

Barry University Sets Standard For NCAA Baseball Diamonds

"Given adequate resources, it is relatively simple to plan, design, and install a baseball field that looks outstanding upon completion. The true test of excellence, however, is how that field is cared for and maintained, and its aesthetic value, three, five, or ten years from the time of installation." Eddie Colletti, Athletic Director, Barry University.



Buccaneers practice on university's award-winning diamond.

By these or any other standards, the baseball field at Barry University in Miami Shores, FL, is a winner. What began as an adequate women's softball field was converted into a superb baseball diamond six years ago. It hosts 60 NCAA baseball games and eight months of practice every year and was recently awarded the 1989 Beam Clay Baseball Diamond of the Year Award in the College Division.

Founded in 1940, Barry is a Catholic International University with approximately 6,000 students. It was a women's college until it went coed in 1979-1980. Through the generous donation of a booster, the school's softball field was converted into a baseball diamond in 1984. The school began to participate in NCAA Division II baseball, softball, and soccer competition that year, three years before groundskeeper Jerry Brown was hired.

When the softball field was converted to a baseball diamond, automatic irrigation was installed throughout the field, with the exception of the infield and dugout areas. All the fields, baseball and soccer, were then sprigged with Bermuda 419, and the diamond's infield was excavated to a depth of approximately six inches. Sand and muck were mixed to create the soil to fill in the excavation, and then the area was resodded. The original clay, which was soft and sandy, was replaced.

Although he is reluctant to take credit for the field's continuing excellence, the man behind it is Brown. His determination, pride, and unquenchable thirst for information on turfgrass management are the foundation for the diamond's success.

"Jerry is the kind of guy who takes weekend vacations to visit other field and golf course superintendents," noted Bruce Barclay, men's baseball coach at Barry University.

Brown's "vacations" have taken him up



Detail-oriented Brown borrowed many of his techniques from Major League groundskeepers.



The mound at Buccaneer Field is prepared to provide a perfect slope toward the mound and a flat area behind the pitching rubber.

and down the Florida coast. He simply cannot learn enough about his profession. "I've sought information from the best groundskeepers and golf course experts in Florida," he said.

Among the experts Brown has visited in Florida are Tom Burns in Port Charlotte, Ron Timpanaro in Clearwater, Bud Koehnke of Osceola County Stadium, and Ed Miller in Fort Lauderdale. "It's a pleasure and privilege to interchange with these guys," he added. "They spur me on to do more."

Brown, 34, didn't start out to be a groundskeeper, but in one way or another he always stayed in close touch with the turf. He grew up in Garden Grove, CA, in what he describes as a "sports family," and cut lawns for pocket money as a boy.

At Golden West Junior College, he played catcher on the baseball team. As a part-time job, he worked on the school's baseball field.

After graduating from Golden West, Brown attended U.S. International University in San Diego, CA, on a baseball scholarship and work-study program. He also worked on the university's baseball field. He graduated with a degree in elementary education, eager for anything but the career for which he had studied.

Rather than jumping into teaching, Brown started working as a laborer on a golf course in San Diego. A few years later he moved to Phoenix, AZ, married, worked in landscape construction, and taught elementary school for a year-and-a-half.

Brown eventually headed back to California, settled in the San Francisco Bay Area, and sold Yellow Pages advertising. In a little more than a year his selling days were finished. He worked in landscape maintenance for the next three-and-a-half years. It appeared that he had settled on a career.

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Where to pursue it was another matter.

With friends who lived in the area encouraging him, Brown moved to Miami Shores, FL. One day he spied an ad in a paper for a groundskeeper to care for the baseball diamond and two soccer fields at Barry University. He applied and was hired. Brown, the quintessential body in motion, had come to rest. Yet he's never been busier.

"I have been in the [landscaping and turf maintenance] field eight out of 11 years since graduating college," said Brown. "But I never experienced the desire that I now have for baseball fields. It combines my love for baseball and field maintenance perfectly."

According to Barclay, the field was in good shape when Brown arrived three years ago, but Brown has made substantial improvements. "Jerry has done a tremendous job," commented Barclay. "He takes a lot of pride in his work. He's proof that a person who works hard can stretch a budget."

