



Lawn Services Edition

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More than Mowing!

Full Service Program

In tracking the materials and labor it takes to care for your lawns, we have found that cutting the grass is less than half of our full program.

When we account for aeration, edging, pruning, irrigation, fertilizing, site policing, weed control, spring and fall clean

up, and pruning it's easy to see that it takes several fully trained and equipped crews to do it all. We'll take a look inside this edition of the Garden News.



LOOK AHEAD

For May

- Begin mowing service
- Check irrigation systems
- Prep and plant flower beds

For June

- Weekly service

Current Events

Water Restrictions?

It seems regardless of the snow pack and moisture, our Water Departments are always going to be cautious and impose some level of water restrictions.

The good news is that over the years, restrictions have become more reasonable and properties have become better at living with them.

We have the experience and methods to help. Look for more information next month.

Look for Planttalk
Colorado articles

Colorado
State
University

Did You Know?

Colorado State University Extension Service

We are very fortunate to have a fabulous research university close by. Colorado State University has developed its Extension Service as an accessible resource for the community. We count on their research and articles to guide us in caring for your landscape. Look for them at:

<http://www.ext.colostate.edu>

Several articles are reproduced here designated by their article number (1234)

Extension

Mowing Guidelines

Cutting Height

Good mowing practices can greatly affect the health of your lawn. The most important factor is the cutting height. While golf course fairways are spectacular to look at, mowing that short will stress your blue-grass lawns.

The recommended cutting height is 2 1/2" - 3". There are several reasons why:

- ◆ This leaves enough of the grass blade intact so the plant can still function efficiently.
- ◆ A longer blade serves to shade the root crown and soil increasing heat and drought tolerance.
- ◆ Cutting shorter will stress the plant causing a higher incidence of insect and disease problems.
- ◆ Taller, healthy turf will help crowd out weeds.



Frequency

This is where cost, scheduling, and practicalities can conflict with recommended best practices.

It is recommended to mow frequently enough that no more than 1/3rd of the grass blade is removed during a single cutting. During early spring and late fall, we can achieve this by mowing just once every ten days. However, during the summer we would have to mow twice a week to keep up.

Clearly, it is impractical to have a mowing crew on your property twice a week. To adjust, we use several techniques such as applying custom fertilizers and bagging grass clippings. More on that below.

Mowing, con't.



Grass Clippings

Grass clippings left on the lawn can be beneficial. When they break down, they can allow nitrogen and other nutrients to remain on site.

However, we have found that during heavy growth periods, there is too much grass to break down. This can result in unsightly clumps

of half rotten grass spread around your property. To avoid this, we bag and recycle grass clippings. Another concern we have is safety. We find that grass bagging systems prevent flying debris better than the simple deflectors used on mulching mowers.

Excess grass clippings can build up and be unsightly.

Soil Tests

We obtain a core sample for laboratory testing at least once a year. We use the results and lab recommendations to select the appropriate fertilizer for your property.

Fertilizer

Fertilizers have come a long way in the last 20 years. Using custom blends, we can adjust for nutritional deficiencies and promote soil health.

To moderate growth during heavy growth periods, we can use fertilizers with special blends and coatings. During times of drought, we apply products to aid in root health while not stressing the grass plant.

Shade Lawns

Growing Grass in Shade (1518)

Grass performs better in sunny locations. It's hard to grow a dense stand of grass in the shade, so you may have to settle for one that is less than perfect.

To obtain the best possible results in shady areas, start with shade-tolerant grass mixes. Varieties of chewing fescue and creeping red fescue tolerate light shade quite well. Tall fescue has moderate shade tolerance and some varieties of Kentucky bluegrass have fair shade tolerance. As trees mature and shade increases, you may want to overseed with these more shade-tolerant varieties.

Another way to help grass beat the shade is to raise the lawn mower height to three inches, providing a larger leaf surface for photosynthesis. And if growth rates in the shade are slower, mow less often.

Reduce spring nitrogen fertilizer rates on shady lawns. Heavy nitrogen applications stimulate rapid growth, which makes grass prone to disease.

