Golf Course Observations From South America

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AT THE INVITATION of the *Asociacion Argentenia de Golf*, it was my privilege to inspect courses in several countries in South America. Mr. Ivar Brodstrom and Dr. Jorge Ledesma were primarily responsible for making this trip possible. They arranged an itinerary that included courses in Argentina, Brazil, Chile and Uruguay.

Courses in South America were designed shortly after the turn of the century. As in North America, the European impact on golf and design was evident; the English and Scottish influence was especially strong. Now, however, new courses are being designed by local talent, but they still reflect the strategy and design of the courses already there. Some of the new courses compare favorably with any in the United States.

The first leg of the journey led to Uruguay and three clubs, the Club de Golf del Uruguay, Club de Lago, and the Punta del Este Club. Those in charge of these clubs were eager to learn of new developments in grasses, machinery and management techniques. They were interested to learn about grasses that are used in the Atlanta, Georgia, area because their latitude is 34° south of the equator, whereas Atlanta is 34° north of the equator and climate and growing conditions are somewhat similar in Montevideo. One of the clubs was in the process of converting bermudagrass greens to Penncross; one, a new course under construction among the sand dunes, had planted Tifgreen (328); the third was an old established course with native bermudagrass greens.

The Club de Golf del Uruguay was very much interested in the USGA

Temporary clubhouse . . . a renovated silo, Las Praderas Club, Argentina.

Flood irrigation is practiced in South American countries . . . note diversion boards.

Green Section's method of building greens. The man in charge was very well informed about the use of a high percentage of sand of a proper particle size range in soil mixes. The drainage system under greens will be improved as greens are reconstructed. One question that they were all very much concerned about was how to keep bermudagrass out of bentgrass greens. They were pleased to know that it is successfully done in the United States. This club had one of the few bentgrass nurseries observed, and it was being increased. At 2 P.M. on Sunday afternoon, play stopped and the golf course became a park, open to the public. No golf was allowed; neither was access to the clubhouse permitted. Only the golf course was used to walk, picnic, play games and admire.

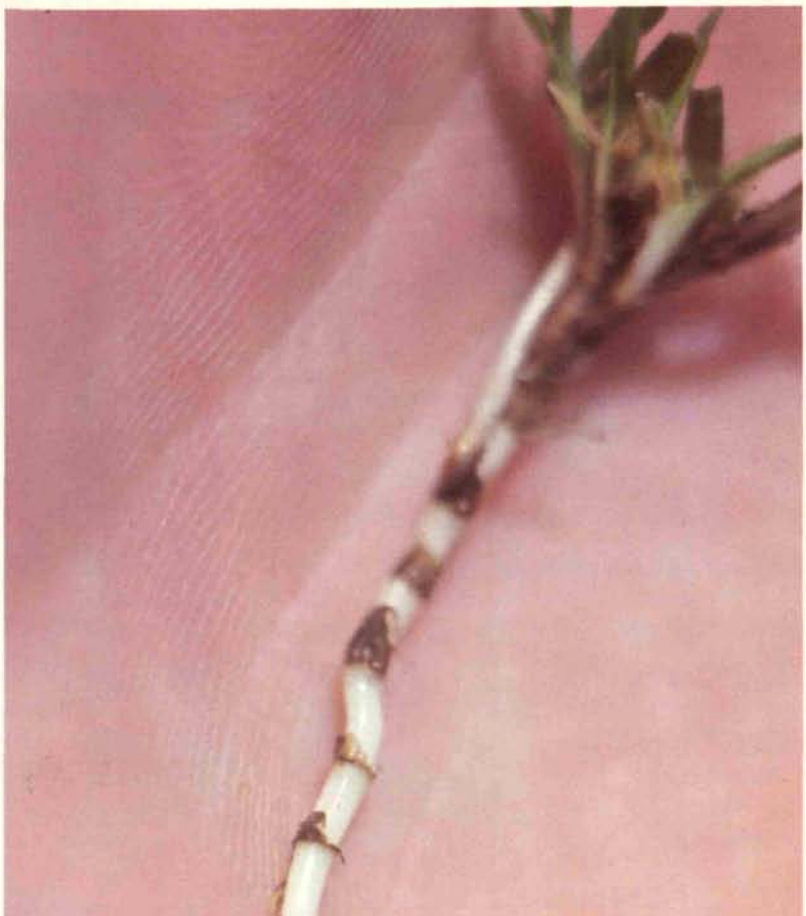
Many plants in Uruguay are of the same genus that we have throughout the South; however, their species were different. Pampasgrass, a weed common in Uruguay, is considered an exotic ornamental plant in the United States. Another grassy weed common on all courses in Uruguay is *Paspalum vaginatum*. Chemicals are available for the control of weeds and insects. Most of their chemicals are imported from Japan or Britain. Presently, their laws are not as stringent as ours. Two common insects observed there and in this country are mole crickets and sod webworms.

