

STMA Profile:



Tom Lujan — Mile High Life

Mile High Stadium Crew (from left). Back row: Leonard Santistevan, Richard Lyons, Manuel Garduno, Frank Wood and Travis Thornton. Middle row: Tom Lujan, Al Quintana, Jay Maddux, Jeff Leal, Pete Salazar and Nick Picasso. Front row: Dale Brusseau, Paul Meza, Mike DelReal and Javier Rivera. Photos courtesy: Tom Lujan.

By Bob Tracinski

Picture Denver as a place of icy, wind-swept mountains covered in snow; as a place of dry, baking-hot summers; as a beautiful city with a stadium complex that could only be called Mile High.

From the subzero temperatures of winter to the blazing 110-degree heat of summer, Mile High's sturdy field looks good and plays well, through the rough and tumble pounding of the Broncos, the baseball play of Denver's immensely popular Rockies, and a host of soccer games, rock concerts, marching band competitions, tractor pulls, motocross racing and, lately, even a session or two with the Pope.

Coordinating the program that keeps the turf of this multiuse facility in top conditions is Tom Lujan of Stadium Turf Managers.

Mile High Stadium was built in 1948 originally as a baseball facility. Since then, there have been numerous upgrades.

"A lot of improvements were made for baseball, and a lot of them were made for the Denver Broncos," says Lujan. "The P.A.T. [Prescription Athletic Turf] sys-

tems was installed in 1975-1976, and we've had tremendous success with it. The sand-based system has field heating, subirrigation and the ability to pump the field dry. It's made sports turf maintenance a pleasure in Colorado."

Meeting Challenges

Besides the wide range of temperatures inherent in Colorado weather, Lujan must contend with the "humidity" factor. "I monitor the humidity daily," he explains. "We're actually able to be more flexible in handling it in the summer than in the winter. On a Saturday afternoon in December, the humidity level may be 96 percent. By game time on Sunday that level may have fallen to 50 percent. With biting cold temperatures and low humidity, the field dries out quickly. With the P.A.T. system's root zone temperatures of 65 degrees Fahrenheit and an ever-ready irrigation system, we can provide a quick syringe of the field to prevent desiccation."

Mile High's turf is a Kentucky bluegrass cultivar, Warren's Bensun A-34. Lujan believes it's well-adapted to the climate and air moisture content for sur-

vival in Colorado and says it provides early spring green-up and retains excellent color in the fall.

Lujan overseeds in early spring, early fall, and during the baseball and football seasons with a perennial ryegrass blend called Medalist 8, which contains Dandy, Target and Delray cultivars.

"We pregerminate the perennial ryegrass," he says. "The presoak uses 8 ounces of ROOTS to 50 pounds of seed. We soak the seed for 48 to 72 hours, then drain the water and mix the seed with Turface to dry the mixture down enough so we can apply it with a broadcast spreader. Prior to application, we core aerate, then vacuum the field to remove the cores. We then apply the pregerminated seed. After that, we topdress the field with either pure sand or a mixture of 90 percent sand and 10 percent Dakota Sedge Peat, depending on the organic content of the field.

"With the pure washed sand of the P.A.T. systems, we watch the organic matter content closely," he continues. "Too much organic matter in the top 2 inches of the sod base holds moisture, making fields slick, soft and mushy. We

want to keep that 'virgin' sand base clean. The sand in the aeration holes forms a warm bed for the seed, speeds the germination process, increases the percolation rate and helps relieve compaction."

Lujan coordinates the fertilization program according to turf needs. He and his crew conduct a soil analysis once a month from March through October, taking soil samples at both 2- and 4-inch depths.

"I want to see if the root zone and the sand zone are showing the same levels to ensure that nutrients are flowing through and not binding. I want to make sure the nutrients are in the spots at the right time. Applications are then tailored according to soil test results."

Lujan and his crew build a slow-release nitrogen program, he explains, usually with IBDU, to carry through in November and December so that nutrients are already in place to benefit the grass.

With the field heating system keeping the root zone at 65 degrees F and the use of Evergreen blankets from Covermaster, they can provide a warm seed bed to "get the pregerminated seed going," even during the winter season.

"The last couple of years, I couldn't have come up with a better schedule for the Broncos if I'd planned it myself," Lujan enthuses. "They've had one or two home games, then had away games for two to three weeks, giving us the ability to put the field back into top shape. Besides that, when they've had home games, the weather has been good."

Lujan has developed a complete snow removal program that's geared for anything Mother Nature can dish out. The system taps the assistance of Mile High's 24-hour security personnel, which provides on-site weather information. Lujan says that because it can be blizzarding in one section of Denver and completely clear at the stadium, or the other way around, constant on-site monitoring is essential.

"Whenever I'm away from the stadium, the security personnel alert me as soon as snow starts to fall," he says. "I know how much snow we can move in a given period of time, what it takes in equipment and crew size, and what it takes to transport snow out of the stadium. We never let the snow accumulate on the field to a point where it's so heavy we wouldn't be able to push it."

