



The Rangers spring training center includes Charlotte County Stadium, five practice fields and one practice infield.

Port Charlotte: A Star For The Texas Rangers

Winter is more than just cold and dreary for many stadium grounds crewmembers across the country. It's a time that really tests their mettle.

Six years ago, Tom Burns was laid off between the football and baseball seasons at Municipal Stadium in Cleveland, OH. From January until March, he'd go crazy trying to keep busy. He had resigned his well-paid job at Ford Motor Company's engine casting plant in Cleveland to take the job at the stadium so he could work outdoors and see professional sports up close.

For three years he had worked diligently under Marshall Bossard, head groundskeeper for Stadium Corp., which leased the stadium from the city. Since he had little seniority, Burns was assigned many of the tasks the older members of the crew chose not to do. But that didn't bother him. He loved working outdoors and in a major city stadium. He absorbed everything Bossard told him.

His determination paid off. He is the winner of the 1988 Baseball Diamond of the

Year Award in the professional category. At the age of 29, his recent work for the Texas Rangers at its training center in Port Charlotte, FL, beat out entries from all major and minor league organizations in the country.

Burns made quite a few stops along the road from Cleveland to Port Charlotte. As hard as he worked in Cleveland, he could not beat the seniority system. He wanted more experience and responsibility, but the system was holding him back. For two more years he returned to the stadium crew in the spring. "I figured the best way to become a head groundskeeper was to learn from one of the best and to work hard at it," Burns recalls. "I realize today that starting at the professional level is a tremendous advantage. It teaches you what the coaches and players want and how professional groundskeepers make sure they get it. And, Cleveland is one of the toughest places to do that. Right field doesn't even thaw out until April."

Burns got his first break when Mark Ra-

zum, who had worked with him on the Cleveland crew for two years, accepted the head groundskeeper position at the California Angels' training facility in Casa Grande, AZ. Razum told Sarge Andersen, camp coordinator for the Angels, about Burns. After the Browns ended their '82 season in December, Burns drove out to Arizona to spend the winter months helping Razum out at Casa Grande.

The Angels practiced at Casa Grande but moved to Palm Springs, CA, for preseason exhibition games. Andersen needed a groundskeeper in Palm Springs to get the stadium ready. Burns was both surprised and grateful when Andersen offered him the job. He accepted without hesitation and moved to the desert resort city for the last six weeks of his winter break.

He was greeted by a dormant bermudagrass stadium field and one practice infield. His experience with the quick-coupler irrigation stadium in Cleveland was put to the test right away with the automatic system in Palm Springs. He only had a few



niques so they were mechanized," explains Burns. "Where Marshall would pull nail drags by hand, Jim would pull them with an ATC and get the same results, but faster. He worked with Marshall (who was still a consultant) on each change to get his opinion."

Andersen had told Burns that the Angels were going to build a new training center in Mesa that coming winter. Burns had considered the possibility of helping Razum out on the project or possibly returning to Palm Springs. When Andersen called that summer, he asked Burns if he would like to supervise construction of the fields at Gene Autry Park in Mesa and then stay on as head groundskeeper—twelve months a year!

"Thanks to Sarge and Mark I went from a laborer to a head groundskeeper!" Burns recalls. He discovered that you learn a lot when you immerse yourself in a construction project. Between drainage, irrigation, soil conditioning, seeding and setting fields up for the first time, you quickly learn why you do all the things you do to maintain a baseball field.

When Burns arrived in Mesa in November, he was greeted with 27 acres of bare ground that had been cleared from a huge citrus orchard. The foundation for the clubhouse and most of the irrigation was installed, but that was it. Andersen handed Burns a set of plans, introduced him to Ralph

Clifford at Cubs Park in Mesa, and gave him virtually complete authority over construction of the fields. "His faith in me was amazing," says Burns today. "There was no way I was going to let him down. With that kind of responsibility, you either learn right away or it will eat you alive."

With only two months to complete the job, Burns got right to work surveying three full diamonds and one infield. By borrowing large equipment from Clifford, he graded the outfields and planted ryegrass so he could concentrate most of his effort on the infields. Burns quickly saw the advantage of automatic irrigation as the ryegrass was getting established. He watered and fertilized carefully and applied fungicides to guard against seedling diseases.

