Harlow)	
INDUSTRY PRESENTATIONS		
Bed Bug Treatments	McCall Services (John Cooksey)	Posted
Bed Bug Treatment Statistics for a Florida PCO	McCall Services (John Cooksey)	Posted
Bed Bug Treatment Statistics for a Florida PCO	Lindsey Pest Services (Jennifer Leggett)	Posted

ATTACHMENT VIII

BED BUG WEBINAR ANALYSIS REPORT

‘GREEN’ BED BUG TRAINING FOR HEALTH DEPARTMENTS AND HEALTH CARE AND SOCIAL SERVICE PROVIDERS

The Region 2 Pesticides Program was able to train over 1000 Health care professionals on the problem of bed bugs, utilizing minimal resources, yet saving at least 202.96 metric tons of CO₂ from being pumped into the atmosphere.

There were 865 documented attendees in the Bed Bugs Webinar. In addition, 34 groups, mostly health departments, attended in a conference room setting, bringing the attendance number well over 1000. In Region 2, there were 522 documented attendees, accounting for 60.35% of the total attendees. The webinar reached 38 states and two countries (Canada and Saudi Arabia). The top states in attendance were: NY – 422; Ohio – 103; NJ – 93; and Kansas – 71. We reached 7 Tribes, 43 Federal officials, 75 State officials, 160 Local officials, 341 County health department officials, and many additional health care and social service agencies (229).

Was the webinar successful? Did the attendees learn the required material? Efficacy of the webinar was over 95% for all components including: greater insight of IPM as it relates to bed bugs, greater knowledge of BB control methods, and greater knowledge gained of on-the-job bed bug precautions. 98.99% of responding attendees said that they would recommend this course to others, and 76.1% said they actually prefer webinar training to workshop venue or print. Out of 749 web poll respondents, 671 said they would not have attended if they had to travel to receive this training (89.58%), giving us an 860% increase in the number officials that we were able to reach due to the webinar venue.

Benefits. The biggest benefit of these webinars was that, unlike a conference workshop, we were able to invite an unlimited number of federal, state, local, and tribal stakeholders from all over the nation. The webinars had a total of over 66% of the attendees located outside of a 100 mile possible travel radiusⁱ. That tripled the attendance from what we might have had attending a local workshop.

This innovative approach to pesticide and Integrated Pest Management (IPM) training is not only a benefit for the National pesticides program, by reaching so many more people for virtually no additional cost, but it provides considerable environmental benefits. A total of 879,837 round trip air miles were saved, along with 23,274 round trip road miles saved, adding up to 903,112 total miles, yielding about 447,524.45 pounds of carbon dioxide (202.96 metric tons CO₂ⁱⁱ) not emitted.^{iii iv v} Added to these savings are considerable hours and/or days saved per employee, by not having to travel past their desk.

Note: The presentation: **Bed Bug Training for Health Departments and Health Care and Social Service Providers** is available on a Health Care provider CD, along with a flier on bed bug prevention designed specifically for health care providers. This Free CD can be obtained by e-mailing Siegel.Larry@epa.gov. The Health Care Provider CD also contains materials that provide information on the Recognition and Management of Pesticide Poisonings **and** Materials for Patients on Pests, Illness and other Environmental Conditions.

In addition the recorded webinar session is available at:

<https://www1.gotomeeting.com/register/810978241> (It will take 4-5minutes to download)

The flier is also available at: <http://njaes.rutgers.edu/bedbug/>

¹ The 100 mile travel radius comes from the fact that Federal and many State employees / officials have travel restrictions, not to exceed 90 miles. These restrictions have also trickled down to many county governmental agencies.

¹ Carbon dioxide figures do not take into account local travel to and from airports, so the CO₂ savings numbers are actually higher.

¹ To estimate auto emissions, the calculator divides the average number of miles driven by the estimated fuel efficiency (21 mpg) of the average American vehicle. This amount is multiplied by 19.564 [U.S. Department of Energy and the Energy Information Administration, Instructions for Form EIA 1605B, Voluntary Reporting of Greenhouse Gas Emissions] the amount of pounds of carbon dioxide that is emitted as a result of burning one gallon of gasoline. To calculate metric tons, this number is divided by 2,205.

