



*Osceola County Stadium & Sports Complex*

## **Koehnke Blends Experience And Innovation At Astros Spring Training Center**

**F**or 30 years, Bud Koehnke held onto his dream of making the majors. Since he was 17 years old, when a minor league scout for the St. Louis Browns signed the adolescent pitcher during a tryout camp in his home town of Appleton, WI, Koehnke worked his way toward the Big Leagues.

"I was a thrower, not a pitcher," Koehnke jokes today. After stints with the Browns and the Cincinnati Reds in cities such as Pittsburgh, KS, Wellsville, NY, Aberdeen, SD, and Knoxville, TN, his playing career ended. "Four years in the minors gave me some strong feelings about baseball facilities," he adds. "I appreciate what ballplayers contend with and have been fortunate to be able to do something about it."

Had Koehnke remained a player, he might not have been part of a major overhaul in spring baseball training facilities. His hard work for the Houston Astros at Osceola County Stadium in Kissimmee, FL, has earned his facility the 1990 Baseball Diamond of the Year Award in the profes-

sional category, the closest thing baseball groundskeepers have to the Hall of Fame.

Koehnke, in conjunction with HOK Sports Facilities Group in Kansas City, MO, designed and built the stadium field and four practice diamonds in 1984. Osceola County essentially upped the ante for communities trying to attract professional baseball clubs and their tourist fans. The 60-acre site has enabled the Astros to consolidate spring training of both their Major and Minor League clubs, provided a home for a single-A Florida League farm team, and served as a base for fall instructional leagues. The facility is dedicated year-round to player development and meets all the requirements of professional baseball.

"Osceola started a trend in spring training facilities," states Rick deFlon, senior vice president of HOK. "In 1983, when the Astros were in Coco [FL], half of their spring training games were rained out. They started looking at other facilities in Florida. Andy McPhail and Al Rosen [owner and general manager respectively] put together specific ideas based on what they saw and what they'd like if they could start from scratch. Osceola had been talking with the Cubs."

The Astros and Osceola got together and brought in the newly-formed Sports Facilities Group of HOK to turn their ideas into reality. DeFlon was assigned the challenge of creating a prototype for future spring training facilities. "It was one of HOK's first big ventures in sports facility architecture," he adds. It was also one of the first times a stadium architectural firm had addressed a spring training project.

Meanwhile, Koehnke was renovating Tinker Field in nearby Orlando for the Minnesota Twins. Since leaving the player ranks, he had spent most of his career as Recreation Director for Appleton. Goodland Field in Appleton was a regular stop of the Class A Midwest League and one of Koehnke's responsibilities. "I had Goodland Field, all the parks, an 18-hole golf course, and four swimming pools to look after," he recalls. "The people of Appleton take pride in their athletic facilities. My son Brandon used to help prep the stadium before games, just like I had done when I was a kid. It was sort of a family affair."

Over the years, Koehnke met and built relationships with many professional baseball owners, managers, and players. "After 26 years in Wisconsin, I decided it was time for a change," he reveals. "All three of my children are athletes and I thought they would have more of an opportunity in Flor-

ida. We pulled up stakes and moved there in 1980."

Upon arriving in Orlando, Koehnke called Calvin Griffith, owner of the Twins at the time. Tinker Field had gone downhill. Griffith invited him to bring the field back to life.

"It was my first exposure to bermudagrass and mole crickets," he admits. Koehnke credits much of his success at Tinker to the assistance of Dr. Wayne Mixson, manager of the O.M. Scotts Southeast Research and Development facility in Apopka, FL. "Dr. Mixson was a tremendous help in building a fertility program, offering advice about overseeding, and making suggestions on how to control mole crickets," adds Koehnke. "He gave me time to concentrate on other problems like the infield dirt, compaction, thatch, and the playability of the field.

"For example, if you're a pitcher, the mound is your office," he states. "If the pitching rubber is off by four inches or the landing area is too loose, the office is wrong. I've seen cases where the bases were off by two feet and no one caught it. It's the groundskeeper's job to keep an eye on those things."

Inside of three years, Koehnke had Tinker Field back to specs, had established schedules for all maintenance practices, and had added a number of extra techniques that impressed the Twins' management. Rosen became aware of the improvement at Tinker Field under Koehnke.

The Astros deal with Osceola gave the team input on construction and control over maintenance. Rosen wanted his groundskeeper involved early in the project to work with the county, the contractors, and HOK. The new facility was going to be extremely busy once it opened. There was little room for mistakes, especially considering that the new design would be under close scrutiny by other teams.

The good thing about Koehnke is he was right for the time. Management felt most comfortable with "old school" groundskeepers who came up through the ranks and were close to the game. Koehnke's background fit that mold. Twenty years as a recreation director imparted other traits to his personality which make him confident in his ability to build budgets, manage people, and negotiate with vendors.