He excavated the skinned areas to a depth of six inches and started sifting the Arizona clay. Conditioning the base path soil was something Bossard had drilled into him at Cleveland. "We spent weeks on the tons of infield dirt getting it just right," he recalls. He built nail drags, float boards and rollers like those Bossard had designed and worked and watered the skinned areas to perfection. As the base paths, mounds and batter's boxes took shape, he seeded the infields with ryegrass.

With Andersen's support, he obtained a

continued on page 14

ngers

Owner Eddy Chiles wanted to consolidate his spring training and minor league facilities in Florida.

weeks to overseed the fields with ryegrass and get the skinned areas back in shape.

Burns immersed himself in the task. Using many of the techniques taught to him by Marshall Bossard, he was both laborer and groundskeeper. When the Angels arrived to play their first exhibition game, they were impressed with the quality of the infield and the pattern in the turf Burns had created by mowing. Andersen liked what he saw, but Burns was expected back in Cleveland by the end of March.

The 1983 baseball season was Marshall Bossard's last as head groundskeeper. Jim Anglea, groundskeeper of the Nashville Sounds, had been hired to take over for baseball at Cleveland Stadium. The southerner with a masters degree in education, was more familiar with bermudagrass than Kentucky bluegrass and ryegrass. Burns' brief experience in Arizona had peaked his interest in warm-season turfgrasses. Anglea and Burns developed a mutual respect for each other. "Jim adapted some of Marshall's equipment and tech-



Burns keeps the mound and batter's box covered most of the time.

Port Charlotte

continued from page 13

Jacobsen HF-5 five-gang fairway mower, and a walk-behind greensmower to start mowing a pattern into the fields. Burns asked the construction crews working on the clubhouse and parking lot to keep all heavy equipment off the fields. He lightly rolled the fields to eliminate bad hops. He still wasn't satisfied as the Angels arrived at Gene Autry Park. After camp that spring, he regraded the fields and seeded with common bermudagrass.

For three years, Burns lived at the site building a reputation among the coaches and players as a detail-oriented groundskeeper who worked as hard or harder than his crew. After the 1984 football season, Jim Anglea was hired by the Texas Rangers as groundskeeper for its stadium in Arlington, TX. For a year he struggled without an assistant. In January 1986, Anglea called Burns in Arizona and offered him the assistant's job. The attraction of being number two man at a major stadium was great for Burns since he felt he needed to keep learning and moving ahead.

Rangers Stadium had some major problems Anglea needed to fix, including a poorly-drained outfield and very heavy thatch. He needed a strong assistant so he

could concentrate his efforts on the improvements. He wanted someone versed in both bermudagrass and ryegrass and who was familiar with his methods of infield preparation. Burns felt he had learned a lot from Anglea in Cleveland and could learn more.

In two years, the pair turned the baseball-only stadium into one of the best in the League. With the renovation work accomplished, the work load at the stadium became routine and very slow during the off-season. The Rangers, however, had a new assignment in mind for the pair.

Owner Eddy Chiles wanted to consolidate his spring training and minor league facilities in Florida. In addition to the Texas Rangers, he had four minor league teams playing in two locations, Plant City and Pompano. Charlotte County, about 90 miles south of Tampa, had approached Rangers President Mike Stone and General Manager Tom Grieve concerning an 82 acre site in Port Charlotte for a major training facility. It was an offer they couldn't turn down, especially since they had two skilled groundskeepers on the payroll. Jay Miller, appointed by the Rangers to be general manager of the Port Charlotte operation, started hounding Burns to come to Florida as head groundskeeper.

In December, Burns packed his bags

again. Anglea would stay in Arlington and make periodic trips to the site during construction. Burns had three months to build a stadium field and five practice fields. Once again it was sink or swim. He too, needed a good assistant and found one in Al Hicks. Hicks had trained under George Toma at the Kansas City Royals spring training facility in Ft. Myers, FL.

This time Burns was working with coarse sand instead of clay. Drain tile, wrapped in filter fabric, had been installed in four-foot-deep trenches, 34 feet apart, on each field on a line from home plate to second base. The tile fed into lift stations where pumps raise the water into five irrigation reservoirs for recycling. "The system can handle more than three inches of rain an hour," says Burns. "The soil never gets saturated. When we dump the infield tarps onto the outfield, the water disappears within two minutes. The average annual rainfall is 60 inches and we might get two to three inches in one storm. Last March we had 11 inches!"

