

Polo ponies at Greenwich Polo Club make divots in the low-cut turf maintained by Clark Tolles.

POLO: The Ultimate Challenge In Turf Management

Picture a rectangle of low-cut turf the size of ten football fields. On it, imagine ten 1,200-pound thoroughbreds galloping at up to 40 miles per hour, pounding the turf with their hooves, cutting right and left, or skidding to a halt. Finally, visualize the state of the surface after 45 minutes of all out play. The number of divots is so great, spectators traditionally help replace them after matches.

More than 250 groundskeepers in the U.S. live with such nightmarish field damage every day as they maintain polo clubs for America's amateur and professional players. "Polo, in my mind, represents the ultimate challenge in turf management," states Bill Triller, superintendent at Santa Barbara Polo & Racquet Club in Carpinteria, CA. "Players expect the field to be fast and smooth despite the pounding it takes from the horses. It's the most difficult condition to work under."

Expectations of players and "patrons" have risen dramatically during the past decade, says Clark Tolles, grounds superintendent for Greenwich Polo Club in Greenwich, CT. "During the winter, all the best teams play in West Palm Beach [FL] or Palm Springs [CA]," he adds. "Those fields are sandy, bermudagrass, and fast. When the teams start playing up north in the spring, the fields are wet, a mixture of Kentucky bluegrass and ryegrass, and slower. There is pressure on northern polo clubs to keep their fields in as good a condition as southern ones."

"A club's reputation depends on the shape of its fields, no matter where it's located," explains Allen Scherer, executive director of the United States Polo Associa-



Polo is played in six periods of seven-and-one half minutes each called chukkers.



The goal posts for polo are 24 feet apart. Photo courtesy: Santa Barbara Polo & Racquet Club.

tion. "Better knowledge of turf is required to keep clubs competitive. Quite a few clubs hire consultants from the golf industry or groundskeepers with a background in turf today. Polo is a horse-related sport run largely by horsemen. They are realizing that the quality of play and the safety of their horses depends greatly on well-constructed and well-maintained fields."

Scherer points out that polo, like other horse-related activities, has experienced sizeable growth in the past few years. "The number of clubs has grown by nearly ten percent during each of the past eight years," he reveals. "Polo is not restricted to the rich. People of moderate means can participate, especially if they are good players."

Part of the growth in the number of clubs is due in part to a shortage of playing facilities. "More people are starting clubs so they can play more," adds Scherer. "The new clubs open up opportunities for amateurs who may have taken up the sport in college or on vacation." The number of professionals is also increasing, many traveling to the U.S. from other countries. Just as Americans have fueled baseball and football, the British and Argentinians are generating interest in polo in the States.

Triller was hired two years ago specifically to improve the three fields at Santa Barbara Polo & Racquet Club, just a short mile from the Pacific Coast. The best polo teams in the world, as well as a number of celebrities, play there from April through October. The club was founded in the '20s by Max Fleischmann of yeast fame. It quickly became a sports and social center for movie and other industry moguls. The

walls of the clubhouse are lined with pictures of stars, visiting royalty, and powerful businessmen.

Like other facilities, the club started with one field and added more as the amount of play increased. Over the years, sand from nearby beaches had been spread on the common bermudagrass fields along with composted manure from the stables. Eventually, heavy use, imprecise irrigation, poor fertility, and invading kikuyugrass took their toll and the fields started to decline. The conditions were obvious since many of the teams and players also played in West Palm Beach or Palm Springs during the winter. By the mid-'80s, the club decided to address the problem by looking for a groundskeeper with a background in both turf and horses.

Triller is the type of person who lets curiosity direct his career. After graduating from Cal Poly San Luis Obispo with a bachelor's in horticulture and a master's in agriculture, he explored the worlds of landscape contracting, nursery production, and orchard farming. He found himself teaching much of the time and decided to earn a teacher's credential. For five years he taught science and vocational agriculture at the high school and junior college level. As part of his job, he organized equestrian events in the suburbs south of San Francisco. On the side, he consulted owners of large estates in the community and was introduced to polo. He found polo an interesting combination of horsemanship and horticulture.

continued on page 14

Polo

continued from page 13

Throughout his career, he kept in touch with Cal Poly to satisfy his curiosity about different occupations in the green industry. When Santa Barbara Polo & Racquet Club contacted Cal Poly about their opening, Triller saw a new horizon to explore. After visiting the club, he agreed to a three-year contract to renovate the facility.

