

## 🔍 Tomato Problem Diagnosis Chart

*Spot the symptom · Name the cause · Fix it fast · Companion to Ripe Rewards: A Beginner's Guide to Growing Epic Tomatoes*

**How to use this chart:** Look at your plant and find the symptom that best matches what you see. Read across to find the most likely cause, the organic fix, and how to prevent it next time. Not sure? Start by checking **water first** — Kev says 80% of yellowing leaves walking into his garden center were a water issue, not a nutrient deficiency!

### 👉 YELLOWING LEAVES — What's making them yellow?

WHAT YOU SEE	MOST LIKELY CAUSE	ORGANIC FIX — DO THIS FIRST	PREVENTION
Older lower leaves yellowing, starting at tips, moving toward veins	<b>NUTRIENT</b> Nitrogen deficiency	<ol style="list-style-type: none"> <li>1. Apply balanced fertilizer or fish emulsion immediately</li> <li>2. Topdress with compost around the base</li> </ol>	Balanced fertilizing every 2-3 weeks; soil test before planting
Yellow between veins of older leaves; veins stay green	<b>NUTRIENT</b> Magnesium deficiency	<ol style="list-style-type: none"> <li>1. Soil test first — confirm Mg is actually low</li> <li>2. If confirmed low: foliar Epsom salt spray (1 tbsp/gal)</li> </ol>	Don't apply Epsom salt without soil test — it can worsen calcium uptake!
Whole plant yellowing, wilting; soil feels wet/soggy	<b>WATER</b> Overwatering / root rot	<ol style="list-style-type: none"> <li>1. Stop watering immediately; let soil dry out</li> <li>2. Check drainage; improve if needed</li> <li>3. Severe cases: repot with fresh mix</li> </ol>	Water deeply but infrequently; let top 1-2" dry between waterings; finger test before watering
Lower leaves yellowing, spots present; humid conditions	<b>FUNGAL</b> Septoria leaf spot or early blight	<ol style="list-style-type: none"> <li>1. Remove and bag all affected leaves immediately</li> <li>2. Apply neem oil spray (avoid when flowering)</li> </ol>	Avoid overhead watering; mulch to prevent soil splash; good air circulation

### 🍄 SPOTS, BLOTCHES & POWDERY COATINGS — Fungal troublemakers

WHAT YOU SEE	MOST LIKELY CAUSE	ORGANIC FIX — DO THIS FIRST	PREVENTION
Brown circular spots with concentric rings on leaves & stems (Early Blight); or small dark spots with yellow halos (Septoria)	<b>FUNGAL</b> Early blight or Septoria leaf spot — both treated the same way	<ol style="list-style-type: none"> <li>1. Remove all infected leaves; bag and bin — don't compost</li> <li>2. Spray copper fungicide or neem oil</li> <li>3. Sanitize tools between plants</li> </ol>	Crop rotation annually; avoid wetting foliage; mulch soil surface; disease-resistant varieties
Large dark brown to black greasy-looking spots spreading fast; white mold on leaf undersides	<b>FUNGAL</b> Late blight ( <i>Phytophthora</i> )	<ol style="list-style-type: none"> <li>1. <b>Act immediately</b> — remove &amp; destroy all affected plant parts</li> <li>2. Apply copper-based fungicide to remaining healthy tissue</li> <li>3. If severe: remove entire plant to protect neighbours</li> </ol>	Choose blight-resistant hybrids; never water overhead; ensure airflow; avoid dense planting
White powdery coating on leaves, stems, or fruit; starts as patches	<b>FUNGAL</b> Powdery mildew	<ol style="list-style-type: none"> <li>1. Remove infected leaves/stems</li> <li>2. Spray baking soda solution (1 tsp + 1 tsp oil per quart water)</li> <li>3. Or apply potassium bicarbonate spray</li> </ol>	Space plants for airflow; keep foliage dry; prune dense growth; avoid high nitrogen

