

***One Earth Landscape
Maintenance Manual***

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TABLE OF CONTENTS

<i>SEASONAL MAINTENANCE TO DO LIST</i>	3,4
<i>ADJUSTMENT OF IRRIGATION, POTENTIAL PROBLEMS</i>	5,6
<i>IRRIGATION BI-WEEKLY INSPECTIONS, IRRIGATION BREAKS</i>	6,7
<i>POP-UP RISER DIAGRAM</i>	7
<i>SPRAY HEAD ADJUSTMENT, VACUUM BREAKER INSULATION WINTER IRRIGATION AND MAINTENANCE</i>	7
<i>SEASONAL PLANTING BED CARE</i>	8,9
<i>ASPEN TREE CONCERNS, SCALE, BORER, APHIDS AND OTHER LANDSCAPE CONSTRAINTS</i>	9
<i>TURF REPAIR AND SEEDING, THIN TURF</i>	10
<i>TIME TO SEED, SOD REPAIRS, AERATION AND THATCH</i>	10,11
<i>MOWING AND MOWING SCHEDULES, TALL GRASS ISSUES</i>	11,12
<i>MOWER MAINTENANCE, HERBICIDE APPLICATION</i>	12,13
<i>ROUND UP, TREE & SHRUB FERTILIZATION, PRUNING AND MULCH</i>	13,14
<i>STRUCTURAL PRUNING, VINES, WEEKLY CLEAN UP</i>	15,16
<i>PRUNING BASICS AND TERMS DIAGRAM</i>	15,16
<i>TOOLS REQUIRED AND OUR ADDRESS</i>	16

Seasonal Maintenance To Do List

Spring

- *Charge up irrigation system*
- *Clean leaves from planting beds*
- *Cut perennial stalks to 2" above soil*
- *Spread compost over roots 1-2" deep*
- *Start weed control by pulling weeds, hand spray weeds in cobble mulch*
- *Aerate soil once a year unless there is turf thinness in play/ traffic areas then perhaps twice a year*
- *Weed and feed soil if compost is not used*
- *Prune dead wood from shrubs*
- *Check irrigation zones for problems, use the rain switch or percentage aspect of clock to adjust for natural conditions*
- *Replace 12 volt battery in irrigation clock*

Summer

- *Add useful insects to the garden such as praying mantis, ladybugs and earthworms*
- *Deadhead flowers as soon as they begin to fade. Shrubs, perennials and annuals will bloom more if they are deadheaded!!*
- *Watch for aphids on any plants with succulent stems, especially aspen and columbine. Use insecticide soap if they are causing damage. Follow package instructions.*
- *Look for scale on aspens and scrape them off or plan to spray in winter with dormant oil*
- *Watch for dry spots in the yard and planting areas by looking for wilted leaves, indicators of pests or poor irrigation coverage, and adjust if needed*
- *Report poor irrigation to One Earth Landscape, we can help!*
- *Check mower blades for sharpness, plan to sharpen at least twice a season, more if you are hitting a lot of rocks*
- *Check irrigation zones for problems by running test portion of your irrigation clock*
- *Fertilize lawn with weed and feed if needed to control broadleaf weeds*
- *Monitor irrigation need by inspecting moisture content with hands under the mulch or a portable moisture meter*
- *Adjust water percentage function on irrigation clock to conserve water during dry periods*

Fall

- *Plant spring flowering bulbs during the month of October*
- *Check irrigation for problems*
- *Reduce irrigation to let turf know winter is approaching sometime in mid September*
- *Remove fallen leaves from turf areas*
- *Place leaves 3-4" deep over perennials, mix in with periwinkle and other ground covers to help them over winter*
- *Winterize lawn with winter fertilizer*
- *Clean fallen leaves yearly from rock mulch while they are still in one piece to prevent them from becoming future fertile soil for weeds between the cobble*
- *Winterize irrigation system mid October*
- *Hand water trees, shrubs and perennials as needed. Pay special attention to dry soil October through December*
- *Fluff up wood mulch to allow air between pieces of mulch*

Winter

- *Apply linseed oil to tool handles, sharpen and oil shovels, service mowers and other lawn tools*
- *Look for special deals at stores on last years power tools*
- *Buy and read gardening magazines and books*
- *Force bulbs in the refrigerator for holiday cheer*
- *Make a sun room for a spring garden*
- *Prune fruit trees, water everything that needs it*
- *Cut back ornamental grasses so there stalks are 6-8" high in February*
- *Every two years or as needed augment wood mulch thickness around trees to a depth of 3-4"*

Irrigation System

Setting Your Irrigation

The quantity of water a zone uses per minute should be determined, in order to set the irrigation. To determine the amount of water the system uses, do the following: When the irrigation system is set to start, place cups with straight sides in three different locations in each zone. Start the zone and run it for 15 minutes. Measure the amount of water in the vessels and determine an average depth. This measurement indicates the rate water is dispersed to the ground by that particular system, in that particular zone, for 15 minutes. This information will allow you to judge (relatively) each zones watering time, based on temperature, sun, wind exposure and season.