¹ To calculate air travel emissions: Total Revenue Passenger miles flown per year [U.S. Department of Transportation, Bureau of Transportation Statistics; TranStats, Air Carrier Summary: Schedule T-1] divided by total jet fuel consumed per year [U.S. Department of Transportation, Bureau of Transportation Statistics, "Airline Fuel Cost and Consumption"], resulting in 43.13 Passenger miles flown per gallon of jet fuel. This figure is divided into the 23.88 pounds of carbon dioxide produced per gallon of jet fuel used [U.S. Department of Transportation, Bureau of Transportation Statistics, "Airline Fuel Cost and Consumption"], yielding 0.484 pounds of carbon dioxide per Passenger mile flown. The number of miles actually flown (inputted) is multiplied by this figure, and to calculate metric tons, the product is divided by 2,205.

¹ Calculation used an RFI of 2.7; The IPCC calculated in 1999 that the average for full radiative forcing to be a factor of approximately 2.7, therefore to estimate the impact of an airplane trip a multiplier should notionally be used on the CO₂ emissions from jet fuel to account for full radiative forcing. IPCC (1999) Aviation and the Global Atmosphere:6.2.3. Alternative Indexing of Aviation's Climate Impact-RF Index (online) at <http://www.grida.no/Climate/ipcc/aviation/index.htm>

ATTACHMENT IX

BED BUG WEBINAR QUESTIONS AND ANSWERS

Bed Bugs for Health Departments and Health Care Providers Webinar (3/1/12) Questions and Answers

1. For Landlords and Property Managers

- a. When will you be doing a webinar for **Landlords and Property Managers?** (*see below*)
- b. When will the presentation on the tenant/landlord situation be presented?
- c. I would be interested in the landlord/tenant aspect of bedbug control. (*see below*)
- d. Please ensure that HUD has a link to the archive of this training as this training will be a very valuable tool for property owners, managers and residents.

A.: Here is the link: <https://www1.gotomeeting.com/register/810978241> (note: the presentation takes quite a while to download (perhaps 4 minutes or more. Be patient.) Region 2 Pesticides has the presentation on a Health Care CD. If you would like a copy of the CD contact: Siegel.Larry@epa.gov.

- e. What is the legal responsibility of landlord to deal with a bed bug issue?
- f. And what is the time frame that they must deal? (*This varies by state. Please check with your state regulators*)
- g. Are there any proven marketing strategies for avoiding the stigma of bed bugs when involving real estate managers and other staff?
- h. In a multi family complaint of bedbugs, and a professional, licensed exterminator is hired, are we obliged to wait for a clearance letter from that pest control operator that the apt. is available to re rent?

A.: Free Online Training: "Managing Pests in Multifamily Housing: Spring is here and the critters are coming out. Learn how to proactively manage pests at your property using integrated pest management (IPM)". Attend a free webinar on April 26, 2012 or view the recorded session afterwards. This webinar is for anyone interested in beginning an IPM program at a multifamily property. Property owners/managers and staff at organizations that work with multifamily properties are encouraged to attend. Viewers will gain an understanding of IPM and learn the resources available to support their efforts. To register, go to: www.stoppests.org/ipm-training/training-opportunities/stoppests-webinars/managing-pests-in-multifamily-housing/ website:<http://www.nahq.org/governmentaffairs/issues/bedbugs/Pages/BedBugsInformationforMultifamilyPropertyOwnersandManagers.aspx>

We have already presented two webinars on the legal aspects of bed bugs. Marcia Anderson discussed the generalities, while Bruce Aber of EPA Region 2 – Office of Regional Counsel, discussed legal ramifications associated with bed bugs. These were recorded and archived in NETI at: <https://www1.gotomeeting.com/register/439724120> and <https://www1.gotomeeting.com/register/863325785>

- i. Should a property consider replacing carpet with a smooth cleanable flooring to help control bedbugs? *A.: It certainly will help. It makes floors easier to clean and gives bed bugs less places to hide, with the added benefit of better indoor air quality.*
- j. Proactive gesture.... A good thing for tenants to be required to view video on bed bugs so, they can be informed and share with family and friends. Also, mgmt. Agents and on-site staff. *A.: Excellent idea. There are numerous good bed bug control training videos on You-Tube.*

2. Questions about Freezing and Dry Ice.

- a. What about using dry ice in the interceptor? *A.: Not necessary because you are the attractant, but see below for home-made dry ice monitor.*
- b. Can dry ice be used as bait for bedbugs (CO2 liberator)? (*see below*)
- c. Can dry ice attract bed bugs. *A.: Dry ice does attract bed bugs, as it puts out even more CO₂ than we exhale. You can even make a home-made bed bug monitor / trap with dry ice in a thermos. Always use extreme caution when handling dry ice since improper*

handling can lead to severe burns. For directions on creating a dry ice trap using a thermos. See directions at: <http://www.njaes.rutgers.edu/pubs/publication.asp?pid=FS1117>

- d. What temperature and time range is required to kill bedbugs by freezing?
- e. Can leaving bagged items outside overnight in freezing conditions kill bugs?
- f. How cold does it have to be to kill bed bugs?

