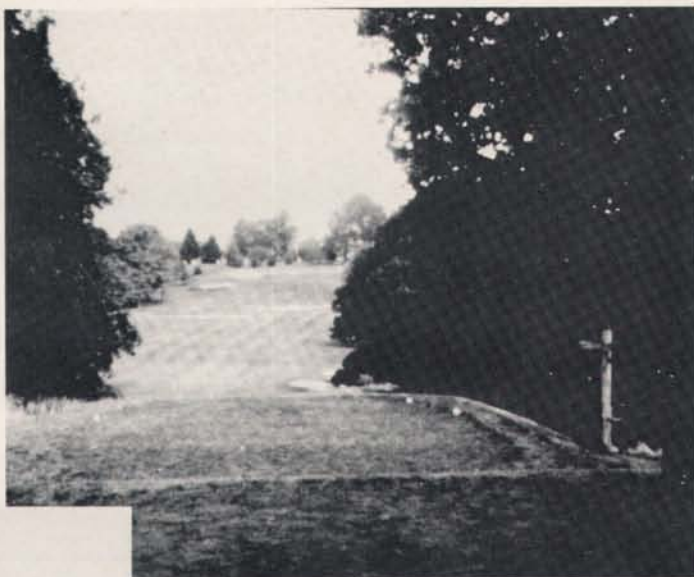


ESSEX COUNTY COUNTRY CLUB

102-YEAR TRADITION of

The 18th hole is characteristic of the back nine, with the tee in a chute and a tight fairway bordered with trees (right).

To make the front nine more challenging trees were planted in the roughs and the size of fairways was reduced with contour mowing (below).



For 102 years, Essex County Country Club in West Orange, NJ, has successfully guarded its exclusive status as one of the oldest continuously operating golf courses in the United States. Starting with five holes in 1887, when its wealthy members would ride to the course in horse-drawn buggies, the private course has endured over a century of change—never failing to provide the necessary facilities for a challenging round of golf.

Throughout its history, Essex County Country Club has kept pace with the rising

standards of golf course design and maintenance. John Schoellner, general manager and golf course superintendent, likes to think that the spirit of the club's original members, including inventor Thomas Alva Edison and President William Howard Taft, has been preserved by three successive generations.

"Our members have long expected the finest quality surroundings for their money," declares Schoellner. It's his job to do that despite rising real estate taxes, increasingly stringent pesticide regulations, changing

insurance requirements, and record drought.

"It's almost a job in itself just trying to stay on top of changes in regulations, new golf course maintenance techniques, and new products entering the market," he sighs. And this comes from an educated, experienced superintendent who was literally born on a golf course.

Schoellner has stayed on top of these changes since 1969 by keeping active in the New Jersey Golf Course Superintendents Association, the Golf Course Superintendents Association of America, and most recently the Club Managers Association. He is both a certified golf course superintendent (CGCS) and certified club manager (CCM). The country club also subscribes to the United States Golf Association Green Section service.

"A superintendent needs all the information he can get his hands on," advises Schoellner. "You've got to participate in organizations and activities in order to meet the people who are willing to share their expertise. Education is a lifelong process."

Schoellner also credits a management style he has developed over 25 years for helping him apply a constant flow of new information to his job. "Once you develop

GUARDS QUALITY



John Schoellner CGCS.

an effective management style, you can apply it to anything. You've got to set priorities, learn the latest and most effective solutions to problems, hire qualified people, and pay them well. Then you must learn to delegate and follow up so that your staff does things the way you want them done. You can't be afraid to make decisions. In time, you find a style that works for you."

Schoellner's turf education started at the age of nine when he began working on the nine-hole golf course surrounding his home in Monmouth County, NJ. After graduating from high school, he helped his father develop a course for the Monmouth County Park System. This gave him broader insight into golf course operation and convinced him to attend college. He started at Rutgers and then switched over to Pennsylvania State University's two-year turf program.