The irrigation system was also installed when Burns arrived. Toro 640 heads are in the outfields and 600 Series heads are in the infields and on the sidelines. Electromechanical Rain Bird controllers operate the field systems and the heads for the surrounding landscape. A single 40 hp pump draws water from the lakes and pressurizes the system.

Again, Burns was caught in a warm climate during the winter with fields to plant. The fields had been sprigged with bermudagrass, but by January only 65 percent coverage had been achieved. To get a handle on the best techniques for planting ryegrass in the area, he contacted golf course superintendents in the Charlotte area. "Superintendents here have been great, answering questions and loaning equipment," explains Burns. "They like baseball as much as I like golf. We have many of the same problems." Burns even joined the Sun Coast Golf Course Superintendents Association.

With a Vicon seeder Burns sowed the ryegrass. He saw within days that the sandy soil did not hold onto fertilizer very well. The initial soil test indicated that iron and manganese were deficient. He applied Scotts starter fertilizer containing zinc and manganese followed a few weeks later by a 34:3:7 with sulfur-coated urea. "I'm trying to build up a reserve of slow-release nitrogen that I can supplement with liquid nutrients," he states.

The orange clay for the skinned areas had to be trucked in from northern Florida, screened and installed five inches deep by Athletic Services Dunedin, FL. Since Burns had six infields to maintain, he bought a Gill pulverizer to recondition the base paths. Twice a year the top two inches of basepath mix are reconditioned with the pulverizer. The remainder of the year Burns uses nail drags and float boards pulled by Kawasaki

continued on page 18

Drain tile feed into lift stations where pumps raise the water into five irrigation reservoirs for recycling. The system can handle more than three inches of rain an hour.



Gene Autry Park in Mesa, AZ, is located in the middle of a citrus orchard.

Port Charlotte

continued from page 14

ATCs. The drag mats are made of cocoa mat attached to sheets of plywood.

The orange clay and dark green ryegrass were a stark contrast to the white crushed shell used to highlight the warning tracks. He began mowing the fields with a Toro Greensmaster at 3/4-inch in the pattern that had been so impressive in the past. Each day he mows one of four directions. When the teams are out of town, the stadium is mowed on a line from home plate to center field or from third base to first base. The day before home games, he mows on a line from first to second base. On game day he mows on a line from third to second base giving the field a checked pattern. He maintains this pattern while the teams are in town. By mowing in four directions, the turf does not develop a grain and grows upright throughout the year.

The pitchers arrive at spring training first. That week Burns starts lowering the height of cut to 1/2-inch. The following week, when the remainder of the team arrives, the fields are fast and smooth.

In March 1987, the first full month the facility was used, more than 11 inches of rain fell in Port Charlotte. Burns covered the mounds and batter's boxes with individual tarps when the fields were not in use. A single-piece infield tarp was used anytime rain threatened. The crushed shell warn-

During March all fields are used in the morning for practice. At least three fields are used each afternoon for games.

ing tracks didn't need to be covered. "The lift pumps were working almost everyday," states Burns. A supply of pregerminated seed was kept on hand to repair divots in the young ryegrass that spring.

A groundskeeper worries a little when he is keeping two or three fields in shape for one team, but Burns has five teams training on five fields and one infield. Not only were the Texas Rangers practicing there, so were the Class A Charlotte Rangers, The Class A Gastonia Rangers, the double-A Tulsa Drillers and the triple-A Oklahoma City 89ers. During the month of March all fields are used in the morning for practice, and there are usually three games going on at the same time in the afternoon. In 1987, more than 120 games were played on the stadium field alone.

"You have to hustle to get all the fields ready for both practices and games every day," states Burns. The day starts early with mowing, pulling the covers, watering the base paths and setting up the batting cages and pitcher's screens for batting practice. The mounds are covered with artificial turf to protect the clay. Burns has tried covering the fungo area, between home and the mound, with geotextile to protect the turf from grounders. As practice progresses, the crew must be on alert to remove the cages and covers. At least three fields are used each afternoon for games. These fields must be prepared in a matter of minutes between practice and the games at 1:30.

