

Why Aerification is Important!

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Aerification is one of the most important cultural practices turf professionals can do to ensure athletic fields are safe and healthy.

With this being the case, some might ask why it's not done more frequently. Most likely it's due to a lack of understanding or education among those making the decisions in terms of what equipment to purchase.

So what is aerification? The dictionary defines aerification as:

aer•i•fi•ca•tion

n. 1: The act of combining air with another substance, or the state of being filled with air.

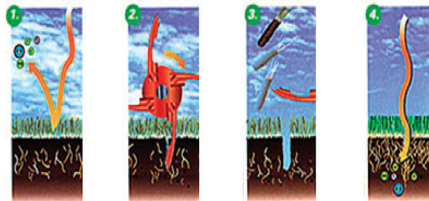
2: The act of becoming aerified, or of changing from a solid or liquid form into an aeriform state; the state of being aeriform.



Here's an analogy you might be able to visualize or relate to. Imagine a dish sponge. When dry, it is very light and has a lot of pore space to absorb water.

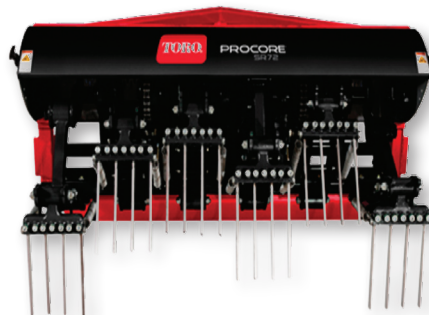
As the sponge absorbs water, it becomes heavy and requires ringing out to release the built up water. Once this is done, the sponge can be used to absorb more water.

Now you're probably asking how a sponge relates to turf surfaces. Simply put, soil is like a sponge in that it absorbs moisture, and allows for nutrients to get further into the soil profile and gases created to escape to the atmosphere. As the soil is compacted by foot traffic or



other means, this process is restricted. Aerification allows the turf manager to open up the compacted soils. When we play sports on natural turf surfaces the constant traffic directly compacts the soil profile, which oftentimes can lead to a poor playing surface if not managed appropriately. To take this a step further, many turf surfaces have moisture issues, and when you add this into the equation you increase the process of compaction greatly.

There are many methods to aerification. The key is to utilize



technology that allows you to

be both efficient and effective in relieving compaction. What's equally critical is the number of holes created in a square foot surface area. While drum style aerators are an inexpensive approach, they generally have difficulty delivering the results achieved through more productive machines unless you make a number of passes over the same area. Another aspect is the penetration depth into the soil. In recent years, deep-tine aerators have taken hold as a complementary supplement to a regular aerification program. Deep-tine practices allow turf managers to fracture the hard pan in the soil, which might have been established due to construction techniques or years of repeated same depth aerification practices.



If you are a sports field administrator, coach or parent volunteer, aerification should be one of the main topics of discussion with your turf manager. While the process can take some time and require some clean up and possible rest of the field, the benefits will be tremendous and provide your facility and athletes with a safe and healthy playing surface.

For more information, please visit: www.toro.com/cultivation