

Organic Pesticides

Horticulturists everywhere must occasionally confront the problems posed by unwanted



Samples of organic pesticides

guests. These can be insects, weeds, disease, even cute little furry creatures.

Some insect pests are simply annoying, like houseflies, but others can wipe out a beautiful garden in no time. Anyone who has seen a lush green tomato plant reduced to a skeleton will have strong feelings about tobacco horn worm, the very hungry caterpillar of a sphinx moth. A potentially delicious crop of melons can be destroyed by squash bugs, voracious villains that seem to appear overnight.

When weeds become too plentiful, they interfere with garden plants by pulling nutrients and water from them, by shading them, or by serving as a refuge for other pests. A few even secrete chemical compounds that interfere with the growth of neighboring plants.

One of the many good features of living in the desert is the lack of many plant diseases. Only three are major problems: powdery mildew (a particular problem for roses, although virtually every domesticated plant can suffer from this disease), crown gall, where woody plants develop tumors on the trunk, often near the base, and fire blight, which can kill many fruit trees, as well as roses and other ornamentals.

Usually, a healthy plant is better able to resist attack by insect pests or disease, but there are times when an infestation or an infection occurs despite our best efforts. When any of these troubles afflict our tenderly-cared-for gardens, it can be so tempting to grab a container of poison and spray like mad. Seductive as conventional pesticides are, they can create further problems and may damage other plants, pets, even people.

Those who are trying to maintain an organic garden will resist that temptation, but still need to protect their plants from invaders. Fortunately, there are a fair number of controls that are labeled for use in organic horticulture.

Insect pests have quite a few natural enemies, such as parasitic nematodes, lacewings, ladybugs and trichogramma wasps. These good agents may be susceptible to insecticides, so they should not be employed soon after using one of the poisons.

Organic insecticides can be derived from bacteria, fungi or plants, while some are physical barriers, like horticultural oils, boric acid and diatomaceous earth.

Weed control methods include herbicidal soaps, citrus or clove oil, vinegar, and corn gluten meal. All, except the corn gluten meal, are “burn down herbicides”, meaning they only kill the above-ground plant parts, not the roots. The gluten meal is applied to the ground before weed seeds emerge; hence it is a “pre-emergent” or “weed preventer.”

Just because a compound is organic, that does not mean it is harmless. The plant-derived products pyrethrum and rotenone are organic, but either of them can be highly toxic to fish if applied too close to a body of water.

Always read the label to use the product safely. In the context of the label, the word “natural” does not mean anything. If a product is organic, it will have the OMRI (Organic Materials Review Institute) logo on the label.

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