In Uruguay, most use the walk-behind green mowers, pull-type fairway units and a quick-coupling irrigation system. The irrigation equipment is inadequate, but this will probably be resolved soon; irrigation companies are beginning to come to South America.

ARGENTINA

There is a tremendous variation in climate in Argentina from the north tropical area to the tundra in the south. Our trip covered the north-central area from the Atlantic Ocean to the Andes Mountains. Bentgrasses were used on the greens from Buenos Aires south, while bermudagrasses were used to the north. The first Tifgreen was introduced into Argentina in 1967, and it is being used on greens, tees, and fairways. Argentines call it Tifton grass. Tifdwarf is used on a limited scale, while common bermudagrass is used most of all in fairways and roughs. The first greens built to USGA Green Section specifications were started after 1972. The soil and sand from the Olivos Club near Buenos Aires was sent by special permission from the United States Department of Agriculture to the Mississippi State Soil Laboratory, which at that time was being supported by the USGA. These greens built to USGA specifications have been just as successful as USGA greens built in the United States. Other clubs are beginning to build greens using a high sand topmix. We saw this at Las Praderas Club, a new club near Buenos Aires. Presently, soil labs provide chemical analyses only; however, young college

(Above) Bunker shorings, thick wooden posts, were first used in this manner over 50 years ago.



(Left) Paspalum vaginatum *— a prevalent weed throughout fine turf areas.*

Mixing topsoil without modern equipment requires the entire work force.

graduates are showing interest in physical soil analyses similar to that performed when preparing a topmix to the USGA Green Section specifications for putting green construction.

Angel Reartes, superintendent at Las Praderas Club, spent several weeks observing golf courses in the United States and attending meetings pertaining to golf course operations. This is the only club under construction that we visited in Argentina. It will be equal to any of the latest golf courses being built in the United States! It is situated on an old estancia (ranch), and so far 46,000 flowering shrubs and trees have been planted. The temporary clubhouse is a large silo with several floors connected by a spiraling outside stairway.

Penncross was the only bentgrass being used on greens. In Buenos Aires and south, bentgrass was used on most of the greens. Most greens were built

The first hydraulic fairway unit recently purchased by the Olivas Club, Argentina.

with a high silt-clay soil. They had only surface drainage, and yet playing surfaces, surprisingly, were very satisfactory.

One common disease, dollar spot, was evident on many greens, and fungicides were being used to control it. We also saw leaf spot and fairy ring.

The soil, especially in the pampas area, provides an excellent growth medium for most low-fertility plants. The terrain is flat with heavy clay soil.

There were some weed problems common to the golf courses and many were familiar to me, such as sedge, pennywort, dichondra, goosegrass (which they call chicken grass), *Poa annua*, crabgrass and a number of *Paspalum* species. A weed that was common to all the courses in all the countries we visited was *Paspalum vaginatum*. Goosegrass was not as abundant or as widely spread there as it is in this country.

