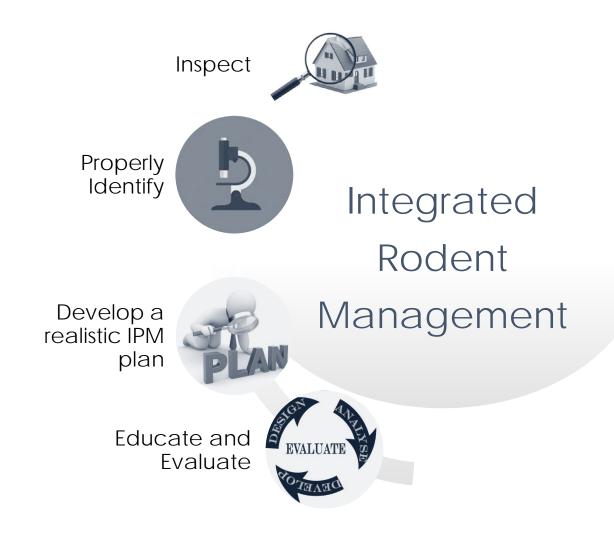


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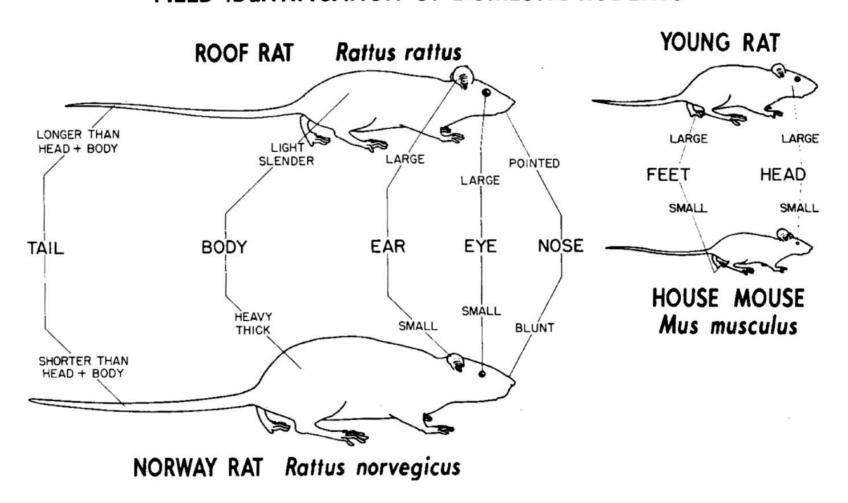
Rodent IPM

#### Pest Management is People Management



#### Identification

#### FIELD IDENTIFICATION OF DOMESTIC RODENTS



#### Mice

 Need a hole the size of a dime or a ¼ inch crack beneath a door to enter



- Mice are curious
- Require only ~1/10 ounce of food each day
- Don't need to drink water daily

#### Rats

 Need a hole the size of a quarter or a ½ inch crack beneath a door to enter



- Are very smart, cautious, and afraid of new things
- Require 0.5–2.5 ounces of food each day
- Need ~1 ounces of water every day