Aerate the lawn in spring and fall. Lawn is a poor competitor in compacted soils. Trees in the area also will benefit from lawn aeration. Make enough passes with the aerator to create plug holes that are two inches apart.

Pay attention to water needs. Heavy watering in shady areas may aggravate lawn disease problems. However, if the lawn has to compete with a large tree for soil moisture, the area may become overly dry.

Overseed shady areas every year.



Renovation

Dog Spots (1503)

Straw-colored grass or dead spots with dark green borders are common in lawns of dog owners. The concentrated salts in the urine of dogs, particularly female dogs, cause these spots.

There are only a couple of solutions to this problem. Some dog owners follow the dog with a hose and wash the spots, a labor-intensive solution to the problem. A better solution is to retrain the dog to go to a specific, out-of-the-way area, perhaps a graveled, remote corner of the property.

Water is the only thing that can reverse the effects of dog urine on grass. Do not apply baking soda, dish washing detergent, or products claiming to dissolve or leach the salts. They will be ineffective and may compound the problem.

Sometimes the damaged grass can't be revived, making reseeding necessary. The damaged spots should be heavily watered with a hose for a few days before reseeding or resodding.



*Overseed areas
damaged by dogs
and overuse every
year.*

Overseeding/Turf Renovation



We have a fast, effective and affordable way to keep your problem turf areas lush. This machine, called a turf renovator, uses tines much like a power rake to cut slices in the soil and drop in grass seed. We use a mix of seed including a fast germinating variety for quick cover, blue grass, and shade tolerant grasses. The varieties most appropriate for the area then germinate and thrive. No additional irrigation is necessary.

The cost is just pennies per foot.

Aeration

Lawn Aeration (1505)

Aeration, or core cultivation, is standard lawn care. Aerating a lawn means supplying the soil with air, usually by poking holes in the ground throughout the lawn using an aerator. It reduces soil compaction and helps control thatch in lawns while helping water and fertilizer move into the root zone.

A lawn can be aerated at any time the ground is not frozen, but should not be done when it is extremely hot and dry. Heavy traffic areas will require aeration more frequently.

Aeration is most effective when actual cores or plugs of soil are pulled from the lawn. Holes should be two to three inches deep and no more than two to four inches apart. Lawns should be thoroughly watered the day before aerating so plugs can be pulled more deeply and easily. Mark all sprinkler heads, shallow irrigation lines and cable TV lines before aerating so those lines will not be damaged.

On thatchy lawns, it is important to leave the cores on the lawn, allowing them to work back into the grass. Otherwise, the cores may be removed or left on the lawn. Lawns may be fertilized and seeded immediately after aeration. There is no need to top dress lawns following aeration.

Lawn Aeration During Drought (1534)

Less than normal amounts and frequencies of watering affect several routine lawn care practices, aeration among them. Core aeration should not be performed on lawns that are totally brown/dormant as the result of water restrictions. It is unlikely that plugs can even be pulled from hard soil unless soaked by several days of intensive watering. In cases where plugs may be pulled but lawns are severely stressed, the turf health could be further harmed by the drying effect of open holes and traffic stress from the equipment. Watering is necessary to help aeration holes "heal over" quickly.

Lawns that are green (regularly watered) or mostly green (a few brown spots exist) benefit from aeration. Regular watering should follow the aeration operation. The decision to core aerate or not should be made on the basis of the health of the lawn as indicated by color (green or brown) and history of water applications.



Drought and Bluegrass

Drought Tolerance of Kentucky Bluegrass (1540)

If the average person was asked to give 10 reasons for local water shortages, there is little doubt that "Kentucky bluegrass" would be at or near the top of the list. It might seem that our water woes could be partially solved by simply eliminating this plant from our landscapes and using "something else" in its place.

Astute observers learned a few things about Kentucky bluegrass during recent drought periods. First, it can remain green and healthy with far less water than most people ever thought possible. Second, it can survive well for extended periods of time without any irrigation due to its excellent dormancy mechanism.

