

## COMMON GARDEN PROBLEMS

<b>Seeds do not germinate</b>	
<b><i>Causes</i></b>	<b><i>Fixes</i></b>
<b>Not given enough time</b>	Wait longer—most seeds will germinate eventually under good conditions
<b>Soil and/or air too cold</b>	Allow outdoor soil to warm up to at least 60°. Indoors, use a heating pad to warm soil to 70°-75°. Air temp 60-85°
<b>Soil too dry</b>	Pre-moisten seed start mix before sowing seed. Perfect soil moisture is like a wrung out damp sponge. Water the soil mix when the top of the soil is dry. Use a sprinkler lightly – don't disturb the seeds.
<b>Soil too wet</b>	Use Seed-start mix, NOT garden soil. Replant and make sure soil drains well. Don't let the seed tray or pot sit in water. Perfect soil moisture is like a wrung out damp sponge.
<b>Insects ate the seed</b>	Replant and protect seed. Relocate. If outdoors, protect with a floating row cover.
<b>Seed too old</b>	Use fresh seed. Seed that has been improperly stored—warm or damp environment usually won't germinate
<b>Poor seed/soil contact</b>	After covering seed with moist soil, gently tamp down soil around it. Misting with water may help, too.
<b>Seed planted too deep</b>	Read seed label. Rule of thumb: plant twice as deep as seed is wide.

<b>Seedlings Wilt or Die</b>	
<b><i>Causes</i></b>	<b><i>Fixes</i></b>
<b>Not enough light</b>	Provide 12-16 hours of light from a soft white fluorescent, LED, or grow light to seedlings. IMPORTANT: Keep light 4-6 inches above top of seedlings at all times. Light from a window is not enough.
<b>Wet soil</b>	Use sterile seed-starting potting mix for good drainage. Water when the top of the soil is dry before seeds germinate, and when top ½ inch is dry when seeds have germinated. Use a sprinkler lightly –don't disturb the seeds. Don't let seed trays or pots sit in water.
<b>Crowded plants</b>	Thin plants out by transplanting to new pots and seedling mix. Eventually transplant each seedling into a 4 inch pot of its own.
<b>Too much nitrogen</b>	Do not apply fertilizer to seedlings until several true leaves have developed. Then apply 1/4 strength standard soluble fertilizer. Many potting mixes contain slow release fertilizer and do not require any fertilizer application
<b>Dry soil</b>	Keep soil moist but not dry or damp
<b>Too much fertilizer</b>	Do not apply fertilizer to seedlings until several true leaves have developed. Then apply 1/4 strength standard soluble fertilizer. Many potting mixes contain slow release fertilizer and do not require any fertilizer application.
<b>Pests</b>	manually destroy pests, take photo and bring to Plant and Insect Clinic for ID and help
<b>Cold air, wet soil conditions</b>	Damp rot—soil molds and fungi cause root rot and plant dies where stem meets the soil. Use a heating pad to warm soil to 70°-75°
<b>Pots and tools not sanitized prior to planting</b>	Sterilize all used pots and trays in a solution of 10% household bleach by soaking for 30 minutes. Clean tools with Lysol or 70% alcohol. Wash hands.
<b>Old potting mix re-used</b>	Use new sterile seed-starting mix to fill trays. Don't use garden soil!
<b>Not enough light</b>	Provide 12-16 hours of light from a soft white fluorescent, LED, or grow light to seedlings. Keep light 4-6 inches above top of seedlings at all times. Light from a window is not enough. Transplant two or three weeks after the first "true leaves" appear, but to avoid transplant shock, first acclimate plants to short periods of outdoor dappled sunlight for a several days, starting with twenty minutes, and working up to 5-6 hours at a time.