#### Indicator Pests

Found near dead animals or trash



Found near grain or bait stored in walls



Indian Meal Moth Gr

**Grain Beetle** 

## What is Integrated Pest Management (IPM)?

Environmentally sensitive and human health-centered pest control

Science-based, best management practices for pests

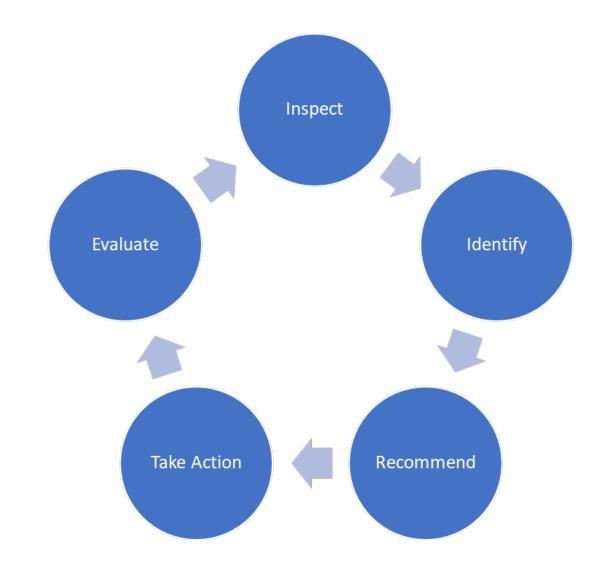
A process that minimizes risks

- risks of pests
- risks related to pesticides
- Liability risks

A team effort!

IPM is a strategy based on multiple control tactics to ensure that:

- Pest populations are managed at acceptable levels
- Risks to people, other nontarget organisms, and the environment are minimized
- Pest control is practical and economical



### TAC Title 4, Part 1, Chapter 7, Subchapter H Structural Pest Control Service

RULE §7.114 Definition of Terms

Infest--To exist in, on, around or invade a structure in a manner that may limit the use or enjoyment of, or cause harm or damage to: households, railroad cars, ships, docks, trucks, airplanes, or other structures, or its contents, or its inhabitants, including any humans or pets; pests, unwanted plants, or diseases of trees, shrubs, or other plantings in a park or adjacent to a residence, business establishment, industrial plant, institutional building or street.

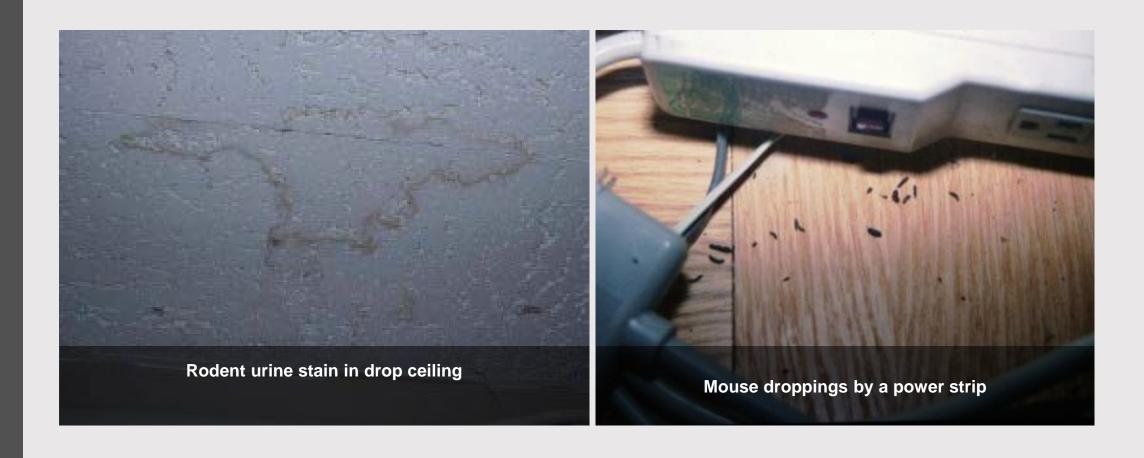
Integrated Pest Management (IPM)--A pest management strategy that relies on multiple pest control tactics, including the judicious use of pesticides, informed by accurate identification and scientific knowledge of pests, reliable monitoring methods to assess pest presence, preventative measures to avoid pest infestations, and thresholds to determine when corrective control measures are needed.

