

# Maintenance Manual



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## **Maintenance Manual**

**Jim Puffer Landscape Inc.** has produced the following maintenance suggestions in hopes of aiding our customer's efforts in maintaining a beautiful landscape throughout the year.

### **Aeration:**

Aeration of the lawn is the addition of air to the soil. The presence of air in the soil is essential to good plant growth. Most soils in our area compose of a clay content which makes soils become highly compacted. Aeration can relieve compaction as well as bring organic materials to the top grass surface. New sodded landscapes rarely need Aeration.

### **Fertilization:**

**Grass:** The purpose of fertilization is to initiate biological reproduction. We recommend that this be done monthly starting with March and ending in September. A winterizer should be used in October. Most Fertilizers have three numbers on the bag, The first number represents Nitrogen, the second number represents Phosphoric Acid, and the third number represents Pot Ash. We recommend that in March you use a high amount in Nitrogen and quick releasing fertilizer like 20-4-10. Throughout the rest of the year use a slow release fertilizer like 23-3-16. By doing so the fertilizer will last longer and your grass will stay greener longer. Also, from time to time use a fertilizer that has 3% iron in it. The Iron helps the grass to create a darker greener look. Be careful when using Iron, because it can stain concrete products. When using Iron, make sure that Iron Pellets are swept up off of any concrete product. Fertilization is best accomplished by using a broadcaster spreader. Be sure to water grass heavily after fertilizer is applied.

**Plants/Perennials and Ground Covers:** Like grass, we recommend that this also be done monthly starting in March and ending by August 1st. Applications after August 1st can cause succulent (fleshy) growth too late into the summer, making the plant more likely to receive injuries due to harsh winter weather. We recommend you use a low analysis fertilizer like 8-8-8 or 12-12-12. A fertilizer with higher amounts of Nitrogen will burn plant materials. The fertilizer should not be allowed to touch the shrub foliage, or foliage burn may result. If the soil is dry, the fertilizer can be worked into the soil by using a hoe. If the weather has not been abnormally dry, the fertilizer can be left untilled since the next rainfall or sprinkler sequence will desolate it into the soil.

## **Herbicides:**

**Plant/Perennials and Ground Covers:** Herbicides are used in planter garden areas to prevent weeds from germinating. Most pre-emergent herbicides will not kill existing weeds but will only prevent them. Herbicides or Pre-emergent should be applied monthly into garden planter beds by using a small hand broad caster. Make sure that the pellets are not allowed to touch the foliage of the plant. We recommend using either "Prevent" or "Trephlon" or "Ron Star."

## **Mulching:**

We recommend that your flower beds be heavily mulched with either Soil Pep or Shredded Bark. Mulches are used to conserve soil moisture and to keep weeds to a minimum. Mulches are effective in preventing weed seeds from germinating. All landscaped yards should receive additional mulch products each spring.

## **Perennials Flowers:**

A perennial flower is one that does not die at the end of its first growing season. While it may become dormant as cold weather approaches, it lives to bloom again the following year. Most perennials live at least 3 to 4 years, yet many live for much longer. Nearly all spring flowers are perennials. Some grow from bulbs; other do not. Many special autumn flowers are also perennials. In terms of maintenance, it is important to cut back perennials at the end of the year. Most perennials should be cut completely to the ground once the plant has exhausted all or most life signs. Yet, do not confuse perennials with flowering shrubs. If a flowering shrub is cut back significantly, it could kill the plant. During spring, summer, and fall months perennials old blooms will be necessary to cut off to stimulate additional growth and flowers. Therefore when you notice that a flower is finished blooming or soon to finish, simply cut the lateral stem back at least 5 to 7 leaves (3-4")

## **Pruning Trees and Plants:**

Pruning is done to control the size of the plant, improve the appearance of the plant or tree by removal of dead limbs or old wood, improve the health of the plant by the removal of disease, weakened or injured parts, or train the plant or tree to grow into a desired shape, such as with topiary pruning or espalier pruning.

