# **Sportsturf Machines**

# Getting acquain tec

# How well do you know your aerator?

# BY GRAHAM FOOT

Let seems as though "aeration" is a word that strikes fear into the hearts of sports turf managers and superintendents everywhere. The when's, how's, and what size tines, all factor into a turf manager's decision. Although aeration might be one of the more tedious and time-consuming tasks necessary to keep turf in top condition, it's also one of the most important and life sustaining to the field or fairway.

It may take a while for this project to shed its "necessary evil" reputation, but by understanding equipment options and operation, researching advancements in the newer product models and remaining faithful to the upkeep of your machine, you can produce excellent coring results and extend the life of your equipment. All of these factors boil down to one concept–know your equipment. You'll have healthier turf to show for it.

## A smorgasbord of choices

Choosing the correct aeration equipment for your conditions is essential to the look of your turf and the life of the equipment. Turf managers are offered a veritable buffet of options that include coring head width, tine variety (a subject so diverse that it deserves an article all its own), and coring depth capacity, not to mention the unit itself. Should you use a self-propelled model? A tractor-mounted model? A hitched and towed model?

The answers to these questions are as varied as the turf conditions, and are personal to each turf manager. The important part is making sure the questions are asked when deciding on the right model. This is the first step to making



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sure that the equipment is capable of doing the job at hand. Using the wrong equipment can cause problems with the turf, and it can place undue stress and wear on the equipment, costing you time and money.

Once the right equipment is in the arsenal, it's not as simple as pressing "on" and motoring in a straight line down the field. Operating an aerator takes precision work, and when used incorrectly can make and (quite literally) break the health of your turf.

Manufacturers know that poor aeration quality is often not a result of poor equipment, but is a result of improper use of the machine. Using the equipment incorrectly can cause torn or elongated holes as well as problems with the machine itself. For example, leaving the turf guards off of the aerator could cause lifting of turf. Leaving deflectors and shields off means that

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excess debris extracted with the core, such as loose dirt and rocks, can get into the belts and gears of the aerator, causing wear and tear.

Also, operators should be extremely familiar with the proper setup of the equipment. Operator's manuals will have important information about tire pressure, forward speed settings and core depth, all items crucial to the health of the machine and the performance on the turf.

Aerators are being designed to be cleaner, more efficient, more accurate and even quieter. One of the most useful new design trends is the increased emphasis on serviceability of the machine. Several of the newer models are made with sealed bearings, which keep water out when washing the equipment and eliminate excess oil dripping onto the turf. Chains are being replaced by quiet, more serviceable fiberglass reinforced belts that are easier to change and h



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forced belts that are easier to change and less expensive.

Aerators are also being designed with electric core activators, so that if the equipment runs out of fuel, the coring head can still lift off the ground as opposed to a hydraulic lift that won't work if the equipment is out of fuel. This design feature not only saves the turf from tearing, but can also prevent the struggle that goes along with manually lifting the coring head from the ground

in order to transport the equipment to the service bay.

### The maintain game

It's no secret that daily preventative maintenance is the most important thing a turf manager can do to expand the life of a piece of equipment. The basics, while seemingly obvious, sometimes get left by the wayside if the staff is shorthanded or if the day is just "too busy." But this type of neglect can turn costly. Simple daily maintenance of aeration equipment is essential, not only to the machine's life span, but also to its performance the very next time it's in use.

Washing the equipment after every use is the number one to-do on the list because aeration is a dirty job. Also, give it a visual once-over for broken tines, worn belts, low fuel, and damaged turf guards. In addition, familiarize yourself with the recommended scheduled ser-

vice checklists found in most operator's manuals. Typically, manufacturers will provide service checklists in hourly usage increments. It may be helpful to post these schedules in the service bay area so that your staff can set reminders. The performance of your aerator and the beauty of your turf depend on it.

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The First Products AERA-VATOR® uses a "patented" vibrating action to loosen and break up hard and compacted soils in the root zone, without destroying existing turf on the surface. The AERA-VATOR® has a unique swing hitch that allows the operator to turn around objects without tearing the turf. The rear roller can be pinned to control tine depth up to 3 3/4inches deep. The AERA-VATOR® comes in several models ranging from 40" to 80" wide. The unit also comes with optional seed box for over seeding or primary seeding.

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# Aerator storage

### Storing the aerator

- 1. Select a dry storage area with a firm, level surface.
- 2. Install support legs and remove the aerator from the machine.
- 3. Wash the machine. Clean the tines with high-pressure water while still clamped in the tine holders.
- 4. Remove the tines from the tine holders. If tines are still usable, coat with oil and store in a plastic bag.
- 5. Check for loose or missing hardware.
- 6. Check for rubber flex-link bumpers and flex mounts for wear or cracking. Replace if necessary.
- 7. Check turf guards for damage and replace if needed.
- 8. Check the aerating tine ram and tine holders for damage.
- 9. Loosen belt tension.
- 10. Check belt drives for wear or damage. Remove material from pulley grooves.
- 11. If the aerator must be stored outside, use waterproof cover.

### Return the aerator from storage

- 1. Wash the machine and lubricate the powershaft.
- 2. Replace drive belts if needed; adjust belt tension.
- 3. Change the gearbox oil.
- 4. Install the tine holders and the aerator to machine.
- 5. Raise the aerator enough so tines cannot contact the ground. Run machine with PTO engaged at idle speed for 5-10 seconds to check for unusual sounds.
- 6. To achieve desired hole spacing and depth, test the aerator on practice turf. New tines must be broken in on practice turf before use.
- 7. Listen for any unusual mechanical noises while operating on practice turf.
- 8. Check for loose or missing hardware after operating on practice turf.

-courtesy of John Deere