A.: According to the EPA web page (www.epa.gov/bedbugs), temperatures below 0°F (-19°F) for at least four days will kill bed bugs. However, there are many variables. If items are thick or densely packed, the temperature must permeate through the core, and be maintained there for four days in order to be killed. Temperatures in a home freezer typically range from -13 to -15 °C (5 to 9 °F), so these freezers are not reliable for killing bed bugs, unless special care is taken.

- g. Can you tell us what the name or product there is on the market for the freezing agent product that you mentioned. *A.: Cryonite system. It uses liquid CO₂ which will kill bed bugs on contact. Make sure to use only EPA registered CO₂ systems. Discuss Cryonite treatment with your pest management professional.*

3. Questions about Heat

- a. Can a blow dryer help to kill bed bugs? *A.: Blow dryers are really not the best option for bed bug control, as their performance would be too unreliable. They would also contribute to increased dispersal of the bed bugs by blowing them around, and possibly off of the item being treated.*
- b. If drying fabric on high for 30 minutes kills bed bugs, can we tell seniors/people with disabilities to just do that since washing as well can be cost-prohibitive *A.: Yes.*
- c. Is dry cleaning effective for killing bed bugs on blankets/drapes? *A.: Putting them in the dryer is a much better option, if the fabric can withstand the heat. Transporting infested materials can spread infestations and many dry cleaning establishments will refuse to accept infested articles.*
- d. You have said to wash clothes at the highest temperature but how do you know that you will be able to obtain a temperature hot enough to eliminate the bed bugs? *A.: Although washing will get rid of some bed bugs, hot water will stun them, making make more of them release their grips on the fabric, but washing by itself will not kill or dislodge all of the eggs. Drying is most effective for killing the bed bugs and eggs.*
- e. Is right to put the bedding and other stuffs under the hot sun. *A.: Not usually. The internal temperature of the items left outside must exceed 113°F for at least 1 hour (according to the EPA web page at www.epa.gov/bedbugs). Like freezing, these temperatures must be reached and maintained at the core of the infested items to be effective. While outside heating may work in extremely hot climates, it is not a reliable means of bed bug control.*

4. Low Income Properties and Bed Bugs.

- a. How are low-income properties going to afford all the time, effort and expense to monitor and hire professional exterminators to eliminate their infestations?
- b. *What is your advice for assisting clients who cannot afford professional bed bug treatment? A.: There are many DIY methods to combat bed bugs that can be combined with diligent monitoring to reduce costs of control. Affordable Integrated Pest Management (IPM) methods described in the presentation, including: encasements, interceptors, vacuuming, drying on high heat, steam cleanings, clutter removal, pesticidal diatomaceous earth applied in cracks and crevices and moving bed away from the wall. If you cannot control them after 2 months, then you may need to consult a PMP.*
- c. What are poor people supposed to do about bed bugs? Please address. (See IPM methods above, plus review the presentation.)
- d. More research into exactly what works and doesn't work. Especially with low cost things that our low income populations can use safely.

5. Detection Dogs.

- a. How are effective are dogs in detecting bed bugs, as a tool for surveillance?.
- b. Please tell us about the k-nine finders of infestation.
- c. What about dogs sniffing for bed bugs?
- d. I wanted to hear more about the effectiveness of using dogs for detection. That is a rapidly expanding service, and there is always some question about the reliability of the animal.

A.: EPA does not require, nor has any dog efficacy data. For additional information, Dr. ChangLu Wang, from Rutgers Univ. recommends an article that can be found at:

<http://www.rci.rutgers.edu/~insects/Wang2011DetectiontoolsandmethodsPCT.pdf>

6. General Bed Bug Questions

- a. How fast can they crawl? A.: Crawling speed can vary depending on a number of conditions. Dr. ChangLu Wang from Rutgers Univ. recommends the following video:
<http://www.youtube.com/watch?v=0GkL2W6StCU>
- b. Do Bed bugs suck only human blood or some other animals? A.: *They prefer humans, however if humans are unavailable and they are really hungry, they will seek out dogs, cats, chickens, guinea pigs, etc. However, the thick fur is a deterrent.*
- c. How far can bedbugs jump? A.: *Bed bugs do not jump.*