## **Sprinkler System Winterization:**

All residential and many commercial sprinkler systems that are installed by Jim Puffer landscape typically have polyethylene pipe ran in both that mainlines and lateral lines of the sprinkler system. This polyethylene pipe is a non-freeze pipe

that will expand if water freezes with in the walls; therefore there is no need to drain the main lines or lateral line. If the main lines or lateral lines are PVC (Poly Vinyl Chloride), they must be blown out with an air compressor each year.

To winterize your automatic sprinkler system, first shut off the main source of water. If your system is culinary water, this can be accomplished by using what is known as a 5' stop and waste key. Simply locate the sleeve and install the key down into it. Place the key on the open slot at the top of the valve. Turn the key counter clockwise 90 degrees. The valve is now shut off. Frequently when this is done you will notice a gushing sound of water interring into the pipe. This is normal if the valve was turned the complete 90 degrees. The reason for this sound is that the stop and waste valve once turned off drains all water within the mainline pipe. You might also see some water drain out the top of the sleeve. This is also normal so long that is does not continue for more than a few seconds.

If your sprinkler system is on secondary irrigation water form Pine View Water or Weber Basin Water, your water is typically turned off by one off those companies. It is still important however, to go out to the main shut off valve and turn the valve off. This can be accomplished by turning the gate valve clock wise or until you can no longer turn the valve.

The filter should also be cleaned at this time. The filter and mainline gate valve are usually in the same box. Once the water or valves have been completely shut off, it is now necessary to drain the manifolds. A manifold can be best defined as a group of automatic valves. The manifolds or automatic valves are always enclosed in green plastic boxes. Most homes have at least two manifold locations, one in the front yard and one in the back. Once the manifold boxes have been found, simply open the lid and turn open the red gas cock at the end of the manifold. By doing this, you have now drained the manifold and have reduced the chance of the automatic black plastic valves from freezing and breaking. The last thing you have to do to winterize your automatic system is to unplug the controller or time clock. Your sprinkler irrigation system is now winterized.

### **Watering the Lawn:**

Turf grasses are among the first plants to show the effects of lack of water, since they are naturally shallow rooted as compared to shrubs and trees. The grounds keeper should encourage deep root growth by watering so that moisture penetrates to a depth of 8 to 12 inches into the soil. Failure to apply enough water so that it filters deeply into the soil promotes shallow root growth. Such shallow root systems can be severely injured during hot, dry summer weather. Infrequent, deep watering is m much preferable to daily, shallow watering. Therefore, we suggest that you water on an every other day basis and for longer periods of time.

### **Weed and Feed:**

**Grass:** Weed and Feed products are used to eliminate undesirable weeds from grass areas. This should only be applied in the spring or early summer or when temperatures are lower than 80 degrees. When Weed and Feed products are applied in hotter conditions the Weed and Feed materials tend to burn the grass and can cause large damage. Weed and Feed products should be applied by using a broadcaster spreader. Once the materials have been applied, it is necessary to wait 24 hours before applying water. However, be sure to water immediately after 24 hours. If you wait more than 24 hours, burning can and will result.

## Monthly Preparations

### JANUARY

**Pest Control:** Watch and spray for insect infestation. Aphids, mealy bugs, mites or soil borne insects.

**Winter Color in the Home:** This is the month to force spring flowering branches for indoor color. Select flowering home plants that are in blooming to bring color into the home.

**Gift Plant Care:** After gifts plants have stopped blooming, throw them out or remove the seed head or old blossoms, continue watering the plant until the top dries down.

### FEBRUARY

**Vegetables:** Plan your garden. Make a list of seeds that you need.

**Pest Control:** Check your house for termites, ant's cockroaches, silverfish, or pantry pests.

**Pruning:** This month and next, do all the pruning of deciduous fruit, shade trees, and roses. If you haven't completed your fall jobs, clean up your garden tools, repair or replace the broken handles.

**Feeding:** If your soil is clay and you have trees that need fertilizing, do so later in the month so that the rain and snow will take the fertilizer into the root zone of your plants.

