

Prescriptions for the OLD GREEN SYNDROME

Sitting in the stands at Augusta National for the 1991 Masters, DAVID WHITE chanced to sit beside Cutler Robinson Jnr., a golf course superintendent and member of the Golf Course Superintendents Association of America. Inevitably conversation centred around the perfection that was all around, the American dilemma of demanding slicker and slicker greens, and eventually to a discussion of Cutler's own course, an old established Club in Virginia. "I've had problems that would tax the very being of the fellows here", he said, "and would love to share them with my fellow greenkeepers on your side of the Atlantic". Here then is Cutler's answer to his little problem, one he calls 'prescriptions for the old green syndrome.'



Deep aeration with sand topdressing

Maintaining quality bent putting greens in south eastern Virginia is a very arduous task. Extreme heat and humidity throughout the summer months are very common, making management difficult. Elizabeth Manor Golf and Country Club has 'old style' greens which compounds this problem, characterised by heavy soil and lack of internal drainage. Many of these old greens also have shade and air circulation problems and are often too small for the amount of play they receive.

Reconstruction seemed a logical solution to the management dilemma of maintaining these traditional old style greens, but fear of losing the architectural integrity of the golf course and the expense involved precludes this approach. Besides, contemporary methods for putting green construction can create many more complicated problems than those associated with old greens.

Upon my arrival at Elizabeth Manor in 1986, I found the greens prone to *Poa annua* and algae infestations, mostly due to extremely poor internal drainage. The implementation of a deep aeration programme with the Verti-Drain provided quick yet temporary relief. The greens would take approximately three times the amount of water to reach field capacity as they did before, but anaerobic soil conditions were still common following heavy rainfall during the hot, humid months.

After the first summer I decided to begin a programme of drain tile installation into the existing greens. The poorest draining greens were selected to be done first. The sod was stripped and trenches dug in predetermined areas. Drain tile was installed and backfilled with stone and then sand/root-zone. The sod was then replaced and the greens were soon ready for play. The drain tiles from the greens were coupled with a solid pipe and daylighted in an appropriate location. The continuation of the deep aeration programme, with the Verti-Drain set at a depth just above the drain tile, allowed excess water unimpeded movement through soil profile and away from the green.

The precise management of irrigation throughout hot and humid periods is critical in these parts in order to maintain quality putting surfaces. The stringent and judicious application of water creates a healthy environment for turf survival. Dry greens putt better and withstand more traffic than wet, soggy greens. Hand watering and the use of wetting agents were found to be necessary to prevent turf loss from localised dry spots.

I subscribe to the view that the application of nutrients should be based on the requirement of the plant. Micronutrients and biostimulants have proven invaluable here in maintaining healthy greens through stressful periods. Certainly, old style greens will afford the greenkeeper more flexibility in this area when compared to sand based greens, which have poor nutrient holding capacity. The analysis of tissue as well as soil are again, I believe, essential aspects of a sound management programme.

Cultural practices such as shallow and solid tine aeration are still very important in the areas of thatch reduction and improved evapotranspiration. The incorporation of sand through topdressing, especially following aeration, will improve the infiltration of water through the soil profile.

The demands of the golfer for faster greens is a goal we should not shun too quickly. A dry, closely cut green that is ideal for putting will also have excellent surface drainage and improved evapotranspirational qualities. Achieving double digit stimpmeter readings during environmentally stressful periods is no easy task, but every effort to do so will be appreciated by your employers.

The management problems associated with old style greens are very simple in nature compared to the problems created through contemporary methods of construction. By managing the environmental factors affecting the maintenance of old style greens, such as internal drainage, shade and air circulation, you can save your golf course its original architectural integrity – as well as saving money.

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