Knowing the rate water is placed on the lawn or in the planting beds will allow the irrigation system to be set in a logical, efficient method. It is important to determine rates of dispersal when they typically run. (Water pressure varies depending on when the water is used). The rate of application of water for each zone should be labeled in the irrigation control box for easy reference. Use the irrigation clock for water and \$ savings.

You can reduce cost as well as your water consumption if you check the soil in your yard or garden once every one or two weeks. By checking the soil for moisture in a variety of places you can judge when water time, on the clock, can be adjusted. The clocks we use can be adjusted for automatic watering on a percentage basis. These clocks can also be turned off without losing

the automatic programming. In times of good natural rainfall when there is plenty of moisture in the soil, turn the system off until the lack of moisture requires additional irrigating. The irrigation system, (to be clever) should be adjusted on a bi-weekly basis. You can use the percentage function to do it in less than ten seconds.

Replace the 12 volt battery in the irrigation clock yearly to ensure the watering program is not interrupted by 110 volt DC power shortage. If the battery is not good and power is lost, there is risk of plant loss. We replace batteries with our spring irrigation start-up.

Potential Problem Areas for Irrigation

All new plants in the landscape need more water in their first couple of years. Less water is required after the plant has established its root system which should equal its branching size, something it lacks in the first couple of years. Water and adjust the irrigation system so the soil is damp but not overly saturated. It can be damp or moist in the first couple of years but never constantly wet. To check for too much saturation, squeeze a ball of soil in your fist. If the compressed soil keeps its shape after releasing your grip, it is too wet. Damp would be if the compressed soil brakes down into three to five clumps. The ideal soil moisture level feels somewhat like a damp, wrung out sponge.

Watch where slopes face south or to the northwest and adjust watering depending on the needs of those

locations. The wind blowing from the northwest dries as much as the sun on a south-facing slope. Both locations receive more abuse from the sun and wind.

Irrigation Bi-Weekly Inspections

Bi-weekly inspections keep you in tune with your irrigation system. Catching problems early is the best way to keep weeds out and plants happy. To inspect, locate the irrigation heads and set the clock to run through all zones for three minutes. Observe patterns of spray and adjust by turning the head or by adjusting the spray screw at the top of the head. Prune branches, which block the spray pattern or alternatively, move either the shrub or the head. Change the location or height of the heads which conflict with walks, buildings or create dry spots in the landscape, due to interference by plant or built form. Repair irrigation heads or nozzles as necessary to correct partial clogs.

Irrigation Breaks

Irrigation breaks should be repaired as soon as they are noticed. If unable to repair immediately, the broken zone should be turned off. The area affected should be watered with sprinkler and hose when needed. The zone can be turned off at the clock, check your manual for instructions.

Continually wet locations in the landscape indicate areas where water is draining to or a potential irrigation leak. If the soil is damp everywhere it just may be drainage from rain or over irrigation. If this is the case, cut back on the time watered and watch the wet location. If it remains wet, it may be a leak.

It is necessary to locate a slow or fast leak and repair it. This effort may result in preventing a major problem in the future. Trace the route the water is taking by bailing out the location of the water. Fresh water seeping into muddy water will be obvious. Follow the route the fresh water takes until you find the pipe or head that is leaking. Dig gingerly to avoid cutting irrigation control wires or another pipe. Once the break has been found, the pipe size can be measured and the proper insert fitting can be used to patch the break. McGuckins Hardware and Sutherlands carry repair materials. CPS Distributors, another supplier, will probably be the most helpful with questions and specific responses. One Earth Landscape is also available.

Zones in which the head or line was repaired, should be cleared prior to starting that zone up. Clogged heads will occur after a repair if particles of soil or debris have contaminated the irrigation line. By removing the down stream nozzles from the pop up spray head or rotor heads and turning the zone on the lines will be flushed of debris. The nozzles can be re-inserted after flushing the line. If a nozzle is plugged anyway, inserting a very narrow screwdriver, wire or sewing needle in to the spray head nozzle when the water is running can clean them. Have fun.