Burns augments his four-man crew in the winter with Brad Richards, Anglea's assistant from Arlington, and Jim Conway, a member of the Cleveland crew who, like Burns six years before, is laid off between football and baseball seasons. "It's great experience for them and a big help to me," remarks Burns. "They free me up so I can keep everything on schedule and talk to the managers about what they need that day." By the beginning of April, the pace slows as only the Charlotte Rangers remain to play through August.

That first year Burns was anxious to get the Tifway II completely established during the spring and summer. Soil tests kept showing a loss in micronutrients. "In 1987, we

continued on page 38

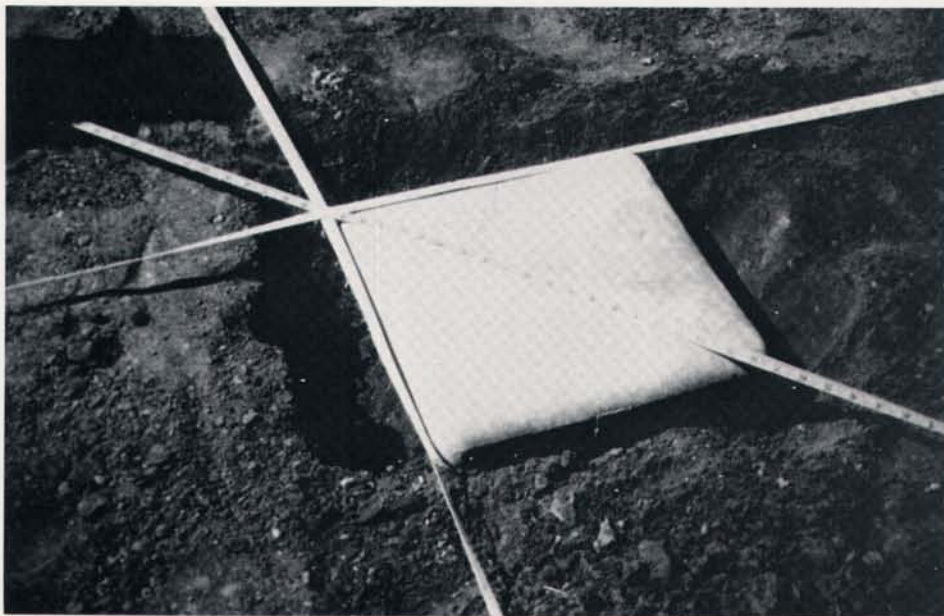
Baseball Field Alignment

By Mike Hebrard

A baseball field is the best designed of all outdoor sports facilities. Where players stand, run, slide, dig in or push off, there is dirt that can be raked smooth again. Where the ball hits, there is a smooth, flat grass surface that permits the ball to bounce predictably and to roll quickly with minimal resistance. The majority of the field is covered with turf to prevent muddy or dusty conditions, to provide safe footing, to keep the field cool, and to give it a park-like appearance. The best all-round baseball field is one that is consistent day in and day out.

The consistency of any baseball field is based largely upon maintaining correct distances and angles. It is our job as groundskeepers to check the alignment of the foul lines, bases and mound frequently for accuracy. To do this you'll need a few tools, including four steel pipes, a transit and a pole, a nylon cord 400 feet long, nails to secure the cord, two tape measures 100

continued on page 20



A perfect fit for third base.

Port Charlotte

continued from page 18

put down 24 pounds of nitrogen (per 1,000 square feet) with spreaders and a boom sprayer to grow in the ryegrass and the bermudagrass." At the same time the parking lots and surrounding landscape were sowed with bahiagrass.

Remembering the thatch at Arlington, Burns aerified and verticut five times that summer. A Jacobsen 720 sweeper was used to vacuum up the thatch. "We didn't need to topdress last year, but I plan on it this year," Burns adds.

The thing that Burns will always remember about his first spring in Florida were the mole crickets. Minor league games are played at night under the lights. While the crickets hide deep in the soil during the day, they tunnel to the surface in the evening. "When the lights came on the crickets seemed to come out of nowhere flying and crawling all over the field and stadium," he recalls. "I had no idea how big of a pest they were. I first noticed their burrows in the field after we pulled the tarp for a night game after a day of rain. That night when the lights came on they started flying everywhere. From then on, Burns started noticing burrows on many of the fields.

