

# Survival 101: Dealing With Ever-Increasing Expectations

Tips from the Northeast on juggling demands for optimal playing conditions with diminishing resources and extreme weather.

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The 2003 season provided its fair share of challenges for golf courses in the Northeast, Mid-Atlantic, and North-Central regions. Maintenance plans were altered by harsh winter weather and record-setting spring and summer rainfall that caused considerable turf stress and made it more vulnerable to disease, pests, and both mechanical and traffic injury. At times it seemed like turf managers were expected to walk on water (standing on their golf courses!). In short, it was not the year to abandon common sense and basic agronomic programs.

Tightening budgets, busy golf calendars, and continuing pressure to reduce or eliminate pesticide usage added to the weather challenges. Despite all of this, golfer demands for ideal playing conditions were unwavering. The following tips were gathered from superintendents who successfully weathered the environmental and political storms in 2003.

## GROWING ENVIRONMENT

Providing a good growing environment is the best insurance against turf loss due to extreme weather. Annual bluegrass (*Poa annua*) competes best in shaded, wet, and highly trafficked environments. Unfortunately, it is usually the first species to die in response to extreme weather and disease. A positive trend in our regions is that golf courses are now removing trees and other vegetation that impede air movement and compete with turf for available

sunlight, moisture, and nutrients. Also, it is important to remove obstructions (e.g., vegetation, fences, bunkers, etc.) that concentrate traffic and increase turf wear.

Courses having ample surface and subsurface drainage were best suited to maintain healthy turf and provide acceptable playing conditions. Installation of subsurface drainage continued to grow and has become popular and effective in older greens constructed with heavier, native soils. In addition, installation of sand-filled slit trenches in greens, tees, or fairways proved valuable in removing moisture from important play areas.

## WINTER INJURY AND RECOVERY

One of the many challenges facing superintendents in the North is deciding whether or not to remove accumulations of snow and ice on putting greens. While there is no easy answer, don't forget about the insulating effects provided by snow cover during the winter months. Removing snow and/or ice too early is laborious and can physically damage the turf and/or predispose it to direct cold temperature injury or desiccation. Several superintendents have begun monitoring turf canopy and air temperatures to learn more about winter freeze injury and help in determining when snow, ice layers, and covers should be removed. Battery-operated data loggers and probes are used to record temperatures

on an hourly schedule throughout the winter. The condition of the turf also is being monitored more closely through the winter in hopes of determining if winter damage has occurred and if anaerobic conditions exist in the soil profile. Plugs are extracted from select greens periodically or following a severe weather event by using a reciprocating saw or hole-bit. At the very least, this helps determine how and when the damage occurs and provides information to expedite the recovery process.

Early detection, strong and clear communication, sound cultural practices, and golfer cooperation were keys to successful recovery from winter injury. The most effective procedures included: closing the damaged areas to play, implementing recovery efforts as early as the ground is workable, creating a good seedbed by using a slicer seeder or shallow aeration, repeat spiking and spot seeding, light and frequent fertilization, hand-watering, and using covers or dark sand topdressing to elevate soil temperatures and prevent seedling desiccation. Finally, exercising a conservative approach to opening the greens for play and avoiding excessive green speeds were helpful in promoting recovery.

## CULTIVATION

Because rainfall persisted throughout most of the spring and summer, many superintendents had to abandon their regularly scheduled aeration programs and make the most of dry days that seemed few and far between. The





Golf course superintendents are occasionally asked to “walk on water” to meet golfer expectations of golf course playing conditions.

immediate goal was to keep the turf alive. A top concern was to vent the soil without adversely disrupting surface quality. Equipping tractors with flotation tires helped to minimize the potential for surface disruption. Many types of aeration devices were used on greens, approaches, tees, roughs, and fairways. Small-diameter solid tines and deep slicing techniques were used regularly and, in fact, were essential to the survival of the turf. Surface disruption was minimal, but the benefits of the procedures were significant.

## MOWING

During 2003, it was never more crucial to have mowers that were sharp and properly adjusted. While bench setting is important, field performance was paramount! Emphasis was placed on tending to the variables that were controllable. For example, castor wheels were installed on mowing equipment to minimize scalping potential. Solid front rollers were installed on reel mowers to minimize turf wear. Groomers were raised to prevent damage to the turf canopy. To accommodate mowing adjustments, brushing was used rather than grooming or vertical mowing. The frequency of lightweight rolling was reduced, especially on soil-based greens. Emphasis was placed on ball roll, not pace. Overall, even the simplest of adjustments made a big difference when it came to controlling damage.

## FERTILIZATION

Rainfall abundance affected nutrient availability, and many superintendents found themselves applying more fertilizer than normal and during times of the season when fertilization typically is not performed. In light of this, emphasis was placed on spoon feeding of nitrogen to avoid experiencing a flush of top growth. This was accomplished by using readily available, predictable nutrient sources.

## GOLFER EXPECTATIONS VS. ENVIRONMENTAL REGULATIONS

Water use on golf courses is being scrutinized more closely throughout our regions. In addition, there is an undercurrent to reduce or completely eliminate pesticides on golf courses in parts of New York and eastern Canada. Superintendents in New York have increased their political involvement by working together with the New York State Turfgrass Association (NYSTA) to organize a Turfgrass Advocacy Day that will provide a forum to voice their concerns and foster relationships with members of the state legislature. NYSTA has also joined with other green industry associations to fund a professional lobbyist who organizes the group's legislative and regulatory agenda and helps promote green industry positions.

Meeting course conditioning expectations is becoming increasingly difficult, and new legislation will emphasize the

need to use holistic turfgrass management practices with less emphasis on color and aesthetics. Convincing passionate golfers of this need is no easy task, but it may be the only solution to avoid the onslaught of new regulations. Working with the Audubon Cooperative Sanctuary Program for Golf Courses is an excellent means of increasing environmental awareness both inside and outside of the golf industry. Take time to revisit that program if you have not yet done so, and become more politically astute.

## SUMMARY

The 2003 season was just another reminder that the art and science of golf turf management is more fluid than static. What worked best yesterday, last year, or on another golf course may not work today. Failure to plan for and adapt to unexpected and extreme weather conditions will compromise quality and sustainability. Furthermore, failure to recognize the importance of the changing political forces that are at work behind the scenes will have serious and long-term implications for us all.

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