



# Chiefs Install Bermuda at Arrowhead

Andre Bruce (below) at the Chiefs' training camp at the University of Wisconsin, River Falls.

The alternating shades of green at five-yard intervals is accomplished by mowing and fertilization. Photo of Arrowhead courtesy: Lightfoot Photo.



By Alan Goforth

It doesn't take much to go unnoticed as a groundskeeper in the National Football League. Just perfection. Groundskeepers are a lot like offensive linemen: If they do their job properly, no one pays much attention. Make one mistake, however, and the whole world knows.

Andre Bruce, head groundskeeper for the Kansas City Chiefs, felt that pressure keenly last summer as he raced to complete the new Bermudagrass

field at Arrowhead Stadium. A Pink Floyd concert in late June and an early start of the pre-season squeezed his stand-establishment window to just four weeks.

"When I was putting in the field, I used to lie awake at night staring at the ceiling," Bruce recalls. "I tried to think if there was anything else I could do to make sure the field was a success. There's no margin for error on this job. Everything you do, you want to be sure it works. You don't want to have to answer for your mistakes."

## Rave Reviews

Judging by the overwhelmingly positive reaction from the players, coaches and fans after the July 31 game against the Houston Oilers, Bruce had pushed all the right buttons. Just as important to him, the young stand stood up well to three hours of 300-pound linemen slamming into each other.

"Bermudagrass usually looks like a war zone after a game," he says. "But the field came through the first game much better than I expected."

The fact that Bruce is now tending a natural grass field is a story in itself. Arrowhead and neighboring Kauffman Stadium were built in the early 1970s — when artificial turf had a space-age cachet about it.

Sentiment for natural grass increased in the past few years, however, as both teams faced the expense of replacing their fraying carpets. Sophisticated drainage systems for natural grass made wet fields a non-issue. The acquisition of high-priced veterans Joe Montana and Marcus Allen cinched the Chiefs' decision to move to grass this season. The Royals will follow suit for the 1995 season.

### Laying the Groundwork

Work on the new field began late last spring by ripping out the old carpet and installing an intricate network of irrigation, drainage and communications systems. Layered over the subsurface is a 4-inch pea-gravel base, topped by a 12-inch root zone. The root zone is composed of 5,000 tons of 85 percent sand and 15 percent reed sedge peat. Bermudagrass sod, treated with Panacea steroid to promote root strength, was laid immediately after the concert onto the root zone treated with Bovamura.

Coach Marty Schottenheimer lobbied hard for Bermudagrass, even though Kansas City is on the extreme northern edge of the Bermudagrass growing zone. Schottenheimer believes it stands up to game conditions better than other grasses. Keeping it green is Bruce's responsibility.

Despite having an artificial surface in his four seasons as head groundskeeper, Bruce has extensive experience with grass. The adjacent practice facility has two Bermudagrass fields. Add in the stadium grounds and the training camp facilities at the University of Wisconsin, River Falls, and Bruce is responsible for 11 acres of grass. But none of it carries as high a profile as Arrowhead, where the 78,000 seats regularly sell out and additional millions of fans watch on television.

"Having a grass field means a lot to me as a groundskeeper," he says. "But it also means a ton of pressure."

### Detailed Routine

Bruce transferred his weekly routine from the practice fields to Arrowhead. He has four full-time and four part-time crew members. The process begins on Monday with mowing the field to

exactly 1 inch. Coach Schottenheimer has definite ideas about grass height and player performance.

"I leave the grass higher in training camp because the team is on it for two-a-day workouts," Bruce says. "Coach Schottenheimer had me change from 1.75 inches to 1.5 inches because players were slipping."

Fields are mowed daily and watered in the afternoon.

"I water the turf from 30-40 minutes throughout the week," he says. "I like to flood the plants for 30 minutes one day, then water for just one revolution the next day to give them a drink."

The crew paints the field with Mautz 8-30 on Wednesday and Thursday, then repaints on Saturday. Scott's 19-0-17 fertilizer is applied mid-afternoon on Thursday, supplemented with Step micro-nutrients and Ferromec iron.

A final Saturday mowing wraps up the preparation. For a noon Sunday kickoff, the crew comes out at 6 a.m. to wipe off the dew with two John Deere AMTs. That job is completed by mid-morning when the cheerleaders begin practice.

When the game ends, Bruce checks the field for damage. The crew sweeps the field with Parker sweepers. Mowers follow 10 yards behind them; and rollers follow another 10 yards behind. The entire process is completed in 45 minutes. The field is watered for 20 minutes per station.

### Overseeding Strategy

That routine will change soon, because Bermudagrass goes dormant early in Kansas City.

"Bermuda starts to go brown when temperatures drop below 60°," Bruce says. "Cool nights will do it. I take soil temperatures daily. The last two years Bermudagrass began turning brown in early October."

Bruce began his overseeding program after the San Francisco game on September 11. He plans to use 3,000 pounds of Ph.D. perennial ryegrass split into two applications. The seed will be pre-germinated four days before planting. He'll also consider a fungicide application.

"Bermudagrass loves hot weather and doesn't need a fungicide," he says. "But in the overseeded grass, we have to watch out for leaf spot."

Bruce is confident his overseeding program will keep the field attractive and playable well into the January post-season. However, unpredictable

Midwest winters could be a wild card. Beginning in December, the field will be thawed by blowing hot air under tarps.

"We'll start thawing on Thursday evening, depending on how cold it is, to have the field thawed by Sunday," Bruce says. "I plan to use four 600,000-BTU blowers — one on each corner — and two tractors to blow 160 mph winds to create a slight bubble."

His worst nightmare? A rainy game day late in the season.

"Our three home games in November may cause damage," he says. "If we get a rainy day in December, I'll have to re-sod. We can't get sod locally that time of year because everything is frozen. It will be a challenge to find it and ship it in."

Next spring, Bruce will assess the damage from the winter and resume irrigation and fertilization. Kansas City is a finalist for a Major League Soccer franchise, so he also has to prepare for a possible summer sports season at Arrowhead. Throw in spring mini-camps, the summer concert season and training camp and there is little downtime.

By painstaking attention to detail, Bruce plans to make sure that if his name becomes known, it will be for all the right reasons. □

## A Maze of Pipes and Underground Cable

What fans *don't* see when they look at Arrowhead's new field may be just as impressive as what they *do* see.

Professional football has changed dramatically since the stadium was built, and the subsurface was prepared to take advantage of new technology. Consider what was installed after 9,000 tons of dirt were hauled away:

- Five miles of electrical conduit to facilitate everything from video boards to sideline reports to rock concerts.
- Two miles of drainage pipes.
- One mile of irrigation pipe.

The field was laser-graded to ensure proper irrigation and drainage. To improve sight lines, the field was lowered by 6 inches along the sidelines, and elevated just 12 inches in the center, compared to 18 inches on the old field.

Finally, the layer of gravel and sand was carefully sized and cleaned to prevent clogging the drainage system, and the field was ready for the new turf.