His first job out of school was as an intern to Superintendent James O'Gibney at Deal Golf and Country Club in Wayside, NJ. "Jim

is an Irishman who taught me the art of being frugal," recalls Schoellner. "He knew how to get the most out of a dollar." Managing money must have appealed to Schoellner, because he has been balancing budgets ever since.

When he became superintendent of Essex County Country Club in 1977, his frugality came to play right away. The New York metropolitan area was sprawling westward as people who worked in Manhattan had to travel further to find affordable homes. One-way commutes of more than an hour were becoming common, and the population of areas like Essex County was booming.

Essex County Country Club had earlier added a second 18-hole daily fee course on part of its original land. For a number of years, the club operated two courses, one private 18-hole course and the daily fee course. That was the situation when Schoellner arrived.

The taxes for the courses were a growing burden to the club, amounting to one-third of its annual budget. But the members did not want a housing development to ruin the serenity of the rolling property.

For three years Schoellner managed both courses, until an arrangement was made to have the county buy the daily fee course and turn it into a municipal course. The demand on golf courses in the region was tremendous. There just weren't enough public courses to meet the demand, so the county was able to buy the one course from the country club.

Now the maintenance budget, which had been spread thin to cover both courses, could be fully utilized to maintain the high-quality private course that the members desired. The turf was predominantly *Poa annua*. Much of the original bentgrass had succumbed to diseases encouraged by compaction, overwatering, and too much available nitrogen. A three-inch-deep thatch layer had developed in the fairways.

Schoellner contacted Dr. Henry Indyk at Rutgers for his advice. He also spoke to Stan Zontek and Jim Snow of the USGA Green Section and fellow superintendents with annual bluegrass problems to find out what they were doing. Then he asked his suppliers for their recommendations.

Restoring the course to bentgrass boiled down to a comprehensive disease control program, Schoellner realized. "Comprehensive" meant much more than identifying diseases and selecting the right fungicides. He wanted to correct the problem from all angles, including irrigation, thatch, soil,

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Berm surrounding large green hides deep bunkers on opposite side.



Essex County Country Club

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annual bluegrass control, and fungicides. Yet he was determined to accomplish all this at a reasonable cost to the club.

He first attacked the problem from the standpoint of thatch. He initiated a program of heavy fairway aerification in the fall, holding off on water, then seeding with a mixture of bentgrass and perennial ryegrass. The following spring he continued to use less water than before on the fairways. "It's not necessarily the amount of water that's important, but the frequency of each cycle," he says. "I use a wetting agent because it decreases the amount of water necessary, creates better color in the turf, and the ground remains softer."

Schoellner knew the course needed to overhaul its 15-year-old double-row irrigation system, but first there was another part of his plan that he wanted to implement. He wanted to reduce the acreage in fairways from 45 acres to 22 acres. It sounded radical, so he approached the membership cautiously, explaining that he could widen the landing areas and still reduce the size of the fairways considerably.

His goal was to increase maintenance on a smaller area, spending his budget where it would produce the greatest results. Not only would this control his chemical cost, it would allow him to contour the fairways with lightweight mowers and remove the clippings. The lighter mowers would create less compaction and remove a portion of annual bluegrass seedheads. By continuing to reseed these areas with bentgrass, the bent would replace the Poa.

He knew that annual bluegrass was susceptible to the same diseases as bentgrass, but it had the advantage of reseeding itself naturally. For the bent to overtake the annual bluegrass, he had to control diseases and reseed with creeping bentgrasses.

The Kentucky bluegrass/fine fescue roughs with their lower maintenance requirement would be enlarged. The rough could be cut more efficiently and required less fertilizer and water.

The fairways on the front nine were larger than intended anyway, because a steady loss of trees and ornamental shrubs had increased the turf area. "We were losing 50 trees a year without replacing them," Schoellner remarked. "The front nine had changed as a result." He added a tree replacement program to his future project list.

For the greens, Schoellner added monthly topdressing to aerification and reseeding. The old natural soil greens are topdressed with screened soil to eliminate the thatch layer. Except for annual bluegrass, the greens and tees were holding up well to the 21,000 rounds the course carries in an average year.

