

# Got Rodents?

Pennsylvania Integrated Pest Management Program

Penn State Entomology



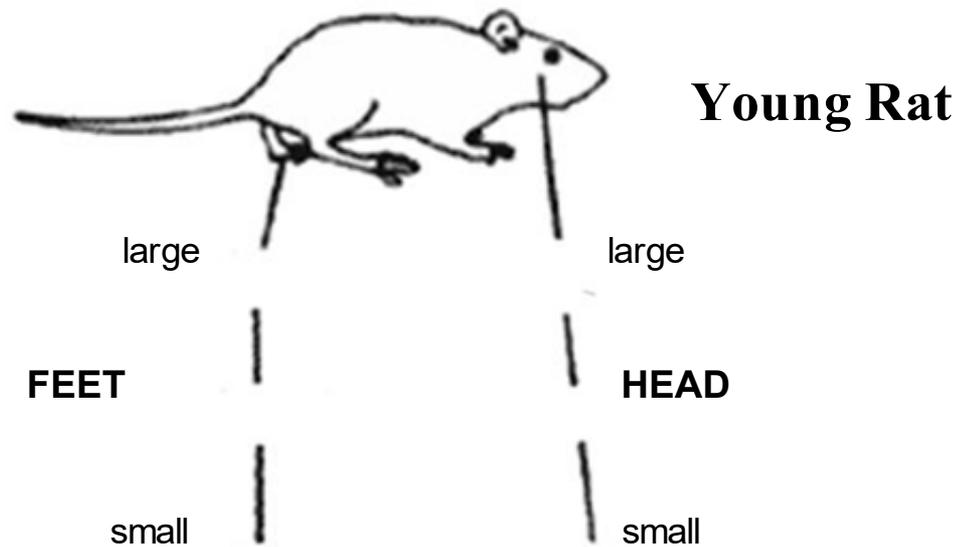
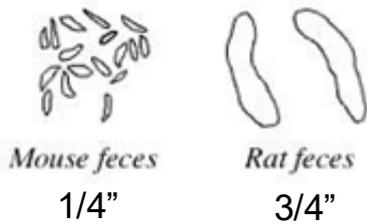
# Rodents



“Rodent” means “to gnaw”

- House mice
  - White-footed mice
- Rats
- Other:
  - Squirrels
  - Chipmunks
  - Groundhogs

# Rodent identification: Rats vs. Mice



# Rodent Life-cycles

## Mice

- Breed rapidly
  - 6-12 Pups in litter
  - 30 days to maturity
  - Gestation: 28 days
  - Next litter: immediately after birth
  - Live 3-6 months in wild
- Nibble 30x night – on anything!
  - 1/10<sup>th</sup> of an ounce!
- Don't travel far - just 10-30 feet from their nest

## Rats

- Also fast breeders!
  - 8-12 pups/litter
  - 5 weeks to maturity
  - Gestation: 22 days
  - Next litter: 28 days
  - Live 6-9 months
- Develop food preferences – paranoid
  - 1-3 ounces/night
- Usually travel 100-300 yards from nest
  - Can travel 3 miles!



# Signs of Rodents

- Sightings
- Noise
- Droppings
- Nests
- Gnaw marks
- Holes and rub marks
- Rat burrows



Mouse nest



Rat burrow



Norway rat –size 7 sneaker



Rodent urine stain on dropped ceiling tile

# What's the Harm?

Mice - 83% of *all* homes!  
95% of low-income homes!  
89% of schools!  
Cockroaches – up to 63%  
of homes

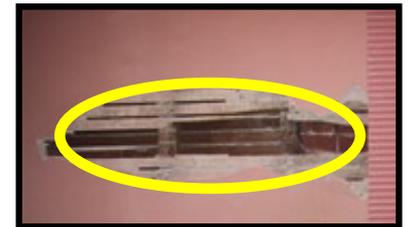


Rodent-chewed wire – fire hazard!