Koehnke has the stern, focused expression of a relief pitcher. If you don't know him, you feel like a batter facing him in the late innings of a tight game. Rosen, a for-

mer player and pitching coach, liked his resolve. DeFlon found it a bit unsettling. Both are pleased today with the product Koehnke has delivered to the Astros for the past eight years.

Actually, Koehnke is quite open-minded. He is loyal to products that work for him, yet is willing to try new techniques. He welcomes suggestions from his crew and his suppliers. When he tries something new, he solicits comments from the players and coaches on the results. In fact, he is constantly experimenting with new equipment and chemicals.

After all, if he was set in his ways, it's doubtful that Osceola County Stadium & Sports Complex would be what it is today, a model for many new spring training facilities from Arizona to Florida. HOK has since designed three more spring training



Stadium field at the Osceola Complex.

complexes in Florida with features common to Osceola: nearby Baseball City for the Royals, the White Sox complex in Sarasota, and a brand new facility in Homestead.

From a design standpoint, the main features are a pinwheel-like arrangement of the four practice fields with a clubhouse in the center and an adjacent stadium. Osceola added an AstroTurf half-field last season with the old material from the Astrodome. All natural fields have bullpens. Two four-station batting tunnels and an eight-pack, eight side-by-side pitching positions, are tucked in around the practice fields.

The Tifway bermudagrass fields are nearly as fast as the AstroTurf the team plays on at the Astrodome. Bounces and rolls are true whether on the dirt or the grass. All fields are lighted and fully-outfitted with warning tracks, fences, and scoreboards.

The trick is keeping all the fields and grounds in shape more than ten months a year. "That's the amazing part about the whole thing," comments Scotts' Mixson. "The fields take a beating almost year-

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round with very little chance to rest and recover. At the same time, the demand for a quality playing surface has increased. It's reached a point where the worst field today would have been acceptable 25 years ago."

"Baseball gets more like golf every year," says Jim Griffith with Zaun, Koehnke's Toro salesman. "If a piece of equipment goes down, they need a replacement by the next day. Many of the features on greensmowers are becoming popular at spring training facilities. Since many complexes don't have mechanics like golf courses, service becomes even more important."

Koehnke and his experienced staff of six operate on a tight schedule year-round. In November, when the training leagues end, they have barely two months to oversee,



Sand Pros are used on base paths and warning tracks.

rebuild the skinned areas, aerify, topdress, and get ready for spring training. That's the time when Koehnke, Don Miers, stadium operations manager; and facility coordinator Michelle Link sit down and work out the schedule for the coming season.

"Between the five fields, we had 979 events last year," Miers points out. The list of events includes the Senior Little League

World Series, the Roy Hobbs World Series for players over 35, NCAA tournaments, the National Police Youth Tournament, soccer, high school football, flag football, and concerts. The Astros also added a winter program of three games a week this past year. "There's never a dull moment," adds Miers.

"Building the fields has been a big help in maintaining them," says Koehnke. "The only major problem we had involved the PVC pipe for the irrigation system. We've had to replace nearly all of it. Everything else has worked out great!"

All fields are constructed of sand and are crowned on a line from home plate to center field. The drop from home to the corner of left and right field is more than two feet. Koehnke went a step further for the stadium field by installing a Cambridge System. This entails a network of sand-filled trenches spaced 15 feet apart. Small perforated drain tubing sits in the bottom of each trench. Water removed by the system is pumped into a man-made lake behind the outfield fence.

"We keep the surface open throughout the year by slicing four times and shallow aerifying twice every year," he explains. "In the winter we aerate the outfields down to nearly eight inches with an Aerway. We have base and mound tarps for the practice fields and a two-piece infield tarp for the stadium."

The Toro irrigation system is fed by a well on site. Each field has its own controller. A sixth clock controls the rest of the property. All dirt areas are watered by hand. "We may be switching over to reclaimed water from Kissimmee," says Koehnke. "That might add a new twist to our fertilization program."

The soil on all fields is tested every year. "We take two sets of samples and send them to different labs for comparison. Scotts also runs its own tests for us. They use the results to adjust our program." Jim Boesch is Osceola's representative from Scotts. He is one of nine tech reps the company added two years ago to serve the special needs of schools and sports fields. "I test the soil in December and then meet with Bud in January to put a program together for the coming year. By adjusting the analysis of the fertilizers and using a few amendments we've gotten the pH down to normal and solved manganese and potassium deficiencies typical for central Florida," he says.

Koehnke applies all chemicals. "We use fertilizer combination products as much as possible," he states. "Our big problems are

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mole crickets and bahiagrass invading the bermuda. If I could do one thing over again, it would be to have planted bermuda between the fields instead of bahia. We are trying a new selective herbicide from Scotts for the bahia. The mole crickets seem to be having more generations than the experts predict. They start in late February and hang around into September. The lights must attract them. I alternate Orthene and Mocap to avoid resistance. The Mocap may also be helping us with a nematode problem we had on one field. Fortunately, we've had hardly any problems with diseases."

