



## Don't Bug Out!

### Learn the eco- and animal-friendly approach to insect control

by RUTHANNE JOHNSON



**Ants marching head-to-toe** formation into your pantry. Snails slithering through your garden at night. Faced with these and similar scenarios, even an eco-conscious homeowner or gardener could be tempted to reach for a can of Raid.

But this kind of “knee-jerk spraying” brings its own set of problems, says Mary Louise Flint, an entomologist with the University of California-Davis. It’s not always effective. It’s not a long-term solution. And insecticides can harm your family, pets, beneficial insects, and backyard wildlife.

That’s where integrated pest management comes in. The term may sound daunting, but IPM is simply about swapping the traditional scorched-earth, insecticide-heavy approach with environmentally sound tactics.

IPM begins with learning about regionally common insects and what they look like, says Steve Allgeier of the University of Maryland extension service. “We have to understand their life cycle, why they are there, and who the beneficial critters are [that we] should encourage.” A master gardener coordinator, Allgeier is frequently asked for help getting rid of misidentified “pests.” “Ladybug larvae look ... like little spiny alligators. And people come [to us] concerned that they have a mass of these things. And I say, ‘Hey, those are ladybug larvae. And those are more beneficial than adults because they consume more of those bugs you want to get rid of.’”

Even bona fide pests aren’t necessarily cause for alarm. Mary Kay Malinoski, also with the University of Maryland extension service, counsels people to monitor insect populations before taking action; often-times, natural predators will keep their numbers in check. Some species, like the four-lined plant bugs who emerge in May, are nothing to worry about, Malinoski says. “They do damage early on, but the plants grow out of it. They aren’t around for more than three or four weeks. ... It’s not worth nuking with chemicals.”

When intervention is warranted, IPM strategies can be as simple as picking individual insects off foliage, relocating plants from places where they’re stressed (and therefore more vulnerable to pest attack), or applying nontoxic scent repellents. Some strategies require more work: caulking cracks and crevices in your house, placing protective barriers over vulnerable plants, or altering your landscape to attract your pest’s natural enemies. When chemicals are required, IPM means using the least environmentally impactful products that target only the problem species.

The goal, Flint says, is to keep pests

HOUSE: GAY BUNGMARNER/ALAMY; PEOPLE IN GARDEN: BLEND IMAGES/ALAMY; BIRD: ANDREW HOWE/ISTOCK PHOTO; LADYBUG: JULI CHKA/ISTOCK PHOTO; BUTTERFLY: LISA THORNBURG/ISTOCK PHOTO; HUMMINGBIRD: PAUL TESSIER/ISTOCK PHOTO; GRASS: MIRHAIL MISHCHENKO/ISTOCK PHOTO; PHOTO COLLAGE: REBECCA HALLENBECK/THE HSUS

from becoming a serious nuisance, not to exterminate them from your landscape. After all, ants eat termites and other garden pests and aerate the soil. Snails and slugs feed on decaying plant matter and provide food for wildlife. Even ticks and mosquitoes are an important food source for birds, fish, and other animals.

Fortunately, as more people learn how indiscriminate pesticide use affects ecosystems and human health, attitudes are changing. Forty years ago, says Allgeier, the average homeowner had zero tolerance for unwanted insects. “Now a lot of people will say, ‘I see some ants. Do I need to spray everywhere, or is this just somebody who walked in or was carried in accidentally?’ ”

Here are examples of IPM strategies for some common home and garden intruders. For more information, contact your local university extension service or state IPM program.

### ANTS



In many states, Flint says, ants are the No. 1 residential insect sprayed with insecticide. To keep ants out of your home, store human and pet food in airtight containers. “If they come in and don’t find anything to eat ... they won’t come back,” says Flint. Seal even the smallest openings into your house. Swab ant trails with vinegar and water to erase pheromone tracks. Clip back tree limbs and vegetation to prevent them from touching the house. Plant ant-resistant vegetation such as catnip, pennyroyal, peppermint, sage, and wild mint near the home, and lay down cedar mulch as a deterrent in high activity areas.

### COCKROACHES



Cockroaches often hitch rides in food cartons, cardboard boxes, and seasoned firewood; check these items before bringing them into your home. Store food properly, remove water sources such as those provided by leaky faucets, clear out clutter, and practice good sanitation. That was the advice the Chicago-based Safer Pest Control Project provided to the

city’s housing authority, where housing managers typically sprayed for cockroaches every two weeks. “By getting to the root cause of the problem, we were able to reduce the cockroach population by 90 percent without using pesticides,” says executive director Rachel Rosenberg. For infestations, she suggests using a bait-style growth regulator (be sure to keep baits out of reach of pets and children).

### APHIDS



Small and soft-bodied, these pear-shaped insects suck fluid from tender plants. While they seldom kill mature plants, aphids can leave curled yellow foliage, stunted shoots, and black mold that develops from the sticky substance they secrete. Flint recommends checking plants regularly for aphids and spraying leaves with water to displace the bugs. Protective cover for seedlings offers added protection. Keep in mind that high-nitrogen fertilizer encourages aphid reproduction, while aluminum foil mulches repel the insects. If you have to use an insecticide, Flint says, use something safe like insecticidal soap or a neem oil. Since ladybugs and lacewings are the aphid’s natural predators, you should provide these beneficial insects with food, water, and nesting sites to help them thrive—and feast on your unwanted guests.