To eliminate flush growth which is especially prone to diseases, Schoellner converted his fertilization program for fairways, tees, and greens to 20-0-16 with IBDU slow-

release nitrogen. The high level of potassium also contributed to the drought and heat tolerance of the turf and reduced the severity of diseases. Phosphorus would be applied when deficiencies were revealed by soil tests.

Now Schoellner was ready to implement a preventive disease control program. He had identified the most damaging and costly disease on greens, tees and fairways to be *Pythium* blight. "*Pythium* spreads practically overnight," he warns. "Once it gets a foothold, you're left with bare spots."

A couple of years ago, Schoellner had a run-in with the disease. He noticed a very small patch of *Pythium* late one afternoon, but decided to wait until morning to treat it. "That night we had extremely high temperatures and humidity. The next day it had spread all over the area and completely destroyed a section of fairway," he recalls. "Today, I don't take chances with *Pythium* blight."

When temperatures and humidity begin to rise in the spring, he spikes problem greens, then applies Aliette (Chipco). Schoellner was one of the first superintendents in his area to try this preventative method of *Pythium* control. One fungicide treatment protects his greens from the fast-spreading disease for up to three weeks.

Steep banks make this bunker a tough chip to the green.



He utilizes disease detection kits from Agri-Diagnostics to keep a watch on *Pythium* levels on fairways and tees. "We saved probably \$10,000 last year by testing for disease levels before treating," Schoellner reveals. "We don't take chances on greens, but we can be more selective about other parts of the course. We can test disease levels in minutes without having to send samples to a lab for analysis."

There are no detection kits available for *Helminthosporium* leaf spot, so Schoellner begins treatment for this disease with the onset of warm weather. "This helps to strengthen my tees, greens, and fairways for the stresses of summer," he reports. "I think it also helped get us through the past two droughts with minimal loss of turf."

Two applications of about 1.5 to 2.0 ounces per 1,000 square feet of iprodione (Chipco 26019) are made in May, followed

two weeks later with a third application. "The residual control also gives me a head start with my dollar spot and brown patch problems later on," he adds. "We have nearly eliminated our dollar spot problems."

Schoellner treats greens and fairways for brown patch from June through August. He switched to iprodione last July when the fungicide he had previously used for brown patch stopped working. The wettable powder started clearing up the disease within a week and provided control through most of August. Then a second treatment was made.

"I make it a point not to use the same product over and over," Schoellner explains. "This helps eliminate any resistance problems." When necessary, he rotates iprodione with other fungicides, such as triadimefon (Bayleton), chlorothalonil (Daconil 2787), propiconazole (Banner), and fenarimol (Rubigan). He also uses disease detection kits for brown patch and dollar spot to avoid making any unnecessary treatments.

"In October we concentrate fungicide application on fairways, because I've found snow mold occurs more often on the ryegrass," explains Schoellner. He has also discovered that an October application of iprodione to greens, tees, and fairways will

carry over to control pink snow mold. "It really helps to have a fungicide that's versatile enough to handle seasonal turf diseases."

He extends this versatility to control of diseases of surrounding trees, shrubs and ornamentals. The club has a horticultural specialist who comes in and evaluates the grounds for disease, insect, and other problems. "In some cases I can keep labor and application costs down by applying the same product (26019) on my turf as I do on the trees and shrubs," Schoellner remarks.

He has also found that versatility can extend to control of annual bluegrass. By applying fenarimol to problem greens, he has been able to reduce the population of Poa. Recently he has begun to apply Cutless plant growth regulator to control annual bluegrass on the fairways and Scotts TGR for tees.

The club is very protective of its trees and shrubs. Eight years ago, it hired Dr. Ray Korbobo from Rutgers to design a plant replacement program for the course. More than \$50,000 was spent during a three-year period to replace hundreds of trees lost over the years on the front nine, and to add dogwoods, hawthornes, rhododendrons, azaleas and witch hazel on the rolling back nine. "We are guarding our investment by paying as much attention to the trees and shrubs as we do the turf," Schoellner points out.

