

## **THE EFFECT WEATHER ON TREES AND LANDSCAPE**

Maryland weather can be quite changeable and unpredictable due to a number of factors. Proximity to large bodies of water like the Atlantic Ocean and the Chesapeake Bay; the mountains in the western part of the state; and a location that exposes us to wind and cold from the north, moisture heavy systems coming up the coast, and remnants of mid-western storms, all cause Maryland to experience major extremes in both weekly weather patterns and year to year trends. This situation can sometimes wreak havoc on trees, shrubs and lawns (although the weeds seem to survive through it all). A little knowledge of the way different weather situations can affect your plants may help them survive the ups and downs of our regional climate.

Yearly patterns in the recent past have included severe drought and excessive precipitation. Both situations call for monitoring of existing plant material and caution with installation of new plantings. Temperature trends also have a significant effect on plants. A warm spring and hot summer with little rain is a questionable time for tree digging and planting unless monitored watering is available. Daily weather events can also affect plant health. Maryland often experiences violent storms that include high winds and heavy rain that can tear up or topple trees. Some advance preparation can limit the damage caused in these storms.

### **DROUGHT STRESS**

A couple of years ago, Maryland experienced a severe drought in most of the state. According to NOAA, central Maryland rainfall was 25% below normal. The effect was noticeable – dormant lawns, trees dropping leaves early, less fall color, and stressed trees and shrubs resulting in insect infestations, disease, and eventual loss. Water restrictions in some areas also limited the ability to water lawns and plantings. What are some strategies for maintaining healthy plants under drought conditions?

Fall aeration and fertilization can promote a good spring start up for lawns that have been under drought stress the previous year; over-seeding can also help if there is enough moisture.

Treating problems before they get out of control can help prevent tree loss so inspect trees for signs of stress. Deep root fertilization and vertical mulching can help trees thrive by encouraging root development. Pruning dead or diseased limbs can prevent the spread of problems to healthy parts of the tree. Insect infestations can be identified and treated at the appropriate time.

Fall mulching can help protect plants and hold moisture in the soil. It can also help prevent weeds in the spring.

Consider installing or using systems that conserve water, such as drip irrigation in shrub and flower bed. Younger trees or new plantings can benefit from the use of Gator Bags. These provide slow, steady watering over a number of days.

## **EXCESSIVE PRECIPITATION**

Too much of a good thing can often cause problems, as is the case with too much rain. When the winter and spring have been excessively wet, some plants can suffer. Potential issues that may arise include:

- Loss of nutrients in the soil

- Browning out of plants that don't thrive in wet soil (such as yews)

- Root rot in trees that are already compromised by drought, insect infestations, or disease

- Fallen trees due to loose soil if there are high winds

Steps can be taken to monitor and replace soil nutrients, and to treat or remove trees that may be a hazard. Dead foliage can be removed to improve appearance, and plants may recover in conditions change. Plants that like drier soil should not be planted in low areas or in areas that direct run-off drainage.

## **EXTREME TEMPERATURES**

Although shrubs and trees are usually marked for climate zones, even the hardiest of plants can lose vigor or die during very cold, harsh winters. Fall mulching can assist in protecting plants from winter stress. Smaller plants that are sensitive to cold can benefit from being screened from wind with burlap or buried in leaves loosely placed inside wire mesh. Evergreens can be helped by keeping them watered into the fall. Anti-dessicants can also be applied to evergreens to retain moisture, although this is not always successful depending on conditions.

High temperatures can be problematic as well, especially when accompanied by drought. Make sure to water plants in the early morning. This allows moisture on foliage to evaporate before being hit by the sun's burning rays. Monitor soil for moisture by digging down a couple of inches and compressing a soil sample in your hand. If there is no moisture the plant requires watering. Overwatering can damage plants as well, so monitoring and moderation are the best course to take.

## **STORMS AND HURRICANES**

Most storm damage is the result of fallen trees and limbs. With a little advanced planning, homeowners can reduce the chances of damage to their home and property by surveying their trees for problems. Signs to look for are:

- dead wood/limbs with no foliage

- signs of decay such as hollow areas, animals living in the tree, decay at the tree base, or

  - mushrooms growing in a pattern over roots

- trees that may be top-heavy and need crown cleaning, such as Bradford pears

- large limbs over-hanging your house, driveway or sidewalks

Any of these signs may indicate a need for pruning or removal. Although having trees pruned or taken down can be an unwanted expense, the damage caused during a storm can be much more costly.

If you have concerns about plant health or think your trees may become hazardous during a storm, call Mead Tree & Turf Care for a professional evaluation. Our licensed arborists can help you assess the best treatment for stressed plants and determine ways to reduce potential property and tree damage that can be caused by storms.