Blue grass is still the best drought resistant grass.

Others discovered what sod producers and the best golf course superintendents have always known - that bluegrass can do well with reduced amounts of water. Homeowners discovered that twice weekly watering "restrictions" would produce healthy bluegrass lawns. Even once weekly watering was adequate for all but the warmest summer periods. Many bluegrass lawns can survive weeks - even months - without any supplemental irrigation.

Interestingly, more than a few tall fescue lawns were killed or thinned by the same watering restrictions under which bluegrass survived quite well. It is also true that a large number of bluegrass lawns died or were found dead in the spring after extended dry periods. The majority of these dead lawns had been damaged by spider mites, not properly managed prior to the drought (poor mowing, fertilization, irrigation, and other cultural practices), or were planted on poorly prepared soil.

Strongly reconsider the "need" to replace an otherwise healthy bluegrass lawn with an "alternative" grass. This is especially relevant in communities that may restrict installation of new plant material. Bluegrass is still the best grass species for many of the places where it is now growing - and a drought resistant one at that!



Purdue University is another great resource, especially for turf grasses.

<http://www3.ag.purdue.edu/extension/pages/default.aspx>

Weedy Grasses

Crabgrass (1513)

While crabgrass is found in Colorado lawns, much of what is often called crabgrass are other weedy grasses. In the late winter or early spring, the most common grassy weeds in lawns are perennial grasses like quackgrass, tall fescue or brome grass.



These perennial weeds can only be killed with a non-selective herbicide such as Roundup®. These herbicides will also kill the grass, but the dead patches can be sodded or seeded to re-establish the lawn.

Crabgrass and other related annual weeds like goosegrass and foxtail, germinate from seed in April, May or June. The small seedlings grow rapidly throughout the summer into a spreading, coarse-looking, large mat-like grass. These grasses are killed by frost in September or October.

Pre-emergent herbicides prevent seed germination. When applied in early to mid-April, a pre-emergent herbicide can provide extra insurance against the invasion of annual grassy weeds. Pre-emergent herbicides should be carefully applied according to label instructions; they should not be applied to garden areas and cannot be used on newly seeded or sodded lawns.

The best way to control crabgrass and related annual grassy weeds in lawns is to maintain healthy grass with proper seeding, mowing, watering and fertilizing, and judicious use of herbicides.

Weed I.D. is the most important step.

Controlling Weedy Grasses in Lawns (1530)

Weedy grasses can give lawns an unsightly appearance. The difference in growth, color and texture of weedy grasses may give an otherwise neat lawn an unkempt look. Grasses such as crabgrass, foxtail and quackgrass are often a problem and are difficult to eliminate in lawns.

The best way to control weeds in your lawn is to maintain a dense, healthy, vigorous stand of lawn grass. Good practices of seeding, mowing, watering, fertilizing and judicious use of herbicides, can help achieve a healthy lawn. To keep weeds from becoming established, avoid frequent, shallow watering and mowing too short, which decreases the vigor of the lawn.

The most important part of any effective weed control program is identification of the weed, which will help determine whether the weedy grass is an annual or perennial.

Renovating a lawn severely infested with perennial grass weeds can begin by spraying the entire lawn with Roundup®. About three to four weeks later, work the area by plowing or tilling, then either seed or sod.

Fungus and Disease

Mushrooms & Fairy Rings (1506)

Mushrooms sprout in lawns after prolonged periods of wet weather, often in areas where dead organic matter has accumulated. Old tree roots, stumps or home construction debris, especially sawdust, encourage their growth.



Mushrooms may grow in a circle around grass, forming "fairy rings." Grass inside these rings can be a darker green and grow more quickly. In some cases, there are so many mushrooms in these rings water can not penetrate into the soil and the grass dries out, sometimes dying. This leaves a ring of dead, brown grass and another ring of darker green, healthy grass.

Fungicides don't usually kill fairy ring mushrooms in this region. Spring and fall aeration and several applications of a few ounces of dish washing solution in a gallon of water on the ring will sometimes make the ring less noticeable.