If unable to repair the nozzle in this manner, the nozzle should be cleaned by removing it and the filter below it. Cleaning is simple by rinsing both with water. Those nozzles requiring this effort should remain off and the zone should be turned on again so additional debris may be purged from the line. Replace nozzles and turn the system on again to make sure nothing else is preventing a head from working properly. Sometimes

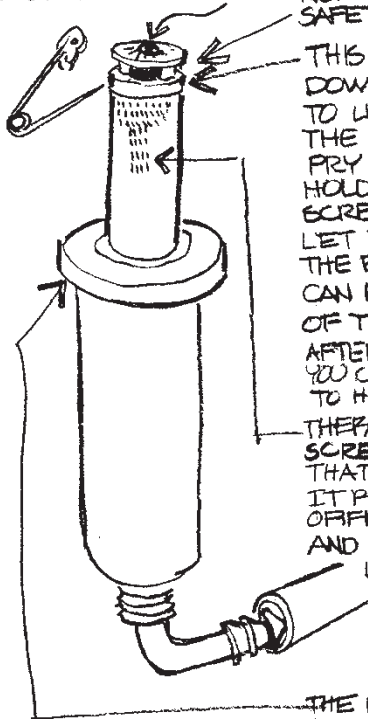
there is just no way to unplug the nozzle without deforming it in which case it will need to be replaced.

Spray Head Adjustment

The screws in the top of irrigation heads can usually adjust the amount of water or the distance the water travels. It is important not to adjust a head to a fine spray as in this form, the water is likely to blow away. Droplets, rather than a mist, have a better chance of reaching their intended destination, the soil. Turning the screw clockwise reduces the amount of water and the radius. The opposite direction increases the quantity of water and the radius. Turn the screw carefully to judge if it is opened all the way up or closed all the way down.

THE SCREW IN THE TIP OF THE NOZZLE REGULATES THE AMOUNT OF SPRAY THAT COMES OUT AND SLIGHTLY REDUCES RADIUS

THE TOP OF THE NOZZLE HAS INFORMATION RE: SPRAY PATTERN AND RADIUS. THE NOZZLE IS REPLACEABLE IF IT CAN NOT BE CLEANED WITH A SAFETY PIN



THIS UNSCREWS, ITS HELD DOWN BY A SPRING SO TO LIFT IT UP TO UNSCREW THE NOZZLE LIFT IT UP, PRY THE NOZZLE UP AND HOLD IT IN ONE HAND AND UNSCREW IT WITH THE OTHER LET THE RISER BACK INTO THE BODY, THE NEW NOZZLE CAN BE THREADED A COUPLE OF TURNS TO REPLACE IT, AFTER IT HAS BEEN THREADED YOU CAN PULL THE RISER UP TO HAND TIGHTEN

THERE IS A WHITE PLASTIC SCREEN UNDER THE NOZZLE THAT TRAPS DIRT BEFORE IT REACHES THE NOZZLE ORIFICE. IT CAN BE REMOVED AND RINSED IF THE HEAD LOSES PERFORMANCE

THE RISER ASSEMBLY SCREWS INTO THE BODY

IF THE RISER STICKS UP OR DOWN YOU CAN WORK IT IN EITHER DIRECTION TO FREE IT UP.

RAINBIRD 1200 POP-UP

Vacuum Breaker Insulation

In mid October the pressure vacuum breaker should be wrapped in fiberglass insulation and covered with a plastic bag to prevent the insulation from getting wet. This will allow the system to be on until mid to late November which will allow for easy watering of plants during this month especially if the fall is hot and dry. The system can also be turned on in mid March to allow for selective watering to augment natural rainfall.

Fall Irrigation Maintenance

Towards the end of October all irrigation should be winterized by turning the water off below the ground or in the house. Irrigation zones should be blown out with compressed air and the vacuum breaker drained down along to its connection to the water supply. Please contact us if you need help with this.

Winter Irrigation

Irrigation has to continue through the winter. If the irrigation is off, a hose works great. Plants that are not winter watered in the first two years have a high likely hood of failure. Vines, shrubs and trees need to be irrigated. Turf also requires watering, again watch out for sunny or wind exposed spots. On a three-week schedule, it is important to water. If the soil is wet when it is time to water, do not water. If the soil is damp, water. The amount of water used should be sufficient enough to saturate the top two to three inches of soil. Depending on how the water is absorbed, it may be necessary to water an area and move onto the next area. Keep watering each area until the soil is saturated as described above. Both turf and planting beds require winter watering.

Seasonal Planting Bed Care

Winter Care

Winter care of planting beds is fairly simple. Fallen leaves and stems of perennials can remain. If the somewhat unkempt appearance of the perennials bothers you, you can snip the stems 5-7" above the soil. The fallen leaf material will help moderate the temperature swings in the soil. The stems from the plants will also help trap and hold snow. The snow will then insulate the roots, held by the stems of the perennials. When this airy cap of snow melts, the additional slow release of water at the plants roots will benefit them. This is the best time of year to prune most types of trees. Remove dead and diseased branches, branches that are crossing and water shoots. Every two years or as needed, remove decomposed wood mulch from the base of trees and add new to a depth of 3-4". Do not pile mulch on the trunks. Also, increase the diameter of mulch around the tree to the drip line and increase the number of emitters. Winter water your plants!!! The first two years of a plants life requires additional moisture in the winter as well as through the growing season. Winter watering allows for a plants survival. The soil should be checked for moisture. If moisture is not present, water when the temperature is above freezing. Check for moisture every two weeks if no precipitation is received. Even after two years, add water to your plants as needed.

