Cockroaches are a big kitchen pest problem

- Food and water are plentiful
- German roach prefers a kitchen environment and is the most likely problem
Why Control Roaches?

- Transmit bacteria
- Cause food spoilage
- Trigger allergies

Photo: University of Nebraska–Lincoln
Cockroach species have different requirements

- **German**: common in kitchens/bathrooms - high water and warm temps
- **Brown-banded**: found in storage, classrooms, and eating areas - reduced water needs
- **Oriental**: found in basements/lower floors - cool temps and need high water
Cockroach species have different requirements

- **American**: uncommon, found in steam tunnels, sewers - warm temps
- **Woods**: attracted to lights, don’t infest - drawn to moist areas in buildings
Roach species range from 5/8” to nearly 2” long
Comparison of egg cases

Brown-banded

American

German

Oriental
What are the roach signs?

- Active at night
- Strong oily odor
- Roach specks similar to grains of pepper

Photo: Nebraska Extension in Lancaster County
Other possible roach signs

- Egg case shells and shed “skins” (exoskeletons)

Brown-banded roach specks, shed “skins,” and empty egg cases on the inside of a phone
Where are German cockroaches found?

- In hidden areas during daytime
- Near water
- Near food
- Prefer wood and porous substrates

![German cockroaches hiding in the area behind a kitchen drawer](Image)

Photo: University of Nebraska–Lincoln
Monitor to locate roach harborages

- Sticky traps
  - Place in locations near moisture sources
  - Place near refrigerators, stoves, garbage cans and under sinks
- Some roach traps have pheromones to aid in attracting roaches

Graphic: University of Nebraska–Lincoln
Cockroach life cycle

Graphic: University of Nebraska–Lincoln
4-5 egg cases / female
30-40 young / egg case
Every kitchen can support a cockroach infestation

- Number of cockroaches depends upon amount of resources available:
  - Food
  - Water
  - Shelter

- Reduce the resources and the number of cockroaches will also be reduced

- This number is called the carrying capacity
Carrying Capacity for Cockroaches

Higher Population

Carrying Capacity

Lower Population

Insecticide Application

Time

Graphic: University of Nebraska–Lincoln
Reduce or eliminate water, food, and shelter and the carrying capacity will also be reduced.
Do you see any resources that could be reduced?

I admit I seen a few waterbugs, but I got no cockroach problems. (J. Kalisch 1995)
Reduce resources

Fix water leaks

Empty wash buckets
Seal cracks and crevices

Reduce resources

Photo: University of Nebraska–Lincoln
Reduce resources

Thoroughly remove food residue

Photo: University of Nebraska–Lincoln
Reduce resources

Vacuuming can remove food residues and live cockroaches

Photos: Nebraska Extension in Lancaster County
Eliminate roach hiding places

Roaches live in “tight spots”:
- Cracks
- Crevices
- Voids
Reduce resources

Seal all cracks, crevices and voids

Photo: University of Nebraska–Lincoln
Reduce resources

Seal all cracks, crevices and voids

Photo: University of Nebraska–Lincoln
Control tactics available

- Vacuuming
- Baits and Insect growth regulators effective
- Crack and crevice treatments target roach hiding places
- Baseboard treatments are NOT effective

...take advantage of all available tactics
Storing pesticides safely

- Keep in original containers with intact label
- Lock in a cabinet or room
- Keep in separate location from cleaning supplies
- Follow label directions for disposal
Credits

Content Specialist:
- Clyde Ogg, Nebraska Extension

Content Editor:
- Erin Bauer, Nebraska Extension

Photos:
- James Kalisch, Department of Entomology, University of Nebraska-Lincoln
- Vicki Jedlicka, Nebraska Extension in Lancaster County
Credits

❖ Photos cont.
   ➢ Clyde Ogg, Nebraska Extension
   ➢ Erin Bauer, Nebraska Extension
   ➢ University of Florida

❖ Artwork/Graphics:
   ➢ James Kalisch, Department of Entomology, University of Nebraska-Lincoln
   ➢ Clyde Ogg, Nebraska Extension

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