Dallisgrass, which Argentines call honeygrass, was widely scattered. It is a problem on most golf courses. On some courses it was not being controlled adequately, while on others post-emergent chemicals provided excellent control.

One weed, a juncus locally known as hog's hair, was well adapted to green maintenance practices. Some greens were totally rebuilt in order to control this weed, but other clubs thought this was too drastic a weed control measure. These clubs were using various chemicals, trying to find one that will selectively kill it. It is very important that they find a control, because it is a very stiff-bladed plant which very definitely has an effect on the roll of the ball.

Various insects were encountered. One, a small cricket, was called grillo (meaning strong, tough). They burrow and bring up piles of soil, similar to earthworm casts but larger and more abundant, following rains. The heavy clay soil adheres to the rollers on the mowers and gets into the reels. The cost of insecticide for complete control of this cricket is too much in a highly inflated economy. Therefore, greens and tees are protected with insecticides while the fairways and roughs are not.

The change in embarcation laws now allows equipment to be imported, and we saw the latest equipment available beginning to be used. The first triplex greens mower was purchased by Osvaldo Merengo for the Rio Cuarto Golf Club. The first fairway unit with hydraulic driven reels was being used at the Olivos Club. Companies from the United States now have representatives who provide sales and service for golf course equipment in Argentina.

Two clubs in semi-desert on the eastern edge of the Andes had a very different climate from the other clubs visited in Argentina. These would be more comparable to conditions found at clubs in west Texas or New Mexico. Water is a concern, and flood irrigation is practiced on fairways. Sprinklers are used on tees and greens. Their source of water is the melting snow from the Andes, brought in by rivers and canals.

CHILE

Francisco Humphreys, president of *Federation Chilena de Golf*, was responsible for our visit to clubs in Chile. Their main concern was how to keep the bermudagrass out of bentgrass greens.

We visited four clubs in Santiago and one on the coast. Climatic conditions in Chile were cool and dry. Flood irrigation is practiced, except on tees and greens where quick-couplers are used.

Nine new holes were built at the Polo Club and a modern irrigation system was installed. Some of the old fairways are still being irrigated by flooding. The source of water is melted snow from the Andes Mountains.

The caddie scene . . . shades of yesteryear — U.S.A.

Grillo, a cricket that creates soil casts over the turf . . . somewhat similar to earthworm casts except they are larger and more abundant.

One weed we saw other than *Paspalum vaginatum* was *Pennisetum clandestinum* (kikuyugrass), which is one of our more difficult weeds in North America, also. The most common disease observed in Chile was dollar spot.

Numerous plants grow together that we see growing under different climatic conditions in the United States. Flowering shrubs and trees are abundant where water is available. Annual flowers abound, are colorful and beautiful.

BRAZIL

Golf courses in Brazil were similar in design to those in other South American countries. Golf is played by a very elite group. *Paspalum vaginatum* was observed throughout all of the golf courses, especially on greens. Aquatic plants are commonplace, since the water supply is lake water. Water is available but not abundant for golf courses. The closer we came to the tropics, the more different types of weeds we encountered. Goosegrass was most prevalent. The men in charge of golf courses were eager to exchange information on controls for this and other weeds.

There is no problem hiring employees; labor is plentiful. Caddies are used at most clubs and there are few golf carts. They are privately owned.

Gavea Golf Club, in Rio de Janeiro, was the last club visited before returning to the United States. The vegetation was tropical, lush, and exotic. We saw many plants that are treasured as house plants in the United States growing wild in the outer areas of the golf course. It was surprising to note that drought conditions exist even in the tropics and irrigation patterns were very obvious.

The art and science of golf course management in South America is far behind ours in North America. However, the enthusiasm and desire to excel is evident. In time they too will excel.

Correction: In the article "Water Quality and Drainage" by J. A. McPhilomy, July-August 1980 GREEN SECTION RECORD, we incorrectly listed sand particle sizes as ranging from 25 to 50mm and it should have read 0.25 to 0.50mm.