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Welcome to
VICTORY GARDEN 101
Tips for Great Tomatoes

Please mute your microphone and turn your camera off.
Thank you!



Victory Garden 101 Plan

- Apr. 7: Preparing Your Garden Site & Soil
- Apr. 14 – Basic Garden Planning for Success
- Apr. 21 – Grow Your Own Salad
- **Today – Tips for Great Tomatoes**
- May 5 – Using Your Vertical Space
- May 12 – Water, Weather & Weeds
- May 19 – Common Insect Problems
- May 26 – Common Disease Problems

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Today's Topics:

- Choosing the right tomato
 - Types of tomatoes
 - Hybrids & Heirlooms
- Caring for your tomatoes
- Insects
- Diseases
- Environmental & Physiological Disorders

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Factors to Consider

- Size of garden area
- Planting plan/schedule
- Days to maturity
- Seeds or transplants?
- Intended use/harvest stage
- Insect/disease tolerance
- Crack resistance!!!
- Other desired characteristics



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Types of Tomatoes

Determinate

- Shorter, more compact
- 2-4' tall
- Large harvest in short time

Indeterminate

- Taller, vigorous
- 5+' tall
- Harvest spread out

Days to Maturity

- Sometimes abbreviated DTM
 - Read the catalog, seed packet, or label
- Transplanted – DTM from transplant
- Tomatoes range from 53-120 days

Intended Use

- What do you plan to eat?
- Do you want to preserve?
- Do you want to store the harvest?

Types of Tomatoes

- Cherry or Grape
- Roma, Plum, or Saladette
- Slicers
- Beefsteaks

Disease Resistance

- Especially important for small gardens
- Disease resistance for soil-borne diseases and nematodes
 - V, F, N

Disease Resistance

V	FFF	N
TSWV	EB	S
TMV	LB	Etc...

Other Desired Characteristics



- Flavor
- Color
- Texture
- Size/Shape
- Yield
- Easy to grow

Heirlooms vs. Hybrids



Hybrids

- A *hybrid* is a vegetable variety that has been developed by crossing at least 2 parents and selected for the best combination of characteristics.
- F1 hybrids are first generation
 - Cannot save seeds

Reasons to Select a Hybrid

- Consistency or Uniformity
- Disease tolerance/resistance
- Compact plant habits/traits
- Quality

Heirlooms

- An *heirloom* is a vegetable that is open-pollinated and has been around for at least 50 years.
- Often have “stories”
- Can save seed
- May or may not have improved traits

Reasons to Select an Heirloom

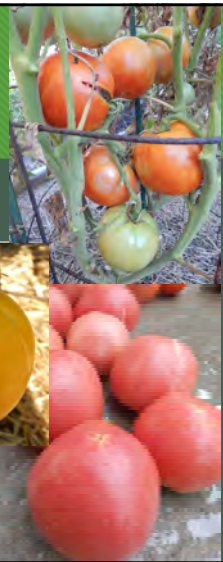
- Unique traits
- Flavor characteristics
- Quality values
- Ability to save seed



Some thoughts on tomato varieties...

Slicers & Beefsteaks:

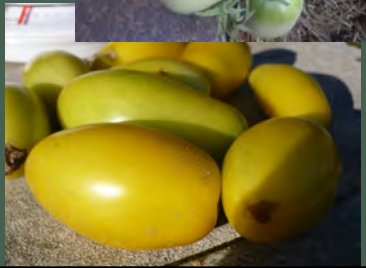
- Chef's Choice Orange
- Big Beef
- Beefy Boy
- Mountain Series
- Steak Sandwich



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Romas:

- Martino's Roma
- Little Napoli
- Tiren
- Golden Rave



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Cherry/Grape/Saladette:

- Esterina
- Juliet
- Chocolate Cherry
- SunSugar
- Honestly, almost anything that doesn't crack!



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Heirlooms:



- Cherokee Purple
- Black Krim

- Variable success with most due to weather!

Notable Disappointments:



- Most newer striped cherry tomatoes
 - Either cracked or tough skins
- Most of the "Indigo" series varieties – poor fruit set
- Most of the "short season" or "early" varieties we have tried



Caring for Your Tomatoes

Planting Tomatoes

- When: late April to early May
 - After danger of frost
 - Warm soil – at least 55 degrees

- Harden off your plants first!