# Signs of rodents – tools for monitoring

- Sightings
- Noise
- Gnaw marks
- Nests
- Rat burrows
- Droppings
- Dog or cat alerts
- Holes and rub marks
- Indicator pests



# Droppings and urine stains

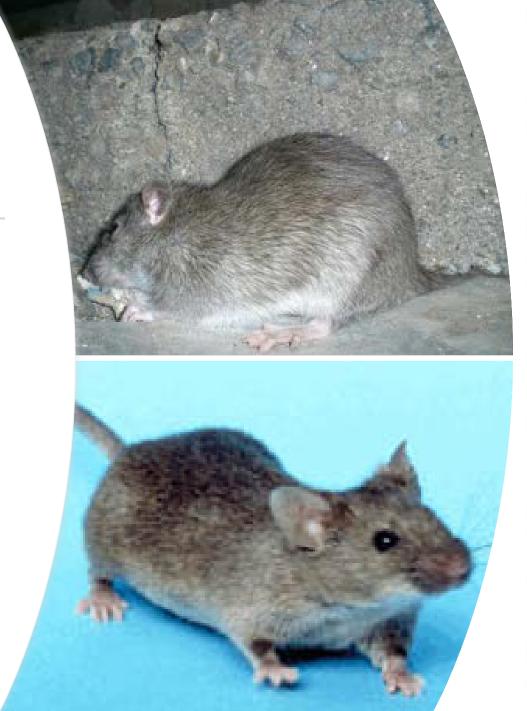


# Holes and rub marks



Now the hard part getting the information

- Find out:
  - Rat or mouse?
  - How many?
  - Where?
  - Food Source?
- Record:
  - Date
  - Detailed observations
  - Action taken





## Scenario #1

Your customer is a school cafeteria. After having the account for several months, you see a couple of mentions of rodent activity in the service log, but nothing to give you indication they have a problem. You service the account as normal, but you do observe that a dock door is open and trash is overflowing at a dumpster. The manager has changed as well. As you start to inspect here is what you notice and should do.





You observe some droppings in a storage area that is open.



Your next step should be to conduct a thorough inspection and install some repeating catch-alls – NOT glue boards

### Traps for Prevention and control

- Effective and reusable
- More ARE better
- Check often
- Placement is key







Trap bounced away from the wall when it snapped

# Trap Management







#### Observe

- Doors open
- Cleaning practices
- Talk with food service manager
- Conversation with IPM coordinator or who you have contract with
- What needs to be sealed up?
  - Start thinking what can I do?
  - What does my client need to do

For a hole, crack, or gap...



Stuff it



Seal it



Check it often

# You return the next day – you have mice in the live trap

Bait with what they're eating or using to nest

Bait & set many traps

- 6 traps for **each mouse**
- At least 3'apart
- May be set immediately, but will be more effective if left unset and re-baited for a day or two

- Seal All Entry Points
- Keep using multiple catch all traps until nothing is observed
- Go over sanitation with staff
- Keep an eye on drop ceilings, custodial closets.
  - Remember will travel
     50 feet, but will start an new colony and keep moving outward

