

## MINNESOTA DEPARTMENT OF AGRICULTURE

URBAN INITIATIVE PROGRAM

BY

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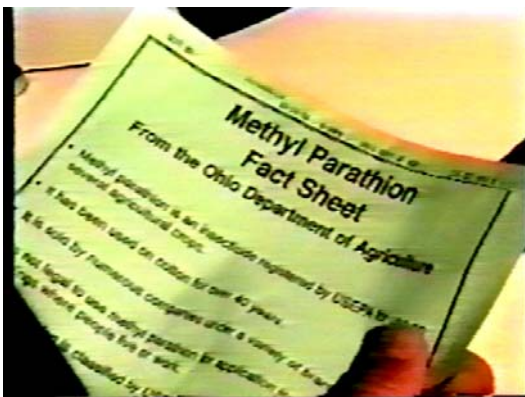
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## PURPOSE OF THE PROGRAM

1. Detect any past or ongoing diversion of ag. Pesticides;
2. Identify points of contamination that may pose a risk to humans;
3. Prevent future diversion and misuse.

## GOALS OF THE PROGRAM

1. Establish a regulatory presence in urban & residential communities.
2. Focus investigations in the ag. Sector on detecting points of diversion.





**Demolition with Long Term Relocation and Replacement** *(Option Not Used)*

- Twelve month relocation of 235 families is extremely expensive - approximately \$72,000 per unit.
- Additional costs for demolition and disposal.
- Construction of new homes could cost between \$15-25 million.

**Decon with Removal and Restoration** *(Option Utilized at Lorain)*

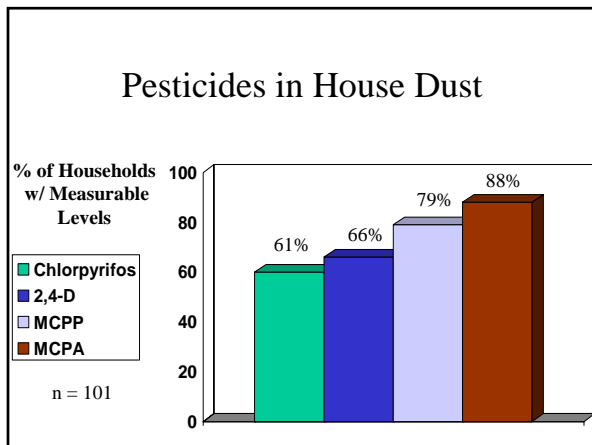
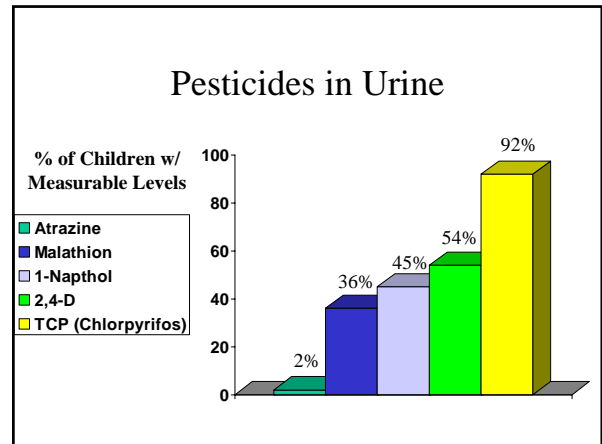
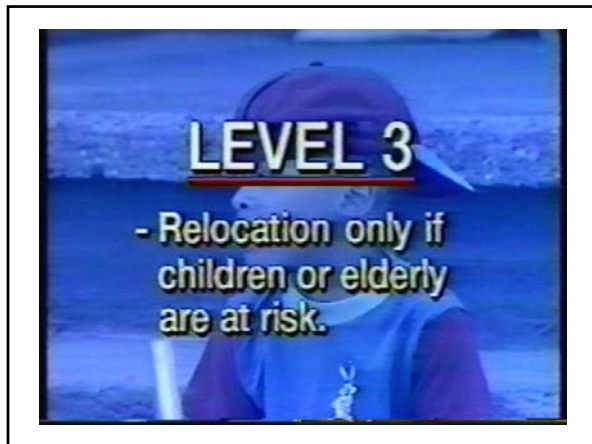
- Long term reduction of MP levels.
- Potential need to do rework is low.
- Achievement of project goal for 235 units is approximately \$70,000 per unit.

**LEVEL 1**

- Emergency relocation within 48 hours.

**LEVEL 2**

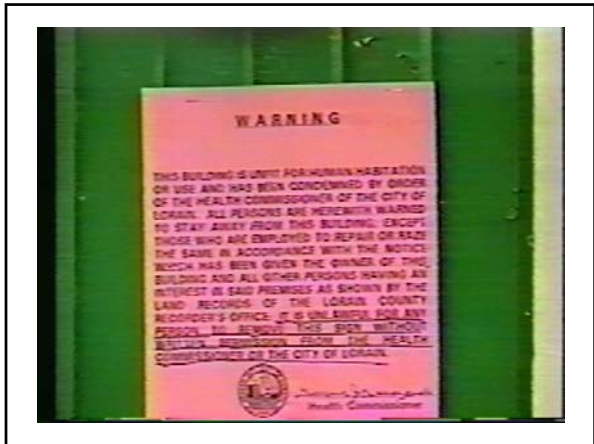
- Relocation within 2 to 3 weeks.



