

## 2018-JULY IN THE VEGGIE GARDEN

### WEATHER PROBLEMS

Hail, lack of rain and high heat have been causing a slew of problems- hail damage wiped out a couple of my friends gardens in May when they were just setting out the transplants so they had to replant

**PROTECTION:** row cover-sometimes called Remya 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.

Heat has caused burnt leaves, wilting, and on tomatoes, blossom drop, thicker skins and sunscald. What to do? Increase your watering and add shade. Spray with seaweed fertilizer and SuperThrive (or Vitamin B) but don't fertilize until the heat subsides. Then fertilizer later this month after the monsoons are here.

### TOMTATO PROBLEMS-specifically:

BLOSSOM DROP

THICKER SKINS

SUNSCALD

CURLY TOP VIRUS

HERBICIDE DAMAGE

**BLOSSOM DROP**-Tomatoes are blossoming 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.

**PROTECTION:** Wait. 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 can get the fruit before a freeze comes in the fall.

**THICKER SKINS**-I just heard from one of my followers that some of their tomatoes have thicker skins. This is due to one of three things: certain varieties have thicker skins, higher heat and/or underwatering. We always get higher heat in June but the weather has been unusual with all this extreme high heat.

**PROTECTION:** Water more and provide some shade with row cover or shade cloth. Wait. Maybe roast or dry the thicker skin ones. We should get some relief once the monsoons come.

**SUNSCALD**-Also high heat and intense sun can cause sunscald (think sunburn) on the tomatoes

**PROTECTION:** Provide some shade with row cover or shade cloth. Don't prune out too much of the plant. Maybe leave some suckers on. Normally I say take off the suckers and prune more to give better air circulation but not now. Do that after the monsoons come and your plant is crowded.

**CURLY TOP VIRUS-tomato disease-**We battle this disease, here even if you don't know you have it. I think this is the most devastating disease out here in the southwest for tomato plants in our area. It is a small tiny 1/8 inch green to brown 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 the bug. The bug like dry, hot , windy conditions but seems to leave after the monsoons come. Take off row cover after monsoons arrive in earnest.

## **OTHER PROBLEMS BUGS!**

**Aphids-**On all fruit trees and other plants like lettuce, kale

**PROTECTION:** First spray off leaves with a hard stream of water-but not so hard you damage the leaves. Use organic insecticides like **Neem** or better is a product called **AzaMax**. Both come from the Neem tree in India but AzaMax does not burn plants and Neem sometimes does. So only spray in the evenings or early mornings. Neem you can get in any nursery but Azamax I find only at Newmans Nursery.

**Cabbage Looper-** A small catapiller that eats cabbage leaves and anything in the brassica family. That includes broccoli, cauliflower.

**PROTECTION:** Use **Bt (Bacillus thuringiensis)** as a spray for **any catapiller problem**. Organic and will not harm bees, birds or fish, only catapillars

**Flea beetle-**small dark beetle (1/10") that eats leaves-put shotgun holes in leaves but doesn't kill plant.

**PROTECTION:** AzaMax, yellow sticky traps or floating row cover as a barrier

**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 riverbeds and weedy areas.

**PROTECTION:** Clear away all weeds from your beds and around exterior of garden area. 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**-Should be here in June thru July-a moth that lays eggs at the base of the squash plant vines. 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.

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

**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. The nymphs look like 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. Not here yet but coming in July.

**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 AFTER THE MONSOONS ARE HERE-**

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 10% bleach/water solution in a small bucket to keep from passing from plant to plant. Can also use alcohol as straight solution. 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 colonizing on the leaves. Use more as a preventative especially when monsoons comes. Available at Agua Fria Nursery and maybe other nurseries.

**Powdery mildew**-A fungal leaf disease- **occurs after the monsoons comes**-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, maybe other nurseries and online.

**AND FINALLY!**

**THINGS TO EAT: Mid to late July**

**Beans**  
**Tomatoes**  
**Chard**  
**Kale**  
**Rhubarb**

**Things to plant for fall in late-July**

**Beets**  
**Carrots**  
**Kale**  
**Chard**