Spring Care

Spring care includes the clipping of last years stems of perennials, removal of leaves from the ground and the pulling of weeds, all of which should be done in March/April. Prune dead perennials stems about 2" above the soil. Remove leaves with a light leaf rake or blower. These leaves can be added to compost so their bulk will be broken down. If they are just left to rot in the garden, their bulk creates areas for insects to hide and lay eggs. Fertilize plants with compost. One to two inches of compost spread on top of soil surrounding plants (6-8" diameter for perennials, 2-4 ft diameter for shrubs and a diameter equal to the extension of the branches for trees) in early spring, will benefit them all. Remove dead wood from shrubs and trees. Avoid pruning shrubs that bloom in the spring. Chances are stems with blooms on them might be removed. It is better to prune spring flowering shrubs in the summer after the blooms are complete. Early spring is a good time of year to rejuvenate some shrubs especially the ones that freely sucker. Cut them down to 6 inches or remove obviously old and overgrown branches. Spirea and potentilla respond especially well to this treatment. Russian sage and bluemist spirea should be cut down to a height of 8" every year as they bloom on new stems. Late spring is the ideal time to add beneficial insects into the garden such as ladybugs, praying mantis and earthworms which are well worth their cost. Follow package directions concerning temperature requirements. Pull weeds as soon as they begin to appear.

Summer Care

Plants should be inspected and tended to on a weekly to bi-weekly basis. Remove dead flower heads and weed beds manually. Make sure to deadhead lilacs after they are done blooming, however, don't prune them after July 1. Inspect the soil to see if it holds moisture. Look for aphids or plants that look unhealthy and inspect any you find to determine their problem. Cut brown spots off from large leafed plants with sharp garden scissors.

Fall Care

Place leaves over plants in the garden to bed them down for the winter. Cut tall perennials if you wish, to a height of 7" above the soil. Long stems can be left to hold winter snow. Remove leaves and pine needles from turf areas.

Plant / Tree Maintenance

Aspens

Aspens should be inspected on a monthly basis for both Borer's and Scale. For borers, look along the trunk for holes drilled 1/8" in diameter into the bark. Also look for sawdust at the base of trees. Solving this problem is best handled by a tree surgeon.

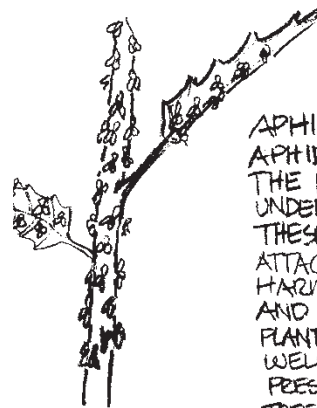
In color, scale on the trunk of an Aspen looks like cigarette ashes. In texture, on a minute scale, it feels like oysters in groups. Scale does not move once it is mature. It can be removed by scraping it off the trunk and branches. Dormant oil can also be sprayed on the scale in winter when both plant and insects are inactive. Dormant oils are available at any lawn or garden center.

Perennials

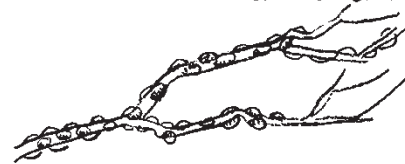
All perennials should be deadheaded after blooming. Deadheading refers to the removal of spent flowers. This is also true for any blooming shrubs. The removal of dead flowers insures more and better blooms in the following year. Deadheading in the current year also creates a longer bloom time, as plants thinking they have not created seeds will create new flowers. It sounds mean to trick the plants, but it does not harm them and they can take it!