- Rat Bites
  - 100,000/year in US
- Fire
  - 20% of otherwise unknown fires
- Infectious disease
  - 56+ pathogens
- Property damage
  - Urine soaked material must be discarded
- Asthma
  - 40% Baltimore children sensitized

# Pest Inspection

- Accompany PMP on inspection
- Take photos & notes
- Use a flashlight
- Identify the pests found!
  - Online
  - Experienced pest control workers
  - Urban entomologist
    - PA IPM Program – 215-264-0582
    - Penn State Extension – all counties
    - At other land-grant universities



# Monitoring



Improved mouse trap



Multiple catch trap.

- Traps!
- Glueboards
  - Not very effective nor humane
  - Use as boxes or tubes, not flat
- Snap traps – many kinds
  - Corners, tight dark places
  - Trigger/openings against wall
- Multiple catch traps – mice
  - “Curiosity traps”
  - Can be very effective

NOTE: Traps are *not a pesticide*. They can be set and serviced by anyone, not just a PMP.

# Treatment: Mice

- Exclusion
  - Door sweeps & screens
  - Wall penetrations
  - Holes – kitchen
- Sanitation
  - *How much food?*
- Bait & set many traps
  - 6 traps for each mouse
  - At least 3' apart
  - Set immediately



Trap jumped from the wall when it snapped.



Is there a problem?

# Treatment: Rats

- Traps – pre baiting: rats neophobic
  - Use lots!
  - Snap traps best
- All rodenticide labels require tamper-resistant stations ONLY.
- **The LABEL is the LAW!**
- **Recommend that rodent poisons be applied ONLY by a Pest Management Professional.**
- Consumer-ready poisons may be ineffective
- May poison pets, dogs, hawks, etc.

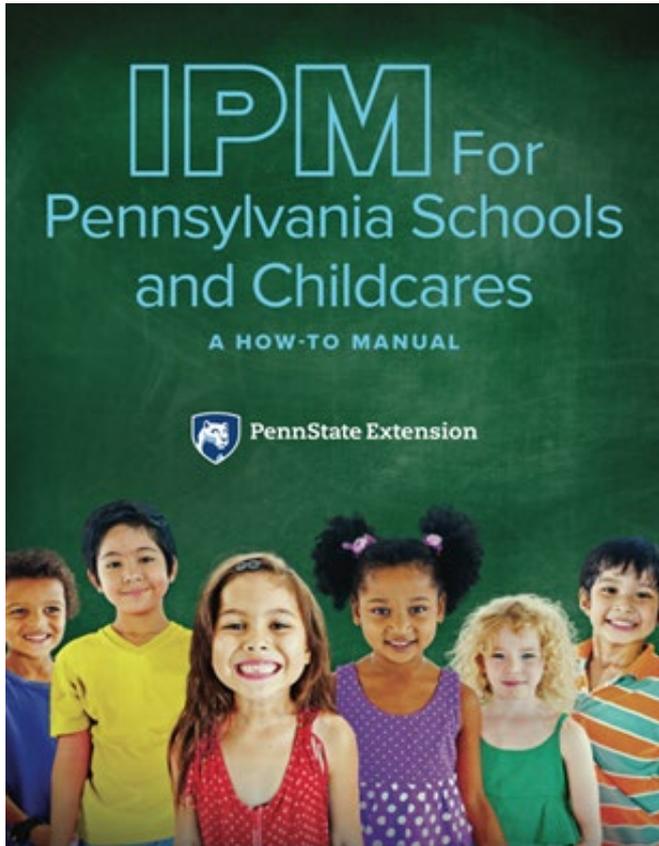


Norway Rat Burrow



An opened bait station

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**Editor:** Dion Lerman

Amber Brunskill

Lyn Garling

Maria Gorgo-Gourovitch

Michelle Niedermeier

**Sources** as noted on slides and in References

# **Pennsylvania Integrated Pest Management Program**

## **Penn State University Department of Entomology**

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**Pennsylvania Integrated Pest Management Program**

**Penn State Navy Yard**

Bldg. 661

4960 S. 12<sup>th</sup> Street

Philadelphia, PA 19112

215-264-0582

[dlerman@psu.edu](mailto:dlerman@psu.edu)