UC MASTER GARDENERS OF TULARE & KINGS COUNTIES





NEWSPAPER ARTICLES

The Horrors of Late Summer in the Vegetable Garden (August 21, 2021)

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It's summer, the vegetable garden is going great, and you're happy. Then overnight, things change. The plants look dirty, bug-infested, overrun with weeds, tired out. What happened?

Most of our summer vegetables are annuals. After a long season the plants are running low on energy. This is their normal cycle. As the plants age, they peter out and eventually die in a process called senescence. Plants at the end of their natural life cycle are less immune to disease, environmental damage and insect attack.

One solution is to rip everything out. You can allow the garden to fallow until it's time to transplant cool season vegetables in early fall. Or dig in some compost or composted animal manure or grow a quick cover crop. Or you can spend your gardening time starting cool season vegetable seeds indoors.

If you want to keep your garden going or want to be better prepared for next summer, following are some tips about a few of the most popular summer vegetables.

Tomatoes: My plants look great, but there's only a couple of tomatoes. What's going on? Overwatering or too much nitrogen will mean a lot of foliage but few fruits. But in summer, it could also be the temperature. Here's a handy chart to keep in mind:

• 100°F: flowers will not set

• $80^{\circ} - 90^{\circ}$ F: optimum growth

• $70^{\circ} - 80^{\circ}$ F: optimum germination

As weather cools, get ready for a lot of tomatoes. Fruit can stay on the vines safely until the weather cools below 50° F. When harvesting less ripe but full-size fruit late in the season, pick them and store at 70° F to ripen. As they become pink, move them to cooler temperatures (55° F) if possible. Storing them to ripen in a brown paper bag will reduce bruising. Green fruit that has blemishes, scars or soft spots are better sent to the compost bin as they most likely will not ripen safely.



Late in the season, tomatoes can be overtaken by spider mites or tobacco horned worms. If that happens, you might want to remove the plants to break the insect cycle and plan a crop rotation for next year. Both can be managed, but it may mean more work than is worthwhile. A light infestation of either can be managed by water sprays (mites) and handpicking (worms) but you still need to rotate the crop next year.

Squash and Melon: Overnight, my plants can be covered in creepy spider-looking squash bug nymphs. Plant symptoms are mottled, yellowing leaves, wilting plants, scarred fruits. But usually, I have no trouble seeing the bugs! The best control is prevention: disposing of old plants and rotating the crop. Low-toxicity insecticidal soap can work against the nymphs if repeated at least daily. Hand picking adults, which are much larger and often seen mating, and disposing of them is effective. Winter squash are less affected by squash bugs. Other insect problems include aphids (with or without ants) and whiteflies. Insecticides are sometimes effective but reflective mulch works well against both and won't harm beneficial insects that want to eat these soft bodied insects. Control ants and keep dust off plants. I often hand pick leaves that are heavily infested and feed them to my pet livestock. But fruit setting is reduced as the plants are trying to fight off this infestation.

Late in the season, summer squash may finally succumb to mosaic virus. Plants affected have silvery or yellow leaf variegation and sometimes they come from the nursery already infected. The best practice is to destroy affected plants as soon as you notice symptoms, but you can get a good harvest from affected plants most of the season. Then suddenly the plants collapse, and the fruit is deformed. Remove and destroy the plants. This virus has no cure. It's spread by aphids.

Beans: Air pollution, including wildfire smoke, causes bronzing, a purple-brown discoloration, on the upper surface of the leaves. Fruit set may also be affected. Beans can also be infected by mosaic virus and sunscald. Broadleaf weeds often host mosaic virus and aphids carry it to your plants. Sunscald shows up as irregular brown spots; fruit set is affected. You can cover the plants with shade cloth but keep good circulation to avoid powdery mildew as the weather cools. You can safely plant beans through August for a last harvest, and sometimes the answer is to start over with a fresh crop for fall beans.

General: A common tomato, pepper, and cucurbit (squash, melon) problem is blossom end rot. We often think of it as brown bottoms on fruits. Blossom end rot results from a low level of calcium in the fruit and water imbalance in the plant, which means the solution is regular deep watering. But even on a regular automated system, blossom end rot can happen as the temperatures fluctuate. Dispose of affected fruit when they are small. If you hand water, try to keep the amount of water you are giving each plant the same and do deep watering instead of sprinkling. This is not a disease that can be treated by pesticides, nor is fertilizing generally successful. Save your dollars and just try to even out your watering.



Tomato Blossom End Rot

Two practices that can improve your garden year-round are adding flowers that beneficial insects can use, and

routinely clean out old plants, boards, and debris. I like a natural garden as well as anyone, but even I clean up things a few times a year. This helps break pest insect cycles. Flowers like marigolds, carrots left to bloom, mustard, sunflowers and yarrow are especially popular. I also plant native plants like buckwheat and milkweed nearby to attract and support birds, lacewings, lady bugs, and other beneficial insects. Yes, butterflies and moths mean caterpillars, but most plants can tolerate some brief damage without problems. This includes edible garden plants. Another important practice is to rotate the crops. Don't plant the same vegetable in the same place every summer. This can be a challenge in a small garden, but it's worth the effort. Plan now and through winter for next summer and avoid many of these late summer issues.

This is only a few of the common problems I've seen as the season wears on. Additional reliable information can be found at the University of California's home garden website: http://ipm.ucanr.edu/PMG/GARDEN/veggies.html

The Tulare-Kings County Master Gardeners will be available to answer your questions in person:

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