

Dealing with the Drought



Plant Stress

Hot, dry weather affects plants differently. Most plants wilt. Wilt results when water loss from the leaves is greater than uptake by the roots.

Even with adequate soil moisture, it is possible for leaves to wilt during the hot part of the day. Hydrangeas are a good example. However, when the sun goes down and temperatures cool, most plants will recover.

On the other hand, plants that are in pots or barrels and showing wilt symptoms in the late afternoon probably do need a good watering.

It's easy to diagnose wilting in flowers and many vegetables. Their leaves collapse, droop and don't appear turgid or stiff. Blossoms fade and die soon after opening.

Tomatoes and corn exhibit symptoms seldom seen in other vegetables. Tomato leaves roll under, while corn leaves roll up. Unfortunately, once tomato leaves roll, they seldom straighten out with additional moisture. Corn can recover if the water is applied soon after curling starts.

Many garden crops may abort their flowers if the weather is too hot and dry. Tomatoes, peppers, squashes, eggplants, melons and pumpkins are notorious for this condition.

Established trees and shrubs are less likely to show wilt symptoms. Instead, trees and shrubs exhibit characteristics classified as *scorch*.

Scorch shows up as browning of leaf margins and the tissue between the veins. Leaves feel crisp or leathery. The contrast between the normal green color and brown of scorch is obvious.

Scorch usually starts along the margins and progressively gets worse as the plant continues to suffer. If the soil is extremely dry, entire leaves and branches may die.

Certain trees and shrubs are willing to sacrifice entire limbs to reduce the stress on the whole plant. Lower and older limbs usually die before younger ones. Smaller branches are forfeited before larger ones.

New limbs and shoots may be weakened and more prone to breaking by squirrels, birds or a heavy wind.

Leaf scorch and needle browning is uniform over entire branches of the tree, greatly eliminating the possibility of a fungal or bacterial disease.

A few of the ornamental shrubs may exhibit premature fall coloring. Burning bush, sometimes called Winged Euonymus, is an example.

Most lawns tend to go dormant and turn brown when water is at a premium. Dormancy is an ideal stage for cool-season grasses such as bluegrass, fescue and ryegrass to survive summer's dry conditions. However, green lawns can wilt. The *walking test* is the best indicator of wilt.

If footprints remain in grass 15 to 30 minutes after walking, the lawn is wilting and needs to be deeply watered. Avoid mowing the lawn in this state as the added stress can kill plants and thin the turf.

While blooming and fruit or seed set is reduced on water-stressed plants, the sugar concentration usually increases. Peaches, tomatoes and raspberries may be smaller but taste sweeter. On the other hand, it may take longer for the plant's fruit to ripen.

As a rule of thumb, most plants need 1 inch of water per week during the active growing season. When temperatures climb above 90 degrees, plants may need at least 2 inches of water per week.

Water early in the morning to reduce the chances of diseases and lessen evaporation. Mid-afternoon watering can result in more than half of the water evaporating before it enters the soil.

Irrigate slowly so the water has a chance to percolate into the soil instead of running off. This slow irrigation is especially important when watering slopes.

Water where the roots are. The entire flower or vegetable garden may not need to be watered if the roots haven't spread all over the garden. A tree's water-absorbing roots are at its drip-line, not congregated around the trunk.

Mulch to limit water loss from the soil. Apply 2 to 4 inches of wood chips, straw or other mulching material to garden and landscape plants. Applying more than 4 inches of mulch may deprive roots of oxygen. Excessive mulch can also make it hard for any water to reach the roots.



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