

Landscape Owners Manual



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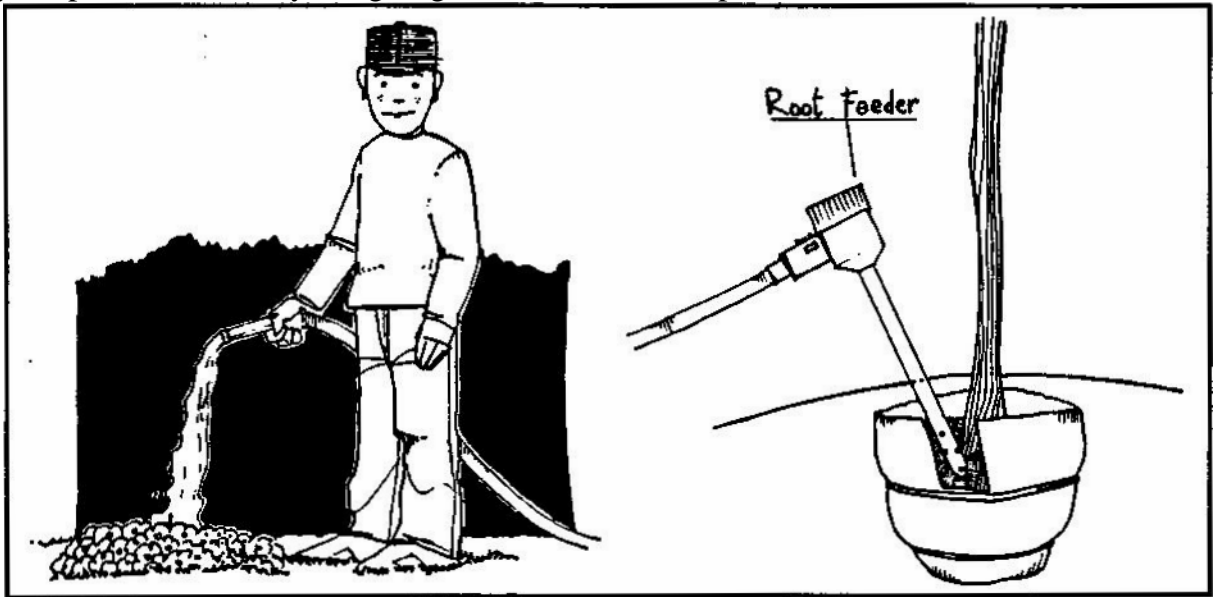
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NORTHAMPTON GARDENS INC.

Design, Landscaping & Maintenance
215-672-8066 / 215-766-2200
[Email: Northgrdns@AOL.com](mailto:Northgrdns@AOL.com)

WATERING

Roots of newly planted stock must not dry completely for extended periods of time, especially during the first growing season. Such stress may damage them. Water each plant thoroughly right after planting to make sure the soil is settled around the roots, then check the soil near the base of the plant to a depth of around six inches. Water if the soil is still dry. The frequency and the amount of water depends on the type of plant, the size of the plant, the temperature, the amount of rainfall, and the type of soil. During normal situations, water each plant about twice each week. DO NOT water so often that the soil does not drain and remains soggy. Too frequently, plants are damaged by over watering, as compared to under watering. Shallow watering will hamper root development also. Allow the garden hose to run on each plant for one to ten minutes, depending on the plant. For trees, use the Ross Root Feeder, and insert the feeder into the root ball and let the water run for five to thirty minutes, depending on the size of the tree. (Remember on larger tree to insert the root feeder in several positions into the root ball so that all of the tree's roots will receive proper watering). Do not rely on lawn sprinklers to water your trees and shrubs for they will waste water and water areas that will promote weeds to germinate. Remember to give one final deep watering to your landscape before the ground freezes in the winter, this will help your plants while they are going into their dormant period.



