Beneficial Bugs Versus Bad Bugs in Northeast Tennessee (published 2026-07-04)
By Melody Rose Teague, Sullivan County Extension Director & Extension Agent III

From backyard gardens to hayfields and cattle farms, insects play a major role in the agricultural and environmental health of Northeast Tennessee. While many people think of bugs as pests, only a small percentage of insects are actually harmful. In fact, many insects are beneficial and help farmers, gardeners, and homeowners by pollinating plants, improving soil health, and controlling destructive pests naturally.Understanding the difference between beneficial bugs and harmful bugs can help reduce unnecessary pesticide use and promote a healthier ecosystem across the region.

The "Good Bugs" of Northeast Tennessee
Beneficial insects are nature's helpers. They either pollinate crops and flowers or prey on damaging pests.

Lady Beetles (Ladybugs)
Lady beetles are among the most recognized beneficial insects. Both adults and larvae feed heavily on aphids, mites, whiteflies, and scale insects. A single ladybug can consume dozens of aphids each day, making them valuable allies in vegetable gardens and ornamental landscapes.

Praying Mantises
Praying mantises are predators that feed on a wide variety of insects, including caterpillars, beetles, moths, and flies. Although they are generalists and sometimes eat beneficial insects too, they can still help reduce pest populations naturally.

Ground Beetles
Ground beetles are nighttime hunters that live in soil and mulch. They feed on slugs, cutworms, caterpillars, and other garden pests. Farmers and gardeners benefit from maintaining mulch and reduced tillage practices that support these insects.

Lacewings
Lacewing larvae are often called "aphid lions" because they aggressively feed on aphids, thrips, and small soft-bodied insects. Adult lacewings are delicate green insects often seen near lights at night.

Bees and Native Pollinators
Pollinators are essential to Northeast Tennessee agriculture and home gardens. Honey bees, bumble bees, and native solitary bees pollinate fruits, vegetables, and wildflowers. Crops such as pumpkins, cucumbers, apples, and berries depend heavily on insect pollination. Planting native flowers and reducing insecticide applications during bloom periods can help protect pollinator populations.

The "Bad Bugs" of Northeast Tennessee
Harmful insects damage crops, spread diseases, destroy ornamentals and gardens, or create nuisances for humans and livestock.

Japanese Beetles
Japanese beetles are highly destructive pests that feed on roses, grapes, fruit trees, beans, and many ornamental plants. Adult beetles skeletonize leaves, while their grubs damage turfgrass roots.

Squash Bugs
Squash bugs are common pests in vegetable gardens and attack squash, pumpkins, and cucumbers. They suck sap from plants, causing leaves to wilt and die. Early detection and hand removal are important for management.

Aphids
Aphids are tiny insects that reproduce rapidly and feed on plant sap. Heavy infestations weaken plants and produce sticky honeydew that encourages mold growth. Fortunately, beneficial insects like ladybugs and lacewings often help keep aphid populations under control.

Ticks
Ticks are a growing concern throughout the Appalachian region. Species such as the black-legged tick and lone star tick can transmit diseases to humans and animals. Wearing protective clothing and checking for ticks after outdoor activities is important during warm months.

Mosquitoes
Mosquitoes are nuisance insects that can also spread disease. Standing water around homes, barns, and gardens provides ideal breeding habitat. Eliminating containers and areas that collect water can significantly reduce mosquito populations.

Encouraging Beneficial Insects
Homeowners and producers can support beneficial insect populations with a few simple practices:

- Plant native flowering plants that provide nectar and pollen.
- Reduce broad-spectrum insecticide use whenever possible.
- Leave some natural habitat areas and mulch for ground-dwelling insects.
- Provide water sources and pollinator-friendly landscapes.
- Use Integrated Pest Management (IPM) practices to monitor pest levels before spraying.

Beneficial insects are a critical part of sustainable agriculture in Northeast Tennessee. By learning to recognize the difference between helpful insects and harmful pests, residents can make better management decisions that protect crops, gardens, livestock, and the environment. In many cases, nature already provides its own pest control system — if we give the “good bugs” a chance to do their job.

For additional information, please refer to the following publications:

“Beneficial Insects, Spiders and Mites in the Southeast,”
https://uthort.tennessee.edu/wp-content/uploads/sites/228/2024/05/C-1055_2.pdf

"You Can Control Garden Insects," https://utia.tennessee.edu/publications/wp-content/uploads/sites/269/2023/10/PB595.pdf

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