- ### Results
- Most chemicals did not exceed levels of health concern -- in single media or aggregated across media and pathways.
  - Exceptions:
    - One child's exposure to dichlorvos in air.
    - Lead in dust from some households.
    - Arsenic in four hair samples.
    - Benzene in personal air.

- ### Emerging Risk Assessment Issues
- Cumulative risk
  - Bio-monitoring
  - Sensitivity/Susceptibility
  - Endocrine Disruptors











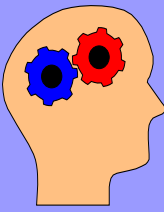
**Ten Tips for Determining Whether and/or How to Control Weeds and Insects**

By:


**John Peckham, Supervisor,  
Agricultural Chemical Investigative Unit**

### Cockroach Biology 101



- Cockroaches need:
  - Water
  - Food
  - Hiding Places
  - Warmth
  - Entry Points



### Cockroach Biology 101



- Cockroaches need **WATER**:
  - Although cockroaches can go without food for 42 days, they can only go without water for 12.



## Cockroach Biology 101

- Cockroaches need **FOOD**:

– any crumbs will do

– baby cockroaches feed on the frass of adult cockroaches



## Cockroach Biology 101

- Cockroaches need **HIDING PLACES**:

– cockroaches love small, dark crevices located close to water and food sources



## Cockroach Biology 101

- Cockroaches need **WARMTH**:

– Cockroaches came from the tropics. They'll gather anywhere conditions are similar.



## Cockroach Biology 101

- Cockroaches need **ENTRY POINTS**:



– Cockroaches are always looking for cozier environments. They can get into your home through cracks around baseboards, holes in walls where plumbing or heating ducts come through, unscreened vents, and by hiding in cardboard boxes that people carry inside.



## The IPM Solution

- So what's the solution?



## The IPM Solution

- Integrated Pest Management (IPM) is a method of preventing and controlling pests in a way that is the least hazardous to you and the environment.





## The IPM Solution

- IPM first uses information about the pest’s biology and habitat -- how and where it lives -- to get to the root of the pest problem.
- Pesticides are used sparingly, if at all.

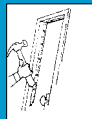
## IPM Decision Tree

- 1) Cultural Controls
  - What can we change about the environment to make it uncomfortable for the pest?
- 2) Biological Controls
  - Are there natural predators (that eat it) or parasites (that make it sick) of the pest that we can use to control it?
- 3) Chemical Controls
  - Have we considered all other methods of control first?



## Cockroach IPM Tool Kit

- 7 items to control pests cheaply and safely:
  - Sticky traps/roach motels
  - “chip clips” or clothes pins
  - screens for drains and air vents
  - caulk and caulk gun
  - steel wool
  - duct tape
  - weather-stripping



## Cockroach IPM Tool Kit Item #1

- Sticky traps/roach motels
  - Roaches love to hide near the refrigerator coils and under the kitchen sink. If these areas don’t seem to be your problem, and you’re not sure where to start your IPM battle, put traps in several likely places around your home to find where most of the roaches are living. Put the traps near likely food and water sources for the roaches. Then you can deal directly with the worst problem areas.

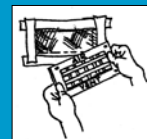
## Cockroach IPM Tool Kit Item #2

- “chip clips” or clothes pins
  - To keep roaches out of snacks, cereal, rice, and other food sources, close bags with clothes pins or “chip clips”.



## Cockroach IPM Tool Kit Item #3

- screens for drains and air vents
  - Roaches find water by going down the drain to the bend in the pipe. Screening drains will deny them water!
  - Roaches can find their way into your apartment through unscreened air vents. Simply blocking these entry points will help prevent your neighbor’s roaches from colonizing your space.



### Cockroach IPM Tool Kit Item #4

- caulk and caulk gun

- These tools also block roach entry and hiding places... and weather-proof your home at the same time! Use the caulk to plug gaps between cabinets or baseboards and walls, around the kitchen sink, and all windows and air vents.



### Cockroach IPM Tool Kit Item #5

- steel wool

- Roaches can't get through this stuff. Use it to plug holes around pipe chases, and other roach highways.



### Cockroach IPM Tool Kit Item #6

- duct tape



- This all-purpose fix-it material can help keep the steel wool in place and also temporarily stop leaks.

### Cockroach IPM Tool Kit Item #7

- weather-stripping

- Shut your front door and turn off the room lights. If light can get in under the door, so can roaches!



Buy weather-stripping material at your local hardware store.

