

Cutting to the Core of Aeration Equipment

By Linda Beattie

Aerators revitalize lawns by opening the soil for more effective penetration of air, moisture and nutrients. Aeration allows improved water retention meaning less frequent watering. The result is a healthy, green lawn. Aerators come in a wide variety of sizes and power options. Whether the area is large or small, or the job is commercial or residential, there's an aerator to fit the job. But there are many things to consider when looking for an aerator that's right for you.

Tines can make a difference

Aeration is a lawn maintenance procedure achieved by using one of two types of tools, cores or spikes. Core aerators have hollow shafts or tines that enter the ground and pull out a core or dirt plug and drop it on the surface. The shaft can be straight or spooned. The core can be collected or left on the turf to breakdown and enrich the soil. Core aerators expose the grass roots to sunlight, water and nutrients. The holes retain water allowing for less frequent watering. Core aerators also help reduce soil compaction. Less compaction means a healthier root system. The lawn will become more tolerant to heat, drought and traffic as well as more disease resistant.



Core aerators (shown above) have hollow shafts that pull a core or plug and drop it on the surface.

Spike aerators use solid tines that poke holes into the soil. Smaller, lighter aerators can also use thin steel blades that produce narrow slits into the turf. The general rule is if the tine or shaft does not extract a core then it's considered a spike aerator. Spike aerators help keep the soil loose, improve lawn health and allow for better water retention and less frequent watering.

Power options

Manual aerators differ by tine type. Manual core aerators are handheld units that are physically stepped into the ground. The core is removed when pulled back. Rotary aerators are "push types" that use spike tines to poke holes into the turf. Although manual core aerators require the user's weight to achieve penetration, rotary aerators may require additional weight to achieve an even and deep penetration. Manual aeration, core or spike, is labor intensive. However, these units are economical, extremely simple to use, and are ample for small or narrow areas.

If you're not working in a tight spot, engine-powered walk-behind aerators are far more efficient and less labor-intensive. Walk-behinds allow the tines to mechanically enter the ground. The most common walk-behind types are mid-tine vertical coring and rear-tine roll-types. Mid-tine units utilize vertical coring to push and pull the tines in and out of the ground. Rear-tine units utilize the machine's own weight to achieve consistent depth penetration. Rear-tines are easy to spot due to the wide drive wheel in the front. The majority of walk-behinds offer ample weight, and might only require additional weighted material when the soil is extremely compact. In arid conditions, it might be better to moisten the ground the night before and aerate early in the day rather than use additional weighted material. Many walk-behinds offer additional weight bars or water drums for use when added weight is needed.



The right choice for some may just be an attachment.

If the idea of a manual aerator doesn't suit you and you don't have the area suitable for a walk-behind, the right tool for the job might be an attachment. Mini-tillers are lightweight, easy to maneuver, and offer a variety of attachments. Tiller aerator attachment blades may be the perfect option for tight areas and can zip through smaller jobs.

Residential and commercial walk-behind options



Some higher-end mid-tines combine a front caster wheel with rear drive differential to achieve zero-turning capability.

Compact walk-behind aerators can be the perfect tool for the job. Compacts are designed to fit thru narrow property gates, their weight is manageable, they utilize smaller engines and are easier to store and transport. Though compact in size, these units still have ample weight to achieve consistent depth and penetration. Compacts are ideally suited for small to mid-size residential jobs.

As convenient as compacts are, medium to large residential properties would be better served by a larger walk-behind unit with steering capabilities that will cover more ground in less time. There are rear-tine walk-behinds that offer steering capabilities through a split-drive. Split-drive technology allows the user to easily steer, turn, and aerate an entire job without removing the tines from the ground. These units utilize each tine to propel the unit, in forward

or reverse. By utilizing each tine you achieve consistent deep penetration and precise controlled steering without slippage (even on slopes and side hills), increasing productivity and minimizing user fatigue.

Some higher-end mid-tines combine a front caster wheel with rear drive differential to achieve zero-turning capability. Another option would be a stand-on aerator. Stand-on aerators operate similarly to walk-behind models with the added feature of the operator being able to stand on the unit versus walking behind it. These units are easy to maneuver; offer a larger, more powerful engine; practically eliminate user fatigue; and handle larger areas with ample weight to penetrate even the hardest, most compact soils.

Wide-open spaces: pull aerators

When the grounds are not hindered by narrow gates and offer ample driving room, pull aerators rule! Pull-behinds are offered in either tow or 3-point-hitch versions that come in a variety of widths and offer manual, electric or hydraulic lift options. With forward movement, the tines enter the ground and aerate effortlessly while being pulled by a tractor, ATV or riding mower. Weight will determine the right vehicle for the pull-behind. Pull-behind aerators cover large areas and eliminate any user fatigue.

Visit your local power equipment dealer for additional information and to demo a unit prior to purchasing. Your local dealer can answer all of your questions and help you find the unit that's right for you. Regardless of the aerator you choose, always read the owner's manual prior to use and follow all operating and safety instructions.



Tow-behinds can be pulled by a tractor, ATV or riding mower.