While there are many fungi that cause fairy rings, the presence of mushrooms in the lawn does not mean fairy rings will form. Most mushrooms that grow in lawns are feeding on dead organic matter which has accumulated in the lawn. The mushrooms can be mowed off or removed with a rake.

Lawn mushrooms may be poisonous or may cause allergic reactions and should not be eaten by humans or pets unless proper identification shows they are edible.



Ascochyta Leaf Blight in Drought

Ascochyta Leaf Blight on Lawns (1547)



Stress resulting from hot, dry summer conditions increases the potential for *Ascochyta* leaf blight on lawns. This disease is common when cool weather (like May - June conditions) is followed by hot summer conditions. *Ascochyta* leaf blight is most severe when turf is stressed due to high heat and improper irrigation - insufficient amount, improper frequency, or poor coverage.

Brown wheel-tracks and footprints may appear where mowing or foot traffic cause additional stress. This may lead to the incorrect assumption that the disease has been "tracked" onto the lawn from another location. The disease can be diagnosed by examining individual leaves that die back from the tip. Affected leaves are bleached and pinched in appearance and the entire leaf may die back to the ground. Severe infections may cause large straw colored patches to appear in the lawn, usually in areas where irrigation coverage is poor.



Fortunately, this disease rarely kills turf, as the crown and root system are usually not affected by the disease. However, prolonged stress due to poor irrigation coverage may cause a loss of turf. Consistent and correct watering, repair of malfunctioning irrigation equipment or a soaking rain will encourage the turf to recover. Fungicide use does not seem to accelerate turf recovery.

Brown Spots in Drought

Brown Spots in the Lawn (1553)

Brown spots in the lawn can be attributed to a number of causes, the four most likely being: poor irrigation coverage, disease, dog urine injury or insect/mite damage. Cumulative stress due to irrigation coverage problems often presents itself as brown spots in the mid-summer lawn.

If the coverage problem isn't corrected, turf vigor will decline in these areas after a few growing seasons – eventually resulting in thin or bare, weedy spots in the lawn.

Round, brown spots (often with a greener, “frog-eye” center, and a yellowish outside ring) ranging from 6 inches to 2 feet across in bluegrass lawns often indicate necrotic ring spot (NRS)disease. Late season nitrogen fertilization (apply at least 1 pound of N per 1000 sq ft) will encourage recovery in NRS-affected lawns and is a better alternative to heavy spring nitrogen fertilization (which encourages NRS activity).

The salts in dog urine result in varying degrees of burn from slight discoloration to complete death. Irrigation that dilutes urine to a less concentrated nitrogen form causes a ring of rapid grass growth around the spot. Lawns suffer the most damage in hot, dry weather and under minimal irrigation. The best solution to this problem is training the dog to use a less conspicuous area of the lawn, or a graveled/mulched area in the landscape.

Clover mites can also cause brown spots in summer. In lawns with a history of mite problems, irrigate as long as possible in the fall (without endangering irrigation system components), and winter water. The best prevention and cure for winter mite activity is irrigation to prevent extreme winter dryness.

Brown Tracks and Wheel Marks (1501)

When brown wheel tracks or footprints show in a lawn during the warm summer months, the grass is drought-stressed. The grass will turn a dull bluish-green color and footprints won't "bounce back" within a few minutes.

Limit foot traffic in drought stressed areas.

Drought-stressed grass should be watered before any mowing, fertilizing, or play on the grass is allowed. Then, continue with normal or slightly increased watering. Mow often enough so that no more than an inch of grass is removed at any single mowing.

The grass will recover within 10 to 21 days. Extra fertilizer will not significantly help the recovery process.

During the spring and late fall, brown stripes and footprints are usually from traffic on frosted grass. Frost should be allowed to melt off of the grass before foot and mower traffic is allowed on the grass.

Broadleaf Weeds

Controlling Broadleaf Weeds in Lawns (1525)

Broadleaf weeds such as dandelions, clover and spurge can make a lawn look unkempt. The weeds also consume water and fertilizer intended for the lawn.