### 🌿 WILTING — Which kind of wilt is it?

WHAT YOU SEE	MOST LIKELY CAUSE	ORGANIC FIX — DO THIS FIRST	PREVENTION
Whole plant wilting; soil dry to touch; perks up after watering	<b>WATER</b> Underwatering / drought stress	<ol style="list-style-type: none"> <li>1. Water deeply and slowly at the base</li> <li>2. Add 2-3" mulch to retain moisture</li> </ol>	Water deeply 1-2x per week; mulch 2-3"; drip irrigation ideal
Whole plant wilting; soil wet; does NOT perk up with more water	<b>WATER</b> Overwatering / root rot	<ol style="list-style-type: none"> <li>1. Stop watering; allow to dry out</li> <li>2. Improve drainage; check container holes if potted</li> </ol>	Never let roots sit in standing water; check soil before each watering
Single branch wilting and dying while rest of plant looks healthy	<b>BACTERIAL</b> Bacterial wilt or physical damage	<ol style="list-style-type: none"> <li>1. Prune the wilted branch well below the affected area</li> <li>2. Place cut branch in sealed bag; take to extension office for ID</li> <li>3. Sanitize pruners with 10% bleach solution</li> </ol>	No cure — choose VF-resistant varieties; remove infected plants promptly
Wilting in afternoon heat only; perks up overnight; no soil issues	<b>ENVIRONMENTAL</b> Heat stress (normal above 90°F)	<ol style="list-style-type: none"> <li>1. No action needed if plant recovers overnight</li> <li>2. Add shade cloth 30-40% for extreme heat periods</li> </ol>	Normal in hot climates; water in the morning; mulch well

### 🍅 FRUIT PROBLEMS — Issues with the tomatoes themselves

WHAT YOU SEE	MOST LIKELY CAUSE	ORGANIC FIX — DO THIS FIRST	PREVENTION
Dark sunken leathery patch on bottom of fruit (blossom end)	<b>NUTRIENT</b> Blossom end rot — calcium deficiency	<ol style="list-style-type: none"> <li>1. Consistent deep watering — irregular watering blocks Ca uptake</li> <li>2. Calcium spray: liquid calcium or crushed eggshell tea</li> <li>3. Mulch to even out soil moisture</li> </ol>	Consistent watering is #1 fix; amend soil with oyster shell, bone meal, or eggshells before planting
Fruit skin cracking or splitting — rings around top or lengthwise	<b>WATER</b> Irregular watering after dry spell	<ol style="list-style-type: none"> <li>1. Harvest cracked fruit immediately before rot sets in</li> <li>2. Begin consistent watering schedule</li> </ol>	Consistent watering; mulch; pick at first signs of color
Flowers drop; no fruit forming	<b>ENVIRONMENTAL</b> Temp extremes — above 95°F or below 55°F stops pollination	<ol style="list-style-type: none"> <li>1. Gently shake plants in moderate temps to aid pollination</li> <li>2. Shade cloth in heat; row cover in cold spells</li> </ol>	Heat-tolerant varieties; match planting timing to your zone

## 🔍 Tomato Problem Diagnosis · Page 2 — Pest ID & Organic Toolkit

*Pest quick-ID · Organic fixes · The IPM approach · Companion to Ripe Rewards · DirtDivaDiaries.com*

### 📌 PEST QUICK-ID: WHAT ARE YOU ACTUALLY LOOKING AT?

### 📌 THE IPM APPROACH — GENTLEST FIRST

#### 🐛 Tomato Hornworm — "The Vanishing Act"

**Look for:** Large green caterpillar 3–4" long with white diagonal stripes and a red or black "horn" at the rear. Look for dark frass (droppings) on leaves below — that's your first clue they're above!

**Damage:** Rapid defoliation — entire branches stripped overnight. Fruit may also show large gouges.

**Organic fixes:** ✓ Handpick at dusk (use a blacklight — they glow!)

- ✓ Bt (Bacillus thuringiensis) spray on foliage
- ✓ Diatomaceous earth around base

👉 If you see a hornworm covered in white rice-shaped cocoons — leave it alone! Those are parasitic wasp eggs doing your work for you.

#### 🐛 Aphids — "The Colony Crashers"

**Look for:** Tiny (1–2mm) pear-shaped insects, usually green, black, or brown, clustering on new growth, stems, and leaf undersides. Sticky honeydew residue and curling leaves are telltale signs.

**Damage:** Sap-sucking causes leaf curl, distortion, and stunted growth. They also spread plant viruses. Watch for ants "farming" them — treat both!

**Organic fixes:** ✓ Strong water spray to knock off colonies

- ✓ Insecticidal soap spray
- ✓ Neem oil (not during flowering)

👉 Dealing with ants too? Treat ants and aphids together — ants will actively move aphids to new plants to protect their "herd."

