

2017-JULY IN THE VEGGIE GARDEN

TOMATO POLLINATION-BLOSSOM DROP

Right now some of my tomatoes are starting to blossom and hopefully set fruit. Many people ask me why they didn't have tomatoes last year till really late. The answer is **tomatoes are self-pollinating and won't set fruit in 92°F or hotter.** They drop their blossoms, which is called blossom drop. This is a self-aborting act to save the plant. But the good news is they will keep producing flowers and once the temperatures are below 92°F they will set fruit and once they have set fruit, they can handle higher temperatures as our tomato fruit grows. It is only when they are trying to set the fruit that the temperature is critical. So let's hope the weather will cool sooner than later so we will have fruit before a freeze comes in the fall. The good news last year was while they didn't set till the monsoons came in mid-August (which is unusual), we did have a long fall so many of us got tomatoes much later than normal.

HAIL DAMAGE-Hopefully we get some rain soon!

Protection-row cover-sometimes called Remay can help protect somewhat from hail. Use medium weight (.5) row cover in summer. Not light weight (.4)-shreds too easily in wind and not heavy weight (.9-1.0). Too heavy in summer but good in late fall for protection against frost.

BUGS!

Aphids-On cherry trees and all fruit trees/other plants like lettuce, kale-
PROTECTION: Neem or better is AzaMax. Both come from the neem tree but AzaMax does not burn plants and Neem sometimes does.

Cabbage Looper- A small caterpillar that eats cabbage leaves and anything in the brassica family. That includes broccoli, cauliflower.
PROTECTION: Use Bt as a spray for any caterpillar problem.

Flea beetle-small dark beetle (1/10") that eats leaves-shotgun holes in leaves but doesn't kill plant.
PROTECTION: AzaMax, yellow sticky traps or floating row cover

Beet Leafhopper—small (1/8") devastating bug for tomato plants. Bites a tomato plant and transmits a virus called Curly Top Virus (CTV). Fatal virus. Is not contagious from plant to plant.
PROTECTION: Floating row cover only. Cover plant around cage from the very top and around cage to bottom so completely covered. Bug 'hops' from plant to plant infecting the plants. Plants start to wilt and leaves curl and underside veins turn purple. Dispose of plant.

Grasshopper-eat plants. Horrible in some areas especially around river beds and weedy areas.

PROTECTION: Clear away all weeds from your beds. Use Nolo Bait. Grow in greenhouse or high tunnel. Nolo Bait does work but most people wait till they see the adult grasshoppers and by then it is too late to control. Must put it out at the first sign of baby grasshoppers.

Squash Vine Borers-a moth that lays eggs at the base of squash plants. The larvae hatches inside the stem, eats inside the stem and kills the plant. You'll go out one day and the plant is wilted and dead. They are already here. Come late spring – July.

Protection: foil around base of stem from ground to first secondary vines. Also row cover over whole plant works well as a physical barrier.

Squash bugs-Haven't seen them yet but they will arrive shortly. $\frac{3}{4}$ inch flat grey-brown bug that lays rust colored eggs around stems and backside or underside of squash leaves. Slowly kills plants by sucking the juices out of them.

Protection: Row cover **before** the plant produces flowers. After it flowers you must uncover the plant for pollination by pollinator bugs. All squash need pollinators while some other plants like tomatoes, eggplants and peppers are self-pollinating. After flowers appear, hand pick off adult bugs, and use masking tape or duct tape to pull eggs off stems and underside of leaves. The life cycle of the squash bug is 7-10 days from eggs to nymphs which are small grey bugs with black legs. You don't want to let the nymphs so go out every 7 days and get them early.

Tomato Hornworms-Large finger size green worm that eats your tomato leaves and sometimes eats part of the tomatoes. Very good at camouflaging itself but look for it to hang upside down on stem and usually on the top portion of the plant, not deep inside.

PROTECTION: Hand pick. Can use ultraviolet flashlight to see them at nite to pick. Dispose in bucket of soapy water.

Western grape Skeletonizer-Eats the leaves of grape vines.

PROTECTION: Bt (*Bacillus thuringiensis*). Kills the caterpillar but nothing else.

DISEASE

Early Blight-tomato disease-starts leaves on lowest portion of tomato plant start turning yellow-green, then the leaves die and this fungal disease works it's way upwards through the plant from the bottom and eventually to the top. This is contagious from plant to plant.

PROTECTION: Trim off all leaves/branches that will touch the ground. Disinfect cutting tools in a little bleach in a small bucket to keep from passing from plant to plant. Put straw around each plant to protect from ground fungal spores from getting on plant. Spray with **Serenade**, a biological fungicide that has spores that keep the EB spores from attaching to the leaves. Use more as a preventative especially when monsoons comes. Available at Agua Fria Nursery and maybe other nurseries.

CURLY TOP VIRUS-tomato disease-I think this is the most devastating disease out here for tomato plants in our area.. It is a small tiny 1/8 inch green bug that hops from plant to plant and transmits a disease called Curly Top Virus by biting the plant. And the reason its devastating is CTV will kill a tomato plant. Mostly affects tomato plants but can also affect peppers and once it bite a giant pumpkin of mine.

PROTECTION: Row cover only. The plant needs a physical barrier from t he bug. Take off row cover after monsoons arrive in earnest.

Powdery mildew-A fungal leaf disease-I like a product called **Green Cure** to control Powdery Mildew and it is completely controllable if sprayed early enough. Mostly affects squash and cucumbers (and roses). Spray at first sign of white powder on leaves. Spray both sides of leaves. Usually arrives after monsoons arrive. Works better than baking soda (sodium bicarbonate). Green Cure is Potassium Bicarbonate. Available at **4 seasons Gardening** on Rufina. Street.

AND FINALLY!

THINGS TO EAT: Mid to late July

Beans

Tomatoes

Chard

Kale

Rhubarb

Things to plant for fall in July

Beets

Carrots

Kale

Chard