

We are only on the tip of the iceberg of advancements

By TERRY BUCHEN

• President, Terry Buchen Golf Agronomy



Terry Buchen

Many significant advancements have been achieved in golf course management during the past 10 years — most notably, living on the edge has gotten easier and better.

The new bentgrass

cultivars and ultra-dwarf Bermudagrass greens varieties have evolved with much better root systems, disease and weedgrass prevention capabilities, for much faster, firmer and smoother putting surfaces, to the delight of golfers and golf course managers in North America.

Management companies have proliferated during this decade by proving, over and over again, that money can be made in the golf business while still providing an acceptable conditioned product. This

proves how valuable the golf course manager is in providing good agronomic and playing conditions while watching the bottom line.

Management companies are now operating on all levels of golf course operations, including private clubs and resorts and even some military base courses. Many new courses are being operated soon after they are opened or are sold to management companies during or shortly after construction.

Headhunters have made tremendous

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Ten Years of Gaining Ground

By BRENT WADSWORTH

• Honorary Chairman of the Board, Wadsworth Golf Construction Co.

Golfers who walk (and more and more often ride) the fairways today are experiencing courses built — with ever-increasing degrees of perfection — by designers, contractors and developers who have continuously upgraded their styles and operations. The result is that the entire industry has been elevated.



Brent Wadsworth

While some things haven't changed — 18 hole courses of 6,800 to 7,200 yards still dominate — the industry has grown and evolved in many ways. For example, the total number of courses built year to year increased from 211 in 1988 to almost 448 in 1998. And golf course development is becoming more popular well outside major population areas, thanks to the expanding popularity of the sport.

Trends during the last decade include continuing upgrades in design, building techniques and technology as well as development of more daily-fee and semiprivate courses.

Here's more on where ground has been gained in the last 10 years:

Techniques and Technology

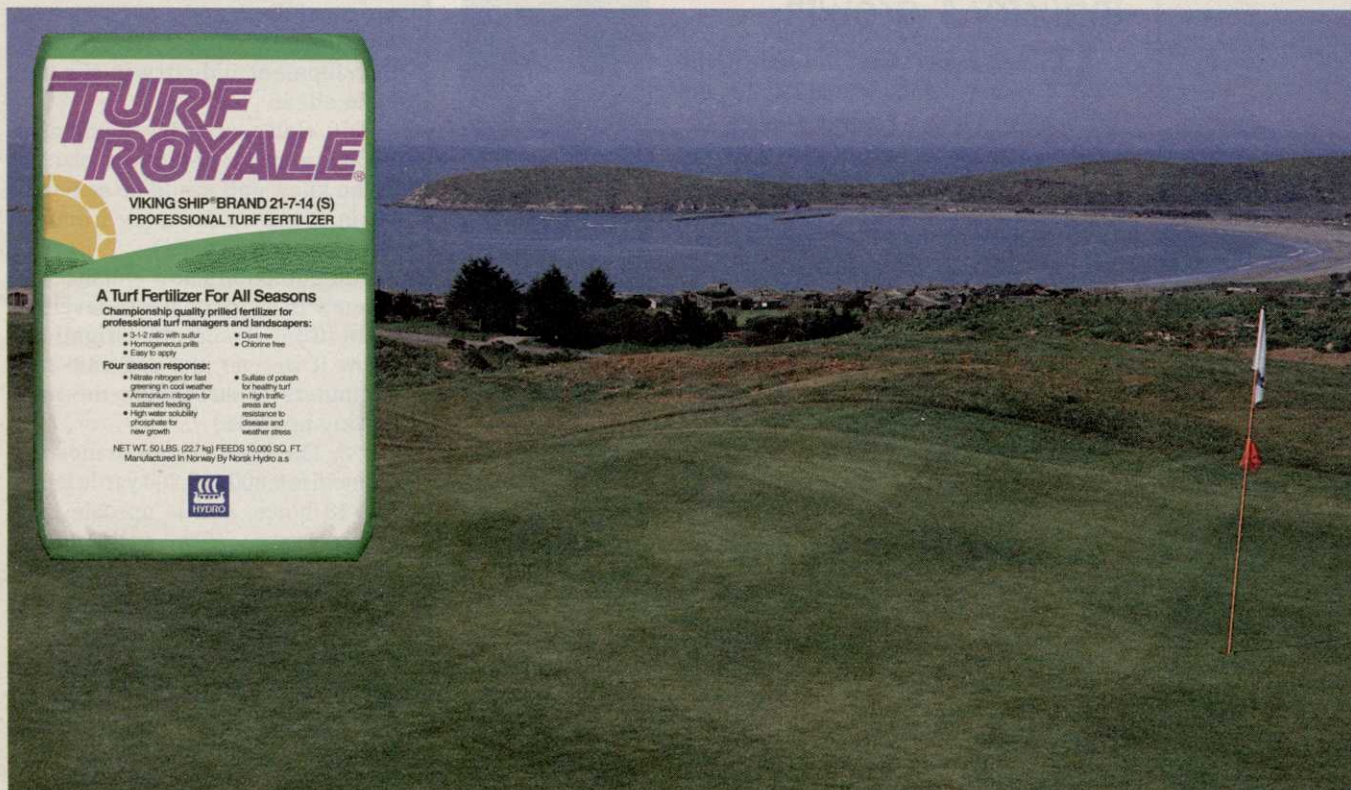
- **Hard surfaces** — We have benefited significantly from improvements in the specialized equipment that moves earth, trenches and performs such applications as stone- and debris-picking. Techniques in surface drainage, handling structures, cart paths and earthmoving have all improved, and a growing variety of surface materials, especially concrete, have been introduced. Computerization has advanced all aspects of design and construction.