REDUCING MOISTURE LOSS

With your new landscape or established landscape you will need to consider various practices that will reduce moisture loss. Mulch has proven very effective in controlling moisture loss from the soil. Additional benefits from mulched include weed control, (weeds if developed can use more water than your garden plants), soil temperature modification, erosion control and improved appearance of the mulched areas. We use a double shredded hardwood mulch which we feel satisfies all of the requirements. In the years to come you will need to remulch your landscape. When remulching your

landscape remember NOT to over mulch. Over mulching of trees and shrubs can best be described as a plague that is slowly damaging or even killing many ornamental trees and shrubs in established landscapes. Heavy and repeated applications of mulch around shallow rooted shrubs such as, azaleas, rhododendrons, mountain laurel, leucothoe, boxwoods, hollies, yews and etc. suffocates their roots which intern causes the decline of the plant. If the plant is one that is able to root readily, it will often initiate new roots from the stems into the mulch, and intern produce little top growth. The annual rate of growth gradual declines and the new growth usually does not grow to mature size. Many coniferous and hard wood trees are killed because mulch is piled high around the stems. Organisms that cause stem rots, thrive **in** heavy mulch. Two to three inches of mulch is plenty, applied every two to three years. Each spring the landscape beds should be cleaned of debris that has accumulated over the winter. Shallow ranking of the existing mulch will give the landscape beds that freshly mulched appearance. You will need to remulch when the existing mulch is nearly decomposed and lightly incorporated into the soil.

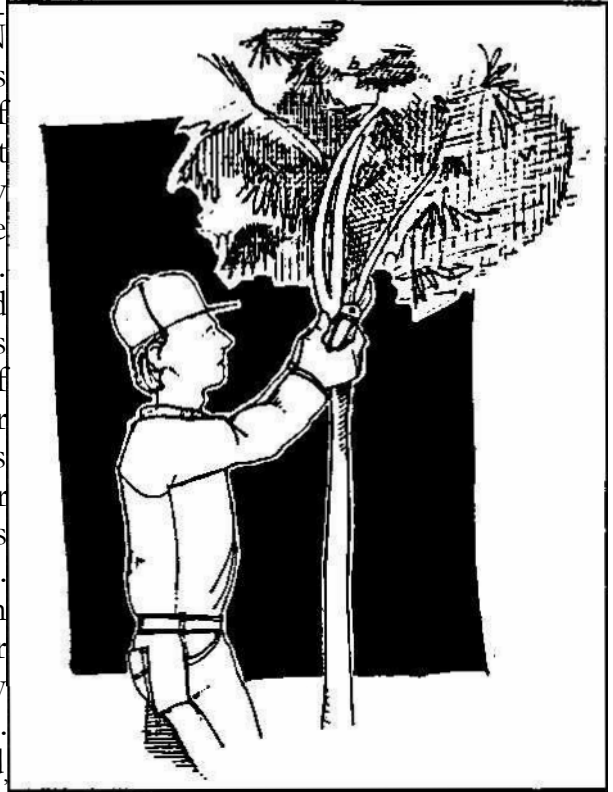
Mulch should not be used exclusively to control weeds. Weeds in the landscape beds can be controlled mechanically by hand weeding or with pre and/ or post-emergence herbicides. Directed spray applications of postemergence herbicides can be used to kill existing weeds, while the preemergence herbicides will control germinating weed seeds.

The application of an anti-desiccant on your broad leaf evergreen is another way of reducing moisture stress. Anti-desiccants form a water tight film over the leaf surface. Expanding new leaves will need additional treatment as the leaf becomes larger, (the film will not stretch with the leaf). You can apply an anti-desiccant to the plants as a spray any time the air temperature is above freezing. Total leaf coverage, (top and bottom), is essential for optimum results. Several applications will also be needed as the plant grows and weather wears the film off the leaf. For specific application schedules, consult the package directions for each material. Common product names are, Wi It Pruf and Forever Green. They can be purchased at any garden center. Several advantages of anti-desiccants include their ease of application on smaller plants, they are invisible on the plant and they do not alter the landscape appearance.

Wind screens is another way of reducing moisture stress. A considerable amount of water can be lost from plant tissue by wind action. There is a constant layer of water vapor near the leaf surface caused by natural plant transpiration. As long as the layer persists near the leaf, it tends to slow the movement of more water from the leaf. However, as the vapor layer is removed by wind action, it is replaced with more water vapor from within the leaf. Any steps that can be taken to slow or reduce the amount of air movement over the plant and leaf surface will retard moisture loss. Installation of wind screens or barriers near the landscaped beds can be effective. For long term wind protection, if space permits, it should be considered to plant an evergreen border of drought tolerant plants. Such a border will add to the total appearance of the property and be functional at the same time.