## Slow Growth—Out of the house and into the Garden—

<b>Causes</b>	<b>Fixes</b>
<b>Not enough light</b>	Place your garden in a convenient location that gets at least 6 hours of afternoon sun, and so it gets good air circulation and south or west exposure.
<b>Temperature</b>	Don't rush the season. Wait until end of May to transplant your vegetable starts. If you want to plant earlier, use raised beds and row covers or cloths to protect from cold. You can also pre-heat soil by covering with black plastic for two weeks. Remember, optimal air temp range, 60-85°. If you plant before the soil temp has reached 60 degrees, or if the air is colder than 60°, your plant will not grow—it will just sit there. This increases the chance for fungal disease in the roots.
<b>Water</b>	General recommendation is 1 inch of water per week. Use your finger-dig with finger 4-6 inches. If the soil is dry at that depth, water thoroughly. Best idea—use drip irrigation.
<b>Nutrients</b>	Get a soil test, fix as recommended by test results. Best \$24 you'll spend for your garden—takes out the guesswork. Soil enrichment begins in fall and early spring. Add organic material-compost or composted manure to your soil. Chances, are, once the pH of your soil is corrected as recommended, the only nutrient you'll need is nitrogen during the growing season. If indicated, side dress your plants when they are about 5 inches tall with recommended amount of nitrogen fertilizer or rich organic compost.
<b>Insects/Diseases</b>	Don't water from overhead! Wet leaves can encourage leaf disease. Manually destroy pests, spray off with water, take photo and bring to Plant and Insect Clinic for ID and help. Remove dead leaves or plants all season. Do NOT use pesticide as first step!
<b>Weeds</b>	Compete for nutrients. Mulch garden beds and rows between with DRIED grass clippings, rotted sawdust, weed-free straw (NOT hay), or arborist wood chips. also keeps soil from drying out. Do NOT use landscaping fabric—it impedes water absorption.

## Yellowing leaves

<b>Causes</b>	<b>Fixes</b>
<b>Nutrient Deficiency</b>	PH: Adjust pH as recommended by soil test. PH must be in correct range for nutrients in the soil to be available to the roots. Most vegetables tolerate a soil pH is between 5.5 and 7.5, but between 6.0 – 7.0 is ideal. Test soil, fix as needed. Nitrogen deficiency: Older leaves at bottom turn yellow, upper leaves green. If this happens early in the season, side dress with fertilizer. Consult Plant and Insect Clinic for diagnosis
<b>Not enough light</b>	Most vegetables need full light, at minimum 6 hours of afternoon sun, preferably more. Move to new location.
<b>Too much or too little water</b>	In either situation, necessary nutrients may not be available to the plant. Keep the soil evenly moist, preferable with drip irrigation techniques.
<b>Sucking insects</b>	Some insects, such a spider mites and aphid suck the green tissue from the leaves. Regularly monitor your plants for pest problems. Best place to start looking is on the underside of the leaves. Call the Plant and Insect Clinic for recommendations. Do NOT treat with pesticides as a first step, and always use the least toxic methods.
<b>Disease</b>	Some fungus infections cause spots and yellowing of leaves. Consult the Plant and Insect Clinic for help.
<b>Old leaves—end of season</b>	Sometimes the lowest leaves on a plant become yellow.
<b>New leaves yellow after transplanting</b>	Transplant shock—don't transplant when night temps are below 50°. Transplant two or three weeks after the first "true leaves" appear, but first acclimate plants to short periods of outdoor dappled sunlight for a several days, starting with twenty minutes, and working up to 5-6 hours at a time.

<b>Poor Yields</b>	
<b><i>Causes</i></b>	<b><i>Fixes</i></b>
<b>Weather</b>	Temperature too hot or cold. Grow varieties that are right for our climate. Temps below 55 and above 85 can prevent pollination.
<b>Length of growing season</b>	We have a short growing season. Crop may not mature before the end of the growing season. Select vegetable varieties that mature in 70 days or less. Higher elevation may shorten the growing season even more.
<b>Fertilizer</b>	Test soil, fix as needed. Too much nitrogen causes lots of foliage growth, but not much fruit.
<b>No pollination</b>	Attract bees and butterflies with flowers. Use pesticides only as a last resort, because they kill the beneficial insects as well as the pests. Hand picking, and spraying insects off plants can keep the pests down. Beneficial insects will help to control pests.
<b>Soil moisture</b>	Use mulch to keep soil from drying out; keep soil moisture even. Use drip irrigation.
<b>Not enough light</b>	Plants should receive at least 6-8 hours of afternoon sunlight each day.
<b>Poor air circulation</b>	Some plants, like corn, need wind to pollinate. You can periodically shake the plant to distribute pollen
<b>Need two plants for pollination</b>	Some plants, such as tomatillos, require cross pollination by another plant to produce fruit.

**For ongoing FREE support for your garden questions, call, visit, or email the  
WSU Extension Plant and Insect Clinic**

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**April – October MWF 9 to-12 pm**