- **Soft surfaces** — Grass surfaces have advanced, too, thanks to a trend toward automatic and fully computerized irrigation operations and improvements in cool- and warm-season grasses. Other improvements include more ways to use seed rather than vegetative propagation; more precise information about growing-medium requirements for greens and tee features; more use of sod to help open new golf courses quicker and eliminate some seeding and sprigging operations; and the use of more ground and grass covers to protect against destructive weather conditions.

COURSE TYPE AND LOCATION

The sector with the most growth is the 18-hole upscale/daily-fee golf course, sometimes classified as semiprivate. Development courses represent a slightly smaller share of courses being built than 10 years ago.

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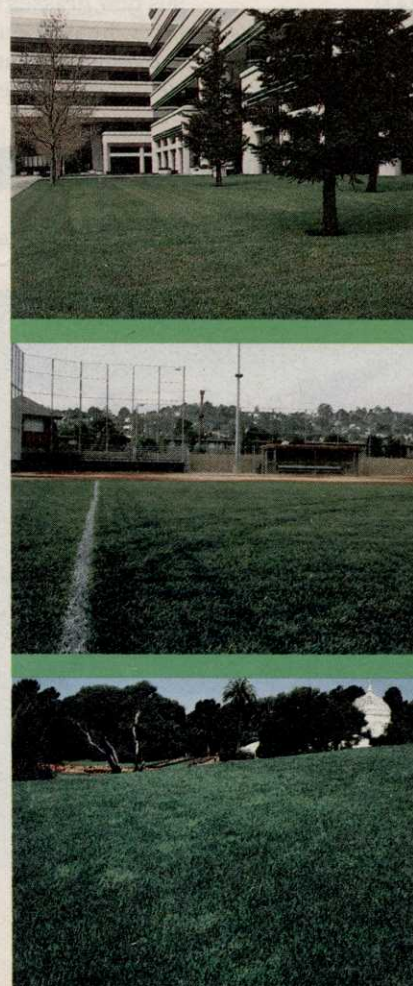
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Outside metropolitan areas, golf course demand is being fueled by increased interest in golf, economical land costs and available desirable golf sites. While the market for remodeling older courses remains strong, demand for company or corporate industrial courses is almost nonexistent.

MONEY, COURTS AND GETTING IT DONE

Lower interest rates, a strong money supply and golf's popularity have created potential new owners of all sorts as well as many new designers and developers. Public and private charitable concerns and system owners who have a stake in multiple courses are now in the marketplace.

In the last decade, several environmental and legal trends also

have evolved. The permitting process for construction has become more difficult, with extended time lengths. Golf course owners continue to run into difficulty meeting permit requirements due to more stringent wetland and water-use restrictions.

As for the legal environment, litigation has increased and now covers claims against every aspect of facility development and the game of golf. As a result,

insurance needs must be increased for work areas that did not exist 10 years ago.

Given such progress and these trends, many opportunities exist to continue the run on new facility development, even if the number of golfers nationwide does not increase. The marketplace, while seemingly fully mature, can still absorb more facilities, with no real end in sight for demand.

Watson

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of green most appealing to the television camera's eye.

New practices were adopted in response to environmental concerns including Integrated Pest Management (IPM) and Best Management Practices (BMP). Courses changed their practices to be more environmentally responsible and responsive to their clubs and communities.

If the first question is how does the course look, the second is always — How does it play? As golfer demand for lower heights of cut on greens and fairways grew, it became apparent that new equipment and materials would be needed if course superintendents were to maintain the same high quality playing conditions. Manufacturers and suppliers of seed, sod, pesticides, fertilizer, maintenance equipment and irrigation systems responded.

New innovative equipment like water injection aerators produced ready to play greens seconds after the aerator finished its final pass. Mowers that shift and flex emerged to create optimum turf. High-tech, computerized irrigation controllers were developed to apply water more precisely to reduce costs and better meet the needs of the grasses.

The business of golf changed too. Greater emphasis was placed on research and education throughout the 1990s. New and enhanced foundations emerged to support turfgrass research and such notable efforts as The First Tee(initiative began to make golf more affordable and accessible and encourage new players for the future of the game. The industry has become a close knit group of researchers, associations and industry partners all working together to enhance the game of golf.

A check of my crystal ball and I see a promising future for golf supported by turfgrass science and enhancements in bioengineering. In the future, precision turfgrass management will become the norm with increased use of GPS, GIS, and T-map technology. In the agronomic area, genetically engineered grasses will emerge with increased stress tolerance. Biological control of diseases, insects and weeds will reduce the chemicals used on golf courses. And we can expect molecular research to reveal basic cellular compounds that will provide answers to plant growth and response to environmental agents.

We'll look back in another 10 years upon a decade of phenomenal growth and opportunity for a game that enriches lives through the emphasis of personal integrity and achievement.

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