#### 🕷️ Spider Mites — "The Sneaky Stipplers"

**Look for:** Tiny reddish-brown dots on leaf undersides (barely visible to naked eye). Fine, silk-like webbing on leaves is the dead giveaway. Tap a suspect leaf over white paper — moving dots confirm mites.

**Damage:** Leaves show yellowing, bronzing, and a stippled (tiny-dot) texture. Leaves drop early. Worst in hot, dry weather — mites LOVE dry conditions.

**Organic fixes:** ✓ Increase humidity — mites hate it

- ✓ Insecticidal soap or neem oil on leaf undersides
- ✓ Miticide spray if severe

👉 Spray the undersides of leaves — that's where mites live and breed. Topside sprays miss them entirely!

**1 Observe & identify** — Know exactly what you're dealing with before reaching for anything. Wrong treatment = wasted time.

**2 Physical removal first** — Handpick pests, prune infected branches, use water blasts. Free and effective.

**3 Organic sprays next** — Neem oil, insecticidal soap, copper fungicide. Always spray in the evening to protect pollinators.

**4 Beneficial insects** — Release ladybugs for aphids, lacewings for mites. Nature's own pest patrol.

**5 Stronger measures only if needed** — Bt for hornworms, miticides for severe mite infestations. Last resort.

#### ✗ Never Do These Things

- ✗ Add antacid tablets (Tums) to the soil for calcium — they contain fillers that harm soil chemistry
- ✗ Apply Epsom salt without a soil test confirming magnesium deficiency — it can block calcium uptake and worsen blossom end rot
- ✗ Spray neem oil during the day — it can burn leaves in heat and will coat pollen during flowering
- ✗ Compost diseased plant material — blight and fungal spores survive composting; bag and trash it
- ✗ Water overhead in the evening — wet foliage overnight is an open invitation to every fungal disease on this chart

### 📌 DISEASE QUICK REFERENCE — BLIGHT VS. MILDEW VS. WILT

#### Quick comparison: the most common disease look-alikes

DISEASE	KEY VISUAL ID	SPREADS HOW?	ORGANIC FIX + NOTES
<b>Early Blight</b> <i>Alternaria solani</i>	Brown circular spots, <b>concentric rings</b> like a target. Starts on lower/older leaves.	Soil splash, infected debris, spreads in wet + warm weather	Remove infected leaves; copper fungicide; neem oil; mulch to prevent splash. Manageable — don't panic!
<b>Late Blight</b> <i>Phytophthora infestans</i>	Large <b>dark, greasy</b> spots spreading fast; white mold on leaf undersides; rapidly kills plant	Airborne spores; spreads extremely fast in cool, wet weather	Act immediately — remove affected parts, copper fungicide. If severe: pull the plant. This one is serious.
<b>Powdery Mildew</b>	<b>White powdery coating</b> on leaf surfaces; starts as patches, spreads to cover whole leaf	Airborne spores; thrives in dry weather with high humidity (not wet leaves)	Baking soda spray; remove affected leaves; improve airflow. Rarely fatal — more cosmetic than deadly.
<b>Fusarium/Verticillium Wilt</b>	Yellowing and wilting starting on one side of plant; brown discoloration inside stem when cut	Soil-borne fungus; enters through roots; no cure once infected	Remove infected plant; don't compost. Prevention is the only cure: choose VF-resistant varieties (look for VFN on label).

#### ➕ Kev's Emergency Checklist

- Something's wrong? Run through this in order before doing anything:
- ➕ **Check water first** — stick your finger 2" into soil. Wet or dry?
  - ➕ **Look at leaf undersides** — 90% of pests live there
  - ➕ **Check the pattern** — whole plant, or one branch? Determines cause
  - ➕ **Look at the soil** — any soil splash on low leaves = blight risk
  - ➕ **Don't panic!** — most problems are treatable. One bad week won't ruin your season.

#### 🔍 Dig Deeper in Ripe Rewards

- Chapter 5** — Full pest & disease management guide
- Chapter 7** — Troubleshooting leaf symptoms in detail
- Appendix D** — Complete pests & diseases reference
- Appendix E** — Nutrient deficiency symptom charts

Plus: free growing resources at [DirtDivaDiaries.com](http://DirtDivaDiaries.com) →