

Buffalo-Blow Your H₂O

A leaf blower and misting system can be an effective way to help greens survive a hot summer.

BY PATRICK J. GROSS



Kevin Hutchins at Mission Viejo Country Club fabricated a syringing system for greens using a utility cart and Buffalo Turbine Blower to help them save time on weekends and minimize interference with golfers.

Surviving a hot summer is difficult for people and plants. People, at least, can move into an air-conditioned building or turn on a fan. Plants, especially *Poa annua* and creeping bentgrass greens, are left vulnerable to the elements and often experience heat stress, wilt, and desiccation during a hot summer. The basic method used by most superintendents to keep greens cool during summer is to apply a light mist of water over the greens, known as *syringing*, in combination with insuring good air flow with the use of fans. This allows for good evaporative cooling to keep the surface of the greens below lethal temperatures.

A UNIQUE MISTING SYSTEM

Kevin Hutchins at Mission Viejo Country Club in Southern California decided to combine these two concepts so his crew could quickly syringe greens during the summer without causing too much interference to golfers. He and his mechanic made slight modifications to their Buffalo Turbine Blower by mounting two banks of misting nozzles on either side of the fan housing. Poly tubing connected the misting nozzles to a small diaphragm pump and a 25-gallon tank of water mounted at the rear of a lightweight utility vehicle. Following is the list of parts that Kevin and his mechanic used to make the modifications to the blower:

- 25-gallon poly tank
- 12-volt diaphragm pump (Sure-Flo)
- Poly tubing/fittings
- In-line automotive fuel filter
- Two sets of atomizing nozzles (10 nozzles on each set, available from Spraying Systems Inc.)

The total cost of the modifications was less than \$500.

The staff at Mission Viejo Country Club typically uses this setup on Saturday and Sunday afternoons when the course is full of golfers and they want to syringe greens with minimal disturbance. One employee is scheduled from 1 p.m. to 4 p.m., which is enough

time to syringe each green two times. The disturbance to play is minimal and the club realizes a significant labor savings by needing only one employee to syringe greens.

COOLING EFFECT

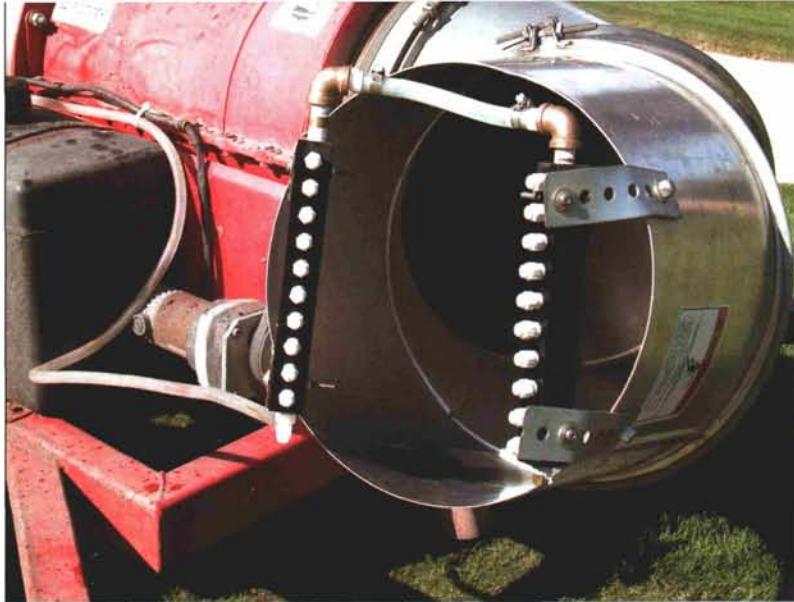
The cooling effect of this misting system has been significant. Kevin and his crew experimented with different methods to see which would have the most effect on cooling the greens. By making two passes with the misting system, it was possible to reduce surface temperatures from 97°F to 81°F. The cooling effect was enhanced even more by turning on the greenside sprinklers for one revolution, followed by making two passes with the misting system. This reduced surface temperatures from 97°F to 77°F.

COMMUNICATION

As with any new maintenance practice, golfers will tend to be skeptical and wonder what the maintenance staff is doing. Good communication is necessary so that golfers understand the temporary inconvenience of having to wait while the greens are being syringed. Kevin has done this by posting notices on the club bulletin board and including a short explanation on the club website. As Kevin has emphasized to his members, "You only need to give us 60 seconds so we can give you better greens." This method of cooling the greens is innovative, relatively non-disruptive to golfers, and inexpensive, while also reducing the amount of labor necessary to hand-water and syringe greens during the summer.

If your golf course is in the same situation of trying to keep greens cool during summer, instead of paying an army of employees to syringe greens, you may wish to consider this method to "Buffalo-Blow Your H₂O."

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Two banks of atomizing nozzles fastened to the fan housing provide a light mist of water into the air stream of the blower to syringe the greens.



A small 12-volt diaphragm pump supplies water to the misting nozzles. An inexpensive in-line automotive fuel filter removes any debris in the water that could clog the nozzles.



The staff at Mission Viejo Country Club typically uses this setup on Saturday and Sunday afternoons. With two passes around a green, it is possible to reduce surface temperatures by 16°F.