

LAWN CARE 101

Lawns. Almost every home has one, and just about every homeowner wants it to be green, uniform and weed-free. Here is all the information you need to promote world class turf in your own yard!

The Grasses

All of the commonly grown turf grasses in this area are considered 'cool-season' grasses, which means that their optimal growing conditions are at about 50 to 60 degrees Fahrenheit (or 3 carbon vs. 4 carbon for horticulture geeks). The northwest king of grasses for sun is definitely **Perennial Ryegrass** (*Lolium perenne*). This is the major (or sometimes only) component of most commercially available sod, and is the most recommended for areas that in sun. Perennial Ryegrass grows quickly, holds up well in our climate, has a low growth habit and reasonably fine texture, and has a very nice deep green color. It does not, however, hold up well in shade or extreme heat. It also requires regular water and fertilizer to look its best. The second most common type of turf is actually a group of grasses, called **Fine Fescue(s)** (*Festuca spp.*). Several species of low growing, fine bladed Fescue are lumped into this group. Fine Fescues are extremely fine bladed (almost hair-like), low growing, tolerate *shade and drought*, and generally require the lowest maintenance of all the turf grasses. They do have a problem with thatch (can be very problematic), do not deal well with excessive moisture, and do not hold up exceptionally well in the heat. If you water and fertilize these as heavily as you would perennial ryegrass or Kentucky bluegrass, you will either kill or severely irritate them. **Kentucky Bluegrass** (*Poa pratensis*) used to be very popular before they developed superior varieties of Perennial Ryegrass. It has many of the same attributes as perennial ryegrass, but with a bit more blue-green color and better heat tolerance. It does not tend to take off as quickly though, and can have sometimes have problems with diseases like rust or red-thread, especially when the weather is damp. There are several other grass types with specific uses, such as **Tall Fescue**, **Rough Bluegrass**, and **Bentgrass**, but these, with the exception of maybe tall fescue, generally do not have applications in normal lawn situations.

The Care Regimen

The biggest challenge in maintaining a quality lawn is being proactive and taking care of problems **before they occur**. Most common problems can be taken care of by simply following certain care guidelines. Our biggest rush of questions on lawn care come in early spring and again in mid to late summer, when the problems start to become visible. At that point, many commonly accepted solutions are superficial and do not address the true problem; they are basically band-aids to temporarily cover up much deeper injuries. **Although you can do any of them in Spring, most of the major preventative and general care measures listed here have their best effect when done in Fall, usually late September to early October.** This is the best season for turf, and results can be outstanding. Here are the different care procedures explained.

Aerating: This can make or break a lawn. Over time, foot traffic, general settling, and rain/irrigation water can compact the soil beneath a lawn. This makes it difficult for grass roots to go deep (they will go several feet deep if they can, but in compacted clay soil this may only be a few inches), and water has a hard time penetrating the soil, or will not drain out of it once the soil becomes saturated. Our clay soil, being comprised of minute flat particles, tends to stack and pack exceptionally well. Aerating removes plugs of soil (or some other method of putting holes in the soil), which coupled with topdressing of a lighter or better draining material allows for substantially better air and moisture infiltration. **Most lawns need this done every few years, some may need it done yearly** if they have high foot traffic or have been badly neglected. **Do this in Fall** for best results, but Spring is still okay if you forget. Good lawn care starts with *this!*

Thatching: Actually, you want to de-thatch turf. Thatch is a layer of un-decomposed plant material (not usually from mulching with grass clippings, more from the natural cycle of grass blade death and replacement) that can build up to the point that water and nutrients can no longer get through to the roots below. What nutrient does get through is often eaten up by microbes that are *trying* to break down the thatch. Thatch can severely hinder or stunt a lawns growth, especially in **fine fescue**-heavy lawns. Thatch can be removed with a rake (or power rake) if it is light, but may need a special thatch-cutting machine if it is severe. **Fine fescue lawns should have this done yearly, bluegrass every few years, and ryegrass doesn't usually thatch so just keep an eye on it.**

Lime: Our soil is almost always more towards the acidic side (4-5 or so), and tends to move in that direction naturally. Turf grass prefers and does best in a soil with a close to neutral pH. In order to accomplish this, you should put down lime yearly, **in fall**. If you haven't done this, a cheap pH test will tell you how far you are away from the desired range so that you can figure out how much lime you need to apply to get to where you need to be. *Maintenance* applications should be about 25-50 pounds of lime per thousand square feet per year.

