




1

BEDBUGS

- A blood-sucking insect.
- Range in size from a sesame seed to an apple seed.
- Light brown to mahogany red depending when they last fed.








2

BEDBUGS

- Prefers human blood.
- Mainly active between midnight and 5am.
- Retreats to hiding places during day.
- Cannot fly, jump or burrow into skin, they can crawl up to 20 feet.





Adult bed bug feeding on a human

3

BEDBUGS

- Attracted to heat which kills them.
- Can live up to 550 days without feeding, however they usually feeds every 5-10 days.
- Females can lay between 200-500 eggs during her 6-12-month life cycle.
- 6-12 eggs laid every 2-3 days.



4

WHERE DO BEDBUGS LIVE?

- Throughout the community in buildings.
- Behind the wall near where people sleep.
- Enters via cracks and crevices where a credit card edge could fit.



5

WHERE DO BEDBUGS LIVE?

- Folds, cracks, and crevices of headboards, mattress seams, box springs, baseboards, bureau drawers, nightstands and behind picture frames.
- In-between upholstered cushions.
- Under piles of clothing.



6

WHERE DO BEDBUGS LIVE?

- Spaces between corrugations of cardboard boxes.
- Backpacks, purses, sleeping bags and on clothes.
- Behind baseboards, wall moldings, picture frames, light switch and outlet covers.



7

HOW DO BEDBUGS SPREAD?

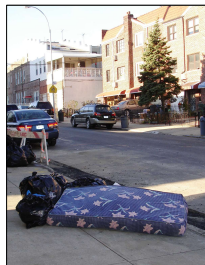
- Hitch a ride in seams of suitcases, backpacks, purses, sleeping bags.
- Infested mattresses and furniture
- By residents and their guests.
- By staff members.



8

HOW DO BEDBUGS SPREAD?

- Actively crawl along wires, pipes behind walls and under doors.
- Passively on anything coming into or from an infested unit (furniture, mattresses, books, and backpacks).



9

WE PICK THEM UP IN THE COMMUNITY

Movie theaters, public libraries, gym lockers, department stores, funeral homes, nursing homes, daycare centers, college dorms, thrift stores, etc.

10

SIGNS YOU MAY HAVE BEDBUGS

- They leave behind their sheded skins.
- Excrement appears as dark spots, crushed bedbugs will leave bloody marks on bed linens.



11

SIGNS YOU MAY HAVE BEDBUGS

- Fecal spots
- Sheded skins
- Dead bed bugs
- Live bed bugs
- Bites



12

OFTEN CONFUSED WITH OTHER INSECT BITES

- Cockroaches
- Mosquitoes
- Spiders
- Ticks



Mosquito Bites



Tick



Cockroach



Spider Beetle

13

BEDBUG BITES



Often mistaken for mosquito and spider bites or allergic reactions. (Hives)

14

BEDBUG BITES



Itchy welts can take a week or longer to appear.
Good News, 50% of those bitten have allergic reactions.

15

BEDBUG BITES

Clusters of 3 to 4

Rows of bites



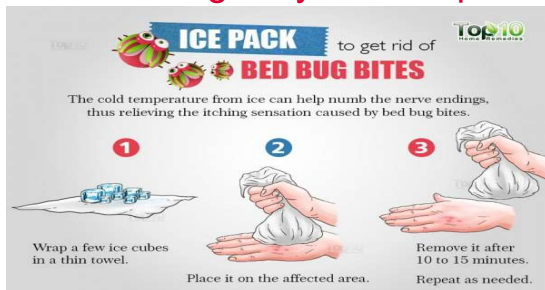
16

REACTIONS TO BITES

- 54% - NO initial reaction!
- 46% - more than a week to react.
- 30% - people with bugs show no bites.
- Some older adults are most likely to not react at all.

17

Treatment: Icing & Tylenol/Ibuprofen



18

HEALTH CONCERNS

The Good News:
Bedbugs do not transmit
diseases.

19

SECONDARY REACTIONS

- Skin infections, openings in skin from scratching.
- Anxiety, depression and PTSD.
- Sleep deprivation and insomnia.
- Raised bumpy skin, itchy welts and hives.
- Chemical sensitivities and allergic reactions to pesticides and insecticides.

20

HEALTH CONCERNS

- Children/Pets
- Other infected sores
- Cellulitis
- Impetigo - contagious skin infection
- Diabetics – unhealed ulcers



21

HEALTH CONCERNS

Recent (UN) studies link bedbug and cockroach infestations with Bronchial Asthma and Anemia.