GALL
GALL IS NOT A LIFE
THREATENING SITUATION
IN ASPEN TREES AND
SHOULD JUST BE ALLOWED
TO BE



APHIDS
APHIDS WILL INFEST
THE BRANCHES AND
UNDERSIDES OF LEAVES
THESE TINY BUSY MONSTERS
ATTACK AND SUBSTANTIALLY
HARM ROSES, LUPINES, TREES
AND SHRUBS AS WELL AS OTHER
PLANTS. SOAPY SPRAY WORKS
WELL ON PERENNIALS AND HIGH
PRESSURE WATER SPRAYED INTO
TREES -OR PESTICIDES. CALL US FOR
LATEST LOW IMPACT STUFF



SOME
PESTS

SCALE

SCALE LINES THE BRANCHES
AND TRUNKS OF ASPEN
AND OTHER SMOOTH
BARKED TREES AND SHRUBS
THEY SQUISH AND LEAVE A
RED RESIDUE. THESE GUYS NEED
TO BE SPRAYED IN THE WINTER
WITH DORMANT OIL

Lawn Maintenance

Turf Repair and Reseeding

The spring and fall are the two prime times to refurbish lawn areas with seeding and normal irrigation. The rainfall will help in the establishment of grasses as well as other plantings during this time. The temperature is cooler causing less stress, from heat, to individual plants.

Over Seeding to Repair Thin Turf Areas

If the turf in an area has lost thickness, it may be addressed by "over-seeding", follow this procedure. Select the type of turf grass mix to be used either as sunny mix or a shady mix. Either tall fescue or bluegrass seed can be used. The question to ask is, 'Is the area in the shade more than half the day?' If it is, use a shade tolerant mix. At the site, break the surface of the soil up and add a half-inch of topsoil. The soil must be fine in texture with no clumps or clods. Remove stone and debris ½" in size and larger. Sprinkle fertilizer with a gloved hand at the rate recommended on the bag or, so the soil has a fertilizing particle every ¼ inch. The fertilizer should only contain phosphorus as this will assist in root growth. The number on the bag should be 3-0-0 (3 refers to the percent of phosphorus, 3-1-1 will work but it contains phosphorus and potash). Rake the fertilizer into the soil to the depth of an inch or two. Liberally sprinkle the soil with the selected seed mix. With a rake, gently blend the soil to a depth of ¼" to ½". Place straw or sawdust over the seeded area to help in germination. Cover with a quarter to a half-inch

of sawdust or pellets and lightly compact into soil. A small piece of jute netting pinned over the repair area will go a long way in insuring the repair mends. Pins are sold with jute netting and are available at landscape supply companies. The jute net can be left and the grass will grow through it, with the jute net decaying into the soil. Pellets are also available that melt with rain or better if encouraged with a fine mist of soil. Follow package instructions. Re-seeding of areas should occur during our rainy seasons, spring and fall. Seed can be sowed in the above-mentioned manner in the last week of September to the start of the second week in October or in the spring in the first week of April up to the second week of May. If you are willing to irrigate as necessary to bring seedlings through their juvenile state, summer can be successful as well. Please call us for advice.

Sod Repairs

Sod repairs should be made by preparing the soil to receive the sod in the same manner as described above for seeding minus the sawdust. Cut the edge of the existing turf and grade the soil to receive the sod. The surface of the new sod from one edge of the existing turf to the other is smooth. Not higher or lower than a straight line between those points. Sod needs to be placed tightly together to prevent air around the roots. This is true along the edge of the existing turf as well. If small cracks exist, fill with soil. Roll the area or if it is small enough, use a shovel or your feet to compact the soil under the sod and to push the roots into the soil. Wet

the area substantially. Wetting the sod is paramount to its survival. It needs to be watered in this manner every three days or sooner depending on the heat of the day. Substantially wet means that if you were to press a tennis shoe into the surface of the sod, your socks would be wet after 15 seconds. The sod needs to be watered in this manner for two and a half weeks to the end of the third week. As noted above, the best seasons for these repairs are in the spring and fall.

Aeration and De-Thatching Turf Areas

Soil loses oxygen in three ways. One, the soil can get saturated with water displacing oxygen. Two, the soil can get compacted from too much foot traffic. And three, a build up of thatch and its decomposition can rob the soil of oxygen.

Aeration removes small plugs of soil, thatch and turf from the ground. These plugs should be left where they fall, to be absorbed back into the soil. Aeration should be performed when the soil moisture content is such that it won't be damaged by the weight of the machine. Aeration machines can be rented at most rental establishments. It is best to add fertilizer and compost after aeration which provides an easy route into the soil for these materials.

Aeration allows the soil to shift. Through this shifting, oxygen, which was compacted out of the soil, returns. Water also moves through the soil better. Loosening the soil allows the roots to push deeper and further into areas that previously were too compacted to allow this freedom. A deep rooting turf is the goal. A deep-rooted turf grass will be healthier in all seasons. Deep rooting is subject to a loose soil base in which to

grow in. Aerate a turf area annually in a residential type of situation unless there is a lot of play or pattern compaction from pedestrian or bicycle use. All turf areas are best aerated in the spring although fall is not a bad time either. Areas which receive a lot of traffic should be aerated twice a year.