PRUNING

Plants really only require the shortening of the more vigorous branches during the first year after planting, just to maintain the plant's symmetrical appearance. After the second year, begin the following program of maintenance pruning. Spring flowering varieties of DECIDUOUS SHRUBS generally should be pruned after flowering, while summer flowering varieties generally should be pruned in early Spring. Most EVERGREEN SHRUBS should be pruned in June or July. EVERGREEN TREES are usually planted in open yards and normally do not need to be pruned. If needed, however, prune in June and do not remove more than one-third of the new growth. FORMAL HEDGES can be pruned several times during the season. SHADE TREES during the first or second year might need some of its lowest limbs removed to maintain the desired height of the tree's trunk. Most trees can have minor pruning done any time of the year. It is often common to see several days after your landscape is completed, that some branches on both your trees or shrub, will turn brown. This is likely due to either injury caused in the transportation of the plant or minor transplant shock. You should not worry and just prune back the damaged branches. New growth will quickly fill in the damaged area.



FERTILIZING

Fertilizer are used to supplement the soil's natural reservoir of nutrients and to make up for any possible deficiencies. Shrubs demand little fertilizer compared to the amount required by lawns or vegetables. Light applications at regular intervals greatly increase growth and stimulate optimum flower production.

Among other substances, commercial fertilizers contain three primary nutrients: nitrogen, phosphate, and potash (NPK). Fertilizers are labeled by percentages of these three nutrients. The percentages differ, but this order is always the same. The percentage variations reveal two important things. First, they tell how much of a nutrient is in the fertilizer, by weight. For example; in a 5-pound box of 5-10-10 fertilizer, 5 percent of that 5 pounds is nitrogen, 10 percent is phosphate, and 10 percent is potash. Furthermore, 5 pounds of 5-10-10 contains only half as much nitrogen as 5 pounds of a 10-12-16 box of fertilizer.

The three numbers that we use, tells the relative proportions of the three major nutrients (NPK). Ratios of 2-1-1 (like 10-5-5 or 20-10-10) indicate that there is twice as much nitrogen as phosphate and potash, and 1-2-2 ratios (like 5-10-10) indicate the opposite.

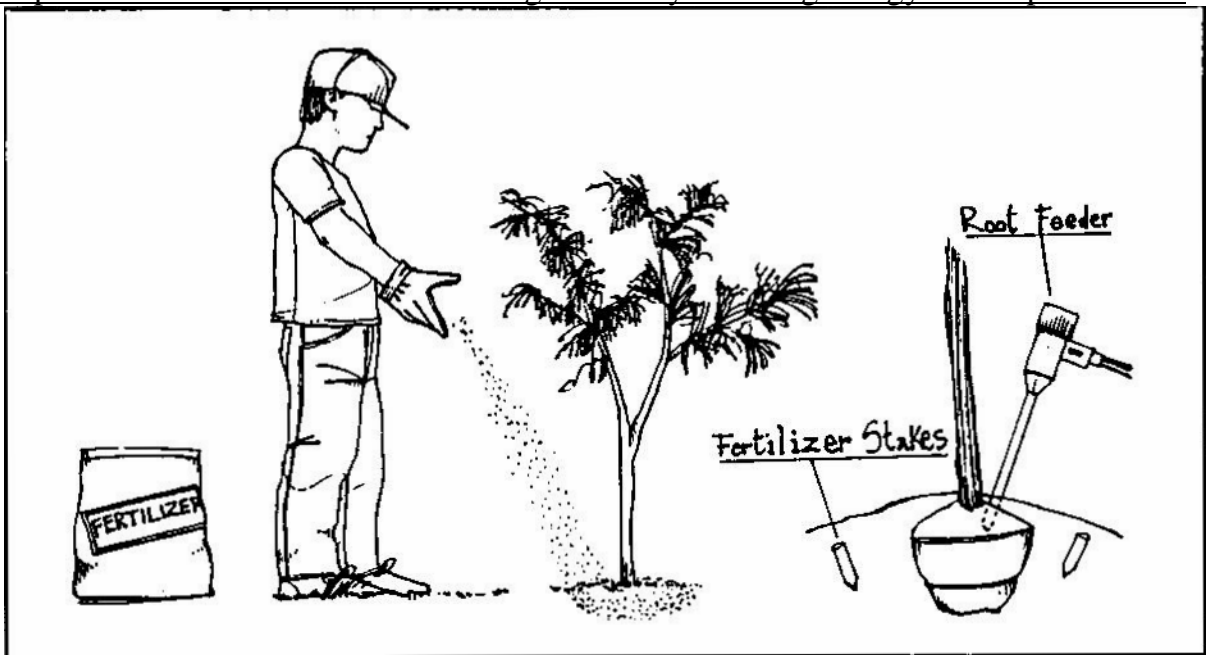
While plants need all of these nutrients, each nutrient tends to stimulate different types of growth. Plants respond to a fertilizer according to the proportionate amounts of nutrients in it. Nitrogen tends to stimulate leafy growth, while phosphate and potash tend to further flowering, fruiting, and root growth. Ratios of 2-1-1 are normally used to promote leafing when plants are growing actively. Ratios of 1-2-1 or 1-2-2 are best used when plants are forming flower buds or growing new roots.