22

SOCIAL REACTIONS

Stigma and Shame

- "Blacklisting"
- Loss of belongings

Social distancing

- Reluctance to go out
- Lack of visitors
- Increases depression

Lack of funding or services

- Reluctance of family and care providers
- Experienced pest control companies
- Extreme situations

23

BEHAVIORAL HEALTH

Delusional Parasitosis (DP): People who think they are being bitten. Seek to exterminate non-existent pest. At risk of harming themselves cutting, burns, etc.

- PTSD: fear due to previous infection.
- Worsen MH and medical conditions
- Dermatologic reactions to street drugs.



24

BEDBUGS ARE NOT AN INDICATOR POOR SANITATION



25

BEDBUGS' VS OTHER PESTS

- Cockroaches or ants can be eliminated with improvements in sanitation and routine pest control.
- However, insecticides and sprays used to kill insects do not kill bedbugs.

26

PESTICIDES

Residents should be encouraged to NOT use illegal products or any insecticide or pesticide.
(Delta Dust/bombs)



27

DON'T USE AEROSOLS OR FOGGERS!

- Total release foggers and sprays do not kill bed bugs.
- Bugs become resistant to pesticide/insecticide chemicals.
- Does not penetrate well.
- Creates toxic fog
- Leaves poison residue.
- You soak it up!



28

WHY BED BUGS ARE BACK

- Increased global travel.
- Increase in infested locations.
- Pesticide/insecticide resistance.
- Lack of preparedness.

29

DDT BANNED

- Potent insecticide, gained popularity during WWII.
- Effective at wiping out bed bug infestations, species was nearly wiped out in many countries.
- Environmental movement of the 60's led to an agricultural ban of DDT; Worldwide ban at 2001 Stockholm Convention.

30

WHY THEY'RE BACK



Environmental Protection Agency (EPA) outlawed DDT in the U.S. in 1972 after research was triggered by Rachel Carson's book *Silent Spring* which was published in 1962.

31

BATTLING BEDBUGS DEPENDS ON

1. Increasing awareness. (Education)
2. Early detection and treatment is key.
3. Detecting and preventing severe infestations.

32

PREVENTION STRATEGIES

- Do not threaten residents with eviction.
- Create Bed Bug Literacy!
- Educate residents and team members.
- Invest in encasements for mattresses and box springs.
- Use Climb Up Interceptors.

33

MATTRESS ENCASEMENTS

- Ensure a snug fit, zip, seal and check for rips
- Must keep intact for 2+ years.
- Starves bedbugs trapped inside the mattress encasement.
- Cover any sharp points on the bed frame with tape or felt.



*Mattresses and furniture
may not have to be
thrown out!*

34

NOT ALL ENCASEMENT COVERS OFFER THE SAME PROTECTION



It comes down to the quality of the zipper.

35

INTERCEPTOR CLIMB UP TRAPS

- Insect Interceptor traps and starves bedbugs
- Useful in determining how bad an infestation is
- Helpful for residents who may be experiencing MH conditions

Passive, moat-style interceptor



36

EARLY DETECTION PROGRAMS

- Make bed an island (not touching walls, etc.)
- Train maintenance staff in bed bug identification and simple inspection
- Inspect periodically
- Consider using a canine periodically

37

PREVENTION

- Avoid bringing bedbugs into your home in the first place.
- Be cautious in public places where upholstered or wooden surfaces meet suitcases, backpacks and purses.
- Look for signs when sleeping away from home.

38

PREVENTION

- Inspect previously used furniture carefully before bringing it into your home, avoid it if possible.
- Keep coats, backpacks, purses, and bags off beds, recliners, and sofas at home and while out in the community.

39

PREVENTION

- Place work orders to plug holes in walls and molding, replace cracked light switch, and electrical outlet covers.
- Place new and pre-worn clothing in dryer for 20 minutes at highest temperature.

40

PREVENTION

- Raise mattress off from the floor and move 2-3 feet away from wall, tuck sheets and keep blankets from touching the floor.
- Do not use harmful insecticides, pesticides, or chemicals to treat or kill bedbugs.

41

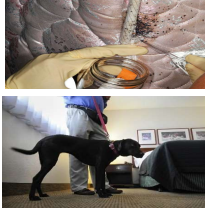
VIGILANCE

- Set up bed bug prevention policies & protocols and stick to them.
- Train everybody for signs, detection and identification.
- Respond to complaints/reports immediately.
- Contract with an experienced Integrated Pest Control Management provider.

42

CONDUCTING A BEDBUG INSPECTION

- Two types
 - Visual: Use a flashlight.
 - Scent detecting canine.
- If bed bugs are found, all adjacent units should also be inspected and treated.



43

CONDUCTING A BEDBUG INSPECTION

Check around the seams of mattresses and upholstered couches/chairs, futons, recliners.



