

Heat and Drought Trouble for Some Trees

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Many North Dakota homeowners have noticed something different about their trees under drought conditions -- lots of seed and sparse, undersized foliage. Examination of individual trees indicates that no disease or insect problems are responsible, so environmental factors are apparently the problem.

Trees affected by some types of stress routinely produce abundant flowers and fruit, but lack the typical foliar vitality. Environmental stress in the form of compacted soil, high soil pH, low moisture and high temperatures are all responsible for the reduction in vigor and the tree's symptoms.

A recent history of dry, hot weather has a cumulative, delayed effect on trees. The typical landscape tree has a root system close to the soil surface due to lawn watering, fertilization and heavy soils.

Two trees of the same species can be growing on a residential property with one showing the symptoms and the other not. Here microclimate differences probably do not exist, but the genetic makeup of the two trees is most likely different.

Most nurserymen propagate trees from seed, which offers a wide range of characteristics -- some good, others not so good.

Not all the stress seen on the trees can be attributed to the heat and dry weather. Winter cold spells can also take a delayed but serious toll.

What to do? There is no way anyone can prepare for or anticipate all the problems that can besiege a landscape plant. Selecting the right plant for the particular location, providing adequate moisture for the specific plants, mulching and eliminating competitors, such as weeds and turfgrass, will make a big difference. Check the trees daily during periods of environmental stress and try to take corrective action as quickly as possible, whether it is controlling insect or disease problems, or taking steps necessary to get the plant into a state of vigorous growth, such as watering deeply and providing fertilizer.

Additional Reading

[F-436 A Guide to Deciduous Tree Knowledge](#)

[H-957 Xeriscape Plant Selections and Ideas](#)

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