De-thatching is another maintenance practice aimed at the same goal, introducing oxygen back into the soil. Thatch is the accumulation of dried and dead grasses at the base of green, living blades. Thatch, one-quarter inch thick or less, is not bad. Thicker thatch can start to rob the soil of oxygen and should be removed in the spring. The roots need oxygen to be healthy.

Machines are available for the removal of thatch from the surface of the turf. You can also hand rake the thatch out. The dead grass, which is pulled from the turf, will need to be collected and removed or composted. Healthy turf generally does not need to be de-thatched.

Mowing

The growing point of turf grasses is known as the crown. This part of the plant is almost buried in the soil. Cutting into the crown should be avoided. Only the blades should be cut. The mowing height should be adjusted depending on the situation. Prior to and during mowing, look for debris that may cause the blade to be damaged or dulled. Mow bluegrass lawns 2.5"-3" high.

Grass blades should be cut with sharp mowers. If grass-cutting blades are sharp, they cut rather than tear the grass. A dull blade tearing the grass prevents the fast healing of the grass blade.

Early in the season, mow the grasses to a height of 2.5 inches. When the season turns to hot and dry, raise the mowing height to three inches. Don't mow more than 1/3 of the grass height. Turf that is mowed high is better able to resist weed encroachment and uses less water. The height the grass is mowed affects the depth of the roots which grow to twice the length of the blade.

Out of Control Grass

If the grass has gotten to be really tall, then you should start mowing by placing the mower at its highest level. Lower the mower at the next mowing to a height between the last mowing height and the regular mowing height. Use three mowings to bring the high grass back to normal.

Mowing Schedule

Mowing for the months of May to mid-June on average should occur once every five days. Through mid-June to late September, mowing should be tapered to once every eight or nine days. After that, mow as needed until lawn stops growing.

Mower Maintenance

Mower blades should be sharpened once every forty hours of operation. In addition to making a clean cut to the grass blade, a sharp mower blade puts less stress on the engine, increasing the life of the mower. The engine oil should be checked before every mowing and changed every forty hours of use or two months, whichever comes first. The mower wheels should be checked continuously and greased every 20 hours.

Fertilization of Turf Areas

The best way to fertilize is to spread compost one inch thick after aeration once a year or two inches thick every two years if that is when aeration occurs. Compost adds organic material into the soil. Compost releases its nutrients over time. This slow release of nutrients allows for an extended and constant source of nutrients for the turf. This method excludes the use of chemical fertilizers such as Scott's which is based on petrochemicals. That's good. Chemical fertilizer encourages too much fleshy growth that adds to the potential thatch in the turf.

If you prefer to use chemical fertilizer then we would recommend the following schedule. In early May, all lawn areas should receive an application of weed and feed fertilizer. Follow the package instructions for application. In July, a fertilizer high in iron should be used. This will allow the turf to toughen up for the heat of July and August. In mid-August, a 'late summer' fertilizer should be applied. At the end of October, turf areas should receive a winterizing application for the long, cold winter.

The most important applications of fertilizer occur at the beginning and the end of the growing season. If only one application of fertilizer is planned, it is important this is done before the second week in August. Always allow at least six weeks before the next application.

Herbicide Application

Direct spot application of herbicides to individual plants in beds, parking lots or other places where they are not wanted, should be coordinated with weed and feed fertilization. Notice of herbicide application must be placed the day of spraying and remain on the property for one day after the application to warn turf users of its presence. The spraying of anything over five feet tall needs to have notification of spraying posted five days in advance. The notice must be placed along streets and alleys. The yellow card has to be four by five inches and have the following information written in black ink:

Pesticide To Be Applied

Date: _____

Contact Name: _____

Phone Number: _____

Round-Up is a trade name of a herbicide which works on herbaceous plants. It works by moving from the leaves where it is applied to the root of the plant.

This is referred to as a systematic herbicide. Once the root is terminated, it will not appear again. The plant can be cut or pulled and removed. In planting areas, it is best to remove the root and its residual toxin. Mature weeds two or more years old may require several applications to kill the huge root that supports it. Be careful applying around perennials, annuals, ornamental grasses and turf grasses as Round-Up will kill them. Read package instructions or call us if you need additional advice.

Spot Application of Pesticides

The application of Round-Up for spot use (defined by the spraying of plants in a parking lot, between hard edges, etc.) is not regulated so the public does not have to be notified. Use common sense though. If it is a big weed or a group of weeds and people may touch it by accident, then post those areas.

Use a small hand applicator on a bi-weekly basis on new weeds in between sidewalks, parking lots and planting beds. A large artists paintbrush can be used to saturate and isolate poison to a target plant and to prevent over spraying of the soil or of adjacent plants. Do not forget to remove the plants corpse on your next go around. Round-Up should be applied as directed on the label and all safety considerations need to be followed. As far as herbicides go, this product is pretty mild and is used extensively by the City of Boulder Parks Department.