44

FECAL SPOTS

- Current bedbug infestation cannot be confirmed by fecal spots alone.
- Fecal spots are bedbug droppings.
- Live bedbugs must be found.



Severe infestation

45

GOT BEDBUGS? NOW WHAT?

- Encourage residents to report bedbugs immediately to their Property Manager or Resident Services Coordinator.
- Will residents be evicted or charged for pest control treatment. (bedbug policy, lease addendum, HUD-funded, guidelines?)

46

GOT BEDBUGS? NOW WHAT?

- If controlled early the spread of bedbugs can be stopped.
- Property Manager takes the lead in contacting the Integrated Pest Control Management Professional (IPM)

47

HUD GUIDELINES

- Respond to resident's report within 24 hours
- Complete inspections within 3 days
 - All adjacent units
 - HUD funds available to PHA – no cost to tenant!
- Complete an IPM Plan

48

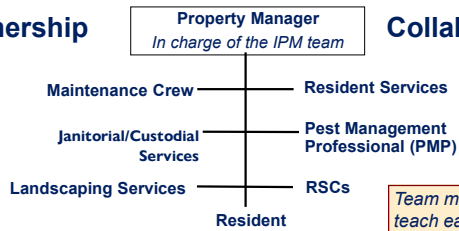
HUD GUIDELINES

- Treat using multiple methods; do not rely on pesticides.
- Provide non-chemical follow-up to prevent reinfestations.
- Tenants may not be denied leases, evicted or retaliated against because of Bed bugs

49

IPM TEAM MODEL

Partnership



Collaboration

Team members teach each other and document what they see and do.

50

CHOOSING AN IPM COMPANY

- Ask for references from bed bug customers
 - Don't go low-bid!
 - Ask to see their license
- Pest management program should be multidimensional
 - Inspection based
 - Doesn't rely on pesticides
 - Educate the residents



51

INTEGRATED PEST MANAGEMENT

- Integrated: Uses multiple approaches that work together.
- Pest: Use chemicals that are effective in eradicating bedbugs.
- Management: Use of the most economical means with the least possible risk to people, property, and the environment.

52

INTEGRATED PEST MANAGEMENT

An IPM program consists of

1. Inspection
2. Identification
3. Establishment of threshold levels
4. Employment of two or more control measures (which may be cultural, mechanical, biological, or chemical), and evaluation of effectiveness

53

TREATMENT OPTIONS

Mild to moderate bedbug infestation

- Insecticides sprayed on wall or injected directly into wall.
- 2nd treatment two weeks after initial treatment (bedbug eggs hatch in 10 days)
- 3rd treatment 2 weeks after 2nd treatment
- Canine does a final inspection

54

TREATMENT OPTIONS

Mild to moderate bedbug infestation

- Insecticides sprayed on wall or injected directly into wall.
- 2nd treatment two weeks after initial treatment (bedbug eggs hatch in 10 days)
- 3rd treatment 2 weeks after 2nd treatment
- Canine does a final inspection

55

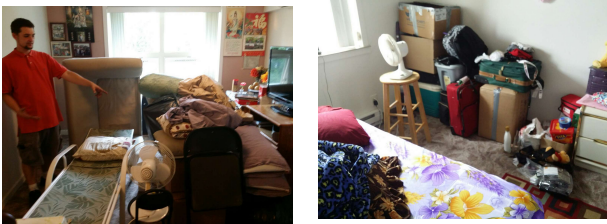
TREATMENT OPTIONS

Severe bedbug infestations

- Heat: 120-140F, requires resident and their pets to be out of their unit for 8-10 hours.
- 99.97% effective, more time consuming and expensive.

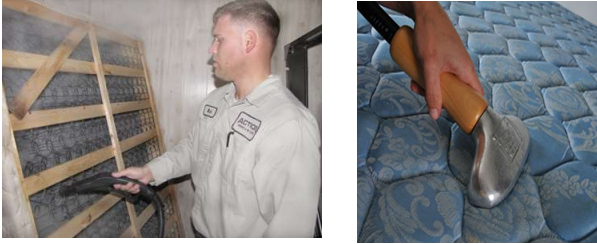
56

PREP IS KEY



57

PROLONGED HEAT TREATMENT WITH STEAM



58

BEDBUG CANINE

- Complete thorough inspection of the entire room in approximately 2-3 minutes.
- Special attention given behind bed headboard, under mattress, box spring, night stand, etc.
- Through scent, detects that bed bugs are present, alerts by sitting, pointing, or wagging their tail.