Topdressing: Depending on how ambitious you are, **this can be done yearly, or at least as often as you aerate**. Topdressing is putting a layer of material such as a well decomposed compost or sandy-loam mix on top of the turf to aid in drainage and level the area. **Don't worry, the grass will grow right back through it**. You do this right after aeration to fill in the cored holes with the lighter material. Usually you would run a lawn roller over the area after doing this to smooth and level the area.

Fertilizer: Although it is important and necessary, fertilizer can only do so much to help a lawn, and it only lasts for so long. Fertilizer is not the solution to all problems, and is not the most important thing you can do for your lawn. That being said, **ideal grass fertilizer has a 3-1-2 nutrient ratio** (so 6-2-4, 21-7-14, 12-4-8, you get the idea). **Beware of high nitrogen fertilizers** (a 21-3-3 would be an example) as they promote lots of fast growth but little stability or strength. Newer lawns should have a little bit higher ration of phosphorous (the middle number) for the first year or two to get them started. **Your biggest application, about half the yearly fertilizer total, should be applied in Fall**. You should apply the rest starting with a good application in spring followed by smaller evenly spaced applications until fall again. Solid fall fertilizing gives excellent results, and helps the next summer as the turf has a good head start and is much stronger to be able to deal with the heat.

Over-seeding: This is best done in fall, but can still be done in spring. This is to fill in bare spots and thicken up the turf. Rates will vary depending on grass seed type. If you have followed the other care instructions though, this probably won't be really necessary.

Moss Killer: If you are doing this, you haven't been caring for your lawn well enough or you are trying to grow grass where it shouldn't be. Moss grows where nothing else grows, usually favoring wet, compact, acidic soil and shady areas. **Moss is simply filling the gaps where the grass isn't growing well, not choking out the grass**. Aerating and liming will usually fix this problem. Moss killers are good quick fixes for moss problems, and make the grass *really green really quick* but should not be considered a yearly necessity as they can actually make the problem worse over time (Iron Sulfate, the active ingredient, actually makes the soil more acidic!)

Weed Killer: If your lawn is growing well, it will naturally choke out any weeds as few things can compete with healthy grass roots. If you do need this, fall or early spring are the best times to apply this.

Insecticide: Please refrain from yearly applications of insecticide "just because". Many lawn problems are inaccurately blamed on "bad bugs". The truth is, **most bugs in lawns are not doing damage**. European Crane fly (the one that actually does damage) has been a scapegoat for many lawn problems for years. Although there are occasional infestations that cause problems, they are usually not the problem. Even in lawns with crane fly populations, the damage can often be negligible or nonexistent. They are not the boogey-man, and are not lurking in dark corners waiting for you to look away so they can devour your lawn. If you move your attention to more important maintenance issues you and your lawn will generally be better off and healthier. One note of interest is the fact that European Crane fly usually only attacks fescues.

Water: Water wisely and you will be rewarded. Water will not work effectively though if you don't follow the other maintenance steps like aerating and thatching. Keep in mind that grass roots go deep if they can, but will not if the soil is too compacted or there is no air/moisture at those lower depths. **The roots will only go as deep as the moisture!** Therefore, when the soil starts drying out in March (yes, March!) you need to start replenishing that deep moisture with irrigation. Watering for 15 minutes every day gets the top inch or two of soil wet, but that doesn't stick around for long and the grass gets water starved in the meantime. Aerating can improve the depth that the soil gets to, but that only applies to well-maintained lawns which are unfortunately uncommon. Watering needs to be concentrated either through long soakings a few times a week or groups of shorter waterings with short intervals done a few times a week. **The goal is to get the water as deep as possible**. Check the soil moisture 6 inches down in June – you'll be surprised at how dry it is! **Lawns that brown in summer are not in need of fertilizer- They simply are not strong enough or cannot find enough moisture to endure the heat and so they go dormant**. Not dead, dormant. Heavy watering often greens them up, but generally they wait until September or so when it starts to cool down to start growing (greening up) again.