

Got Cockroaches?

Pennsylvania Integrated Pest Management Program

Penn State Entomology



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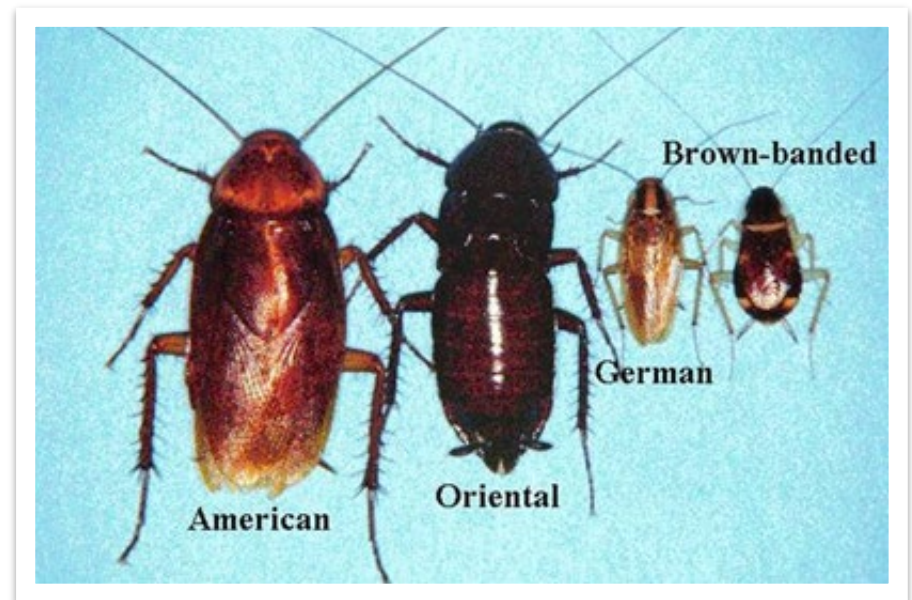
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Cockroaches

Found everywhere!

- Kitchens & waste storage
- Litter boxes & animal cages, etc.
- Moisture
- Grease
- Cracks & crevices
- Voids



Pest cockroaches of Pennsylvania

Photo: University of Nebraska Extension

German Cockroach (GCR) Life Cycle



- Medium size (3/4") and bronze color with "racing stripes" behind head
- Found everywhere, but likes warmth, moisture, and darkness
- Reproduces quickly – 40 eggs/capsule
- Carries eggs to term – even if the mother is dead
- 5 instars – 30-60 days to maturity
- Eats most anything – loves grease!

“Waterbugs”

American Cockroach (ACR)

- AKA “palmetto bugs”
- Large (1-1/2”); brown color
- Glide in the air
- Live in sewers and basements
- They like it hot



Oriental Cockroach (OCR)

- AKA “water bugs”
- Large (1”); black color
- Live in sewers, basements, and mulch
- They like it cool