Irrigation

As plants grow, their roots expand past the original drip location. Accordingly, additional drip lines and

emitters need to be added for the larger area to be covered. The roots of a shrub or tree in nature extend to the drip line of the branches so, to create well rooted trees and shrubs, drip should move further from the base of the plant each year.

Tree and Shrub Fertilization

You can do without fertilizing plants for 4-5 years after initial planting. When it is time to fertilize, it is best done in April and October. This can be accomplished by the purchase of fertilizer stakes at your local hardware/garden store. The number to use is calculated by the trunk size and/or the shrubs branching size. The correct quantity can be figured by reading the manufacturers directions. Holes should be dug to a depth as directed by the supplier and the stakes placed in the hole. If the soil is somewhat moist, the stakes can be hammered in. To do this, you need a plastic top that is used to protect multiple fertilizer stakes from breaking when being pounded. These should be included in the box. If you use individual stakes, then make sure you have one plastic top for every 5-7 stakes. Another method is to use compost. If you use compost, there is no need to use stakes. Read the manufacturers recommendations for instruction.

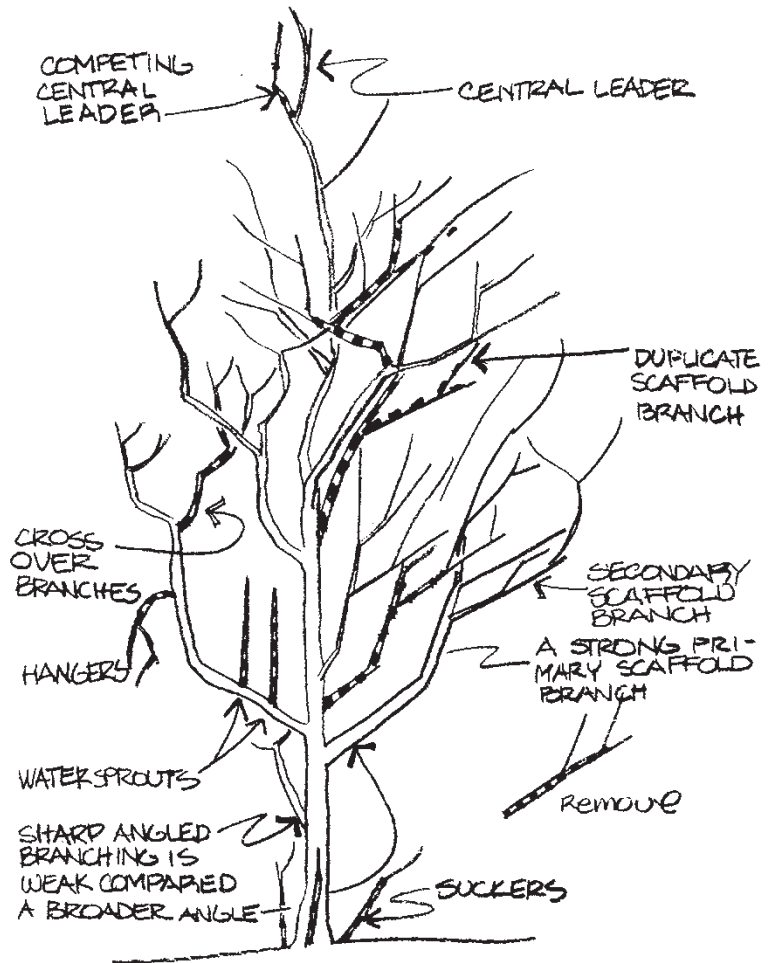
Pruning

Pruning of any species varies with the type of plant it is. Except for the removal of dead twigs, pruning is best left to a professional or a well-read amateur. Several books on pruning should also be available at your local library. It is quite an art and may be something you would enjoy. Read some books, then

give it a whirl.

Pruning needs to be accomplished with sharp tools. Hand pruners should not be used to cut anything larger than the diameter of a thumb. Two-handed pruners should be used on larger diameter wood to a diameter of one and three quarter inches. Wood larger than that should be sawed with a hand or chain saw.

Dead and damaged wood should be removed at any point in time. Cross over branches, hangers and suckers should all be removed. Cuts should always be made one-sixteenth to one-eighth inch above the collar. The collar is the ring around the base of the branch to be removed.



