

Water Woes Are Not Just a Summer Problem!  
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It is quite common in the Chicago area to have long periods of soil saturation in the spring, impairing rootlet formation and absorption efficiency during the warmest weeks of summer when tree transpiration levels are very high. The browning and death of a tree during the summer may actually be due to a “double whammy” involving both spring wetness and summer drought.

Occasionally we have dry periods in winter and/or spring which also results in problems for trees trying to grow roots. Either extreme can result in poor formation of new rootlets in spring and early summer and will limit a tree’s capacity to survive rainless periods in mid-summer.

Recognizing the dessicated nature of soil in springtime is not so easy as recognizing prevalence of summer drought. Thorough watering a few weeks before bud-break will help to ensure full leafing, despite the general prevalence of dry soil. But as is often the case, the problem is not apparent until after damage has occurred.

It is sometimes stated that more than 80% of urban tree problems begin underground. This spring there appears to be widespread prevalence of young tree difficulties related to soil moisture deficiencies. There are countless recently planted (1998 and 1999) trees that are not leafing out normally. In some cases, the upper one-third of the crowns had no emerging foliage. In other cases, scattered branches have not produced foliage.

A likely explanation of this situation is the prolonged rainless period in March and April, combined with inadequate deep soil moisture during late winter. Leaf expansion is greatly dependent upon adequate soil moisture, because expanding leaves take up great quantities of water over a short period of time.

Troubled trees seem to be especially evident where large-scale plantings have been made or where trees were planted on islands in large parking lots. The ragged looks of most of these trees probably do not portend doom, but recovery may depend upon favorable conditions during the remainder of the 2000 growing season.