The first step in controlling weeds in lawns is to grow healthy, dense grass. Proper watering, mowing and fertilizing produces a thick lawn and discourages weeds. Hand weeding is effective with small weed populations. Although chemical weed killers are available, they shouldn't be considered a substitute for proper lawn management.

When mixing and applying broadleaf lawn weed killers, wear a long-sleeved shirt, long pants, shoes, goggles and chemical-resistant gloves. Wash non-disposable gloves with soap and water before removing. After application, thoroughly wash hands, face and other exposed skin with soap and water. A shower minimizes health risks from pesticides. Change clothing and launder clothes separately from other clothes before reuse. And don't re-enter or permit others, including children and pets, to enter the treated area until the material has thoroughly dried.



Treat only individual plants or weed-infested spots with chemicals. General broadcast application over the entire lawn is not desirable. Liquid spot treatments generally are more effective than "weed-and-feed" type applications. When applying chemicals with a sprayer, spray weedy plants just until the foliage is moist. Apply dry granular formulations to wet grass and weeds.

Use herbicides when temperatures are between 65 and 85 degrees Fahrenheit. Do not apply it when temperatures are expected to rise above 85 degrees Fahrenheit within 24 hours of applica-

tion. To minimize the danger of herbicide drift, spray weeds during a calm part of the day when there's little or no wind. Don't apply when rain is expected within 24 hours of application, and avoid watering for 24 hours after application.

Turf Insects

Insects (1514)

Birds feeding in a lawn usually indicate the presence of insects. Some insects are not harmful to a lawn, but some can damage the lawn grass.

The sod webworm is one of the most common grass pests in the Rocky Mountain region. Adult webworms are small moths which flit about the lawn during mowing, but do not feed on the lawn.

Young webworms are caterpillars, measuring about one-quarter to one inch in length. They are brown or gray and with rows of dark spots on their backs. During the day, young webworms live in silk-lined tunnels in thatch and the surface of the soil. At night, they feed on grass leaves.

A heavily infested lawn may not grow very much, the grass may become thin and some dead patches may develop. Most lawns are healthy enough to withstand substantial webworm populations without dead spots or thinning grass.

Similar small dead patches occurring in July and August may be caused by billbugs. To identify billbug damage, pull on the dead-looking grass stems. If the stems break off at the soil line and sawdust-like material is on the broken ends of the grass, the damage was caused by billbugs. Billbugs are uncommon in lawns in this area.

If insects are causing brown spots, an insecticide such as Bifenthrin, Cyfluthrin, Imidacloprid, Permethrin or Sevin (Carbaryl) may be required and should be carefully applied according to the label instructions. If there are no brown spots, let the birds do their job. It's Mother Nature's way of controlling insects.

Mites in Turfgrass (1467)

Dry winter conditions promote turfgrass mite problems. Turfgrass mites include clover mites, Banks grass mite, winter grain mite and the brown wheat mite. The injury caused by turfgrass mites further damages to turf already under stress from lack of water.

Clover mites are also a nuisance as they move into buildings, especially along the south and southwestern foundations of a home. To prevent clover mites from entering the home, either diatomaceous earth or baby powder applied around windows and doors provides a safe and natural control of mites. Once inside a home, "spray and wash" cleaners or aerosol insecticides containing pyrethrin will kill clover mites.



Common Turf Problems

Sod Webworm

- Symptoms first appear late spring and mid to late summer as small (size of a quarter) ragged brown areas
- Damaged areas can become larger and coalesce with each other
- Adult moth is 1/2 to 3/4 inch long, buff-colored with snout, active spring and mid-summer
- Larvae are 3/4 to 1 inch long full grown, brownish to grayish with black spots, active late spring and mid to late summer

Blugrass Billbug

- Damage most commonly seen during July and August
- Damaged areas yellow, then turning brown or straw-colored in small, irregular patches
- Particularly common near sidewalks, driveways, and other sources of heat
- 1/4 inch long, gray to black beetle with long, curved snout, active spring and late summer