Planting Tomatoes

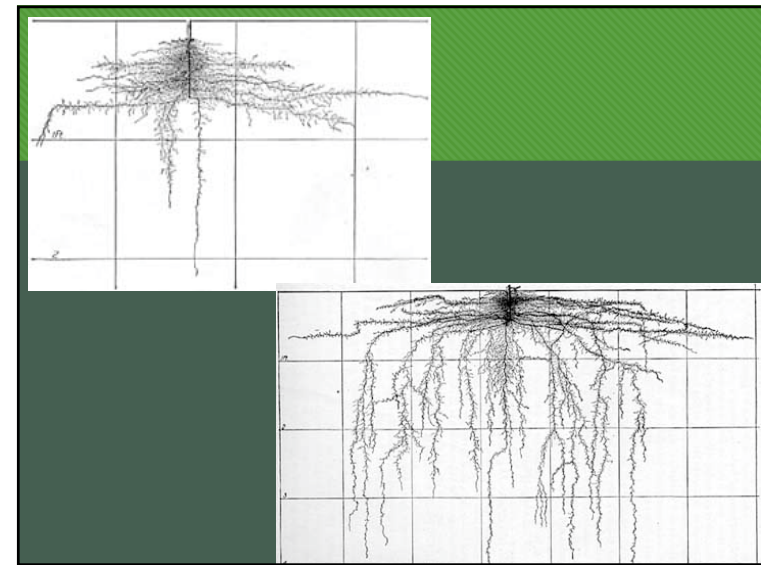
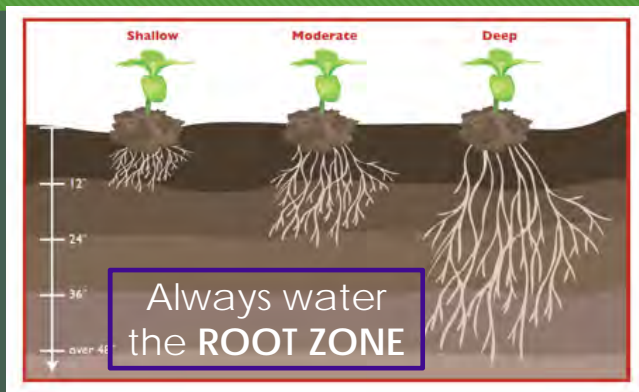
- Fertilizer?
- Planting depth?
 - No problem to plant slightly deeper
 - Yes, you CAN bury your plants

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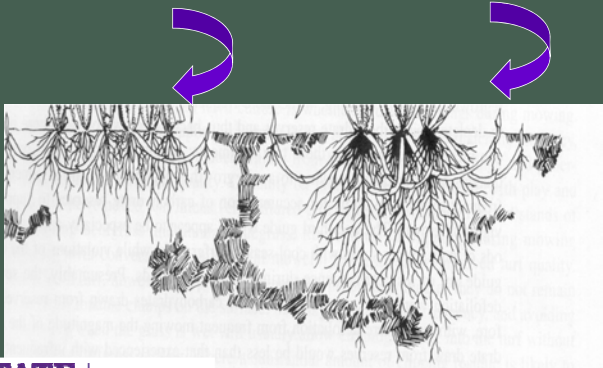


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Watering 101



Short, frequent irrigations Longer, less frequent irrigations



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Types of Irrigation Systems

- Flood or furrow
- Overhead / Sprinkler
- Drip / Trickle

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Fertilization

- Generally heavy feeders
- Don't over-fertilize with Nitrogen!
- Can show Phosphorus deficiency early

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Fertilization

- Best to ensure good fertility before planting!
- Fertilize after fruit set
- Or if a deficiency is seen

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Mulches & Soil Temperature

MULCH	Soil Temperature Change
Clear Plastic	+ 10°
Black Plastic	+ 6°
Paper	- 7°
Organic	- 10°

The diagram shows four types of mulch with arrows indicating their effect on soil temperature. Clear plastic and black plastic are shown with arrows pointing down to the soil, indicating they warm the soil. Paper and organic mulch are shown with arrows pointing up from the soil, indicating they cool the soil. A photograph of a person working in a garden bed is shown on the right side of the diagram.

