

## Heat, Rainfall, and Humidity

## Challenges to Tomato Plants

Tony Makara



### **Excess Heat, Rainfall and Humidity**

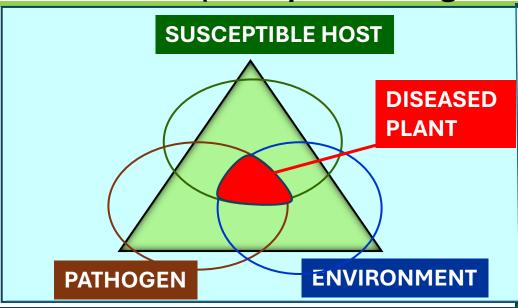


- The optimal daily air temperature range for tomatoes is 70–75°F, and the ideal humidity level is between 60% and 70%
- When they become higher, we can expect issues on our garden plants, especially tomatoes.
- This often shows up as a major challenge for tomatoes when fungal pathogens become evident by leaf discoloration.
- Many of us are experiencing this now.



#### **Biotic Disease Occurrence**

(A simple convergence of three factors)



#### SUSCEPTIBLE HOST -

the plant itself, especially non-resistant plants

#### **PATHOGEN** - the

#### disease

- Fungal
- Viral
- Bacterial
- Nematodes

#### **ENVIRONMENT**

- Air temperature
- Soil Temperature
- Rainfall
- Humidity
- Soil fertility, pH

Virginia Cooperative Extension, Master Gardener Handbook, Ch 6, Plant Pathology



## **Get Rid Of the Ugly Leaves**



Remove and discard yellowed or discolored, dry leaves that appear near the bottom.

Don't add to a mulch pile; toss in the garbage.



#### A Breath of Fresh Air Does Wonders

If too bushy, plants should be trimmed to promote air circulation.

Helps regulate temperature and humidity where diseases are more prone by allowing plants to dry faster off after rainfall.



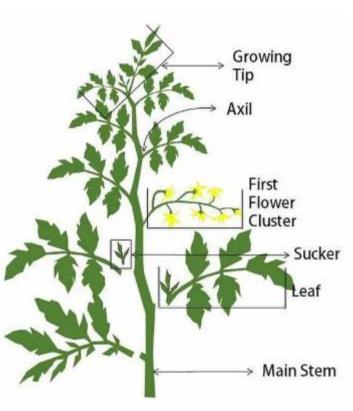


Start with the suckers.

This will need to be done again and again.



#### **Clear The Floor**



Remove branches that are touching the ground. Prune bottom branches 8" – 12" along the bottom of the stem. Or usually up to the first fruit cluster.

Mulch the ground around the bottom of the tomato plant.





### **Excess Heat & Blossom Drop**



## When too hot flowers dry up and fall off the plants; no future tomatoes.

- Several days of 90-plus degree days and nighttime temperatures above
  72 degrees F.
- Humidity levels above 70 percent or below 40 percent

#### There isn't much we can do when this happens.

- For hot weather zones, we can choose heat-tolerant plants.
- We could think about shade cloths to protect plants from hot afternoon sun.



## Summary



With a little weather relief, and your help, plants will usually recover.

Their continued and new growth will reward us with the tomatoes we can't wait to enjoy.



# **BACK UP**



## **Keep The Disease from Spreading**

Consider using organic fungicides if severe. Liquid copper fungicides are a safe and reliable choice when properly handled.

They are effective on most fungal diseases. Fungicides won't cure the fungal disease on the plant but can help stop it from spreading.

Always read the product label before applying. (Read it twice for good measure.)

Store carefully; avoid use when [pollinators are active; keep children and pets away