7. Questions about bed bug monitors

- a. In the first example, was there any reason for the monitors being in place for two weeks? Is that an optimal time or minimal? A.: *In very lightly infested units, 2 weeks is optimal because the longer the placement, the more likely it is that the bed bugs will be detected. After 2 weeks, the dust accumulation may render the interceptors less effective and the interceptors should be wiped clean with cotton and talc.*
- b. Can you use cornstarch instead of talc? It's slippery and a very fine dust. A.: *Not very effectively. Talc is much better than corn starch. Corn starch is not fine enough.*
- c. How effective are hand held bed bug detectors? A.: *EPA has reviewed no data on these detector units, so we cannot supply an answer.*
- d. What is in the bed bug traps put out in apartment - what attracted the bugs to the traps? A.: *The traps shown in Dr. Wang's presentation did not have lures. Bed bugs wander around and fall into the traps.*
- e. When using moat -style interceptors for monitoring, do you use any type of bait to attract? A.: *No. The CO₂ that is released when you exhale is the most effective lure for attracting bed bugs. Chemical lures can also sometimes be useful to increase trap catches.*
- f. Is there a difference between the interceptors and the monitoring units? A.: *There are various types of monitoring units, interceptors are one example. In this presentation we discussed interceptors, which are placed under bed legs to prevent the bed bug from crawling up onto the bed. These interceptors can also be used as a monitor. By counting the number of bed bugs trapped in them, you can see if your bed bug controls are actually reducing the number of bugs attempting to feed on you while you sleep.*

8. IPM Methods to Control Bed Bugs

- a. Is there any one method of getting rid of bedbugs that you would recommend over another? A.: *No. The most effective control methods will vary according to the environment (home, office, hospital, ect.), level of infestation, client's expectation and financial capability. Overall, we recommend that you use a combination of IPM methods. Some common methods include encasing the bed, placing interceptors under furniture (sofa, bed, end table) legs, frequent laundering, hand removal, placing infested items in freezer. These can be done without professional services. Professionals can be hired to apply hot steam or pesticides.*
- b. How can you kill the eggs. A.: *High heat or freezing as discussed above. (see freezing section.)*

9. Questions about repellents and DEET.

- a. Is using DEET as a bed bug repellent a misuse, or is it covered under 2ee? A.: *As long as it is applied according to label directions, then it would be covered under 2ee. However, EPA has no data indicating that DEET will be effective at repelling bed bugs at any site or application rate, so we cannot recommend this use.*
- b. Will DEET work on luggage? A.: *No efficacy studies performed on this specific site were submitted to EPA; thus, we cannot express an opinion.*
- c. I have read that insect repellents are not effective on bed bugs. Please clarify if there are data that indicate which repellents are effective, and which are not. EPA is not aware of any data on the efficacy of any insect repellents against bed bugs. Therefore, we cannot recommend this use.
- d. Are other repellents (picaridin, IR3535, oil of lemon eucalyptus) also effective against bed bugs? The same as above

- e. I have heard that DEET DOES NOT WORK WELL,..what unbiased evidence do you have that proves DEET works.....SECONDLY...BE VERY CAREFUL ABOUT PERSONAL OVER EXPOSURE TO DEET ON YOUR SKIN AND RESPIRATORY SYSTEM. See above.
- f. What was the name of the stuff you spray on clothes? *A.: We were discussing DEET.*
- g. Is DEET contraindicated with pregnancy and infants? All repellent products should be used in strict accordance with their labeling.

10. Questions about other products

- a. Why use the talc powder, what is it for? *A.: Talcum powder is used in the base of interceptor trays and a small bit vacuumed up after vacuuming for bed bugs. This is not intended as a pesticide, but as a coating, since it makes surfaces slippery and makes it difficult for bed bugs to climb back out of vacuum cleaners, or out of the interceptors.*
- b. Is Murphy soap good to use for bed bugs? *A.: Not that we are aware of.*
- c. Is Cedarcide an effective control method? *EPA does not have any data on the efficacy of Cedarcide, as this product is exempt from registration under FIFRA 25(b).*
- d. Is salt effective at killing bed bugs? *We are not aware of any data regarding the use of salt to kill bed bugs.*
- e. Is anyone familiar with a product...JT Eaton Luggage spray? It is marketed as a spray that you would pre-treat your luggage prior to traveling? *A.: This is an EPA registered product; which when applied to luggage, is intended to avoid 'pick-up' of bed bugs. It was not registered as a repellent.*
- f. Does rubbing alcohol have any effect on bed bugs? *A.: EPA is not aware of any data regarding the use of rubbing alcohol on bed bugs. However, isopropyl alcohol, which is found in rubbing alcohol, is a registered insecticide for use against bed bugs. When using a product for bed bug control, you should always use a product that has been registered with the EPA and strictly follow the label directions. Rubbing alcohol is highly flammable and has been involved in many serious fires. if so does the bug develop tolerance to it?*
- a. Can you comment on the use of cedar oil in prevention? *We are not aware of any data on the role of cedar oil in preventing bed bug infestations.*

A.: The U.S. Environmental Protection Agency has developed a Pesticides and Consumers Resource Directory at www.epa.gov/safepestcontrol. Here is the web site for registered bed bug products: <http://www.epa.gov/bedbugs/productsearch/>.

