Vegetable Gardening

The No-Pesticide Approach to Pest Management

Gardeners encounter pests all the time — weeds, insects, diseases to name a few. But there are many ways to reduce pest problems without using pesticides that can harm people, pets, beneficial insects, and the natural environment.

- Follow the recommended planting dates since vegetables planted "out of season" are very susceptible to many pests. Plant as early in the spring (or as late in the fall, depending on the crop) as is safely possible.
- Rotate crops so that vegetables within the same family are not planted in the same areas year after year.
- Control weeds in and around the garden because they can be a source of insects and diseases. Weed control is best accomplished by mulching and hand-pulling or hoeing small weeds. Recommended mulches are straw, fallen leaves, and unfinished compost. Wood mulches and un-decomposed sawdust should not be used. Weeds around the outside of the garden and between rows can be reduced by putting down several layers of newspaper and then covering them with leaves.
- Choose adapted varieties with resistance or tolerance to diseases and nematodes.
- Plant seed from disease free plants and select transplants free of insects and disease symptoms (leaf spots).
- Plants can be protected from cutworms by placing a “collar” around the plant. The collar can be made from a bottomless plastic cup or a waxed cardboard carton. The collar should extend a few inches above and at least an inch below the surface of the ground.
- Lightweight row covers (also called floating row covers) can be used as a barrier to insects. Put in place at planting, with lots of excess material to leave room for the growing plant. Plants that require bees for pollination (Cucurbit Family) will need to have the cover removed once flowering begins.
- Keep plants vigorously growing and in a state of good health by supplying appropriate amounts of water and fertilizer. A healthy plant is often able to survive insect attack. Too much nitrogen, however, can make plants more inviting to aphids and whiteflies.
- Monitor or scout the garden twice weekly for pest problems. This includes inspecting the plants from the bud to the soil, including both upper and lower leaf surfaces. Record notes on pest problems and the performance of different varieties. Include photographs of insects, diseases and beneficial insects that you find.
- Learn to identify beneficial insects that prey on other insects (praying mantis, spiders, big-eyed bugs/assassin bugs, lady beetles, and all wasps).
- Large insects can be removed by hand and destroyed. Place them in a container of soapy water, where they will sink and drown.
- Water in the morning so that plants do not stay wet at night.
- Watch for early disease symptoms. Remove any diseased leaves or plants to slow the spread.
- Most plants that produce fruits, pods, or ears can stand a 10 – 20 percent loss of leaves without loss of potential yields. Do not panic and start spraying at the first sign of leaf feeding.
- Harvest crops such as tomatoes, peppers, squash, and beans as soon as they are ripe. Allowing over-ripe fruits to remain on the plants often invites additional insect problems.
- As soon as a plant or crop is no longer productive, remove it from the garden and compost or dispose of it.

Learn to properly identify garden pests and use chemicals only when a serious pest problem exists.
If you need assistance with identifying insects or need additional advice on insect control measures in your garden, call the Baker County Extension Service at 904-259-3520.