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Harvesting Green Tomatoes



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Common Tomato Pests & Problems

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General Pest Control Practices

- Sanitation
- Appropriate Plant Spacings
- Crop Rotation/Cover Crops

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General Pest Control Practices

- Mulching & Watering Practices
- Minimize Plant Stress
- Regular Scouting!

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Insects

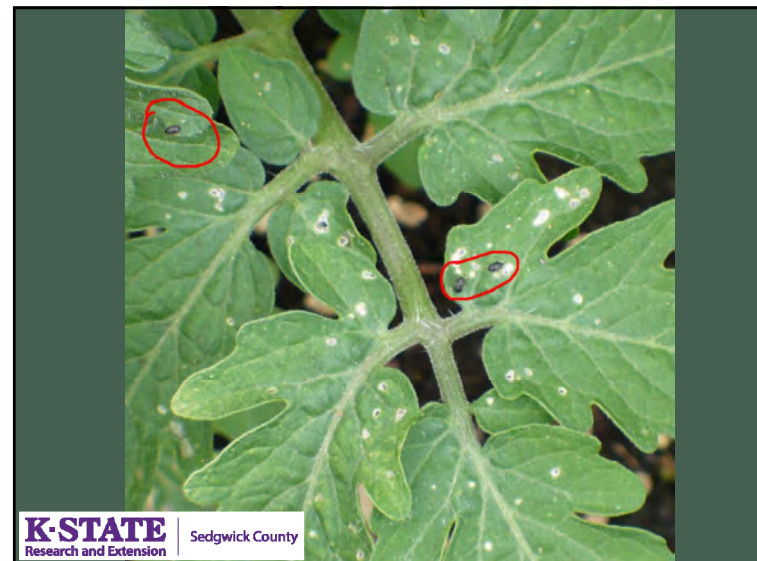
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Spider Mites

- Suck the juices out of plant leaves
- Stippled appearance
- Horticultural oils and insecticidal soaps
- Hard stream of water

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Flea Beetles

- Tiny black beetles
- Very small holes in the leaves in the early spring
- Tomatoes usually outgrow damage
- Controlled with neem oil or permethrin.

Diseases



Septoria Leaf Spot

- Tiny black spots on lower leaves
- Leaves yellow and die from the bottom up
- Favored by warm, wet weather
- Caging or staking, mulching, and rotation will help prevent the disease.
- Preventative fungicides:
 - Chlorothalonil or fixed coppers, Serenade?



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Early Blight

- ½" circular lesions on lower leaves
- Leaves yellow and die from the bottom upward
- Favored by wet, warm weather

- Caging or staking, mulching, and rotation will help prevent the disease.

- Preventative fungicides:
 - Chlorothalonil or fixed coppers, Serenade?

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Environmental & Physiological

Wind Hail
Heat Watering

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Blossom End Rot

- Brown-black, leathery spots on fruit bottom.
- Prevent by proper watering practices
- Some varieties are very susceptible

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Physiological Leaf Curl

- Leaves curl when the weather changes from cool and moist to hot and dry
- The plants will be fine in a few days.

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Cracking

- Tomatoes in Kansas crack due to weather
- Harvest tomatoes as soon as they start to color, then ripen indoors
- Some varieties are more crack resistant



2,4-D Herbicide Injury

- Leaves are cupped, thickened or leathery, and develop an uncharacteristic fan shape.
- Plants will overcome moderate damage.
- Poor production is likely
- 2,4-D can spread on the wind for a few miles

Over-watering



Hot Weather

- Daytime temperatures are above 85-90 degrees
- Overnight temperatures above 75 degrees
- Prevents good pollination
- Gap in fruit production



Questions?

- For More Information:
 - Master Gardener Hotline
 - sgemgholine@gmail.com - preferred
 - 316-660-0190
 - M-F, 9-12 and 1-4
 - Walk-In Clinic (not right now, but eventually)
 - Extension E-Newsletter
 - Text: EXTENSION to 42828
 - Horticulture Information Center:
 - <http://hnr.k-state.edu/extension/info-center/>



Social Media

- Facebook Page:
<http://facebook.com/sedgwickextension>
- Facebook Group:
<https://www.facebook.com/groups/victorygarden101/>
- Instagram: @ksresedgwickco
- The Demo Garden blog:
<http://thedemogarden.org>