11. Registered Pesticides

- a. What types of pesticides can be used to eradicate bb? *A.: See the attached link to the EPA website of EPA registered pesticide products for bed bug control.*
- b. What is Tempo Dust? DE or does it also contain a pesticide? *A.: Tempo is an EPA registered product that contains cyfluthrin. It is a different pesticide than diatomaceous earth.*

What pesticides are bed bugs most resistant to? *A.: Resistance is very difficult to measure especially in an uncontrolled environment such as individual residences. There have been many reports of resistance to pyrethroids. However, there are many reasons for a treatment failure other than resistance. Please see the "When treatments Don't Work" section of the EPA web page at <http://www.epa.gov/bedbugs/productsearch/>.*

- c. What products have exhibited residual control? *A.: There are numerous products registered with various levels of residual control. Some of these include products containing: chlorfenapyr, cyfluthrin, deltamethrin, diatomaceous earth, etofenprox/PBO, imidacloprid, s-hydropene, and silica dioxide.*

What is an EPA product that contains alcohol that people can spray on their shoes after leaving an infested area? *There are a number of EPA registered products on the market containing isopropyl alcohol as one of their active ingredients. You may visit the EPA web site for registered bed bug products: <http://www.epa.gov/bedbugs/productsearch/>.*

12. About Diatomaceous Earth

- a. What does DE do to the bedbugs? *(see below)*
- b. Is diatomaceous earth safe to use around young children and pets?
- c. What exactly is DE?

A.: As with all pesticides, you must follow the directions on the label.

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DE is a siliceous powder from the shells of diatoms, which are microscopic marine animals. When they die, their shells sink to the bottom of the body of water that they inhabit. Over thousands, or millions of years, beds of them become exposed due to plate tectonics and uplift of the Earth's plates. Then they can be easily mined.

There are three main grades of DE: pool, food and pesticidal. Always use the pesticidal grade registered by the EPA. DE is also used in gardens for slugs and grubs. Microscopically, DE dust is very sharp, like broken glass or razor blades (to the pest – not us). The pests crawl over the dust, and it cuts or injures them. These injuries will eventually kill them; however, it may take up to two weeks. Do not inhale the dust; as it can be hazardous to your lungs. Do not apply in places where it can be blown or airborne. It is best applied in areas not accessible to young children or pets. Always use pesticides as directed on label.

13. Outreach Materials

- a. Does the EPA make those posters and fact sheets available to the public?
- b. What is the NETI website mentioned? Web address?
- c. Will this presentation be placed online for viewing after the presentation?
- d. Would like a copy of the short power point.
- e. Can we get a copy of the power point presentation and how can we get posters about bed bugs and information cards?
- f. Is there a website with this information so it can be shared with coworkers? Or will this PPT be posted somewhere?
- g. Access to handouts?
- h. Information on a dvd would be great.
- i. Please archive for later access and notify the webinar subscribers.
- j. Is there an option to print all or some of the presentation in Outline form to follow along and take notes for reference materials?
- k. I missed the EPA website slide. Can you please send it? *Pesticides and Consumers Resource Directory at www.epa.gov/safepestcontrol.*

A.: Web links will be given to all participants for outreach materials. The shortened version of the power point will be sent out to all who request it, plus it will be available on our "Health Care Provider" CD currently in production. EPA web links will also be provided. If you would like a copy of the CD please contact Siegel.Larry@epa.gov.

Flier: Simple, Common Sense Bed Bug Information for Residents and Building Managers.

Flier: Simple, Common Sense Bed Bug Information for Health Care Workers and Building Staff. Web-link for the fliers and a bed bug elevator / stairwell poster go to: <http://njaes.rutgers.edu/bedbug/>

EPA also expects to be releasing a bed bug communications clearinghouse on our web page this spring. This web page will facilitate the exchange of communication materials across communities, which should allow more effective and efficient bed bug control efforts.

