

Laura Phillips
District Extension Agent, Horticulture

Tomato Leaf Curl

During hot summer months, many gardeners notice their tomato plants have curling leaves. There are various reasons why tomato leaves can curl, but luckily the different causes present different symptoms.

The most common reason for tomato leaf curl is environmental stress, often from a lack of water. Tomato plants need a lot of water, and, in times of drought or high temperatures, tomato plants will curl their leaves up and over to reduce the amount of leaf tissue exposed to the sun. This helps the leaf stay cooler and retain water. These inwardly curled leaves without any sign of discoloration indicate that more water is needed. If you are over-watering your tomatoes, you may see some curling, but it will be accompanied by drooping yellow leaves. Big changes in their environmental conditions, like fluctuating water levels or temperatures, can cause leaf curl, so wait until their conditions stabilize before expecting their leaves to return to normal. The good news is that unless the environmental stress is severe, it likely will have little effect on your yield.

Other environmental causes of curling leaves include transplant shock, excessive pruning, and nutrient imbalances. If your tomatoes were recently planted or pruned, water them well and they should recover within a couple of weeks. Nutrient imbalances can also cause leaf curl and will usually present with leaf discoloration. Too much nitrogen, for example, can cause tomato leaves to curl inward and turn a darker green. Tomato plants exposed to excessive nitrogen will also have a hard time setting fruits. When fertilizing your tomatoes always keep in mind that you can have too much of a good thing.

Although leaf curl is most often due to environmental stress, there can be more severe causes of leaf curl. Tomatoes are sensitive to herbicides, and drift from nearby spraying can cause their leaves to curl. Unlike environmental stress, herbicide damage is often accompanied by twisting or bending stems and leaves, dying tissue, or leaf discoloration. The exact symptoms will vary depending on the type of herbicide.

The last reason for tomato leaf curl is a virus. While more uncommon, it is possible for tomato plants to contract viruses that cause curling leaves and twisting new growth. These symptoms initially look incredibly similar to herbicide damage, but the diseases generally include yellow mosaic discoloration as they progress. There are over a dozen viruses that affect tomato plants, and the exact virus can only be identified by lab testing and viruses cannot be cured.

Although viruses are possible, it is important to remember that leaf curl is incredibly common in tomatoes undergoing environmental stress. Next time you notice your tomato leaves curling offer them some water. Wait until you see die back, yellowing, discoloration, or twisting and deformed new growth before worrying.