"Getting resources to improve the facility has not been easy," Brown confessed. "It is easier to maintain the status quo, not make any waves, and suffer with mediocrity. I've always had an inner drive to improve the field and get things done. For example, rather than looking at weeds and a parking lot, we purchased a windscreen for the outfield fence to close the ballpark. It took one year to get half of the screens and a second year to get the fence enclosed. The athletic department paid for it."

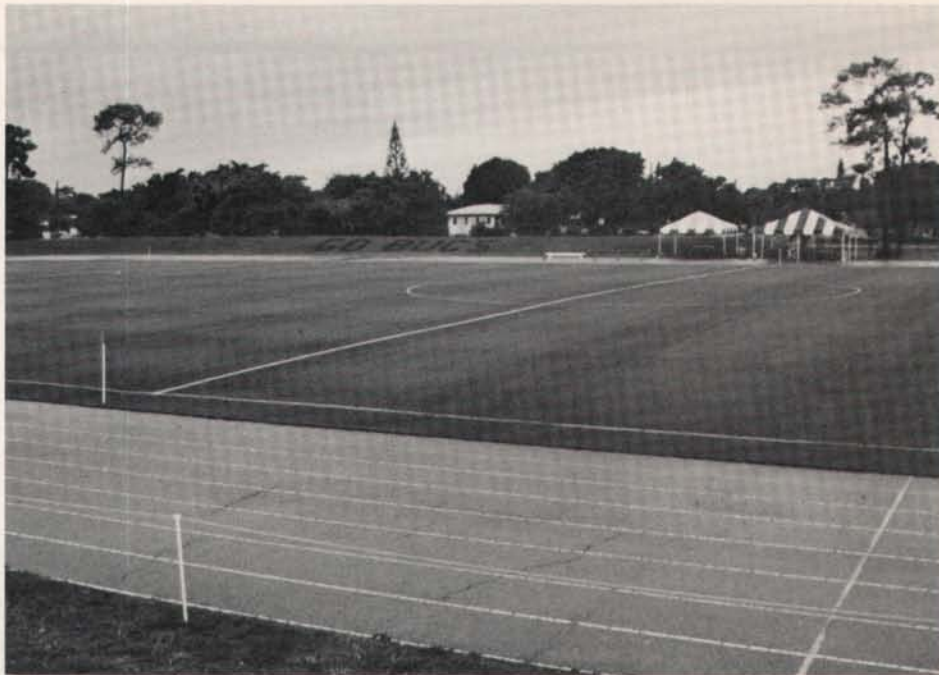
Financing the improvements has often been a cooperative effort. "We needed to completely redo the outer half of the outfield," Brown continued. "At first they were going to save the good grass, which was spotty, and then sprig the rest. But the outfield was so uneven that it would have been a mess."

"Finally, after a lot of negotiation, the school decided to grade the whole area and put in all new sod. It was a tremendous, costly job, and the grounds budget couldn't cover it all. So Student Activities said they would pay for half the job if grounds would pay for the other. It was a team effort," said Brown.

Like the improvements to the field, equipment upgrades have been gradual because of the school's limited budget. Jack Patterson, supervisor of grounds, is responsible for these upgrades. According to Brown, some of the university's best equipment investments were a tractor and a five-gang pull-behind mower. A 200-gallon tank sprayer, a Lely fertilizer spreader, and an aerator have also been purchased.

"The fields used to be cut with a triplex mower," said Brown. "To cut all three was an all-day job. Before, it would take two hours to cut the baseball field. Now it can be done in 20 minutes. This is why the grass is perfectly manicured—it can be cut every day."

Of course, even the most high-tech, state-of-the-art mowers, aerators, and spreaders



Soccer players get the same quality surface as the baseball team.

won't run themselves. A top-notch field requires a top-notch daily maintenance program. It requires work and creativity.

Brown begins his duties each day by using a flat shovel to clean the clay off the grass edges of the infield. He uses a shovel rather than a broom, he revealed, because brooms tend to push the clay back onto the grass. He also cleans the grass after pre-game batting and infield practice, and tries to avoid creating lips at all cost. "I am scrupulous, almost fanatical, about keeping clay off the grass," said Brown.