14. Personal Protection

- a. What are these drum liners you talk about? *A: Garbage bags, extra-large and strong, roughly 55 gallon and larger.*
- b. More pictures re: precautions against transporting bed bugs either when transporting people who may have infestations, and ideas re: self protection. I like white trash bags, as, you can see bedbugs easier than on black trash bags. *A.: Using white bags is an excellent suggestion.*
- c. Are there portable items that field workers can use when they go into homes which may or may not have bed bugs? *A.: We would need more specifics. What items are you talking about that you may need?*

A.: Generally, clear zip-lock bags are great for transporting items. Also, you can use a clear, lidded plastic box for transporting your items. Many come with easy carry handles and locking lids. Books, notepads and i-pads can also be placed in the zip-bags, when not being used. Everything is easy to see and BB cannot get in.

- d. In order to minimize the chances of leaving with them Is there precautions that can be taken before or after a client is put into the car?
- e. How can health care workers protect themselves while transporting clients in their cars?

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- f. When you have to make multiple visits to different locations in one day, how do you suggest we manage our clothing and shoes? *(Refer back to prevention slides).*
- g. How can you protect yourself from bed bugs when coming out of the home? You can't strip naked before you get into your.
- h. Can you provide more prevention methods for health care providers who get in contact with infested areas and client?

A.: Review the precaution slides and accompanying fliers. Wear light-colored clothing and brush off when you leave a residence. Do not wear pants with cuffs or cargo pants. A sticky lint roller can also be helpful in your self-inspection between client visitations.

- i. What precautions should in-home providers use to prevent taking bedbugs home.
- j. What is recommended for a local services agency in treatment /prevention in the work area when it is suspected that a client has been exposed to bed bugs?

A.: Dress appropriately. Only bring in equipment that is absolutely necessary. Bring along a large plastic bag or smooth plastic gardening knee pad to kneel on, if needed. Inspect and using an EPA approved pesticide on the exterior of your equipment satchel after leaving the premises, if bed bugs are known to be in the residence. Some care providers bring along their own small folding metal stool or chair, especially if they find no other "safe" place to sit.

- k. I do not recall hearing the suggestion for service workers to wear booties over their shoes, or booties that go up to the calf, to prevent carrying any bedbugs out of an infested area. *A.: Tyvek protective pants and booties were on the prevention slides, and are great tools, however, just remember to strip them off before entering your car and place them into a plastic bag and seal the bag tightly.*
- l. How do I protect my equipment - nursing bag and contents, or my materials tote bags for educational visits to families/young children?

A.: As mentioned in 14-d above, use lots of zip bags and consider a clear plastic tote box with a lid for your supplies. Zippered plastic satchel bags are also available. Your biggest defense against picking up bed bugs is using common sense. Do NOT place your bag on beds or upholstered furniture. You can bring a large white garbage bag with you to place on a table, and place your bag and equipment on that. It is difficult for bed bugs to gain traction on smooth plastic.

- m. Are rental car companies required to check for bed bugs? *A.: EPA does not regulate car rental companies, so check with your rental car company about their policies.*

15. Vacuuming questions

- a. Can you tell me a brand of HEPA filter vacuum is the best for capturing bed bugs. *A.: Bed bugs will be effectively removed by any vacuum cleaner with strong suction. A HEPA filter is not necessary.*
- b. How does the talcum powder kill bedbugs in the vacuum or sprinkled around? *(see below)*
- c. How does the talc kill the BB in the vacuum? *A.: The talc is not meant to kill the bed bugs. A small bit of talc may be vacuumed up at the end of the vacuuming session. This will coat the inside of the vacuum hoses to prevent bed bugs that may be lodged in the vacuum, from crawling back out. Make sure you empty the vacuum bag or chamber and place the contents into a plastic bag then seal it tightly, immediately after you have finished vacuuming.*

16. Medical and Computer Equipment

- a. How can I get rid of bed bugs on this equipment?
- b. How to inspect for bed bugs when new residents are moving into nursing homes with medical equipment
- c. We take our laptop computers into homes and facilities daily then reconnect them back at the office. There is no opportunity to isolate in a bag, etc. How should we prevent transporting bugs back to our office in or on our laptops? *A.: Bring along a large white plastic bag and spread it out on a table as if the bag is a table covering, then place the laptop atop the white plastic bag.*
- d. Do bed bugs like equipment that might be found in nursing homes like oxygen tanks, walkers, and other medical equipment?

