

## CARE OF PLANTS IN A WOODED LANDSCAPE

by Ray Rothenberger

Many people feel that a wooded lot is the ideal setting for a home. The wooded lot, however, presents many special plant growing problems. You should consider not only the large trees which may have had roots cut or soil compressed around them during construction, but also think of the growth of other plants in poor light and water conditions.

During late summer, plants have been under stress for several months, particularly during drought years. Trees compete for water with each other as well as with any other plants near them. The healthiest trees with the largest root systems are usually the winners.

Although the intent of wooded lots is to have a natural setting, you will still need lawns and ground covers to prevent erosion. There is often a desire to make the home blend better into its setting with the addition of shrubs, and flowers. The need for recreational space may result in extra thinning of existing trees.

Perhaps there is only a desire for a few tomato plants, but too much shade can only provide a disappointing harvest. Sun-loving plants such as tomatoes and petunias need at least 6 hours of direct sunlight each day. If such a location can not be found on the lot, don't plant them. They will grow thin, fruit and flower poorly, and be more subject to disease problems.

Poor light beneath the trees can certainly cause small plants in the landscape, but inadequate water is equally limiting. While there is little we can do to increase the light intensity beneath large trees, other than to trim off large branches, we can easily manipulate watering. A large shade tree on a hot summer day may evaporate nearly 100 gallons of water through its leaves. Several trees close together can pull substantial amounts of water from the soil. At the same time large trees block dew or light rains that could get to plants beneath them.

Because of these conditions, water needs for

plants under or near large trees is very critical. Trees that have large root systems close to the soil surface such as ash, maple, poplar and pine make water competition even more severe.

Under normal conditions, plants should receive about 1 inch of water per week and 1 ½ inches per week during very hot weather either by rainfall or irrigation. Plants under trees may need 2 inches per week and sometimes more during hot weather. When plants wilt beneath the shade of a tree, they need water.

Competition for plant nutrients is also more intense beneath trees. Plants growing in such locations may need a light monthly nitrogen fertilization during the summer. Remember that the addition of water and fertilizer beneath trees may also stimulate the tree growth, producing more shade. You may need to prune more to keep the smaller plants beneath them in adequate light.

In some locations watering can not be done, but shrubs or small plants are needed. There are not very many plants adapted to shady, dry locations. However, a few shrubs that might be used in these conditions include Japanese barberry, common buckthorn, gray dogwood, privet, witch-hazel and shrub honeysuckle.

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### CORRECTION

Please make a correction in your copy of the March 1990 Journal of Arboriculture. The legend for Figure 2 on page 51 and that for Figure 3 on page 52 are reversed. Please switch them. (We regret the error in Dr. Raupp's paper. ED.)