"A polo field has to provide solid, reliable footing for the horses, yet still be forgiving," points out Triller. "As many as 60 different horses may be used during a match. Each team fields four players and there are two umpires. They change horses between chukkers [there are six chukkers of seven-and-one-half-minutes per match]. These are valuable, well-trained animals ridden by skilled athletes. You simply can't tolerate field-related injuries."

At the same time, he explains, the turf has to support the small, three-inch diameter plastic ball (formerly made out of bamboo root) so it can be hit cleanly by a mallet and smooth and fast enough for the ball to travel far and straight. Divots must be replaced or repaired quickly to maintain a dense, well-knit stand of grass. High-wear areas of the field, such as the center and in front of goal mouths, must be constantly renewed.

The most pressing challenges of polo field care are controlling soil moisture, compaction, thatch, fertility, low-cut turf, and density. "You must encourage tillering but eliminate long runners," Triller adds. "A strong root system is essential. To achieve that you need excellent drainage, precise irrigation, and a complete fertilizer program. You want to mow frequently and keep an eye on thatch."

Triller quickly came to the conclusion that Santa Barbara needed a more manageable turfgrass. Kikuyu runners were spreading throughout the common bermuda. Annual bluegrass was invading bare spots in the winter. The resulting patchwork of turf also suffered from ring spot, which he suspected was caused by the previous use of manure compost.

He decided to attack the problem one field at a time, starting with the stadium field. In October of 1989, he sprayed the first field with glyphosate to kill all the existing turf. "We then removed the old turf and almost two inches of thatch with a sod cutter," Triller says. "This was followed by scraping it level with the help of a laser. You learn from experience. We lost several days using the sod cutter when we could



Two of the Greenwich fields are irrigated with Ag-Rain travelling sprinklers.



A Jacobsen HF-15 is used to mow the fields at Santa Barbara.

have scraped the turf off. Turns out we needed that extra week once we sprigged."

After working an inch of sand into the surface, Foster Turf from La Quinta, CA, sprigged the ten acres with Santa Ana, a hybrid bermudagrass developed for Southern California by Drs. Vic Youngner and Stan Spaulding. "We got good establishment and root growth, but the weather that winter was cooler than normal," Triller adds. "In March, with one month before play resumed, I was concerned about the density of the field. The Santa Ana needed a kick. We put the entire ten acres under plastic. That did the trick. In a matter of days, we had a strong root system and thick bermuda. It was a miraculous transition from the old turf."

Triller prefers using a pair of Bauer

travelling rain guns to conventional irrigation. The sprinklers generally run once a week following the Sunday match. The fields are closed to play on Monday to give them time to dry down. From Wednesday to Sunday, one or two matches a day are played. "I can get an inch of water down on Sunday night," remarks Triller. "That usually gets us through the week."

While he waters just once a week, he mows and sweeps every single day. Divots are replaced or dressed with a mixture of sand, humus, and fertilizer after each game. The reels on the club's HF-15 (Jacobsen) are set between one-half and five-eighths of an inch for the Santa Ana and an inch-and-a-half on the older turf. All the fields are marked with a white latex turf paint weekly. "I switched from chalk to paint because it

stays sharp and won't drift. We also change the configuration on two of the fields located side-by-side to distribute the wear," says Triller.

Every week one of the three fields is aerified with a drum unit with hollow tines. In the fall, he rents either a Verti-Drain, Howard Renovator or Turf Quaker to aerify down eight to ten inches. This is followed by verticutting and sand topdressing.

During the winter Triller applies calcium nitrate, Par-Ex, and extra phosphorous to promote consistent growth and bud initiation. Potassium is added during the playing season to improve wear tolerance. He keeps nitrogen levels down in the winter to discourage invasion of broadleaf weeds. A pound per 1,000 square feet is normal during the rest of the year.