A.: Bed bugs do not 'like' medical equipment as there is no nutritional value associated. However they can be places of harborage. You will need to determine the proper cleaning methods of each different type of equipment. You can also place smaller equipment on a large white garbage bag and using compressed air, you can dislodge dust, debris or even tiny critters that may be hiding in the keyboard or in cracks or crevices. Other equipment should be regularly cleaned.

- e. I noticed a wheelchair in the slides. Do they need to be cleaned? Wheel chairs should be inspected and cleaned daily.*

17. Bed bugs and Public Health

- a. Do the presenters consider bed bug infestation a public health threat? A.: Yes. Please see the "Joint Statement on Bed Bug Control in the United States from the U.S. Centers for Disease Control and Prevention (CDC) and the U.S. Environmental Protection Agency (EPA)" available at http://www.cdc.gov/nceh/ehs/Publications/Bed_Bugs_CDC-EPA_Statement.htm for a full discussion of this issue.*
- b. Are bedbug infestations associated with transmission of communicable (infectious) diseases? A.: As of this writing, we are not aware of any communicable diseases transmitted by bed bugs.*

18. Certificate for this webinar

- a. How can I get CEU's for attending? A.: Every state's guidelines for CEU's is different. You will need to check with your state agent or supervisor.*
- b. Are we receiving a certificate for this webinar? A.: No.*

19. Recommendations for Health care settings.

- a. Recommendations for specifics within healthcare settings. What do we do when the patient walks in with a significant bed bug infestation and the hitchhikers are falling off him as he enters the facility?*

A.: To prevent the likelihood of an infestation, eliminate any plush furniture and reduce or remove wall to wall carpeting. Bare floors are much easier to maintain/clean and require bed bugs to travel greater distances to try to hide or to get a blood meal. Consider dedicating a dryer in your facility to kill bed bugs on incoming materials and clothing by placing your clients' outer clothing, coat or sweater in the drier for the 20-30 minute that they are in your care. Also work with your facility evening maintenance staff to develop specific cleaning protocols that will prevent bed bugs from gaining a foothold.

- b. We work in the hospital and would have liked to hear about management of bedbugs in the hospital setting. A.: Regularly wiping down mattresses, daily linen changing, washing of all bedding in hot water and hot drying, and daily floor cleaning are all excellent methods to control bed bugs. Most of these methods are already employed by most hospitals. If a patient is admitted that is carrying bed bugs on their bodies or clothing, follow procedures outlined above.*
- c. Sensitive ways/questionnaires for home visitors to use with clients re: healthy homes in general, including pests and measures/materials workers can take to limit/ reassure clients we are not sources of potential infestations for them. as we visit their homes. Please go to the Healthy Homes website.*
- d. What are OSHA ramifications of workplace injury/exposure shedding to the home environment and expense liability? A.: We would recommend that you contact you local OSHA representative or check their website.*

Comments on the Comments: Do you have any suggestion for improvement?

- 1. Well, we make home visits and most suggestions for control seem very impractical for the visiting worker. There are often not places to change clothes etc. We will be using this information to write policies. A.: If you do come up with additional ways to help protect visiting workers, please share them with us. We all need to work together on solving this pest problem. Thanks.*
- 2. This is not a pleasant subject so I imagine everyone will be, like me, ready to take a shower after it, but I thought the information provided was adequate for the problem*
- 3. The insta-polls were not up long enough to respond, They should be left up a little longer. Otherwise an EXCELLENT presentation. (We will mention this to our technical staff. Thanks) I will recommend the presentation to our medical health officer for all public health staff working in home environments.*
- 4. I feel the training should also have incorporated participation by the participants. A.: In a smaller venue, or classroom situation this would be excellent, however, with well over 800 attendees it would be difficult to do this effectively.*
- 5. The presentation was great. I would be interested in the landlord/tenant aspect of bedbug control.*

