

Golf and Turfgrass Management in Italy

Understanding the infrastructure of the Italian golf industry.

by PAOLO CROCE and ALESSANDRO DE LUCA

PERIODICALLY, the USGA Green Section agronomists are asked to host visiting agronomists from other countries. One such exchange occurred when the Green Section technical staff of the National Golf School of Italy visited the USGA Green Section's Mid-Atlantic region. Their goal was to see how U.S. golf courses are maintained in a climatic region corresponding to where the majority of golf courses are located in Italy. The ultimate purpose of any agronomist exchange is to learn from one another.

In Italy, golf is a time-honored sport. The game was first introduced from England by the Duke of Albany in the early 17th century. The first course was in the Villa Borghese Meadows of Rome; however, the first golf clubs were officially created in the late 1800s.

The first documented club was the Florence Golf Club, established in 1889. The oldest and still-functioning golf course in Italy is the Acquasanta of the Golf Club Roma, created in 1903. Thus, the early development of golf in Italy roughly parallels the USA.

The Italian Golf Federation (FIG) was founded in Milan on May 31, 1927. A year later, it became affiliated with the Italian National Olympic Committee (CONI) and moved its headquarters to Rome. By 1941, the FIG was governing 24 golf courses with 1,000 members. As of December 31, 1997, the Italian Golf Federation had more than 200 golf courses, 35 driving ranges, and 55,000 members.

The distribution of golf courses in Italy is not at all homogeneous. Most of the courses are located in the north, and some occur in the central parts of Italy, mainly in the major cities. There are a few golf courses in the southern part of Italy and on the islands of Italy.

From a technical point of view, almost all Italian golf courses have a high standard of quality. Some have even hosted major international competitions. However, the search for grand and impressive facilities has resulted in the creation of cost-prohibitive clubs and a contribution to the definition of golf as an elite sport. This impression has curbed golf's recent development and growth.



The Italian Golf Federation Technical Center, located at the Golf Club Le Querce, has more than 200 golf courses and 55,000 individual members.

Another economic limitation to the success of golf in Italy is the high cost of maintenance equipment. Except for tractors and other commonly used tools like string trimmers, spreaders, etc., the specialized equipment necessary to maintain today's golf courses must be imported. There is no domestic production of such equipment. Most turf care equipment comes from Ransome of the United Kingdom, as well as Toro, John Deere, and Jacobsen products from the United States. As an example, a Toro 3200 reel mower costs about \$22,000 U.S. The average cost for a triplex putting green mower, groomer and verticut not included, is \$16,000 to \$22,000 U.S.

Environmental groups have hampered the creation of new golf courses with allegations of negative environmental impact and pollution. A recent and more rational approach to golf course design, construction, and maintenance has established a dialogue with Italian environmental protection organizations. These efforts also have been instrumental in optimizing maintenance costs and turf quality. As a matter of fact, in the last few years, local authorities have become interested in golf and have directly or indirectly participated in the development of golf courses in Italy. Much of this progress was made possible by the Federal Technical Center of the Italian Golf Federation, which includes a turf section within the National Golf School.

In Italy, the Federal Technical Center — National Golf School was started

in 1980 with the aim to organize technical training refresher courses for Italian golf professionals. In its first years of existence, the school used temporary facilities until the construction of its own 18-hole golf course with an independent building for the National Golf School was completed. As a tribute to his country of origin, George Fazio designed this golf course. The golf course is on 173 acres (70 hectares) within 25 miles (40 kilometers) of Rome. By the mid-1980s, the development potential for golf in Italy was considerable, hence the need for training the individuals indispensable in the operation of a golf course — the golf course superintendent and the golf course manager. As a result, three sections were included within the National Golf School. The first section was for golf professionals in 1980, a second for managers in 1987, and the third, the Green Section, in 1989. At present, each of these three sections of the Federal Technical Center has offices, classrooms, a gym, and the internationally recognized 18-hole golf course. This course hosted the World Cup in 1991.

In Italy, it takes five years and several educational courses to become a golf professional. In our country, only a golf professional with a diploma from the Federal Technical Center can teach golfers.

Golf managers (we call them golf secretaries, as in the United Kingdom) are in charge of managing the golf club. They are responsible for the clubhouse

budget and also for the golf course and club in general. Most of them are also referees for golf tournaments.

The Green Section of the Italian Golf Federation carries out the following functions.