Signs of Roaches



Wall clock



**Brown banded
cockroaches
by a door hinge**

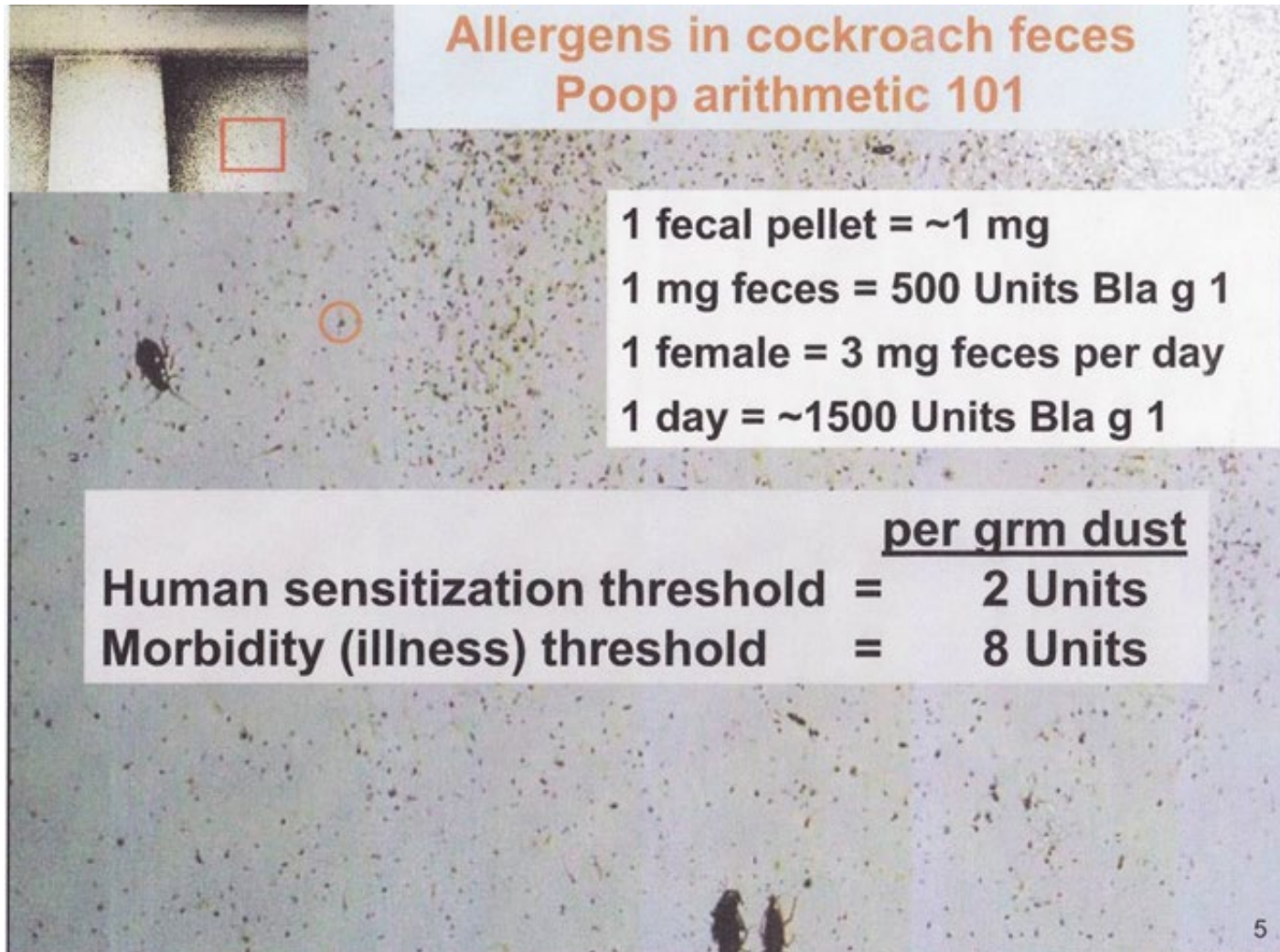


**Under a cabinet
shelf**



**Behind the wall
clock**

What's the Harm?



Allergens in cockroach feces
Poop arithmetic 101

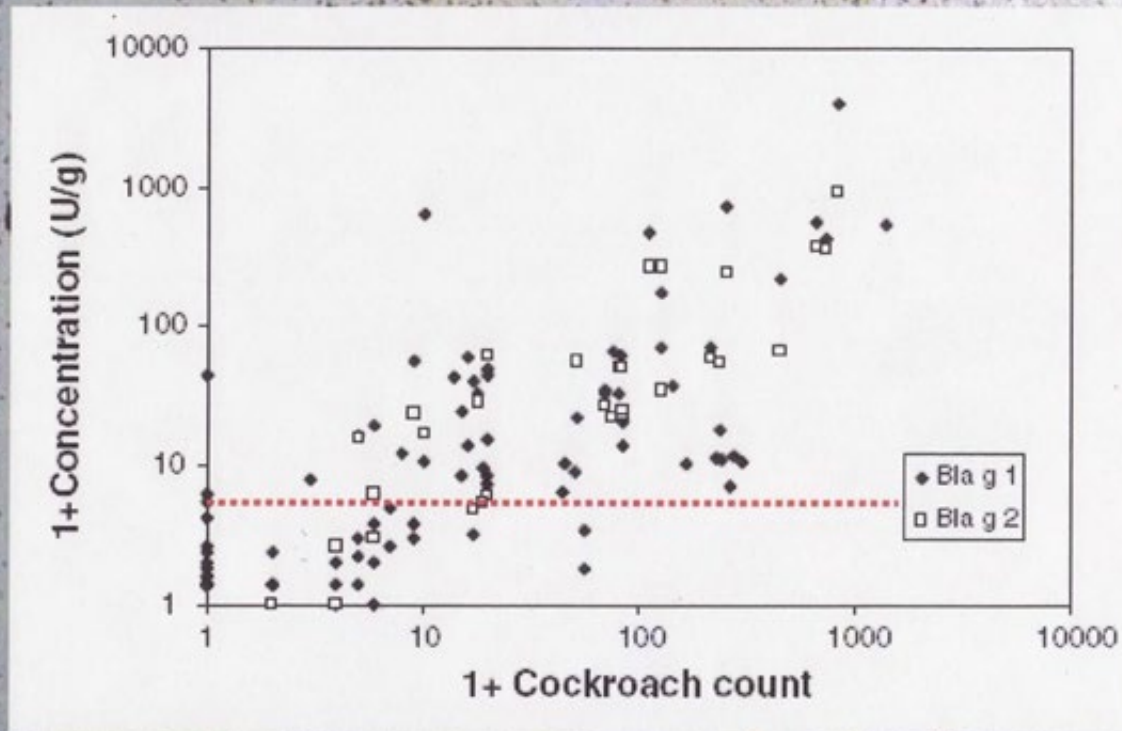
1 fecal pellet = ~1 mg
1 mg feces = 500 Units Bla g 1
1 female = 3 mg feces per day
1 day = ~1500 Units Bla g 1