After consulting his chemical suppliers and a few golf course superintendents, Burns planned his attack. He mixed Orthene into his boom sprayer one evening before a game. When the lights came on, they started emerging from the soil. For nine innings, Burns waited to make his move. At the end of the game, he fired up his Cushman truckster with the boom sprayer and caught the

crickets in the act. His next move was to aerate all the fields and apply a fertilizer containing Oftanol, a long-acting soil insecticide. He didn't stop there. He also spread Baygon bait around the fringes of the fields. "I'm trying to create a buffer zone around the stadium now," states Burns.

Burns needed a similar plan of attack for fire ants. The small ants establish colonies in mounds of soil and cause painful bites when foraging for food. "We kick over and drench each mound we find with Orthene." Burns is trying Amdro bait in the landscaped areas around the complex.

The only disease problem Burns has had to solve occurred last August. "We had pushed the bermudagrass so hard that year to get it established we created a perfect environment for *Helminthosorium*. First I noticed damage on one of the practice fields. Then, I discovered the players were tracking it onto the stadium field. Fortunately, Rangers were wrapping up their season." Burns applied Dyrene and cut back on nitrogen and water on the stadium field. This year he plans to cut nitrogen applications in half and boost potassium during the summer.

Burns uses a mixture of the old and the new in infield preparation. The foul lines on the stadium field are painted by hand with a four-inch brush three times a week. Since the lines are burned into the practice fields with diesel oil, he has only one field to paint. After pulling a string tight from the corners of the plate to both foul poles, he applies white latex paint with a brush on top of the string. "It may seem old-fashioned, and I wouldn't do it with more than one field or

a football field, but it takes longer to clean a paint sprayer than it does for me to paint the lines by hand."

Hand raking the edges of the basepaths is a rule at Charlotte. Burns doesn't allow the drag within two to three inches of the infield grass to prevent lips from forming in the turf next to the basepaths. Still, wind and sliding players will push some infield mix onto the turf. Once a week Burns has his crew hose the clay out of the turf. After spring training, he puts the verticut reels on a Toro Greensmaster and strattles the edges of the basepaths to make sure the level of the basepaths matches the level of the soil under the turf. The edges are trimmed every other week to keep them sharp.


The infield of the stadium is mowed with a Jacobsen walk-behind greens mower at 1/2-inch. Burns is a fanatic about mowing straight. "Detail makes a big difference on a field," he adds. One detail he notices that few others do is the moisture level of the basepaths. Turf gets lighter as it dries. By watching the color of the infield dirt, he knows when it needs to be wet down. If it's too wet the players slip—too dry and it crumbles. Just the right moisture is required for the mounds and the batter's boxes. The last thing Burns does every night is to recondition all the mounds and batter's boxes and cover them with tarps. That includes the bullpens.

Since the Rangers play a portion of their games on artificial turf, where the basepaths are carpet not dirt, Burns has sodded the basepaths on one field. "Rather than buying artificial turf for one field, we thought we'd try to make one natural field play like an artificial field," he says.

The busy season ends each year at Charlotte with the instructional leagues from September through October. Burns looks upon the players in the instructional leagues with admiration. "A lot of those guys don't have to be here, they just want to be to improve their skills."

You get the feeling that Burns too wants to keep improving. He turned down the groundskeeper's job at Dodger Stadium last year because union rules would only allow him to supervise, not participate. "You have to be on the field working to really know what's going on," he states. "When somebody has enough faith to give me responsibility, I don't want anything holding me back."

Burns thinks the biggest challenge in sports turf management is keeping a stadium field in top shape for both baseball and football. "At the most important time of the year for baseball, it takes one heck of a turf manager to keep both baseball and football teams happy. But, there's got to be a way."

Burns' hard work is paying off. Baseball Commissioner Peter Ueberroth has called the Port Charlotte complex one of the best in major league baseball. "It sets a standard that other teams need in order to improve," he stated. 



Mole crickets would burrow to the surface during night games at the stadium.