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6. I received an unbelievable amount of very valuable information. The material flowed very well. As some of the information is new to folks there were a few things that went a little too fast. As long as the materials are provided it will help those of us who might have missed what was said. Thank you for this outstanding webinar!
7. It was just too basic for me. I would like advanced level training.
8. The training and presentation was great! Fantastic!!!!
9. . Excellent presentation. How do we obtain the power point slides? the speakers were very knowledgeable
10. I thought the presentation was right on the money, the information was accurate and informative.
11. I work in community mainly schools so any way to protect bugs from transporting amongst students and keeping infestation in a school building to a minimum. Thanks, appreciate the information.
12. Include people of color on the slides showing examples of how bed bug bites may appear on the skin. *A.: An excellent suggestion and we will try to incorporate it. However, sometimes these photos are difficult to obtain.*
13. Stop making the bed bugs move in the slides...we were a room full of itchy people! :-)
Very informative webinar. Thank you. *A.: Point well taken, we will reduce the creepiness.*
14. Include feedback from occupants and landlords to share effectiveness and long term results of before and after treatment of bedbugs. *Great idea, there just was not enough time during this presentation.*
15. Great job. One thing you might put a little more emphasis on is that expensive high end hotels also can get and spread bed bugs just like economy hotels. Also there were quite a few pictures of homeless people and shelters. Perhaps there should be a few more pictures of middle class people as the bed bug seems to be an "equal opportunity" insect of infestation. A.: All hotels can have bed bugs left from previous customers, however reputations of the hotels are at stake so many hotels have emplaced strict cleaning protocols to reduce the incidence of BB. *A.: We will consider this in future presentations.*
16. Maybe a brief practice of the broadcast before actually going live; it was apparent that some people were struggling while presenting and seemed a little disorganized at times... But nevertheless a very informative Webinar!!! thank you. *We regret the technical difficulties and will be working to reduce or eliminate them in future presentations.*
17. This was a well put together and informative webinar. The main speaker for most of the presentation was clear and understandable, however, in the open ended segment; it was a little difficult understanding the speaker. *A.: We will work on that for the next time.*
18. I thought EPA should of did a better job of informing the participants that a licensed structural pest control operator should be hired to control the problem especially in the examples shown by the Dr. from Rutgers University. *A.: The research that Dr. Wang did in the multi-family units shows us that even large infestations of BB could be handled with simple IPM control measures without using lots of chemicals or other costly methods. We were trying to show that bed bug control does not have to be overly expensive. Yes, pest management professionals are an important resource, but not everyone can afford the full treatment, and there are alternative methods to use to help make the PMP's job easier and far less costly.*
19. The webinar presentation was a great idea; however the audio was at times unclear. *A.: We will work on improving the audio for the next time.*
20. I did not understand much of what the Dr from Rutgers shared. I'm sure if I was in the same room it would have been easier to get used to the unique accent. Everything I did "get" was very good stuff. *A.: Thank you. We will work on improving the audio for the next time.*
21. Thanks for your time and effort in preparing and presenting this valuable information.
22. Keep spreading the word!
23. Suggest multiple persons attending from same office sit around one computer to attend. *A.: At least 34 groups did meet in conference rooms to view the webinar.*

ⁱ The 100 mile travel radius comes from the fact that Federal and many State employees / officials have travel restrictions, not to exceed 90 miles. These restrictions have also trickled down to many county governmental agencies.

ⁱⁱ Carbon dioxide figures do not take into account local travel to and from airports, so the CO₂ savings numbers are actually higher.

ⁱⁱⁱ To estimate auto emissions, the calculator divides the average number of miles driven by the estimated fuel efficiency (21 mpg) of the average American vehicle. This amount is multiplied by 19.564 [U.S. Department of Energy and the Energy Information Administration, [Instructions for Form EIA 1605B, Voluntary Reporting of Greenhouse Gas Emissions](#)] the amount of pounds of carbon dioxide that is emitted as a result of burning one gallon of gasoline. To calculate metric tons, this number is divided by 2,205.

^{iv} To calculate air travel emissions: Total Revenue Passenger miles flown per year [U.S. Department of Transportation, Bureau of Transportation Statistics; [TranStats, Air Carrier Summary: Schedule T-1](#)] divided by total jet fuel consumed per year [U.S. Department of Transportation, Bureau of Transportation Statistics, "[Airline Fuel Cost and Consumption](#)"], resulting in 43.13 Passenger miles flown per gallon of jet fuel. This figure is divided into the 23.88 pounds of carbon dioxide produced per gallon of jet fuel used [U.S. Department of Transportation, Bureau of Transportation Statistics, "[Airline Fuel Cost and Consumption](#)"], yielding 0.484 pounds of carbon dioxide per Passenger mile flown. The number of miles actually flown (inputted) is multiplied by this figure, and to calculate metric tons, the product is divided by 2,205.

^v Calculation used an RFI of 2.7; The IPCC calculated in 1999 that the average for full radiative forcing to be a factor of approximately 2.7, therefore to estimate the impact of an airplane trip a multiplier should notionally be used on the CO₂ emissions from jet fuel to account for full radiative forcing. [IPCC \(1999\) Aviation and the Global Atmosphere:6.2.3](#). Alternative Indexing of Aviation's Climate Impact-RF Index (online) at <http://www.grida.no/Climate/ipcc/aviation/index.htm>