	<u>per gram dust</u>
Human sensitization threshold =	2 Units
Morbidity (illness) threshold =	8 Units

5

What's the Harm? - GCR Allergen Levels

More cockroaches = More allergen



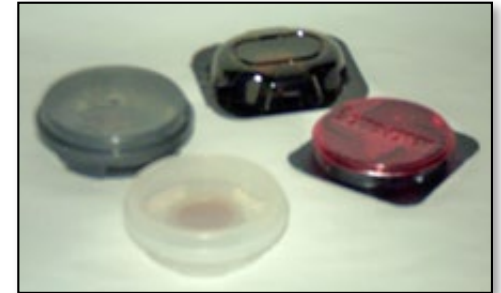
Treating for Roaches

Only licensed pesticide applicators may apply pesticides in Pennsylvania in someone else's home, or schools, or childcare facilities!

- Not maintenance staff, teachers, or volunteers.
- This includes playing fields, greenhouses, etc.

This includes the most effective pesticide options:

- Bait stations
- Gels
- Boric acid and other dusts
- Insect Growth Regulator



Long-term Control



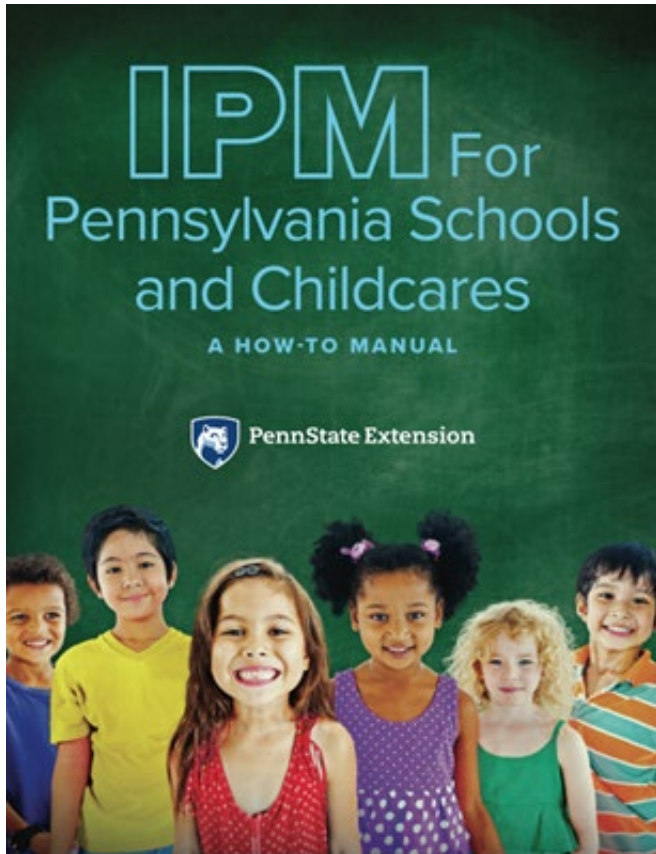
PMP's gel bait applied under a drawer (DL)



Insect monitor sticky trap

- **Sanitation** is key!
- Maintain monitors
- **Only** treat while there are signs of roaches
 - Remove & discard old stations or bait applications
 - Rotate brands to change Active Ingredient (AI)
- If infestation is persistent, ask for a reassessment by PMP
 - Dusts
 - Insect Growth Regulator

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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. 12th Street

Philadelphia, PA 19112

215-264-0582

dlerman@psu.edu