As the new trees were planted, the gypsy moth was severely defoliating some of the majestic older trees as well as some of the new ones. "I knew that if we treated just the trees on the course, reinfestation would occur quickly," Schoellner recalls. So he went door to door to each home within a block surrounding the course offering to spray their trees at no charge.

For four years in a row, Schoellner was able to get the support of the residents, partly because he used Sevin insecticide, which had an excellent safety record. "We have not had a problem for the past three years with gypsy moth and no longer have to spray," he reflects. "I think the neighbors and members appreciated our concern for their welfare."

Today this relationship is more important than ever, due to the implementation of a state right-to-know law. "We are required to post signs at the first and the tenth tees explaining where we treated, the proposed date of the next application, the pest involved, and insurance information," Schoellner reveals. "The interesting thing about notification is that the signs have to stay up until the next treatment. That can be for weeks."

A bigger concern of Schoellner's are the new storage regulations. The rules now require storage facilities to include double-locked doors, a concrete barrier in case of spills, and a certain amount of ventilation. "This is going to make dealer service more important than price," he explains. "To eliminate storage, many superintendents are going to buy just what they need to apply at the time. Rather than buy in quantity to save money, they will buy just what they need, and expect the dealer to store the chemicals for them."

By working closely with the club's insurance carrier, which inspects the course at least three times a year, Schoellner has been able to lower his insurance costs by 15 percent this year. "A club manager has to control costs," he states. "Being a superintendent has taught me when and where I can cut without hurting the quality of the course. I learned a long time ago that if you take care of the course, the rest will follow."

So when the course ran out of water for irrigation twice last summer, Schoellner realized he could wait no longer to do something about the irrigation system. "It was the first time in ten years that the holding ponds fell below the intakes. We were

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Essex County Country Club

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using water faster than the well pumps could resupply it."

The country club shares the well with the county course. Schoellner had observed the installation of a Buckner COPS computer controlled system the year before on the county course. He could see the difference immediately between the COPS system and his 20-year-old double row system.

The irrigation system stretches 1¼ miles from end to end. Eleven holes are on a loop, with seven holes on a separate arm. "The pressure was so poor that we could operate only one station on three of the seven holes at a time," Schoellner reveals. "We had to start irrigating at 8 p.m. and didn't finish until 7 the following morning. Since lightning had damaged nearly a third of our system, we were still using quick couplers for part of the course. This was compounding our disease problems."

The frugal Schoellner figured out a way to install the new system without using outside contractors. He started by renovating the pump station, adding a jockey pump and installing a pump controller. He kept the cast iron mains, but replaced all the galvanized laterals with PVC pipe.

All valves and heads in the double-row system were replaced with Buckner components. The COPS computer enables Schoellner to balance the irrigation schedule to preserve design pressures for the heads. "Our coverage has improved tremendously and we have been able to shorten our watering time," he states.

Schoellner foresees another drought this year. "We didn't have a decent snow all winter. The brooks are not flowing, and the ground is not as wet as it would normally be in the spring. It's going to be another tough year."

But Essex County Country Club has withstood droughts many times over its 102-year history. He is prepared this year, however, and he knows from previous dry years that he can withhold water from the now-healthy bentgrass for two days if he has to without losing turf. "We could not have done that before," he adds.

Schoellner has delegated much of the day-to-day course maintenance to Mike Sheridan, his assistant superintendent. The graduate of the University of Massachusetts turf program at Stockbridge worked at a neighboring course for 12 years and knows the problems faced in the area. Besides, Schoellner is busy trying to solve a labor shortage problem as well as the environmental and insurance issues.

"This club is more than one of the oldest private courses in the country," remarks Schoellner. "It is a good test of golf." This is the home course for the New Jersey PGA match play championship. "The back nine is one of the finest in golf, with narrow tree-lined fairways, chute tees and deep bunkers. Our members bring guests every day the course is so highly regarded. I've got to keep it that way for the next generation." ●