- Annual golf course maintenance classes. These classes consist of two four-month theoretical classroom sessions and a third practical session of two months. During this time, the trainees maintain the golf course at the Federal Technical Center. To get the diploma of superintendent, trainees must work on a golf course for at least three years and pass several exams (one each year). There are also one-week refresher courses offered on specific subjects for individuals who have already worked on golf courses.

- Vocational training for maintenance workers.

- Technical supervision of the Federal Golf Course.

- Technical assistance to new golf projects and construction.

- Technical assistance to affiliated clubs through field visits, telephone/fax consulting, and training classes.

- Field research studies at two turf experimental centers, one in Turin and another in Rome.

- Participation in seminars and conferences involving dissemination of information on the subject of golf course and turfgrass management.

- Organizing and updating the most comprehensive turfgrass library in Italy.

The Italian Green Section agronomists were trained at Texas A&M University under the able guidance of Dr. James B. Beard. Dr. Beard also was the main organizer of the Green Section and he still consults with the Italian Golf Federation. Interestingly, up until that time, the subject of sports turf did not appear on the curriculum of any Italian school and had to be created. The Green Section of the FIG bridged this gap, continually updating Italian textbooks. By 1992, the school was judged as "the only such school in the world outside the United States." On the basis of this model, similar schools were established in France, Sweden, and Germany. There is no doubt that the Green Section of the Italian Golf School has become the true technical reference point in the field of turfgrass management in Italy, if not other countries. However, there still is a long way to go.

At present, more than 30% of Italian golf courses are being maintained by professional superintendents with

diplomas from the Federal School. In the past, golf courses had been maintained by so-called green wizards who often used their instincts and improvisation, neglecting the scientific and correct techniques.

Golf course design and construction were frequently carried out by various types of individuals — by professional or amateur golfers or landscape designers. Often, the resulting golf course had high maintenance costs due to very poor technical design and construction techniques.

Some courses have been designed and constructed well. Some are world-class for the natural environment in which they have been created and for their design features. However, a look at some golf course construction errors in Italy shows that:

- Greens have been constructed on soils with extremely variable composition. On older golf courses, which account for 20% of our total golf courses, the greens were built on native soil. This construction technique is similar to the push-up type greens built in the United States. Such greens were designed to hold water.

On newer golf courses, greens are built using sand and organic material. Unfortunately, although the USGA guideline system is highly recommended, due to the quality of the materials available, the difficulty in finding materials, their high cost, and also due to mere incompetence, greens are not always properly constructed.

- With Italian climatic conditions, a properly functioning watering system is indispensable in the maintenance of high-quality turfgrass. Most systems in Italy are designed and installed with great superficiality. This is not the fault of suppliers or installation; it is mainly due to budget constraints.

- Another frequent error is the creation of design features for golf courses that are impressive aesthetically but are difficult to maintain. A case in point is sand bunkers with very steep faces, which are subject to continuous erosion. Another is steep grass banks where hand mowing is mandatory and expensive.

- The importance of subsurface drainage on fairways is often underappreciated. Many golf courses in Italy have soils consisting mainly of silt and clay and, after construction, drainage systems have to be installed to correct these problems.

- Often, tees are not designed and constructed to tolerate high traffic.

Turfgrass research is conducted at two experimental centers in Italy.

Torino Turfgrass Research Plots

- Bentgrass (*Agrostis* spp.) cultivar characterizations under putting green conditions. The final report will be presented at the World Scientific Congress of Golf in July 1998.

- Comparative dollar spot (*Sclerotinia homoeocarpa*) susceptibility of 17 bentgrass cultivars under putting green conditions.

- The relative competitive ability of existing bentgrass cultivars to *Poa annua* invasion.

- The potential for use of a plant growth regulator to selectively retard the competitiveness of *Poa annua*.

Roma Turfgrass Research Plots

- Warm-season turfgrass evaluation program. Forty cultivars of warm-season species: bermudagrass, *Paspalum vaginatum* (seashore paspalum), zoysia species, *Buchloe dactyloides* (buffalograss), *Stenotaphrum secundatum* (St. Augustinegrass).

- Cool-season turfgrass evaluation program. Forty cultivars of *Lolium perenne* (perennial ryegrass) and 27 cultivars of *Festuca arundinacea* (tall fescue) under close mowing conditions.

Additionally, the Green Section of the Italian Golf Federation is working in three different directions.

- Education through training courses and seminars.

- Turfgrass-soil technical assistance visitations.

- Editing of construction manuals.

In summary, as the game of golf grows worldwide, exchanges between agronomists become all the more important. This article is an attempt to give a glimpse of turfgrass management, education, and the common problems turf managers experience on old and new golf courses in Italy.

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