#### Scenario #2

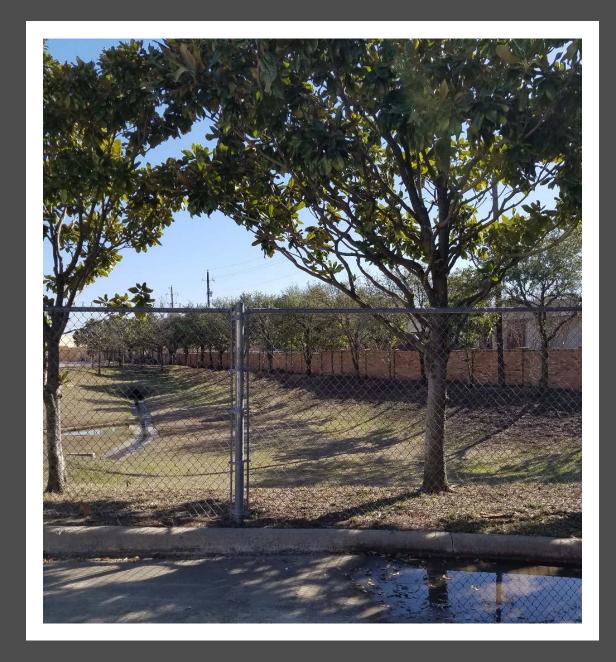
Google Maps

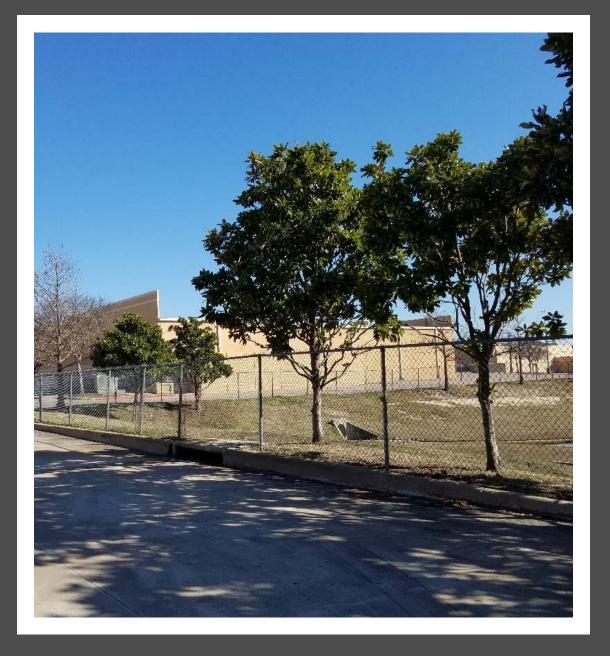


Imagery ©2018 Google, Map data ©2018 Google 50 ft ■











#### Solutions

- Inspections
- Monitoring
- Education
- Baiting
- Exclusion

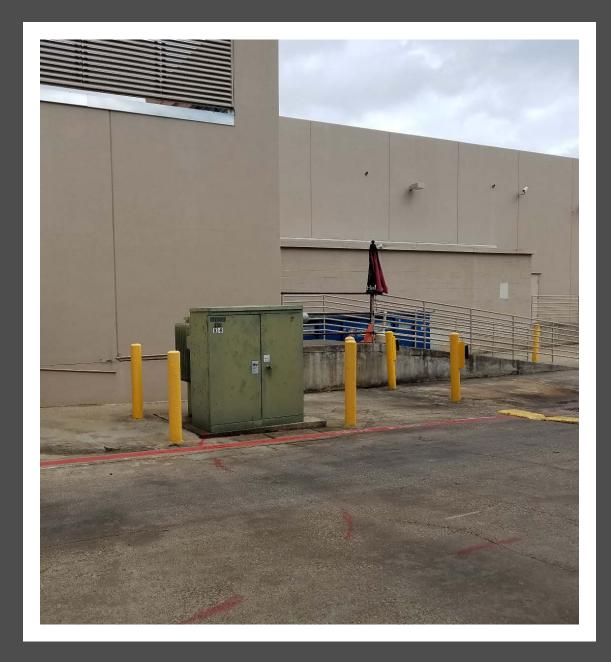


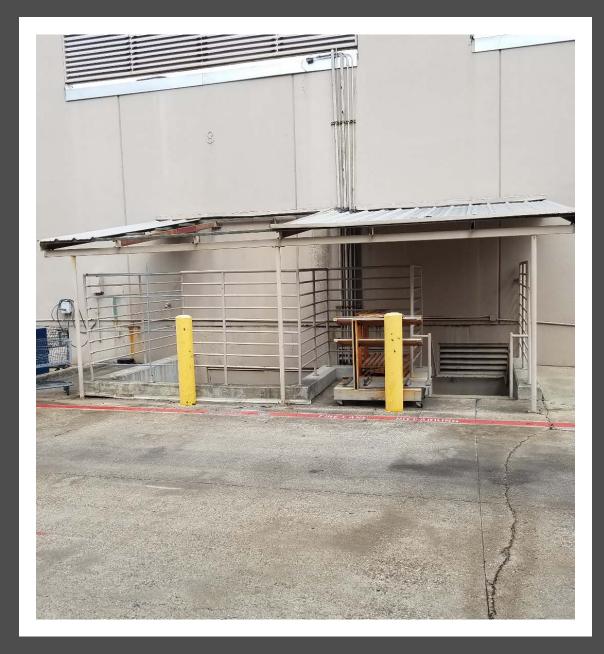




### Scenario #3



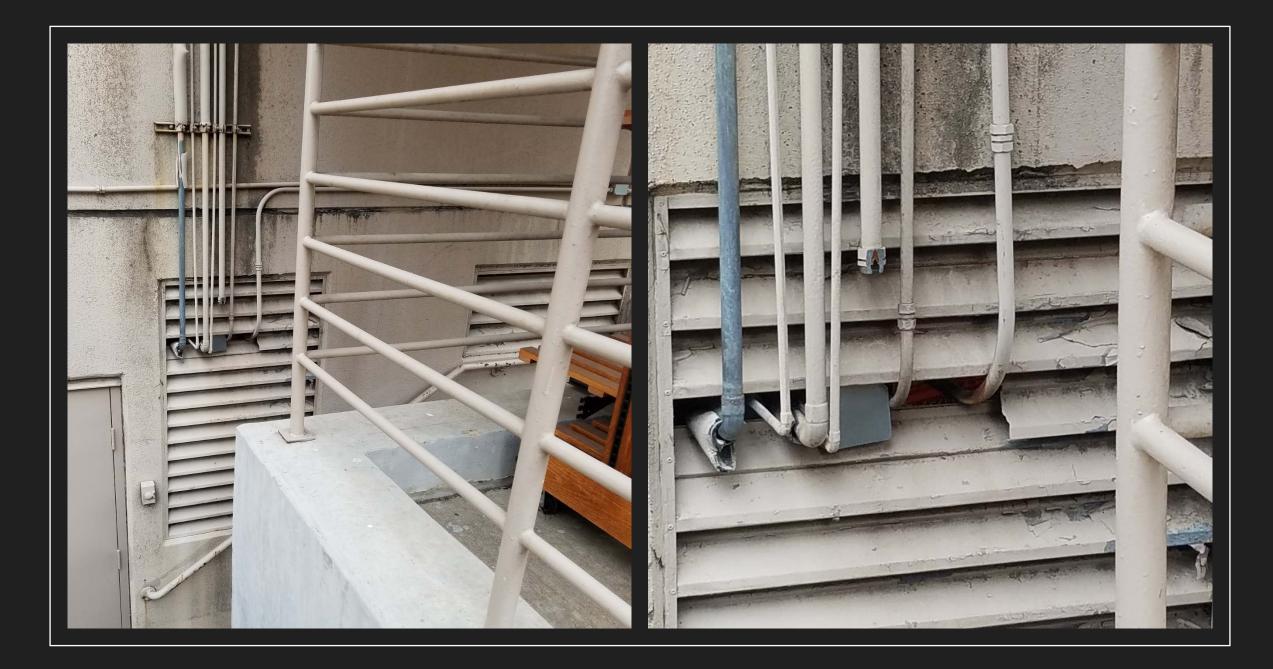


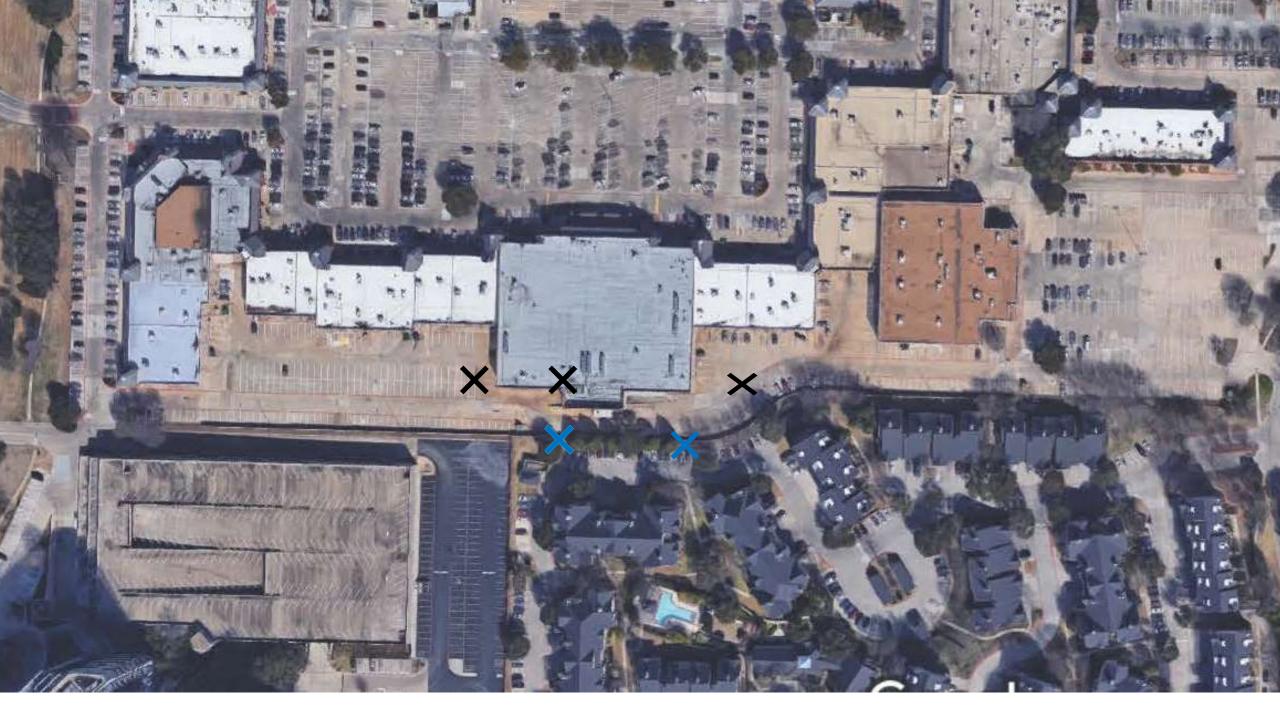










