



Vegetable diagnostic

UCDAVIS
COLLEGE OF AGRICULTURAL
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info sheet

Diagnosis for Vegetables

A brief guide to help you identify the problems possibly affecting your vegetable crop.



What the Problem Looks Like	Probable Cause	Controls and Comments
Poor fruit yield Small fruit with poor taste	Uneven or insufficient moisture Poor soil fertility Improper temperature	Supply adequate moisture regularly. Add fertilizer or compost Plant at right time of year.
Plants grow slowly Light green leaves	Insufficient light Cool weather Poor soil fertility Excess water	Thin plants; do not plant in shade. Provide hot caps, floating row cover. Add fertilizer or compost Do not overwater. Improve drainage by adding organic matter and/or building raised beds.
Seedlings do not emerge	Insufficient soil moisture Soil crusting Damping-off (fungal problem) Incorrect planting depth Seeds washed away Soil temperature too cold Root maggots Old seed	Supply adequate water regularly Apply light mulch to soil surface or water often enough to keep surface moist. Do not overwater; use treated seed. Plant more shallow Use gentler watering technique. Cover bed with clear plastic, use caps or tents, plant when soil temp is higher Use registered soil insecticide. Use floating row cover as exclusion. Use new seed; store in cool, dry place
Seedlings wilt and fall over	Dry soil Damping off (fungal disease) Cutworms Root maggots Old seed	Supply adequate water regularly Do not over water. Treat with fungicide. Destroy previous crop residues. Eliminate weeds. Use floating row covers. Use floating row cover as exclusion; Use soil Insecticide. Use new seed; store in cool, dry place
Chewed seedlings, plants, fruit	Birds, rodents, rabbits	Fence field; cover with netting, floating row cover; hang Mylar strips or fake owls.
Leaves stippled with tiny white spots	Spider mites Air pollution (ozone)	Treat with registered miticide or insecticidal soap spray. Wash off foliage.

From Vegetable Research and Information Center, University of California Davis
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Problem key (continued)

What the Problem Looks Like	Probable Cause	Controls and Comments
Wilted plants	Root rot (fungal disease)	Do not overwater. Remove old plant debris. Rotate crops.
	Vascular wilt (fungal disease) mainly affecting tomato, potato, eggplant, pepper	Use resistant varieties. Use soil solarization. Rotate crops.
	Nematodes	Use resistant varieties. Use disease free transplants or vegetative seed. Use soil solarization. Rotate crops. Fumigate
	Waterlogged soil	Improve drainage
	Insufficient water	Supply adequate moisture regularly
General leaf yellowing. No wilting.	Nutrient or mineral deficiency	Test soil for deficiencies and soil pH. Add complete fertilizer.
	Insufficient light	Thin plants to reduce shading. Move to unshaded location.
Leaf margins turn brown and shrivel	Dry soil	Supply adequate water regularly
	Salt damage	Analyze soil and water for salt content. Keep salty water off foliage. Leach with good quality water. Plant more tolerant crop.
	Fertilizer burn	Do not overapply fertilizer. Flush soil with water. Test soil for soluble salts level.
	Potassium deficiency	Test soil for deficiency. Apply potassium fertilizer or compost.
	Cold injury	Protect from cold with hot caps, floating row cover. Plant later.
Discrete brown spots on leaves	Chemical injury due to local application or drift	Do not apply chemicals that are not registered for use on the plant. Apply chemicals at registered rate.
	Leaf fungal disease	Apply fungicide. Reduce humidity around leaves.
White powdery growth on upper leaf surface	Powdery mildew (fungal disease)	Choose resistant varieties. Use fungicide. Spray with soap and water.
Leaves shredded or stripped from plant	Rodents, deer, hail damage, or slugs	Place fence around garden. Use slug bait.
Leaves with yellow and green mosaic or mottle pattern. Puckered leaves. Stunted plants.	Virus disease	Use resistant varieties. Use disease free planting stock. Remove infected plants. Remove old plant debris. Practice insect, weed control.
Curled, puckered or distorted leaves	Herbicide injury	Apply herbicides properly, no wind, cool temps, correct rate and formulation.
	Virus disease	Use resistant varieties. Use disease free planting stock. Remove infected plants. Remove old plant debris. Practice insect, weed control.
	Aphids, spider mites	Use soap-based spray, floating row cover.

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