

Why Aerate?

Where in your area do you find manicured turf grasses that make you green with envy?

If your mind quickly races to visions of the fairways and greens on your local golf course, you are not alone. It's not coincidence that these acres of grass remain green and healthy spring, summer and fall. Golf course superintendents long ago learned that core aeration is a vital component in any turf care plan.

Core aeration effectively "opens the pores" of compacted soils and reduces unhealthy thatch buildup. Compaction and thatch are the primary obstacles that keep nutrients, water and air from reaching the root structure. Remember, it's the health of what's hidden below the surface that determines the appearance of the lush green lawn that we all enjoy.

Water and nutrients are not intended for the green upper portion of your grass plants. Core aeration allows your irrigation and fertilizer investment to truly work for you.

This Question and Answer brochure is provided by Billy Goat Industries, manufacturer of a complete line of turf aeration equipment for home, rental or commercial use.



Aeration Defined

In simplest terms, core aeration is the process of making finger sized holes in your lawn and depositing the removed material on the surface to break down. This allows fertilizer, water and oxygen to get to the roots where healthy grass originates.

Q: Is core aerating effective in improving all species of turf grass?

A: Yes, both cool season (i.e. Kentucky Bluegrass) and warm season grasses (i.e. Bermuda Grass) can be greatly improved.

Q: How do I know if my yard needs aeration?

A: Known clay soils, heavy traffic, more than 1/2" of thatch, standing water after irrigation or rain, or lawns that brown easily in heat are all excellent candidates. In reality, any yard, healthy or not, can benefit from annual aeration.

Q: Will spiking do the same thing?

A: No. While spiking will aerate in the turf, it compacts the soil rather than removing the core. This is often used for drainage when no cores are required, and in very good soil conditions. Typically thin tines (i.e. 10 mm) are used.

Q: When should I aerate?

A: For cool season grasses such as Bluegrass, Bentgrass, Rye Grass and Fine Leaf and Tall Fescue, spring (March-May) and fall (August-November) are best. For warm season grasses such as Bermuda, Buffalo, St. Augustine, late spring and summer after spring green up (May-July) is preferred.

Q: How often should my lawn be aerated?

A: In areas where the soil has a high clay content, compaction and thatch buildup is more prevalent and aeration should be done twice a year. In areas of more sandy or loamy soils, annual aeration will result in continued healthy lawns and improved irrigation and fertilizing efficiency.

Q: When will I see positive results in my lawn?

A: Depending on the turf conditions, your visual results may or may not be immediate from a single aeration. However, subterranean root growth and overall health and stress tolerance will begin to improve almost at once. Even in the toughest conditions aeration in combination with an appropriate fertilizing, irrigation and weed control program will show improved visual results in a few weeks followed by dramatic results in the second year after a second or third aeration.

Q: Will aeration make my grass grow faster?

A: Yes. Healthy grass will grow faster and thicker. If you hate to mow lush green grass, aeration, fertilizing and watering are counterproductive.

Q: Is aeration a one-time fix that can be discontinued when my lawn has improved?

A: No. Aeration needs to be a continual part of your lawn care plan just like fertilizing, weed and pest control, irrigation and mowing. In some cases aeration can be reduced from twice a year to once a year after a couple of seasons.

Common Aeration Questions

Q: How deep and how many cores are required for effective aeration?

A: Generally, cores every 4"-6" and from 2"-3" deep will give best results. It is commonly accepted that the deeper and the closer together the better. The cores left in the yard will usually be about 5/8" diameter.





Q: How long will it take for the cores left in my lawn to disappear?

A: Depending on weather, soil conditions, watering and mowing frequency, the cores will break down and disappear in about two weeks. This process will add nutrients to your lawn. Raking up the cores reduces aeration effectiveness.

Q: Can I aerate myself?

A: Aeration can be done by any homeowner that has a "do-it-yourself" attitude. Most rental stores rent gas powered walk behind aerators. Many homeowners prefer to have a lawn care professional handle this chore.

Q: How much does aeration cost?

A: Cost varies depending on location. Generally rental cost averages around \$70 per four-hour rental. It will usually take one hour to aerate a typical residential lawn with the right size machine. Use an 18" wide unit for 1/2 acre and a 25" unit for an acre lot. A lawn care contractor is likely to charge between \$75 to \$180 for a 1/2 acre, depending on location. But, rates vary.

Q: Is it important to aerate close to obstacles such as drive ways, sidewalks and plantings?

A: Yes. Often these are the places where compaction is most prevalent, where weeds often invade and where irrigation systems often are less effective.

Q: How wet should my yard be for best aeration results?

A: Dry ground reduces the depth of cores and aeration effectiveness. Wet, muddy soil allows deep aeration but at the expense of crusting the soil in the hole, reducing access to the roots and making cores left in the yard a muddy mess that does not break down as fast. Normally, aerating 24 hours after a 1/2" rain or normal watering is best.

Q: Should I aerate during times of drought or high heat?

A: No. During this time, the grass growth is less active and aeration could increase the invasion of weeds and possibly increase the rate of water evaporation.



Q: Should I aerate newly seeded grass or sod?

A: No. Sod should not be aerated for at least 12 months. Newly seeded lawns usually can be aerated in the second full season of growth. Multiple pass aeration prior to seeding or sodding is a good way to prepare the soil.

Q: Can aerator tines damage sprinkler heads or other items in the lawn?

A: Yes. You must flag all items in the yard to avoid damage caused by the tines.

Q: When should I fertilize?

A: Fertilizing immediately after aeration will achieve the best return on your fertilizer investment, as it will more easily get to the root structure at this time.

Q: Will my lawn require more fertilization after aeration?

A: No. The same amount of fertilizer will give quicker and more lasting results as it will get to the roots where real health occurs.

Q: When should I apply preemergent for weeds?

A: Preemergent is best applied after aeration to reduce the chance of weed invasion in the yard while grass is spreading to the cored holes. Do not apply preemergent if you intend to overseed.

Q: Is reseeding after aeration a good practice?

A: Yes. If your lawn has areas where the stand of grass is thin, broadcast seeding 1-2 weeks after aeration will improve germination, as the seeds will intermix with the deterioration of plugs and have direct access to non-compacted soil in the holes in the turf. In this area, multiple passes with the aeration equipment will dramatically improve soil conditions leading to better overseeding results.

Q: Do I need to dethatch (power rake) in addition to aeration?

A: Only in case of extreme thatch is this necessary. Power raking removes thatch but does not improve compaction. Aeration does both in one operation.

Q: Should I water after aeration?

A: Yes. Water helps breakdown the cores left in the yard and is particularly effective on the newly exposed root system.