After the grass edges of the infield have been cleaned, he works the clay by raking the baselines. They are four feet wide, and Brown said he prefers the relatively narrow width of these areas because they are the most difficult to keep dry. He rakes lengthwise to avoid kicking clay onto the grass, and shallowly to keep the baselines as firm as possible. He scratches the clay's surface just deeply enough to fill in any holes.

"It's best to work the clay early in the morning to take advantage of the moisture from the dew," he said. "If the clay is not the correct moisture I wet it lightly, just enough to achieve the proper consistency."

Brown uses the flat side of an aluminum landscape rake to fill in the batters' boxes and catchers' holes. Generally, holes are not a problem on practice days because the team hits and pitches on pieces of artificial turf during batting practice.

The pitcher's mound at Barry University's baseball diamond emulates that of Angel Stadium in Anaheim, CA, in the early 1970s. When Brown attended Golden West Junior College and played baseball, one of his coaches also used to pitch batting practice for the Angels. Through this coach he had learned about several techniques used by Angel Stadium groundskeepers, including

preparation of the mound. He was also able to put them into practice while working on the diamonds of Golden West and U.S. International, and in turn brought them to Barry.

The pitching rubber is 11½ inches above home plate, and the mound is completely flat behind the rubber for 36 inches. A pitcher can step from the rubber, or to the side, and remain on level ground. The area in front of the rubber is level for six inches, and the mound starts tapering down from there.

"It is an inclined ramp, level from side to side" said Brown, referring to the mound. "I describe it by comparing it to a cube of butter, cut with a hot knife at a straight 45-degree angle. This summer, I took out the lip that was previously in front of the mound, so the pitcher steps down to a true 11-inch drop." A firmer clay was used in its construction. After every practice, the team covers the mound and home plate with tarps.

During the spring season, when the Miami Shores area gets little precipitation and constant, hot winds, the infield clay requires careful attention. After the morning raking is completed, Brown tire-rolls the baseline between first and second base, which experiences a good deal of wear, especially after a game.

"My biggest problem in the spring is that the clay has a tendency to become exceedingly hard, so I designed my own drag," said Brown. "I fashioned a regular nail drag and attached brooms to the back. The nails dig in for a little bit of cushion and the brooms smooth and finish out the clay."

"One of the problems I had before I created this instrument was with compaction from the tractor while dragging. Previously, I would nail drag and then come back

later with a screen drag. It was a never-ending battle to keep a little cushion. Now, every time I drag I use the new device with the brooms and it gets done handily. Even when the clay is wet, the brooms don't collect much clay," he said.

To accommodate the area's fluctuating weather conditions, Brown has developed a set of infield maintenance procedures and schedules. If it does rain and some standing water remains on the skinned areas, he uses a long hose to remove the water, first thing in the morning. Later he drags and tire-rolls these areas to make them firm, and then drags them again to put a finish on the infield.

If rain is threatening, he doesn't drag or open up the clay until an hour before practice. If the weather is steady and clear, he works the clay in the morning while it is still moist. "The fall is more forgiving," he added. "It is our rainy season, so I moisten the clay less frequently."

The Bermuda 419 field is cut almost every day, and often twice a day, during the playing season. The same Ford tractor used for infield dragging also pulls a Roseman five-gang mower which cuts the outfield grass to a 3/4-inch height.

Brown mows the outfield in two directions. The first is from second base to center field. The second is from foul pole to foul pole. "It's difficult to get the stripes with the gangs, but by cutting every day I am able to get that effect," he said.

The infield grass is cut at one-half inch with a Toro Series Five 22-inch walk-behind greensmower. It is cut in three directions: home to first, home to second, and home to third. According to Brown, this gives the stripes their strong, sharp appearance.

Every two or three days and every game day, the grass between the baselines and dugouts is also cut with the greensmower. It is mowed in one direction down each baseline.