Fire ants have not been a problem because the fields and grounds are mowed frequently. Infields are mowed daily at 5/8-inch with triplex greensmowers. The outfields are mowed every other day at the same height. At Griffith's suggestion, Koehnke is trying a Toro 223-D five-gang out-front reel mower for the outfields in place of tractor-drawn reel gangs.

"The 223 is very similar to a greensmower," Griffith states. "By setting the speed of the eight-bladed reels to fit the forward speed of the mower you get a tight cut like a greensmower with a variable-speed kit. You can see the difference when you mow as low as a half inch. You can also



Osceola is trying a Toro 223-D for the outfields and foul areas.

set the reels to recut the clippings. You basically have a five-gang greensmower."

Koehnke wants to try a walk-behind greensmower on the stadium infield. "You need to baby the area in front of the plate," he advises. "We cover that area with Turf Saver mats during batting practice. They look like ping pong netting and you can leave them down except for games." He also topdresses the infields with mason sand periodically in addition to spiking.

In December, Koehnke overseeds the infields with eight pounds per 1,000 square feet of perennial ryegrass from SunBelt Seed. The rate is slightly lighter for the outfields. This past winter he experimented

on one practice infield with Kentucky bluegrass. "I'm very happy with the color," he remarks. "The rye has been hanging on longer and longer. I'm hoping the bluegrass will burn out earlier than the rye. It's an alternative to increasing the rate on the ryegrass to get density."

Another key to baseball diamond management is keeping the turf and the dirt where they belong. Each day the mounds and batters' boxes are packed and covered. The basepaths are spiked and dragged with a Toro Sand Pro and moistened. If needed, infield mix is added and packed to the turns. Every two weeks the diamonds are edged to control encroachment and any lips are raked out.

"We do all we can to keep clay off the turf," states Koehnke. "The clay changes the way the sand holds water and nutrients. It also can lead to compaction problems in the areas most likely to get compacted. On the other hand, you need a certain amount of calcined clay on top of the dirt to hold moisture to make sure the ball rolls instead of bounces."

The warning tracks and basepaths have a twelve-inch foundation of local clay. Koehnke surfaces the hard, baked warning

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The Osceola grounds crew (l. to r.) Kirk Jones, Mike Dellafano, Bud Koehnke, Matt Kutik, Rick Raasch, Bob Heller, and Greg Kaufmann.

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tracks with a red brick aggregate called SportTrack from Florida Brick and Clay Co. "The brick absorbs some moisture, responds nicely to dragging, and makes the ball roll instead of bounce," he states. "It also provides a nice contrast with the turf." For extra contrast on the stadium warning track he uses a special red mix from Beam Clay.

The basepaths are rototilled in November and amended with either Turface or Terragreen. Throughout the year the basepaths are spiked and dragged on a daily basis. To firm up the turns, Koehnke works in mound or home plate mix before topping the area with his normal base path mix. Every two weeks the edges are recut to contain the bermuda.

The bullpens and other practice pitching areas are maintained exactly like the rest of the mounds. Koehnke is especially concerned that the minor league players have the same quality of facilities as the majors. "In some ways I'm closer to the farm system players," he remarks. "Having been in their shoes, I try to do everything possible to help their careers. They deserve every chance they can get to show their stuff."

Not only has the Osceola sports complex been a model for many other major league spring training facilities, Koehnke has also helped train a number of visiting groundskeepers. His favorite pupil was his son, Brandon, who was head groundskeeper for the Atlanta Braves last year. "Brandon is great at coming up with new ideas," says the proud father. "He played professional

ball for a year and helped me here until he went to Atlanta."

"It's refreshing to have someone with a lot of experience who is still receptive to new ideas," says Boesch, the Scotts rep. "But it's even more refreshing to have an experienced groundskeeper be so willing to share his knowledge. I've passed a lot of Bud's advice on to high schools, parks, and colleges."

Mixson credits Koehnke with causing him to urge the ProTurf Division to create a group specifically to serve athletic fields and schools. "The interest in quality playing surfaces has come to the forefront," says Mixson. "Groundskeepers need more than products, they need service. But they also need to know more than turf management. That's where people like Bud and Brandon have been so much help."

"Osceola is what it is today because the owners and managers of the Astros want it to be the best," adds Koehnke. "Dr. John McMullen [owner], Bill Wood [general manager], Fred Nelson [farm director], Jimmy Johnson [field coordinator], and Don Miers [stadium general manager] always make sure the crew has what it needs. That kind of support makes my job rewarding and fun."

The '90s will be a decade of change for professional baseball. Two new Major League teams, rising player salaries, planned improvements in the minor league system, and rapidly improving standards for baseball stadiums and training centers will affect hundreds of groundskeepers. It's reassuring that veterans like Koehnke not only keep pace, but actually set it. ☺