### MARCH

**Vegetables:** Early in the month plant slow-growing plants such as peppers, eggplants, and many flowers. Between the 15th and 25th try your hand at growing your own tomato plants if you have a good south window or a set-up to give artificial light for 12 or 14 hours per day. Purchase seeds while the supply is good. Plant raspberry, strawberry asparagus and rhubarb plants if soil is dry enough to work.

**Planting for permanence:** Purchase bare rooted trees and plant them the latter part of month. Be sure to use a root stimulator. Just about all plants benefit at this time from a dose of complete fertilizer.

**Lawn diseases:** Snow mold may show up on your lawn, if so, spray with an approved fungicide.

## **APRIL**

**Lawns:** Apply the first lawn fertilizer early in the month. Power rake your lawn while the weather is cool. If the weather warms to 80 or 85 degrees, spray or treat your lawn for weed seedlings, if weather permits plant lawn seed now.

**Vegetables:** Plant peas, spinach, lettuce and onions if the soil is workable.

**Gift Plants:** Care for your Easter lily properly. When weather has moderated it can be planted outdoors to bloom for a number of years.

**Pest and disease control:** Spray fruit and shade trees before they bloom. Apply dormant spray oil and sulfur combination. Spray them at the petal fall stage. Control stone fruit from peach borers.

## **MAY**

**Vegetables:** Plant beans, sweet corn, summer squash, potatoes, Swiss chard. After about May 10 or 15th plant tomatoes eggplants, all vine crops, as well as bedding flower plants outdoors.

**Lawns:** Crabgrass control is still effective in the first few days of the month. Feed your lawn about Memorial Day weekend.

**Pest and Disease Control:** Spray apples and pears about 7 days after petal fall and every two weeks until late August for Codling moth. Put out slug and snail bait. Spray ash trees for lilac borers and birch trees for bronze birch borer about May 15th, June 15th and July 15th. Check peach trees for peach borers. If Cooley Spruce gall aphid was a problem last year, spray as buds start breaking. If only a few galls are present and the tree is small, pick the galls off and remove them from yard.

**Pruning:** Prune conifer (Spruce, Pine and Fir) as the new growth starts. Prune your roses if new growth starts. Prune your roses if new growth is starting to show. New growth coming fast on many plants will turn out bushier if pinched back.

**Planting for Performance:** Early in month is deadline for planting bare rooted plants. If plants are in leaf it is better to plant container grown woody plants. Divide chrysanthemums and plant single plants.

## **JUNE**

**Vegetables:** Plant vegetables for fall harvest such as beans, corn, lettuce, beets, cauliflower, broccoli, etc.

**Lawns:** Water lawns thoroughly but not often. Mow high, preferably 2 inches or higher for most lawns.

**Pest and Disease Control:** Watch for grasshoppers and spray while the young ones are in their hatching areas. Spray peaches about June 10th for peach twig borer. Make second spray for lilac borer in ash and bronze birch borer in birch trees. Spray Cherry trees to prevent wormy cherries. Spray roses this month for aphids and mildew. Watch for Mexican bean beetles on beans. Colorado potato beetle on potatoes. Tobacco budworm on petunias and geraniums.

## **JULY**

**Lawns:** Watch for pill bugs or White grubs in your lawn. Commercial fertilizer may be applied.

**Pest and Disease Control:** Spray last time this season to control lilac borers or bonze birch borers. Control earwigs, cherry or pear slugs. Curly top may show up in your tomato petunia bed. Keep tomatoes uniformly watered to reduce blossom-end rot. Continue spraying apples and pears every two weeks for codling moth.

## **AUGUST**

**Vegetables:** Prune raspberry canes that have borne a crop of fruit and remove them from your yard. Thin small, spindly raspberry canes so that the stronger canes are spaced about 6 inches apart.

**Lawns:** About August 15th is the best time to plant new lawns

**Pest and Disease Control:** Spray peaches the first part of the month to control twig borer. Keep on the alert for tobacco budworm husk fly in walnuts and peaches by spraying early August and again about ten days later. Malathion will control the adult of this pest.