59

ACTION STEPS FOR RESIDENTS

- Don't panic.
- Learn to identify bedbugs
- Put mattress encasements on all beds and box springs
- Use interceptors under the legs of beds.
- Inform property manager as soon as they suspect bed bugs

60

PRE-TREATMENT

While waiting for your home to be treated

- Place all your clothes in plastic bags.
- Remove all bed clothing, wash in hot water, place in dryer for at least 20 minutes.
- Remove all items from the floor, off closet floor and from under the bed.
- Move all furniture at least 2 feet from walls.

61

PRE-TREATMENT

While waiting for your home to be treated

- Remove any item that may be damaged or items that may be spoiled by high heat treatment/contaminated by insecticide.
- Vacuum and sweep floors, mattress and furniture.
- Remove vacuum bags immediately, seal in a plastic garbage bags and place in outside dumpsters.

62

PRE-TREATMENT

While waiting for your home to be treated

- Remove pets from rooms to be treated.
- Unplug all electrical equipment
- Remove all objects from walls, i.e., headboards, picture frames, etc.

63

POST TREATMENT

After your home is treated

- Continue to monitor your home by conducting follow-up thorough inspections.
- Vacuum and discard vacuum bags immediately to an outside garbage dumpster.

64

POST TREATMENT

After your home is treated

- Use a commercial Laundromat to wash all clothes in hot water and place them in the dryer at highest setting for at least 20 minutes.
- Place work order to seal any holes in the walls, moldings and cracked electrical or light switch covers to prevent migration back into the unit.

65


POST TREATMENT

After your home is treated

- Eliminate or remove clutter and piles of clothes.
- Reassemble your home, etc.
- Prevent the return of bedbugs.

66

TANGIBLE COSTS \$\$

- Time consuming. 
- Cost for coin operated washing and dryer machines and dry cleaning.
- Cost of replacing discarded clothing, bed linens, mattress, box spring, and upholstered furniture.

67

INTANGIBLE COSTS \$\$

- Psychological damage: loss of sleep, heightened anxiety. (Creepy factor)
- Perceived dirtiness, embarrassment, and humiliation.
- Increased isolation: friends & family hesitant to visit with them or have them in their homes.
- Reassembling home after treatment.

68

COLLABORATIVE ROLES

- Addressing bed bug infestations in public and affordable senior housing communities requires a coordinated, sensitive, and comprehensive approach.
- Both the Resident Services Coordinator (RSC) and Property Management (PM) play distinct but collaborative roles.

69

ROLE OF SERVICE COORDINATOR

Education & Outreach:

- Inform residents about bed bugs, how they spread, early signs, and prevention.

Resident Support:

- Offer emotional support, coordinate assistance for vulnerable residents (e.g., hoarding, cognitive issues, mobility limitations).

70

ROLE OF SERVICE COORDINATOR

Advocacy:

- Act as a liaison between residents and PM/exterminators, ensuring communication is clear and resident needs are addressed.

Referrals:

- Connect residents with community resources (e.g., pest prep help, financial aid for lost items, social services).

71

ROLE OF SERVICE COORDINATOR

- Provide lease education; Town hall meetings.

- Assist residents identify resources if they cannot adequately prepare for treatment.

- With permission from the resident, enlist the assistance of family members, friends, neighbors, church members, etc.

72

ROLE OF SERVICE COORDINATOR

- Advocate for continued tenancy on behalf of the resident.
- Identify community resources: chore services, financial assistance, furniture/mattress programs, etc.
- On-going communication with fellow IPM team members.

73

ROLE OF PROPERTY MANAGEMENT

Inspection & Treatment Coordination:

- Schedule regular inspections, contract licensed pest control professionals, and ensure timely, thorough treatments.

Policy Enforcement:

- Ensure resident compliance with treatment prep and follow-up and manage units that may need deeper interventions.

74

ROLE OF PROPERTY MANAGEMENT

Documentation & Compliance:

- Keep detailed records for legal compliance, health code, and HUD requirements.

Budgeting:

- Allocate funds for pest control, resident assistance, and ongoing prevention efforts.

75

STAFF SUPPORT

- Shake clothes outside before entering your vehicle, office or home. (Shake-n-Bake)
- Avoid wearing work clothes in car or place in dryer immediately when you arrive home.
- Keep an extra pair of clothing at work.
- L&I Worker's Comp, EAP, and financial compensation.

76

STAFF SUPPORT

- Develop clear guidelines, procedures & policies for unit preparation
- Wear proper gear (poly-propylene suits, shoe covers, and latex gloves)
- Tuck pants into socks



77

PROTECT YOURSELF WHEN VISITING RESIDENTS' HOMES

- Avoid sitting on couches, beds, stuffed chairs.
- Avoid placing personal items on potentially infested surfaces and furniture.
- Wear gloves and other protective gear when touching and moving infested items.