During the season, reels are back-lapped once a week. A tarp is put down in front of home plate during batting practice to protect this area from divots. When game day arrives, both dugouts are swept out and the foul lines, bases, pitching rubber, and home plate are painted white. Each grass area is cut in its specific direction for the striping effect, and the clay is kept moist. After batting practice, Brown lines the field with the help of several members of the team.

Although irrigation of the diamond by Toro 690 heads is automatic, it has been anything but problem-free, due to unique soil conditions. When the field was converted from softball to baseball, the outfield was extended and sprigged on top of sugar sand. The older, front half of the outfield, in which the previous groundskeeper added muck to amend the soil, retains moisture and drains poorly, whereas the outer half drains well and requires large amounts of water.

The irrigation system has only three zones. One zone waters left field, the second waters center field, and the third

Like the improvements to the field, equipment upgrades have been gradual because of the school's limited budget.

waters right field. During dry, windy spells, Brown has to run portable sprinklers with hoses for about an hour on the outer portion of each zone a couple of times a week, because the automatic sprinklers don't provide complete coverage in these areas due to the soil. Wetting agents have also been used to help solve the problem.

"Deep watering with the portable sprinklers is done on days when the team doesn't play," said Brown. "I live about a mile-and-a-half from the ballpark and will drive down and move the sprinklers about every half-hour, and go back home."

The infield and areas between dugouts

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and baselines are watered manually. Keeping the grass moist and baseline dry is a challenge all baseball field groundskeepers must face, according to Brown. The grass around the home plate area takes a lot of punishment, and therefore requires more moisture to battle stress.

Edging the field, fertilization, and protecting the field from weed and insect invasion round out Brown's maintenance program. Using a power edger and string line, he edges the field every two-and-a-half weeks. He takes out the unwanted grass using what he calls a "hula hoe."

"At the beginning of each season, when there is more grass to remove, I fill in the low areas with clay," Brown said. "I keep the clay and the grass almost flush with each other so the ball will roll true. The sharp edges and parallel lines add to the beauty and distinction of the field. During the off-season, I use Roundup after I edge and I don't use the hoe."

The outfield is fertilized approximately nine times a year at one pound of nitrogen per 1,000 square feet, with 14-3-9 fertilizer mixture. Ten-and-a-half percent of the nitrogen is ammoniacal, and 3.5 percent is water-soluble organic nitrogen. The fertilizer also includes many micronutrients. For televised and other special games, iron is used to promote a dark green color in the



Brown stripes infield with greensmower.

turf.

Because of leaching and the difficulty of keeping the back half of the field moist, it receives almost two pounds of fertilizer per 1,000 square feet. The area is more susceptible to stress poor irrigation coverage, and requires more nutrients.

The infield is fertilized at a rate of one pound per 1,000 square feet, about every three weeks. This area receives more fertilizer because of its lower cut, wear and tear, and ball divots. In addition, the area in front of the pitcher's mound receives extra fertilizer.

Goosegrass and crabgrass are the diamond's biggest weed problems. Brown explained, "Some broadleaf weeds pop up, but 2,4,D takes care of these quite well. When killing the goosegrass in the spring, a mixture of MSMA and 2,4,D is used. We get a pretty good kill after three applications.

"Last winter, we had a problem with *Poa annua*. One application of Sencor wiped it out. I used Basagram to kill nutgrass and Roundup along the fences and under trees and bleachers. Each year, weeds have become less of a problem because of consistent cultural practices," he said.

Mole crickets are the field's most troublesome pest problem. According to Brown they are a constant nuisance for Florida groundskeepers. He has used baits, Oftanol, Orthene, and Nemicure to try to defeat them. Although the problem is currently under control, he expects them to return shortly.

"Grubs were a problem this summer, but the Nemicure took care of them," said Brown. "Sod webworms have been a continuing pest. Diazinon controls them for a period of time."

Last summer was especially busy for Brown. With Patterson's help, open coring tines were acquired for the university's aerator. He cored the field in two directions once a month, and broke up the cores by

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Barry University

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pulling a screen drag over the grass. He plans to continue this practice during the growing seasons.