### BEDBUGS



It’s not news to travelers that bedbugs are making a comeback in the U.S. These pests typically require a multi-pronged approach. For immediate results, vacuum adults and eggs and place the contents in a sealed plastic bag before throwing it away. Place traps under bedposts and clear out clutter. Rosenberg recommends steam cleaning your mattress and furniture and putting clothing and sheets in the dryer for 20

minutes at 120 degrees. Coat bed legs with petroleum jelly or place them inside glass jars to keep bugs from climbing from the floor to the mattress. Mattress and box spring covers that trap the insects inside are also available.

### SNAILS AND SLUGS



Clues that these critters are in your garden include silvery slime trails and smooth-edged holes in leaves and flowers. Active mostly at night, snails and slugs can cause serious damage to seedlings, herbaceous plants, and close-to-the-ground crops. An

IPM educator with the University of California-Davis, Karey Windbiel-

Rojas created an uninviting habitat for slugs and snails by raking fallen leaves, storing planters and other popular daytime napping spots off the ground, and growing plants that the insects dislike. She removed some of their preferred plants and moved others

from the shade into the sun. She also uses drip irrigation rather than sprinklers. “The rest of the soil is kept dry and doesn’t allow the snails or slugs a path,” she says. A homemade trap of board planks with wooden runners allows her to capture and relocate the ones who’ve taken refuge underneath. (A copper strip around vulnerable plants is also an effective deterrent.)



### LADYBUGS

are the natural predator of aphids and their larvae.

### MOSQUITOES



The most notorious of disease-transmitting insects, mosquitoes lay their eggs singly or in rafts atop standing water and waterlogged soil. To combat mosquitoes, clear your property of standing water in clogged drains, potted plants, boats, old tires, wheelbarrows, and even soda cans. Flush out birdbaths every couple of days, and install bird and bat houses to attract mosquito predators. For larger water sources, Allgeier suggests using a larvicide mosquito dunk. “They last for 30 days and treat about 100 square feet of water, and they’re harmless to wildlife,” he says.





## The Maven of Mmmm...

Growing up in a family suffering from obesity, high blood pressure, and other “diseases of the fork,” Allison Rivers Samson feared she was destined to have the same health problems. “I won-

dered ... ‘Do I have any control over this?’ It just looked like people in my family automatically gained lots of weight as they got older. I really didn’t want that to be my path.”

The then 19-year-old did some research and decided it would be easier to get healthy as a vegetarian. That decision led her to the kitchen and eventually to cooking school and her life’s calling. Allison’s Gourmet online company sells vegan, fair-trade, organic baked goods, confections, and chocolates.

Samson also showcases her savory side as author of the award-winning “Veganize It!” column in *VegNews* magazine. Her specialty: pleasing the omnivorous palate with dishes that are excellent in their own right, rather than “really good ... for being vegan.”

Many of her signature creations are deliberately rich indulgences like cheesy twice-baked potatoes and pecan praline pumpkin pie. Her macaroni and cheese has become “a bit of a cult favorite.” Her clam-free chowder was a hit at a clam festival—and with her 6-year-old daughter. Even her meat-loving father-in-law “has come to expect that he’ll love everything I feed him,” she says.

For people who love to eat and also want to be healthy, Samson suggests adding more vegetables to your diet first: “Your body will naturally start craving healthier things.” Then experiment in the kitchen with plant-based versions of familiar meals and “give your taste buds time to adjust.”

Tuna fans and tuna haters alike go for Samson’s tuna-free salad, a full-flavored sandwich filling perfect for lunch or a quick supper.

— Catherine Hess

### RECIPE CARD

## TUNA-FREE SALAD SANDWICHES

SERVES 6

### INGREDIENTS

- |   |   |
|---|---|
| <b>2 15-ounce</b> cans of chickpeas (also known as garbanzo beans), drained | <b>½–¾ cup</b> vegan mayonnaise (such as Nayonnaise or Vegenaïse) |
| <b>¼ cup</b> red onion, peeled and finely chopped                           | <b>1 teaspoon</b> sea salt  |
| <b>½ cup</b> celery, finely chopped   | <b>½ teaspoon</b> black pepper, ground                            |
| <b>¼ teaspoon</b> garlic, minced  | <b>12</b> slices bread, lightly toasted                           |
| <b>¼ cup</b> dill pickle, finely chopped                                    | <b>6</b> large, crisp lettuce leaves                              |
| <b>2 tablespoons</b> nori seaweed flakes                                    | <b>12</b> tomato slices   |

1. In a large bowl, mash the chickpeas with a potato masher or the back of a fork.
2. Mix in the onion, celery, garlic, pickle, nori flakes, mayonnaise, salt, and black pepper.
3. Lightly toast the bread. Spread the salad mixture on one slice and stack with a lettuce leaf, two tomato slices, and another slice of bread.

➔ **FOR MORE RECIPES**, visit [humansociety.org/recipes](http://humansociety.org/recipes).



To receive a free weekly Meatless Monday text with a link to a mobile-friendly recipe, text **TASTY** to **30644**.

Recipe created by Allison Rivers Samson, Maven of Mmmm ... at *AllisonsGourmet.com*. Originally printed in her award-winning “Veganize It!” column in *VegNews* magazine.