DEVELOPING A STRATEGY FOR MANAGING BED BUGS IN HOMELESS SHELTERS

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WHAT IS IPM?

- An environmentally sound approach to pest control
- Inspection based
- Quality pest control using the least hazardous chemicals and techniques
- "best management practice" for pests



A DEFINITION:

- IPM is a strategy based on multiple control tactics to ensure that:
 - pest populations are managed at acceptable levels
 - risks to people, other non-target organisms and the environment are minimized
 - pest control is practical and economical









LEGAL ISSUES: LICENSE REQUIREMENTS FOR BED BUG CONTROL

- Non-commercial applicator's license required
 - Even if you are using pesticides purchased at the grocery store or other over-the-counter retailer
 - Applies to any pest (bed bugs, cockroaches, ants, rodents, etc.)
 - Designed to protect lodgers, renters
- Cost: \$108 applic fee + \$128 exam fee. Annual renewal \$100 and CEU costs.







WHY YOU CANNOT RELY ON COMPLAINTS TO MANAGE BED BUGS

- Some may be embarrassed to complain
- Many will not know signs of bed bugs
- Most people do not react to bed bug bites
 - In apartments less than half of infested units knew (or admitted they knew) they had bed bugs
 - Perhaps as few as 5% of individuals react strongly to bed bug bites





Small infestations of bed bugs stay together





VISUAL MONITORING IS NOT ENOUGH

- Skill and thoroughness of technician inspectors highly variable
- Extremely time consuming when done right (at least 10-15 minutes per bed)
- Disruptive of resident's privacyLimitation of even best
- Limitation of even best inspector to always find low level infestations

























NEXT STEP: KEEP BED BUGS OUT

- Quarantines are part of many IPM programs
- Often less expensive to keep pests out than treat them once they are in











ISOLATION ROOMS SANITATION AND BED BUGS Bed bugs do not require poor sanitation Separate storage room or building Room can be treated and monitored Disadvantages of clutter Reduces clutter in dorm areas Difficult to access for monitoring Long-term storage (3-5 months) will starve bed bugs Provides more harborage for bugs Disadvantages More difficult to treat Requires space, manpower, maintenance, organization ÷ Reduces overall livability Dust, dirt interfere with monitor Clients may not like limited access to personal items cups http://www.ideastream.org/news/npr/173463462 AGRILIFE EXTENSION AGRILIFE EXTENSION





SHELTER DESIGN ELEMENTS & BED BUGS

Bed construction

- Worst: no bed legs, allows continuous contact with floor
- Better: Plywood or wood bed on legs;
- Better: wood painted white or light color
- Better: Metal bed or frame
- Best: Bed frame only, encased mattress and box spring

At least with a painted bed you can see signs of bed bug What was the problem here?





What are the positive and negative elements in this setting?















and heat treat



















- Work on footed bedsNot for platform, water beds
- When all feet are cupped provide protection when bed is
- Work best with motivated
- clientsMust be maintained, cleaned
- Can also serve as monitoring station



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AN INTEGRATED APPROACH WORKS BEST

- Quarantine
- Monitoring (visual and trapping)
- Education (encourage reporting, cooperation with monitoring, treatment)
- Environmental modifications (beds, walls, floors, ceilings)
- Physical controls (heat, steam)
- Mechanical controls (vacuuming, barriers)
- Chemical controls (dusts, sprays, aerosols)



PANEL DISCUSSION TOPICS

- Dealing with clutter
- Making quarantines work
- Licensing issues
- Educating residents and staff
- Getting residents to buy-in on pest control program
- Choosing a good pest control company