To remove heavy thatch in the infield, Brown power-raked. "It had never been done before," he said. "I vacuumed the loose thatch and then cut the grass at one-quarter-inch. It had been three-quarter-inch before. Then I topdressed heavily and fertilized. I have maintained the grass at one-half-inch since, and plan on repeating the process right after the fall season, weather permitting."

Verticutting blades for the university's flail mower were recently added to its growing list of equipment, and Brown plans to verticut heavily in the fall, spring, and summer.

One of his largest projects last summer was the removal of the field lip. Using a sod cutter, Brown cut back about four feet from first to third base. The sod was removed, as was the excess dirt. With the aid of a level, he carefully replaced the sod and repeated the process around the pitcher's mound. "I also use a hose and nozzle to blow the clay off the edges," Brown said. "I have to be very careful in doing this, or else the grass becomes lumpy and full of ridges."

Obviously there is no shortage of work, especially for one man. Still, Brown maintains that he is not a "one-man show." While he receives help with irrigation equipment repair, as well as occasional assistance from students in work-study programs, in theory he is correct. When Brown asserts that he has all the help he needs, theory, or information, is exactly what he is talking about.

Brown routinely talks shop with Ross

Saylor, former superintendent of the Miami Shores Country Club, where (according to Brown) he has a reputation for asking questions. Saylor recently moved on to become superintendent at Key Biscayne Golf Course. "Ross has been extremely helpful," said Brown. "He is up on the latest techniques and shares with me constantly."

In addition to information, Saylor has shared his verticutter, topdresser, and Turf-Vac (which Brown used to vacuum loose thatch last summer) with him on several occasions. Brown also credits Jack Patterson, his boss, for sharing his knowledge of Bermuda 419. Before coming to Barry, Patterson worked on turf tracks.

In the true spirit of the Sports Turf Managers Association and its founder, Harry Gill, Brown finds exchanging ideas and practices with others in his field to be both necessary and exhilarating. He is a member of the STMA local chapter in South Florida, which was founded by George Mascaró.

"I meet with other baseball groundskeepers at STMA meetings," he said. But his ongoing education doesn't stop there. He attended two turfgrass seminars last year, and sits in on horticulture classes at the University of Florida Research Center.

Last year at the university's sports banquet, Brown received his second consecutive award from the athletic department for his work on the baseball diamond and soccer fields. When he rose to accept this honor, he was greeted with a standing ovation.

Several months ago a college coach from a nearby university, which was completely renovating its infield, brought his supervisor to view the field at Barry. He needed an example to show him what he wanted.

Coach Barclay uses the field as one of his most important recruiting tools, telling prospective players that the university has one of the finest fields in Florida. "I think that the biggest compliment we get is from our opponents," he said. "Every single team that's come here to play has just raved about the field."

Barclay added, "I'm pretty good friends with Bucky Dent [former all-star professional shortstop and current New York Yankee manager], and he comes down here sometimes for a few days to work with our infielders. He says the condition of this field is every bit as good as any in the major league."

And now the field has received the 1989 Beam Clay College Division Baseball Diamond of the Year Award. The Barry University diamond has been a tremendous success by any standards.

"I feel like an integral part of the teams because I have so much contact with the ball players," said Brown. "The alumni players asked me to be one of their player-coaches for the first alumni baseball game. Although I didn't graduate from Barry, I am part of the baseball program. I even get a chance to throw batting practice to the guys sometimes, and I love every minute of it."

The Barry Basics

With a student body of approximately 6,000, a tight budget, and an NCAA baseball program just six years old, Barry University would seem an unlikely place to find one of the finest college baseball diamonds in the nation. But the university's award-winning field lends credence to the adage, "Good things come in small packages." Here are a few facts about the diamond at Barry, which is one of those "good things."

Age: Six years.

Turf: Bermuda 419.

Home teams: NCAA Division II men's baseball and women's softball.

Team Nickname: The Buccaneers.

Irrigation: Three-zone automatic control, Toro 690 heads. Some manual.

Groundskeeping staff: Jerry Brown.

Annual operating budget: \$8,000.

Games played annually: 60 (40 during spring season, 20 during fall season.)

Annual field usage: Eight months.

Lighting for night games: None.

Other events held on the diamond: None.