## **SEPTEMBER**



**Lawns:** Early in the month fertilize your lawn. This is the most important application of the year.

**Pest and Disease Control:** Immediately after peach harvest, treat all fruit trees (except apples and pears) for peach borers with P.D.B. (Paradichlorobenzene) crystals.

**Planting with performance:** Divide peonies this month. Pears, peaches and some apples will be harvested this month. Bring houseplants inside that have been outdoors during the summer. Don't wait until spring to plant that tree, shrub or vine, now is just as good if not better than spring.

**Bulbs:** Purchase spring flowering bulbs now for best selection. Keep them in a cool, dark, spot until planting when weather cools.

## **OCTOBER**

**Lawn:** Continue mowing lawn if it is still growing. Fertilize lawn again if it is thin or looks starved.

**Winterizing the yard:** Shut off all outside water and drain pipe and hoses. Place all pesticides in a locked cabinet where they won't freeze. Prune birch, walnut and maple trees after the leaves fall. Tie arborvitae and junipers so snow will not misshape them. Mulch around newly planted shrubs and trees with organic mulch.

**Bulbs:** Purchase and plant spring flowering bulbs. Start forcing spring flowering bulbs.

## **NOVEMBER**

**Vegetables:** Plow or spade ground for next year's crop before ground freezes. Before tilling soil apply fertilizer. Dig or mulch carrots, table beets, parsnips, and other hardy vegetables that are still in the garden.

**Bulbs:** Purchase amaryllis bulbs and start forcing them.

## **DECEMBER**

**Gift Plant Care:** Purchase Christmas plants early while supply is good. Good Christmas flowering plants include poinsettia, azalea, chrysanthemum, cyclamen, Christmas cactus, Christmas pepper or cherry, forced spring flowering

bulbs, amaryllis. Fertilize flowering plants every other week while they are in bloom. Nonflowering plants are somewhat dormant and require fertilizer only once a month during cold weather.

**Christmas Tree Care:** Before bringing the tree into the house, saw off the bottom few inches of trunk and put in water. This helps them live longer. Live trees need water too- don't let them dry up and only allow one week in the house before planting outside. Purchase Christmas lights and ornaments to brighten the dreary winter.

## **WEED CONTROL**

The old saying “One year’s weeds - seven years seed” contains more truth than myth. Certain plants are weeds because they are so well adapted to our garden conditions. Weed seeds lay dormant for years and will germinate when conditions are right. Weeds are actually our most damaging pests in terms of reducing the yields in our gardens. Insects or diseases may destroy individual plants or even an entire variety but weeds will take over an entire garden. Control weeds by utilizing all of the methods listed below.

### **Cultivation**

Remove young weeds with a sharp push or gliding hoe. Cut them below the soil level. Perennial weeds should be removed from the soil to prevent them from re-rooting and growing again. If weeds have started to form seeds, destroy them rather than return them to the garden.

### **Mulching**

Mulches will control most annual weeds. Organic mulches include straw, wood shavings, pine needles, bark or grass clippings. Do not send these valuable resources to the landfill. Let them save you work as they are recycled. They will break down and improve your soil. Grass clippings should be spread in layers about 1/2 inches thick. This allows them to dry without developing foul smells. Inorganic mulches are not biodegradable but their use is justified in some cases. Black and clear plastic, foil, or other materials will suppress the weed growth. Other benefits include enhanced maturity, production, and moisture conservation. A heavy weed cloth is preferred over black plastic for trees and shrubs.

### **Close Spacing**

Mother Nature does not like bare ground! If you don’t grow something, she will. Weed seeds will not usually germinate after the soil is covered by desirable plants. Plan and plant to help control your weeds.

### **Herbicides**

Herbicide use in the home garden is often very risky. Plants can be easily damaged by using the wrong product or wrong application methods. They should always be used according to label directions and only for crops listed on the label. Glyphosate (Roundup) can be used on deep rooted perennial weeds to help win the battle. As with all chemicals, **BE SURE TO READ AND FOLLOW ALL LABEL DIRECTIONS.**

Don't be your own worst enemy. Keep top soils and manures infested with weed seeds out of your garden. Avoid irrigating with water containing weed seeds and don't ever let weeds get the upper hand.