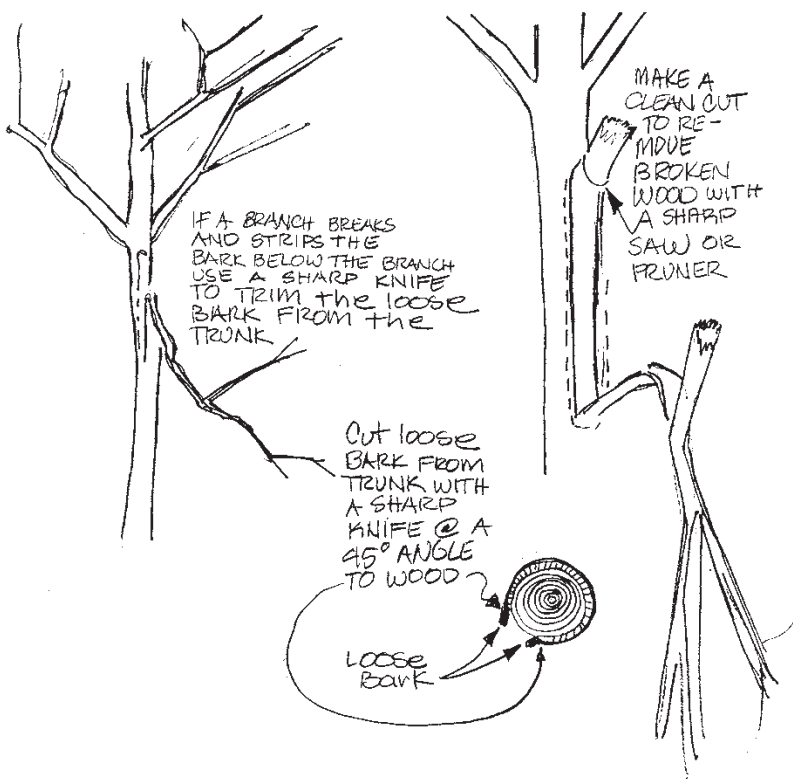
PRUNING THOUGHTS

Structural Pruning

Correct structural defects such as crossed branches.

Crossed branches are most noticeable when you can see where the bark from one branch has rubbed bark off another. Branches that cross each other and rub against the other are a detriment to the plant as they open up wounds to the environment. Branches, which rub against buildings, should also be pruned back.

Anticipate future branches which may eventually cross each other or hit a building and remove them before they do. Never allow two equally vigorous central leaders to remain if they both start within 6" of each other on the tree trunk.



If the shape of the plant is apparent, yet looking at it reveals a limb which is racing past the others, cut it back. Look for suckers at the base of trees and remove them. If you wish, in large open areas, I sometimes like to leave the suckers so the tree grows naturally with

full branching to the ground. It is beautiful when it is allowed to happen in the right place. Water shoots are the small branches that come out of the trunk of trees. Water shoots also occur along upper branches and should be pinched off upon sprouting.

Vines

Prune vines which could cause problems.

Problems occur when vines meet wood or metal and want to go under or between those areas. Vines should be pruned as any other plant, carefully and neatly. To avoid a butch treatment, cut an irregular line under the eave or gutter to create a more natural look.

General Grounds Effort on a Weekly Basis

Police grounds by picking up trash and inspecting turf and landscape plants. Use this time to look for obvious problems on the grounds. Look under and in shrubs for alien objects (UFO's) and remove them. Look for broken branches or dead wood on trees and shrubs. Look for vines heading for wood trim or other material that could be damaged by the plants growth.

Remove the dead weed from the previous weeks spraying. Look for mulch, sand or gravel on hard surfaces and remove by sweeping. Look for:

- Wilted plant material, leaves - Too little water or too much may cause a plant to wilt. Pests, such as aphids, may also cause plants to change their healthy appearance.
- Loss of leaves from shrubs and trees.

- *Any obvious wet areas in the turf that might indicate a break in the irrigation.*
- *Turned or clogged irrigation heads that have not yet drawn your attention due to brown or wilted grass. (See above reference to irrigation repair)*

Tools Required

1. *Hand held pruners and sheath. Do not use pruners to cut wire or anything other than plant material.*
2. *Small folding pruning saw. Saws are very sharp and have either a one or two way sawing action. Look on the packaging to be sure you know its particular aspects. Be careful.*
3. *Small phillips and flat head screw drivers for adjustment of irrigation nozzles, poly pipe cutters, vice grips and channel locks.*
4. *Augur for tree fertilizer.*
5. *Heavy gauge wire and flagging tape.*
6. *Spreader for seed and fertilizer.*
7. *150 feet of hose on a rolling hose stand and a plastic fan sprayer with nail for unattended watering. Saw dust, hand sprayer and timer for pocket.*
8. *Bright flags to mark location of irrigation problems.*
9. *Containers of sunny mix and shady mix grass seed.*
10. *Jute mesh for repair of seeding areas.*
11. *Shovel, steel rake, spring type leaf rake, scoop shovel and garden wheelbarrow.*

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