WHEN TO FERTILIZE

Shrubs need nitrogen the most when they are growing rapidly. For this reason, the heaviest application should be made just before or during rapid spring growth. Fertilizer (low in nitrogen) can also be applied in the fall as well, after top growth has stopped. This is done because root growth, which continues into the winter and resumes in the spring, is stimulated by this practice. Heavy applications of nitrogen should NOT be made in late summer or fall because this will stimulate new growth which will not have enough time to harden off by winter.

Since nitrogen stimulates leaf growth, it should be used in moderation on any shrub that you must prune regularly. Extra nitrogen on a hedge will only mean more frequent shearing for you.

If you want to promote flower production on trees and shrubs that bloom in early spring, fertilize before the buds set in late summer. The fertilizer should have a low proportion of nitrogen (such as the 1-2-1 or 1-2-2 ratios), since too much nitrogen can keep some trees and shrubs from setting flower by diverting energy to leaf production.



TYPES OF FERTILIZERS

There are three basic types of fertilizers: dry, liquid, and organic. Dry fertilizers are best used in the granular, molded stakes, cartridges, or pelletized form. Dry fertilizers are the easiest to use. Granular or pellets can be scattered on the ground and watered in, cultivated into the soil, or just buried deep in the root zone. Root stakes, which is just molded dry fertilizer, are also easy to use. They can be hammered into the soil circulating the trunk of the tree or shrub (more detailed information can be found on the package of the fertilizer stakes). Fertilizer cartridges can be use in the Ross Root Feed. This is the best way to feed your trees.

LIQUID FERTILIZERS

Liquid fertilizer must be dissolved in water before use. You will mix the liquid fertilizer in a watering can and apply it directly to the soil around the plant. Liquid fertilizers can also be used for foliar feeding, a method in which a dilute fertilizer solution is sprayed directly onto the leaves. Foliage feeding is useful when very quick results are desired. Because it is time consuming and its effects are temporary, this method is only used on a curative basis and not as a regular method.

ORGANIC FERTILIZERS

Organic fertilizers are derived from plant or animal source. Manure, compost, seed meal, and fish meal, are all organic. Fish emulsion is a liquid organic fertilizer; most of the rest are sold in a dry form. Most of them are a bit expensive, but they last for a long time in the soil, they are organic, and the nonnutrient part of the fertilizer improves soil structure.

AZALEAS AND RHODODENDRONS

When fertilizing your azaleas and rhodies it is best to apply the fertilizer right after the plant is blooming. Do not mix the fertilizer into the soil. Always sow on top using desired rates (1-2 handfuls for a 12-18 inch plant, more for a larger and less for a smaller plant). 10-6-4 (50% organic) is excellent for azaleas and rhodies in our area. Liquid fertilizers are very good too. However, make sure the ground is wet before applying the liquid mixture so it will pass on to the root system. When the soil is dry, liquid fertilizer will run off leaving none for the roots to absorb.

