



grounds newsletter

GREENS AERIFICATION

Except for mowing, aerification is possibly the most important process we perform on the golf course. First, I will show you our aerification process then discuss why this process is so beneficial.

STEP 1 of 8: Heavily topdress the green with sand



Approximately 65 tons of sand is applied over all 18 greens on the East/West and putting green (2.53 acres).

STEP 2 of 8: Allow the sand to dry



Allowing the sand to dry is a critical part of the process. The goal is to incorporate as much sand as possible into the green. Wet sand sticks together and will not drop down into the holes. The drying time can take 1 to 5 hours depending on the weather and time of day.

STEP 3 of 8: Aerify the green



The green surface is aerified, with solid tines, after the sand has been applied and dried. The aerification tines will push the sand down as they punch holes. This ensures all of the holes are completely filled.

STEP 4 of 8: Incorporate the remaining sand into the holes



The remaining sand is blown into the holes until they are completely filled. Properly incorporating the sand takes about 40 minutes per green

Side profile of the green from a cup cutter



The yellow arrow marks an aerification hole from this year. Notice, the shape of the sand is tapered at the bottom. The same shape as the aerification tine. This is confirmation that the hole was completely filled.

The red arrows show sand filled aerification holes from previous years. It's great evidence that sand filled holes have a cumulative effect and have an impact on changing the soil profile.

STEP 5 of 8: Roll the green



The green is rolled to smooth the surface after the disruption from the aerifier and incorporating the sand. The green will be rolled several times over the course of the next week.

STEP 6 of 8: Detail clean up



Sand in the rough is blown to provide a clean presentation of the green surround and so no grass will suffocate.

STEP 7 of 8: Fertilize the green



Extra fertilizer is applied to provide growth for recovery. Over 70% more nitrogen and other nutrients are applied the week of aerification compared to a normal week.

STEP 8 of 8: Water



The initial watering helps compact the sand into the turf canopy. Water is also very important for recovery. The plant needs to stay as healthy as possible. Adequate water is applied for the week following aerification or until full recovery.



The week following aerification is all about recovery and promoting long term benefit. The greens are not mown for the first few days following the process. This is to allow the turfgrass to grow up into the sand, ultimately smoothing the putting surface.

Once the greens are ready to be mown for the first time, after aerification, the height of cut is raised by 15%. It is important to mow above the layer of sand so it stays in place. Also, the greens need to be mown when the surface is dry. Mowing when wet will cause the sand to stick to the cutting units and the sand will be displaced. Therefore, we mow in the afternoon and not in the morning.

We are currently 6 days post aerification on the East and 5 days post aerification on the West. Today (Tuesday 9/19/23) was the first day we were able to mow in the morning. We are also in the process of lowering the height of cut to the pre-aerification height. Lowering the height must be done in stages as to not remove too much leaf material at one time.

Believe it or not, only about 7% of the surface is disrupted from this process. This is one reason why it is important to continue aerification on a yearly basis. The aerification process improves drainage, increases rooting, enhances oxygen/air to the plant, dilutes thatch, decreases disease, fills imperfections on the putting surface, and the list could go on.

What does this mean for you as a golfer? After the greens heal, the aerification process creates a smoother and firmer playing surface due to incorporating the sand. It helps in a true ball roll by aiding in a healthier turfgrass plant and speeds up access to the golf course after rain events with improving drainage. The benefits have a long term impact on putting green quality.