"If there's going to be an event on the field, we tarp when there's a threat of accumulated snow," he adds. "That way, snow removal takes place on the tarp, not

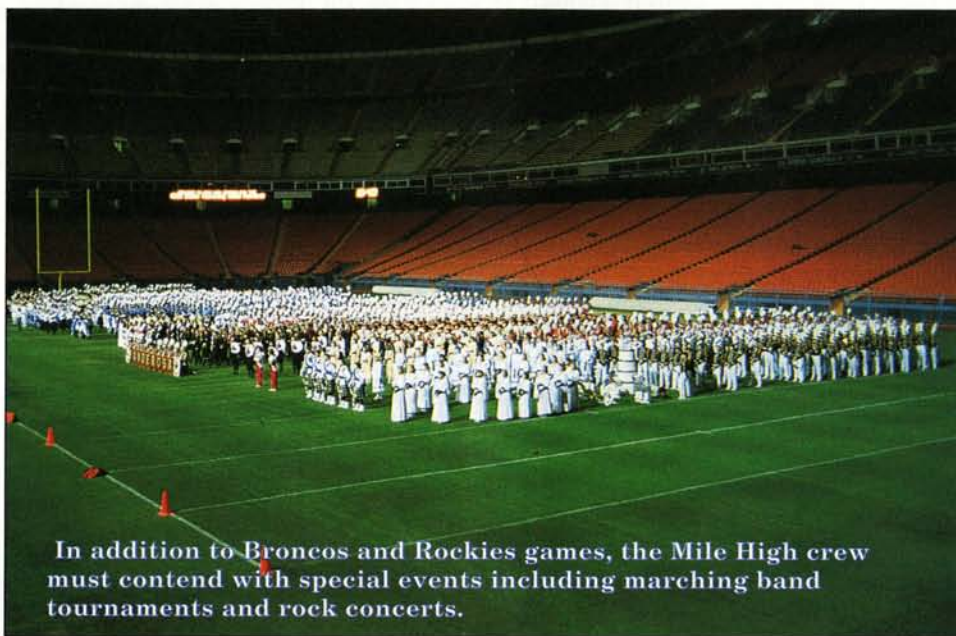
have a white side and a black side. In early fall, we keep the white side up so no heat is retained should the sun burst through the clouds. But when overnight temperatures drop below 50 degrees, we need the heat of the sun. Then we put the black side up to keep the frost off or light snow from accumulating."

Counts on His Crew

It takes a well-trained and coordinated crew to work a program as complex as that at Mile High, and Lujan has nothing but compliments for his. "We work

with a crew of 15 during Colorado Rockies home games and a crew of eight during Broncos games," he says. "There can be lots of 15-plus-hour days, and some pretty hectic maneuvering to get everything done. The crews do a great job — they give it their all."

The Broncos training facilities are in Arapahoe County, under the care of Ross Kurcab. The practice



In addition to Broncos and Rockies games, the Mile High crew must contend with special events including marching band tournaments and rock concerts.

field is also sand-based and heated. Lujan and Kurcab coordinate the total field program, down to the length of the grass, to provide the best playing conditions for the team.

directly on the turf. I used a Dodge Ram four-wheel-drive with a snowplow attachment. We remove the skids and attach two strips of rubber, 1/2-inch thick, that extend the length of the plow. The act like a giant squeegee."

If there aren't any events scheduled for a two-week period, Lujan and crew won't go to the trouble or expense of covering the field. However, they will monitor moisture levels to make sure the field can handle it. The field has a percolation rate of 7 inches per hour, so it can receive quite a bit of moisture if there is a long enough time span prior to play.

Because of temperature and humidity fluctuations, the Mile High crew must be ready to irrigate year-round. They do winterize the field's irrigation system by draining and shutting it off, but will "fire it up" whenever necessary.

Lujan's tarp strategy is both well-planned and extensive. "We tarp the entire turf, not just the playing field," he says. "It takes three tarps, each 224 feet across and 150 feet wide. The tarps

practice field is also sand-based and heated. Lujan and Kurcab coordinate the total field program, down to the length of the grass, to provide the best playing conditions for the team.

"Kurcab does a super job with the practice," says Lujan. "We like to keep the field conditions as closely matched as possible so the players feel 'at home' on both fields."

Mile High Stadium also hosts major rock concerts — the past season's rock show included Guns & Roses and U2. Three days of events were held at Mile High in conjunction with the Pope John Paul II's World Youth Day activities. During one of the events, two layers of Terracover lined the field where seating was arranged. The other two days, the field area was open. A stage, sound system and light tower and all the other accoutrements for a major "show" were also set up.