Cutworm

- Grass blades clipped in spring (sometimes later in summer)
- Scattered areas of thinning and/or browning grass, which can grow larger
- Dark-colored caterpillars up to 1 1/2 to 2 inches long

Red Thread

- Irregular to round patches of tan grass 2 to 24 inches wide
- Grass blades die and turn tan from the tip down and are often mixed with healthy grass blades
- In humid weather, clumps of pink cotton candy-like fungal growth can be seen on infected patches of grass
- Hard pink to red thread shaped fungal structures emerge from the tip of infected grass blades
- Common in cool, wet weather and N-deficient grass

Heat and Drought Stress

- Occurs when temperatures are high (greater than 85° F) and little or no moisture is available through rain or irrigation for at least 2 to 3 weeks
- General browning of entire turf grass area; may also look thin and dry
- Affected areas may have clumps or tufts of green grass within areas of tan dry grass
- Occurs often in sunny, exposed lawn areas but can occur in dry, shady areas as well
- In most cases, cool season grasses will turn green and resume growth once cooler conditions and more frequent rainfall return
- If heat and drought stress have been severe for several weeks, affected lawn areas may not recover or may only partially recover

“Revive” Type Products

Liquid Lawn Aeration (1545)

A growing number of web-based businesses as well as lawn care companies are promoting "liquid lawn aeration". A typical claim is that conventional aeration or core cultivation - where plugs of soil are pulled from the lawn - can be replaced by a product sprayed on the lawn. It should be noted that these products should not be confused with high-pressure water injection systems used for "coreless" aerification on golf courses. It is possible that some lawn care companies might offer this highly effective (but expensive) type of aerification as an alternative to conventional core-pulling. Companies selling these products may insist that their aeration "tool" effectively loosens compacted soils, aggregates sandy soils and generally enhances water retention and turf root growth.



While it is difficult to ascertain what is contained in these products, a few have been shown to contain liquid humates (essentially liquid organic matter) and soap-like materials like sodium lauryl (or laureth) sulfate. It is simply wishful thinking to believe that a highly diluted solution of either of these applied to a compacted soil will in any affect soil bulk density. There is no indication that ANY of these products has ever been scientifically evaluated for effectiveness.

Simply stated, there is no "chemical" substitute for physical remediation of soil compaction - namely the traditional core cultivation techniques that have been used for years on all types of turf areas.

At best, these "wonder products" might provide some minor degree of wetting agent effect - and nothing more. Wetting agents increase spreading and penetration of liquids across surfaces and into or throughout surfaces.

Other Lawn Problems

Lumpy Lawn (1508)

Lumpy lawns, common in Colorado, are caused by earthworms and night crawlers. Earthworms in a lawn are a sign of healthy soil because they eat thatch, grass clippings and other organic matter, recycle nutrients and aerate the soil. This improves the health of the lawn.

Worms build mounds of soil on the surface of the lawn, creating an uneven, bumpy surface. Aeration in the spring and fall, coupled with light rolling of the lawn, may help smooth the surface. Rolling the lawn evens the surface by using a lawn roller, which is a machine with a weighted cylinder that rolls along the ground.

A light layering of compost or soil on the lawn from an adjacent flowerbed or vegetable garden can also be helpful.

Since worms are good for a lawn, it is best to mow the lawn as high as the mower can be set and leave the worms alone.

Trail or Burrows (1510)

Tunnels and burrows under melted snow are caused by small, mouse-like animals called voles. Voles are most active in lawns near unmown pastures or wooded areas, or where dense vegetation provides shelter for them, like plants around foundations. Voles feed on grass and use tunnels to move about under the snow.

To discourage voles, rake these areas lightly and then continue with a normal fertilization, mowing and watering schedule. The tunnels should disappear as the grass begins to grow in the spring.

Populations of voles are cyclical, so they may come again for a couple of years and then disappear for a number of years. If they are causing extensive damage to trees, shrubs and lawns, use baited mousetraps to reduce their population.

Care should be taken when using traps where young children and pets have access to them.



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