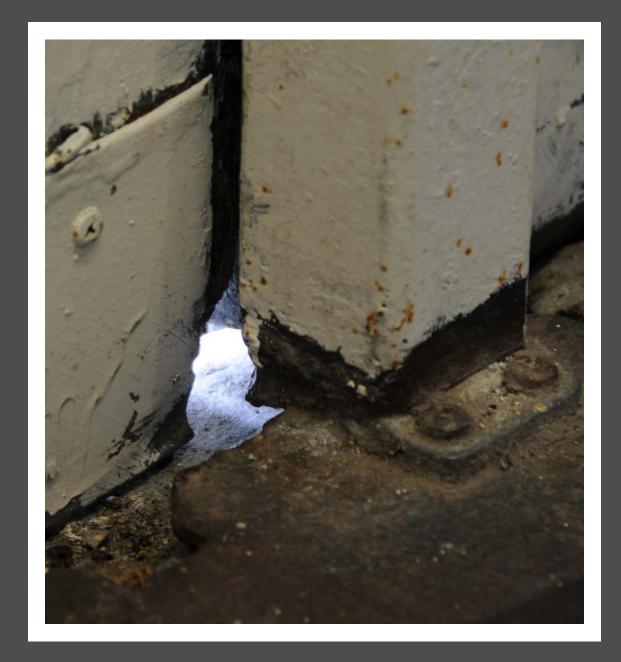


#### Xcluder® Fill Fabric

- The Starter Kit which includes a 10' roll, scissors and gloves
- We also offer "Xcluder Bulk Pak" with 5 rolls and Xcluder Single Roll which includes one roll.
- 1" wide strips roof lines etc.
- Benefits of Xcluder fill fabric are: no rust, permanent, a springiness to lock into holes and crevices, and economical and easy to install.











# ...and a new door is born



# Other Exclusion Tools: Hardware Cloth





Trash Cans
need to be 30
ft. from
building with
the lids closed.



#### Thank YOU

- This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award USDA NIFA EIPM – Texas A&M AgriLife Extension IPM Program is number 2017-M1800210
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# TEXAS A&M GRILIFE EXTENSION



United States Department of Agriculture National Institute of Food and Agriculture