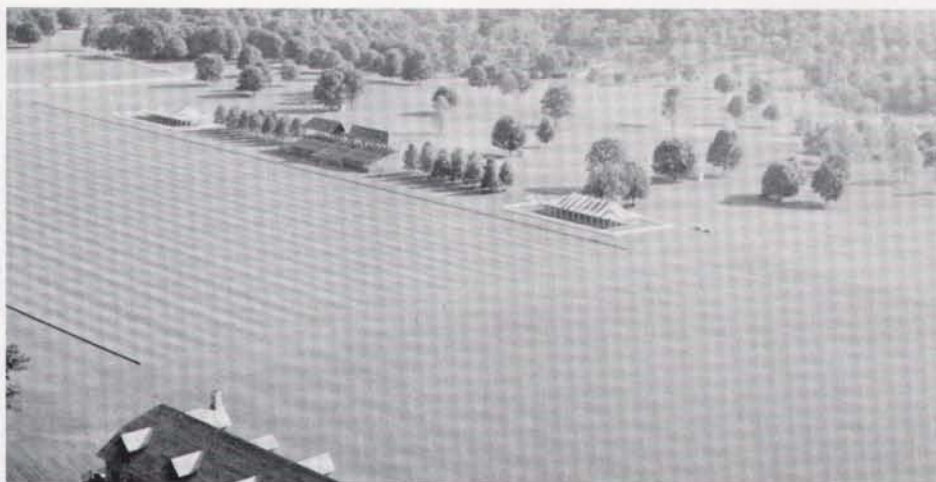
This winter Triller is in the midst of renovating the second field. "The Santa Ana has done extremely well this winter," he comments. "We won't need to cover this time. Everything looks great!

"The thing that makes me feel the best is that we didn't lose a single horse to field-related injuries this past year," boasts Triller. "The players are very pleased with the new turf and say they look forward to playing here. That helps team patrons attract the best professionals and gets sponsors interested in supporting tournaments."

In addition to the three fields, Triller maintains seven acres of stick and ball (practice) fields, a track, and warm-up area. The barns at the facility hold up to 350 horses during the season. "All horses have to be exercised every day," he remarks. "This is a busy place seven days a week. And it has to look especially nice on Sundays, when up to 3,000 spectators come to watch the match and picnic."

Nearly 3,000 miles to the east, Clark Tolles handles the massive task of keeping Greenwich Polo Club and White Birch Farms in shape. Tolles helped build the polo club which today is the centerpiece for the exclusive equestrian community just an hour's drive from New York City. Many of the residents of White Birch Farms own horses, play polo, or have teams. Some play as amateurs in West Palm Beach during the winter.

The club and community were the idea of Peter Brant, a publisher and paper company owner. In 1981, Brant purchased the 1,500-acre horse farm in Greenwich with the intent of subdividing it into 15- to 20-acre residential parcels for horse-loving executives. Ironically, part of the land



Aerial view of the stadium field at Greenwich Polo Club.

planned for the new polo fields was a golf course when he bought it. In Brant's mind, polo took priority over golf.

Tolles, who devoted five years to studying architecture, has renovated a number of polo fields during his career. Like Triller, he has been interested in horses for much of his life. As a youngster in Westchester County, NY, he used to help out at a neighborhood stable so he could ride. His interest in architecture was spawned after he helped build a barn for the stable.

His association with polo started while he was a student at the New York Institute of Technology in Muttontown, NY. The land for the school used to be part of Meadowbrook Polo Club, one of the oldest polo clubs in the country dating back to 1881. To help pay his college costs, Tolles took a job with the club working on the barns, fields, and track.

When the club was sold, Tolles was hired by Ted Siegel, general manager of Pen-Mor

continued on page 16

Pene-Turf

soil treatment

Tough on Turf Problems

- Improves infiltration
- Improves percolation
- Softens hard soil
- Improves aeration
- Non-toxic - biodegradable
- Easy to apply

Call For More Information
1-800-348-2608

 **FOUR STAR
SERVICES, INC.**

2275 North State Road One, P.O. Box 463,
Bluffton, Indiana 46714



Pene-Turf...

Good for the Earth!

Polo

continued from page 15

Farms, an 80-acre horse breeding facility on Long Island. Investors from New York would buy thoroughbred colts at auctions in Kentucky and have them broken and trained at Pen-Mor for racing. The rising value of promising race horses was attracting new investors and bringing new life to area farms.

"In the early '80s, Pen-Mor suffered from years of neglect," Tolles remarks. "We had to rebuild the track and barns and construct new paddocks. It was a big job and caught the attention of a lot of horsemen."