78

PROTECT YOURSELF WHEN VISITING RESIDENTS' HOMES

- If possible, bring your own folding stool.
- Wear light colored clothing, shoes and socks that can be thrown in the dryer.
- Ankles, pants & shoes may be sprayed with DEET.

79

PROTECT YOURSELF WHEN VISITING RESIDENTS' HOMES

- Take along an extra set of clothes and Ziplock bag in case you suspect infestation of clothes
- Only take necessary items into the home.
- If you have a handbag, set it on your stool.

80

MAKE OFFICES UNFRIENDLY TO BED BUGS

- Keep clutter down (impedes detection/solutions)
- Caulk cracks, crevices & paint walls a light color
- Use plastic or metal furniture

81

MAKE OFFICES UNFRIENDLY TO BED BUGS

- Keep a plastic bin on floor next to chair for client's handbag, backpack, etc.
- Use bed bug barriers on feet of desks or cubicle walls (e.g. Climb Up Interceptors)
- Report any concerns immediately to your Supervisor or property Manager

82

STRATEGIC PLAN

1. Prevention and Education

- Regular Workshops (led by RSC): Teach residents how to identify bed bugs and prevent infestations.
- Educational Materials: Culturally and linguistically appropriate flyers, videos, and signage.
- Move-In Orientation: Educate new residents on prevention and responsibility.

83

STRATEGIC PLAN

2. Reporting and Detection

- Clear Reporting Channels: Hotline, online form, or office-based reports.
- Routine Inspections: Especially for high-risk units or common areas.
- Training Staff: Maintenance and housekeeping should recognize signs of infestation.

84

STRATEGIC PLAN

3. Response Protocol

- Immediate Assessment: PM schedules professional inspection within 24-48 hours of a report.
- Integrated Pest Management (IPM): Employ heat treatment, chemical, and follow-up inspections.
- Resident Prep Support: RSC helps residents prepare for treatment (e.g., laundry assistance, decluttering help, cognitive/physical support).

85

STRATEGIC PLAN

4. Resident-Centered Approach

- Non-Punitive Policy: Emphasize that reporting is safe and free from blame.
- Supportive Services: Provide volunteers or partner agencies for help with unit prep.
- Minimize Displacement: Use mobile heat units or in-place treatment whenever possible.

86

STRATEGIC PLAN

5. Post-Treatment Monitoring

- Follow-Up Inspections: At 7- and 14-days post-treatment.
- Ongoing Monitoring: Use interceptor traps or visual checks in at-risk units.
- Resident Feedback: Survey residents to evaluate satisfaction and address gaps.

87

STRATEGIC PLAN

6. Long-Term Prevention

- Furniture Policies: Ban or inspect secondhand furniture.
- Resident Agreements: Include pest reporting and cooperation clauses in lease/rules.
- Ongoing Collaboration: Monthly PM-RSC meetings to review pest control data and resident needs.

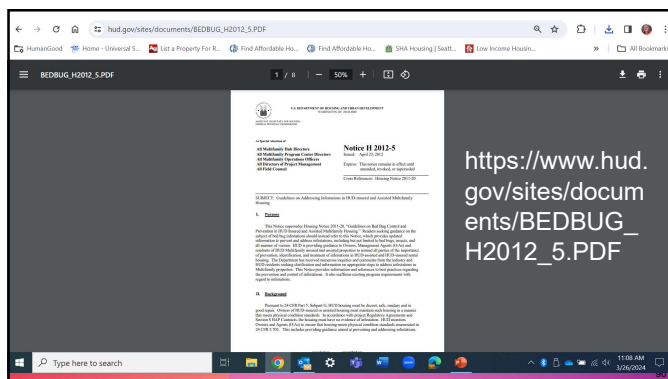
88

STRATEGIC PLAN

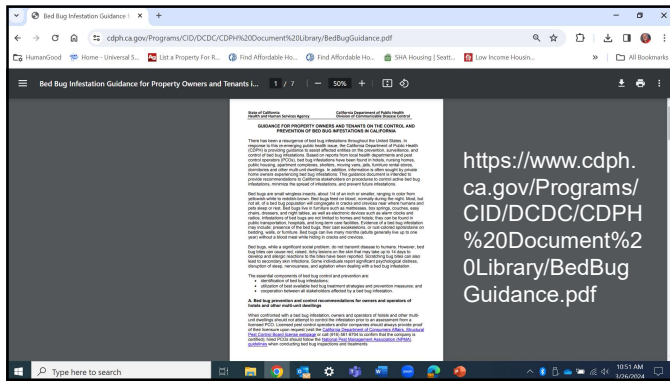
7. Tracking and Evaluation

- Maintain a bed bug incident log (unit, date, treatment, outcome).
- Review trends quarterly to detect patterns (e.g., recurring units, clustering).
- Use data to target education or adjust policies.