One of the most serious problems in the landscape is misuse of herbicides. Herbicides are used by professionals and homeowners to save many hours of tedious and often expensive labor but herbicides are plant killers and may cause serious and permanent damage to desirable plants if misused. Herbicides are not all the same nor are they used for the same purpose. Avoid injury to desirable plants by reading and following all label directions. Spray only when temperatures are below 85 degrees F and there is no wind. Keep a separate sprayer for herbicides and do not use it for other pesticides. Use a low pressure and coarse spray droplets directed at the target weeds. Preemergent herbicides work well to reduce weeding.

**Home owners should never use long term vegetation control chemicals** (soil sterilants). These chemicals may remain in the soil for many years and may damage trees and other plants located more than 100 feet away from where the herbicide is applied.

## **SHRUBS**

### **Pruning Shrubs**

Many of our laurels, euonyuaus, privots, and other shrubs were damaged by the cold temperatures we had in December. It has been difficult to know which branches were dead and which ones were going to recover and produce new leaves. We encouraged home owners to hold off pruning until the spring growth comes out and they could tell for certain which areas were still alive. By now, most of the shrubs should have started to leaf out and some pruning should be done to remove dead or damaged branches. Some may have died clear back and will need to be cut back to the ground and cut the shrub resprout from its crown. Unfortunately, some of the shrubs will never recover and will need to be replaced.

When cutting out a stem, always try to cut to a side branch that is about one-third the diameter of the stem you are removing. When stems are stubbed out at a location where there is no leaf area, the stem will normally die back tot he nearest side branch that is producing enough leaf sugars to maintain the stem.

New shoots can be trained to grow in a desired direction by pruning just above a bud pointing in that direction.

The basic rule of pruning is to thin and then shape. Thinning allows room for the growth of side branches on remaining limbs. It also allows sunlight to penetrate further into the shrub canopy and thus encourages new young growth and leaf production through more of the plant structure. When we thin we normally remove older, taller stems first. Don't try to cut out all the old stems in one year. Take out about one-third each year. Even hedged shrubs should be thinned before they are sheared. Continual shearing without thinning will produce a dense, thin layer of foliage on the shrub surface with totally bare branches throughout the interior. Hedges should also be trained so that the base of the plant is at least as wide as the top. This eliminates the problem of the base being shaded out.

### **Thinning Shrubs**

When pruning forsythia and lilacs, wait until after their blooms have faded. Then prune out the larger stems clear to the ground. This maintains a young vigorous shrub with leaves and blossoms clear to the ground. I see many lilac shrubs that have been let go and have developed into small trees with bare lower limbs and an umbrella of foliage. Of course there is nothing wrong with this shape if it's what you want. However, you should be aware that the lilac borer attacks and

often kills lilac branches that are over an inch and a half in diameter. If you keep the large stems pruned out, you won't have problems with this pest.

## **Using Less Water on your Lawn**

Getting better water utilization out of your lawn generally involves three things: Irrigating deeply, mowing high, and fertilizing moderately.

To get an extensive deep root system it's necessary to allow water to reach a soil depth of eight inches when irrigating your lawn. If your lawn is on sandy soil, you may need to soak as deep as 11 inches down. Roots won't explore and become established in a dry soil.

Lawn grasses are healthier, use water more efficiently, and have a deeper root system if leaf blades are maintained at a two and a half to three inch height. Grass cut excessively short loses a significant amount of water through evaporation from the soil surface and does not have the leaf area needed to maintain an extensive root system.

Applying moderate amounts of nitrogen fertilizer encourages vegetative growth and helps to keep the lawn a dark green color. However, excessive levels of fertilization will stimulate the lawn to growth beyond what's required to maintain its health. This extra growth will also use extra water and necessitate more frequent mowing.