## HANDS ON



*A fairway blower can be used as a portable subsurface air pump for problem greens. Photo by Mark Jacobs* 

## SUPER TIP

# The Air Down There

#### *By Mark Jacobs*

We had an issue with the drainage on a couple of our greens here at Shell Point. This resulted over the years with issues of weakened, thinning turf and recently some outbreaks of pythium, which caused some large areas of turf loss. The disease was confirmed by a certified agronomist and proper identification was the key in allowing us to make a proper decision on treatment and get the greens back on the right track for recovery.

nal Tifdwarf on them. Nine are Tifdwarf sodded with Rapidturf and three are a mix of grasses – Tifgreen 328 and Tifdwarf. The mixed-turf greens are evaluated annually and rebuilt when the turf won't respond to our maintenance programs.

### **LPGA** INTERNATIONAL

Managed by John Lammrish, CGCS Superintendent John Lammrish has modified his basic fertilizer program at To correct the ongoing root cause of the problem – the persistent, overly wet, saturated soil profile – we made up our own version of a subsurface air-pumping unit by using our trailermounted Buffalo Blower, used for blowing off clippings and cart paths. The blower was connected to the greens' internal drain system with a 4-inch drain pipe using the bottom section of an old-style, plastic, dimpletop fairway marker and some good old-fashion duct tape.

After we hooked it all up and started the blower, the forced air began moving an incredible amount of excess water trapped in the pipes and also pushed out a strong odor of sulfur and methane gas build-up. This was a sure sign of anaerobic conditions that can lead

LPGA International over the years in response to soil-sample results, weather conditions, new fertilizer technology and operational realities.

Lammrish cited a couple of examples during a recent interview, "When I first came here, the fairway and rough program on the 250-acre Champions Course was 6-8 lbs. of nitrogen (N) per year. There were times we were baling hay in the roughs. I discussed the labor to disease problems. After the water and gases seemed cleared up, we used a makeshift plug to seal off the vent on the other side of the green. This then forced some of the air up through the soil profile to send oxygen to the turf roots.

Sometimes the simplest things work best. We also had a TAS visit with Todd Lowe of the USGA to discuss some of these issues and to provide the necessary documentation. The portable blower was not a new idea in the business, but we wanted to share it as a reminder that it can be a relatively inexpensive and effective solution in case someone may be having similar problem with greens drainage issues. It sure made a big difference for us.



Superintendent Mark Jacobs inserts home made plug into the green's drain vent to force pumped air into the soil profile. Photo by Jim Carpenter

hours and the mess with our management team and they have allowed me to back off to 2.0 lbs. of N. We monitor the turf closely to make sure we don't allow too much weed pressure from the reduced fertility, but it has helped our budget considerably without sacrificing playability or appearance. On the smaller 100-acre Legends course, the program calls for around 6 lbs. of N per year on the fairways and 8 lbs. of N on the tees.