

REDUCE DROUGHT AFTER EFFECTS

by Ray Rathenberger

During the spring following the drought of 1980, I wrote about drought after effects. Of course, after the drought has ended there is little to do other than replace or repair damaged trees and shrubs. The immediate effects of drought on smaller plants is evident as they yellow and die. Plants with a more extensive root system show less immediate symptoms while damage is still being done. During a drought there may still be time to minimize damage.

Among the first shrubs to be damaged from drought are those that we know as broadleaved evergreens. Rhododendrons, hollies or azaleas may or may not wilt immediately, but their shallow, fairly fine roots are easily killed during drought. As a result, flower buds that normally form in midsummer will not develop. Leaf color may be poor and the overall look of the plant unhealthy. If a severe winter follows, the weakened plant may be killed back or become more susceptible to other problems.

Observe needled evergreen trees and shrubs carefully. The thin needles do not lose water as fast as leaves of the broadleaf evergreens and may appear to be surviving quite well. However, without adequate soil moisture, damage also occurs. Gradually older needles may begin to drop while shallow roots are also being killed in the dry soil. The tree may appear to be surviving quite well, but suddenly die even though drought conditions may have ended several months or even years previously. The stress caused by drought apparently starts a cycle of decline in some plants from which they are never able to recover.

Many flowering shrubs that set buds during midsummer may have reduced flowering next season if drought conditions persist. Shrubs such as lilac

and forsythia, or herbaceous plants such as peony and Oriental poppy, may not flower or flower poorly after a spring and summer drought. Fruit trees such as cherry and peach may develop fewer flower buds if drought has been severe and growth poor.

Although many of these responses will not show until next year some plants will prematurely drop leaves this season to conserve moisture. Others less well adapted may not be able to drop leaves but will show browning and death along the leaf margins which is often called scorch.

Not all drought responses that show up next year will be as subtle as reduced flowering. Dieback of twigs may be a carry-over result of drought. If drought persists, this type of damage will become increasingly severe and plants may die. This is particularly true of smaller plants that are in close competition with larger plants, are diseased, are insect infested or are damaged in some other way such as during home construction.

Of course, the best way to prevent or minimize drought damage is irrigation or even limited watering. In many cases watering plants may not be possible because of distance from a water source, or water shortage. Other approaches for easing drought stress are well known and include mulching, shading or perhaps the use of antidesiccant sprays for higher value plants. After the drought has ended, a light fertilization to help stimulate growth next season could be beneficial.

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