One person's eye focused on Pen-Mor was that of Peter Brant. He had recently purchased the farm in Connecticut and needed a general manager and someone to direct construction of two new polo fields and numerous buildings for Greenwich Polo Club. Brant hired the team of Seigel and Tolles in 1983.

"When I started at Greenwich there was a track with one polo field in the center," Tolles recalls. "A lot of buildings needed to be renovated. The old-style barns were perfect for a polo setting. The pastures needed work and Mr. Brant wanted two more polo fields. On top of that, the buyers of the estates in White Birch Farm also required help to build and care for their own barns and practice fields. There is also 15 miles of roads to maintain."

"The idea was to use polo to attract buyers for the farm estates. The property owners can become members of the club. However, local ordinances limit the club to eight public matches during a three-month season. That does not restrict the number of amateur matches or team practices. Six of the club's 200 members have teams. One field was simply not enough.

A 30-acre site located in the middle of an abandoned golf course was selected for the two new fields. The top eight inches of sandy/loam topsoil were removed and screened. "I wish we had sand to cover both fields," says Tolles, "but the native soil is pretty nice. A consultant designed a drainage system for us. It consists of french drains 18 inches wide and two feet deep. The trenches are 75 feet apart in a herringbone pattern. They are filled with gravel wrapped in filter fabric. We had 15 inches of rain one August. Fortunately, the teams play at Saratoga during August and we had a week to dry the fields out."

To keep the surface open during the playing season, Tolles and his crew of 14



In addition to three fields, Bill Triller cares for a track, warm-up area, and two ball-and stick fields.

slice the fields rather than core aerify them. "We put slicer blades on our two pull-behind aerifiers in the summer and switch back to the coring tines in the fall," Tolle points out. A Verti-Drain is used for the center and goal mouths in October.

Greenwich Polo Club is constantly re-seeding. "We buy nearly 4,000 pounds of seed a year based on recommendations from Cornell University," Tolles says. "We try to pick the most disease and insect resistant varieties for our mix of 75 percent perennial ryegrass and 25 percent Kentucky bluegrass. Seed is always included in our divot mix of coarse sand and humus. We try to work sand into the field at every opportunity. I wish somebody made a topdresser large enough for polo fields so we could add sand every time we aerify."

A 110-acre lake is the reservoir for the irrigation system. The quick-coupler system for the stadium field and the Ag-Rain traveling units on the other two fields are pressured by a 60 hp pump. "The quick coupler valves are recessed four inches below the surface and covered with rubber caps and oak bark," explains Tolles. "The heads run off a clock after we snap them in place. They are divided into ten zones. The travelers run off a six-inch main."

The club uses a Jacobsen HF-15 to mow the fields and surrounding turf. Tolles has been dropping the cutting height to one inch and mowing more frequently to make the fields faster. A ten-foot-wide Brillion seeder is used each fall to remove thatch and interseed the new varieties.

Once a week the crew pulls string and paints the lines with a Smithco sprayer. "In

addition to the sidelines and center line, foul lines are marked at 30, 40, and 60 yards on both halves of the field," reveals Tolles. "It amounts to almost four miles of lines each week!"

Greenwich Polo Club today is one of the country's finest. Its president, Peter Orthwein, is the top ranked amateur player in the U.S. and owns an estate in White Birch Farm. "The best players in the world play here each year and the horses in our barns are among the best money can buy," boasts Tolles. Dan Walker, president of Santa Barbara Polo & Racquet Club, is also a highly-ranked amateur. He is the third generation of his family to play polo at the club.

James Trebbin, general manager at Santa Barbara, believes that field improvement has given the club a magnum jump in quality of play, safety, and enjoyment. "We run this club using strict business principles," he states. "The money we spent on the fields came from managing other costs, such as food service and publications. We also market our logo. We couldn't do that if our reputation wasn't as strong as it is. The fields play a big part in that reputation."

Polo has become a business. Many clubs are associated with real estate developments. Each club competes for the best teams and professionals. Proper field maintenance is essential to the future success of the sport. Professionalism must apply equally to players and groundskeepers. If you want proof, ask Jim Trebbin or Peter Orthwein. Their clubs' success depends on it. ☺