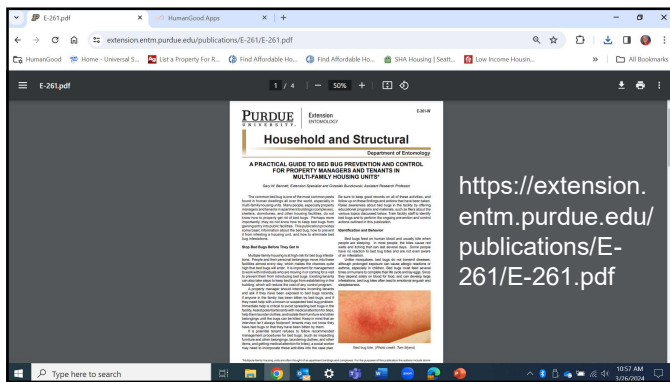
89



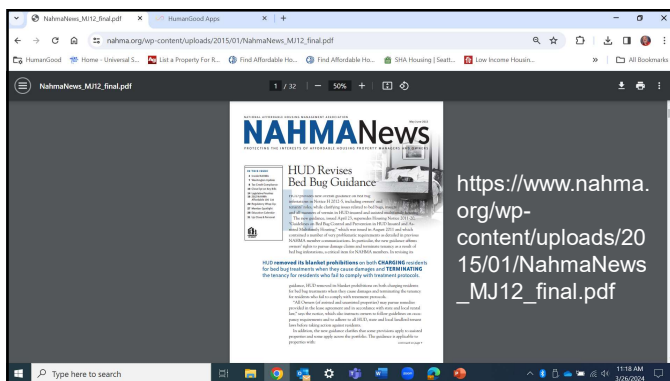
90



91

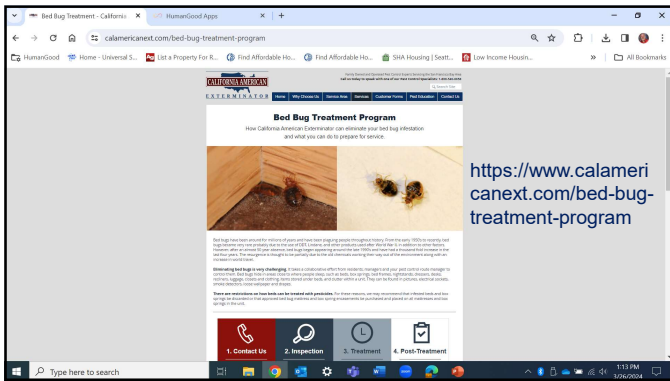


92

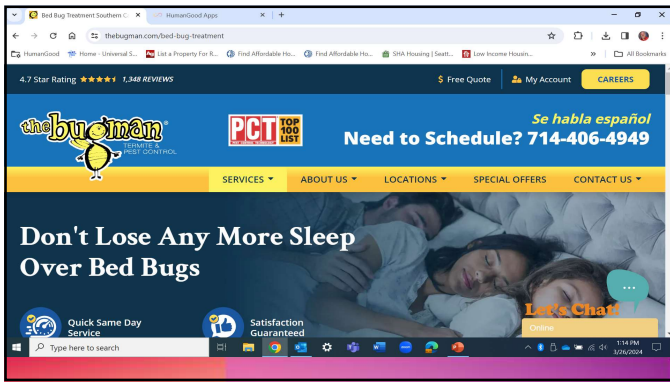


93

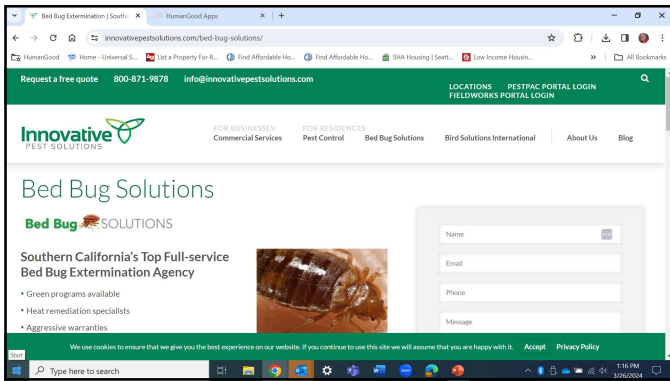




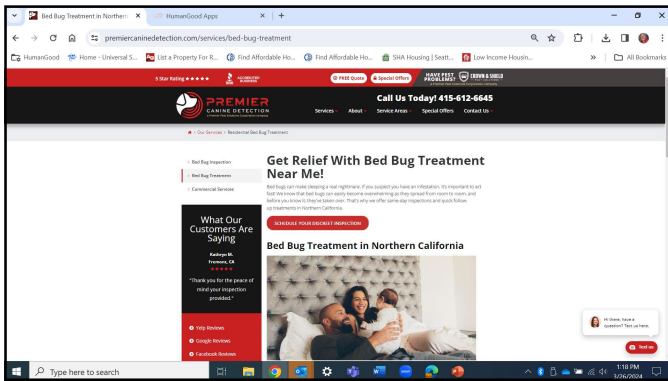
97



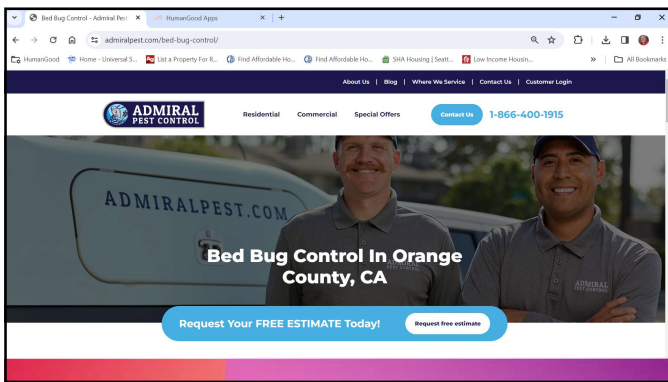
98



99



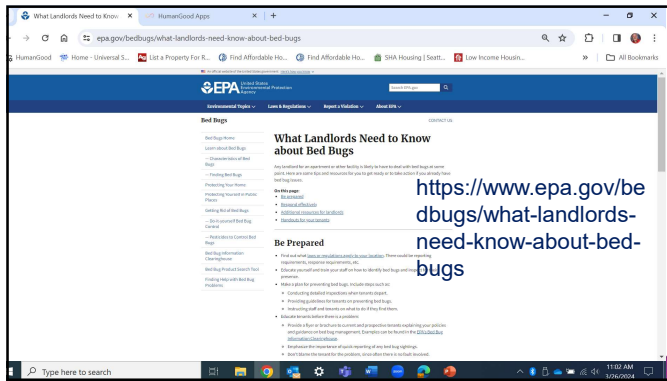
100



101



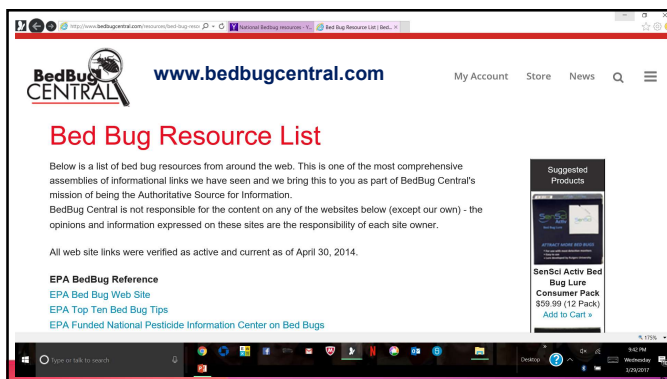
102



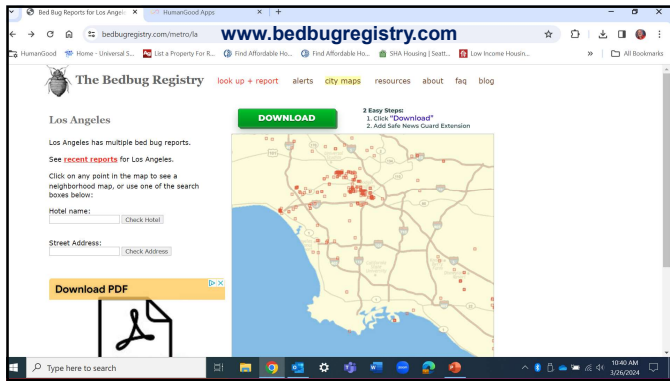
103



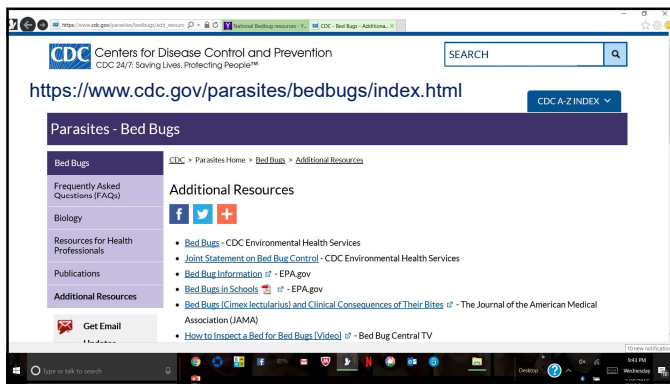
104



105



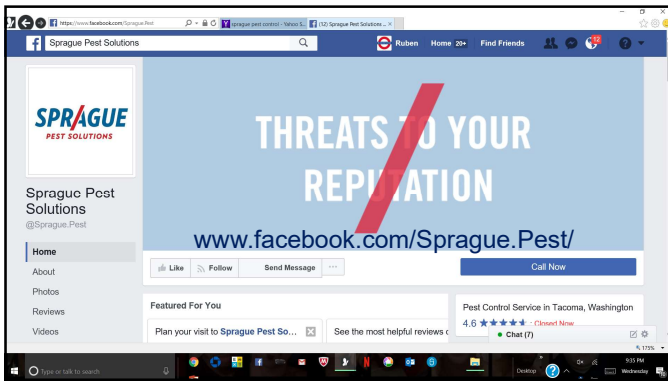
106



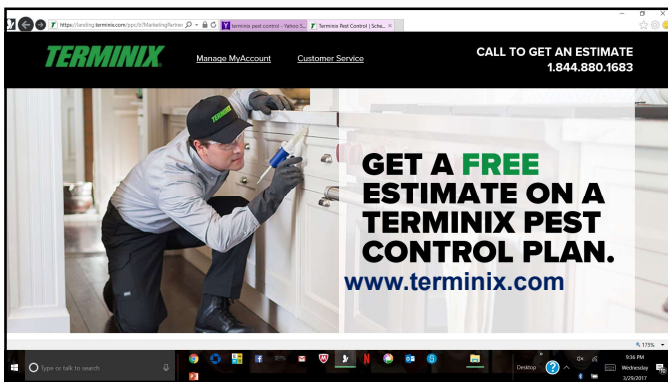
107



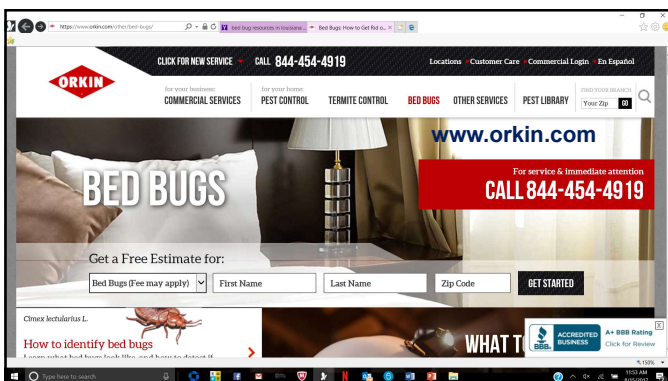
108



109



110



111

