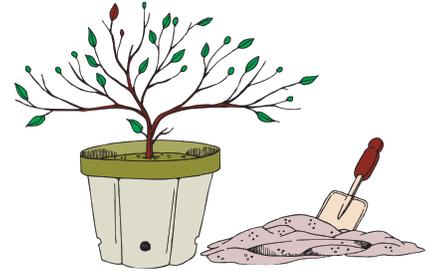


Gardening under Drought Conditions

Periodically, Rockland County receives well below the area's average 43 inches of rainfall per year. In order to insure the maintenance of adequate water reserves, mandatory restrictions on water use are sometimes necessary.

During times of drought our gardens show signs of stress. Lawns all over the county may brown out. Take heart, though – in most cases the lawn is not dead but merely dormant and will regain its green color as soon as adequate moisture returns. (A lawn requires only one-quarter of an inch of water every three weeks to stay alive.)



The initial symptom of drought stress on trees and shrubs is a marginal scorching of leaves, and in some cases wilting of entire plants. Yellowing of interior needles on evergreens may also occur. When irrigated, by either irrigation or rainfall, most plants will recover. The season following a drought, plants may show reduced shoot and diameter growth, smaller or fewer leaves, and varying degrees of dieback. Weakened trees and shrubs can also be expected to have more disease and insect problems for several years to come. Evergreens especially, may brown, drop needles and die suddenly.

Recyclable Water

In Rockland County the use of recycled water falls under the same restrictions as tap water. Clean water saved from cooking or showers does not require special treatment before use. Why not collect the cold water that comes out of the showerhead before it turns hot? Do not pour water directly around the trunks of shrubs or trees. This may cause crown rot, and besides, feeder roots that take up water are located farther out. Be sure you put enough water on so the plants get a good drink! If you just wet the surface of the ground around trees, they will get little benefit.

Tips for Conserving Water

In general, concentrate your efforts on plants that mean the most to you, are hardest to replace and most valuable. Annuals should be your last concern.

Woody plants most in need of supplemental irrigation are those that were planted this year or within the last few seasons. Trees and shrubs that have been in the ground longer are more likely to have better developed root systems that can exploit large volumes of soil to get the water they need.

Another category of vulnerable woody plants are shade loving trees and shrubs, especially those that have been planted in a full sun location. Examples are: flowering dogwood, Japanese maple, rhododendron, and other broad-leaved evergreens. Ash, birch and maple are particularly sensitive to drought stress. Even if leaves wilt during a hot day, most plants will recover at night if sufficient soil moisture is present. Plants that do not recover overnight must be watered to prevent permanent damage.

Methods

Water in the early morning to minimize evaporation, if possible. (Follow all Rockland County Health Department regulations – these take precedence over best practices for plants). Avoid splashing water on foliage; many plant diseases flourish on wet leaves. Water when there's no wind, as wind speeds evaporation.

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Move mulch aside, water, and replace mulch; or if you prefer, place your watering device permanently under the mulch. Low flow irrigation equipment, such as soaker hoses or drip irrigation, is recommended. A shallow berm two inches deep, encircling the “drip line” of the plant, or along rows of plants, will help confine water to the root area and discourage runoff. You may also bury perforated tin cans, large plastic soda bottles or short lengths of pipe at intervals along the drip line or between rows, and fill them with water for slow, even distribution with little waste. Aside from applying what precious little recycled water you have, one of the best things you can do during a drought period is nothing at all! Do not fertilize, prune, or apply pesticides.

Other Gardening Practices

Fertilization:

Fertilizer application is not recommended. When soil moisture is low or temperatures are high, little benefit will be realized from fertilizer applied to plants. Without adequate water, fertilizer can burn your plants.

Pruning:

Do not prune except to remove dead or diseased branches. Excessive pruning will stimulate new growth that will not be drought tolerant and, in addition, may not harden off before the dormant season sets in.

Insect and Disease Management:

Plants that are healthy are better able to resist attack by insects and diseases. Therefore, if plants are to withstand a drought, they must be kept as healthy as possible. It is important to monitor for insects and diseases and manage them before they take hold. Observe your plants carefully and at the first sign of an insect or disease symptom, contact the Cornell Cooperative Extension’s diagnostic lab to discuss possible causes.

Mulches:

Mulching is one thing you can do to help your plants. It is estimated that three quarters of the rain falling on bare soil is lost to plants through evaporation and runoff. Both of these are reduced up to 90% by adequate mulch. Mulches help conserve moisture and keep the soil cooler. Use compost, wood chips, bark nuggets, shredded bark mulch, shredded leaves, or any other organic material to cover the surface of the soil. Apply mulch to a depth of two inches, beginning a few inches away from the trunks of trees.

Lawns:

Lawn clippings are an excellent mulch...for your lawn. Do not pick them up unless they form clumps. Contrary to popular belief, clippings do not contribute to thatch build up and will help conserve water in your lawn. Grass clippings may also be used as mulch in a vegetable or flower garden, spread one inch thick. If the lawn has browned and is dormant, do not mow. Foot and machine traffic can damage the grass crowns. Do not use weed killers or fertilizer during drought.

Weed Management:

Weeds will compete with desirable plants for moisture and nutrients. Keep your gardens and areas beneath trees and shrubs weed free. Once the weeds are eradicated, apply mulch.

These are some simple procedures that can be followed to help conserve water and at the same time to promote a healthy garden. Use a water “crisis” to learn new techniques that will stay with you even in times of plenty. You will become a better gardener and citizen for it!

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