Young azaleas and rhodies need to be pruned fairly frequently so the top growth does not exceed the root system. Pruning also provides stimulation for root development.

Azaleas

Take at least 1 inch off last year's growth.

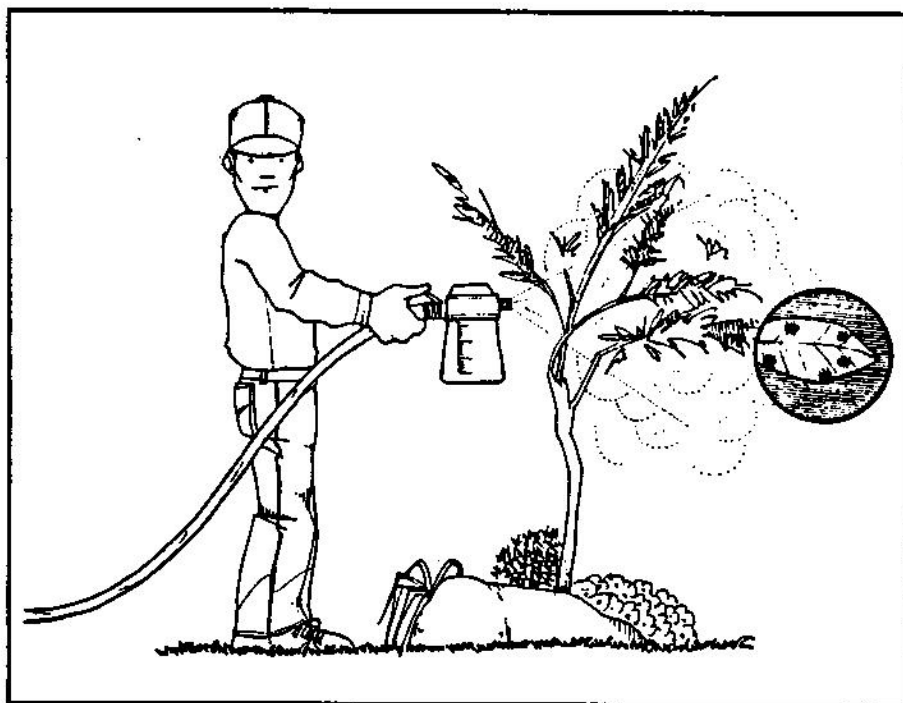
Rhodies Prune back to where the growth originated if pruning a leggy plant.(this point on the plant is called a node).

Pruning in most cases will encourage multiple new stem growth from the point where it was cut. This keeps the plant bushy and prevents legginess. Pruning should be done right after blooming, NOT later than early to mid July for azaleas and NOT later than early July for rhodies. Later in both cases could affect the bud set for the next year.

A misconception by the home gardener is that pruning will hurt the plant. If you fall into this category, draw upon your confidence and work your properly cleaned pair of pruners. You'll be impressed with the results.

PEST CONTROL

There are both good and bad insects found in your landscape. It is important to be able to identify which one is which. This can only be done properly by spending time studying entomology (the study of insects). For most home gardener this is quite impossible. To make this problem easier, we have included an (Ornamental Pest Control Calendar), to help you to identify the pest. Just observe the pest carefully, and check it with the Ornamental Pest Control Calendar's photo and description. If you can identify the pest, you can choose one of the recommended controls. If you can not



properly identify the pest, you can have it identified by you local garden center (where you can buy the proper pesticide), or your county extension agent, or call us at **NORTHAMPTON GARDENS**. Remember, identifying the pest is the first step in controlling the problem. If you do need to use a pesticide, please, **READ THE LABEL**.

SUMMARY

Gardening can be a very relaxing, healthy, and fun with minimum work. Since you have invested money on your landscape you should try to enjoy all the pleasure that your landscape can offer you and your family. Please do not be afraid to write or call **NORTHAMPTON GARDENS**, or your County Extension Agent, or any college or gardening club should some question arise. You will find that people associated with gardening are very happy to talk to somebody in need of horticultural advice.