The screenshot shows a web browser window with a news article and a sidebar. The article is titled "Lady Wins \$100,000 Bedbug Lawsuit Against Red Roof Inn" and is dated September 22, 2015. The sidebar, titled "HOT DEALS FOR AUGUST", lists several credit cards with their respective rewards and terms.

START HERE **BEST CREDIT CARDS** **TRIP REPORTS** **ABOUT** **ASK LUCKY** **AWARD HELP** **ADVERTISER DISCLOSURE**

CATEGORIES

Lady Wins \$100,000 Bedbug Lawsuit Against Red Roof Inn
SEPTEMBER 22, 2015 BY LUCKY 23

I'm sure most road warriors have either dealt with bedbugs before, or at least had a bedbug scare when staying at a hotel. While I don't envy hotels for having to control for bedbugs, they do also have an obligation to make sure they're selling clean rooms. So it sucks, but that's the business they're in.

The Washington Post has a story about a lady who had bedbugs in her room at a Red Roof Inn near Washington DC, and ended up suing the hotel over it.

HOT DEALS FOR AUGUST
Note: Please see my Advertiser Disclosure

- Ink Business Preferred™ Credit Card**
Earn 100,000 bonus points | earn 2 points per \$1 in select business categories
- IHG® Rewards Club Select Credit Card**
Earn 80,000 bonus points | 2 points per \$1 spent when you stay at an IHG hotel
- Chase Sapphire Preferred® Card**
50,000 bonus points | 2x points on travel and dining
- The Business Gold Rewards Card from American Express OPEN**
Earn 50,000 Membership Rewards® points | Terms Apply

BoardingArea
Travel Rewards Advisor

112

PESTICIDE HELP

National Pesticide Information Center

- <http://npic.orst.edu/>
- 1.800.858.7378
- <http://npic.orst.edu/webapps.html>

Emergency:

- Poison Control Centers:
 - 1.800.222.1222
 - 24/7, nationwide, answered locally

113