Coordination of events such as this also fall under Lujan's bailiwick. For some-

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thing as massive as the Papal events, when his entire crew, the maintenance staff, and janitorial and concession crews are in full force, other Denver Parks facility personnel help out. Lujan also uses some contract labor, often through Jeff Mayberry & Associates.

In addition to the three acres of sport field, there is the care of 17 acres outside the stadium and parking lot maintenance for Lujan to coordinate. Communication, organization and plan-

ning are essential.

"I really stress planning the event schedule and the turf maintenance schedule together," he says. "It's difficult to do sometimes. We have to work turf care practices around events, and we need to have the fertilization to the proper levels so the soil has enough nutrients to handle the foot traffic and extra wear.

"We have to coordinate our staff, the people we interact with on the teams or events, the production companies, the media personnel, and keep everything flexible enough to deal with the pre-

vailing weather conditions," he continues. "We're always aware of safety and liability factors."

To keep everyone on the same page, Lujan meets with his crew daily. He goes out of his way to get things squared away in advance. If, for example, he needs a piece of equipment like a forklift, he'll arrange for it three weeks prior to the day it is needed. By the first of the month, he had arranged for fertilizer to be delivered on the 18th and scheduled application on the 19th.

"It's essential to know who is supposed to be where, when and for how long," says Lujan. "For a major rock show, like the Jacksons, if we have Gates 9 and 10 open at the south end of the field to allow flatbed trucks with lighting equipment to have direct access to the stage, and then need Gate 7 open at the north end to bring chairs for field setup, we must have proper security. People are fascinated by the facility and just want to look around. So we have to know who's authorized to be where for whom. We want them to do what they're here to do, then get off the field. It makes what could be a frustrating job a manageable one."

Mile High Stadium is more than a multi-use facility — it's a convertible system with computerized, moveable east stands that are 13 stories high and weigh 9 million pounds. The stands have three different positions to fit the configurations of the featured sport. They are set all the way out for baseball, moved in 95 feet for World Cup Soccer, and moved in an additional 55 feet for NFL play. The entire 145-foot move can be made within a two-hour period.

"Each position of the facility has a complete audio visual set up, clean water and waste management systems," says Lujan. "It's a pretty awesome operation, even when you're used to it."

This summer hasn't exactly been slow for Lujan. The Colorado Rockies had some concerns about the skinned area of the infield. Sports field consultant George Toma came in to examine the situation and suggested the existing field be replaced by a mix with higher clay content.

"Toma was really good to work with," Lujan asserts. "Besides the changeover suggestions, he gave us some tips on maintaining the infield with the new mix that have proven beneficial."

While the Rockies were on an "away" series of games, the infield mix was removed and the new mix put in place.

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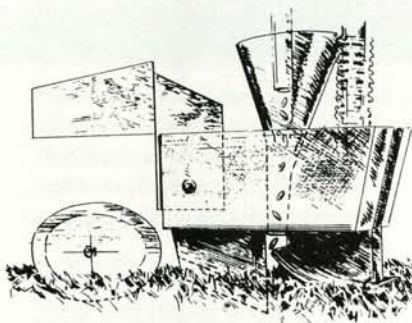
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Then, after a Rockies home stand, the mix was taken out and the infield resodded for the Four Nations Cup Soccer Competition. Games were held on July 16. July 17 was an off day, and the four teams played again on July 18. The sod was removed, the "new" infield mix was reinstalled, and the field was ready for the return of the Rockies for a game on July 22.

Though the east stands appear to move "by magic," there's nothing mystical about it. It takes coordination and planning to execute. And there are a few other details that take concentrated, coordinated people-power, like removing the baseball mound, painting the football grid, putting up goal posts and safety nets, and accommodating TV crews, radio and print media — and keeping the turf in shape to maintain that lofty Mile High image and playability.

Home Turf

Lujan didn't exactly grow up in Mile High Stadium, but he did live near it as a kid. Whenever he got a chance to get inside, he ended up near the railing surrounding the field. He wasn't seeking autographs like the rest of the kids, but watching the grounds crew. He was

fascinated by procedures such as lining the field and working the skinned areas. After high school and some college, he applied for a job with the Denver Parks Department and ended up with the assignment he always knew he wanted. At age 20 Lujan was "home" at Mile High Stadium. "When I leave for work, I tell my wife, 'I'll see you later, I'm going home,'" he says.

"I started working my way up from the first day," Lujan explains. "I signed on for all the events I could and took in everything that was going on. I worked for Steve Wightman. He's the best mentor anyone could have — I owe my career to him. When Steve took his current position with Jack Murphy Stadium, I was promoted to Steve's job. It's just what I was meant to do."

Lujan and his wife Antoinette have two daughters, Athina, 13, and Christi, 10. When not at Mile High, he spends as much time as possible with them. In his "spare" time, he plays golf to relax. "But this summer I increased my game by five strokes," he laments.

The keys to the success of Lujan and the field at Mile High itself are planning and communication, which he says are

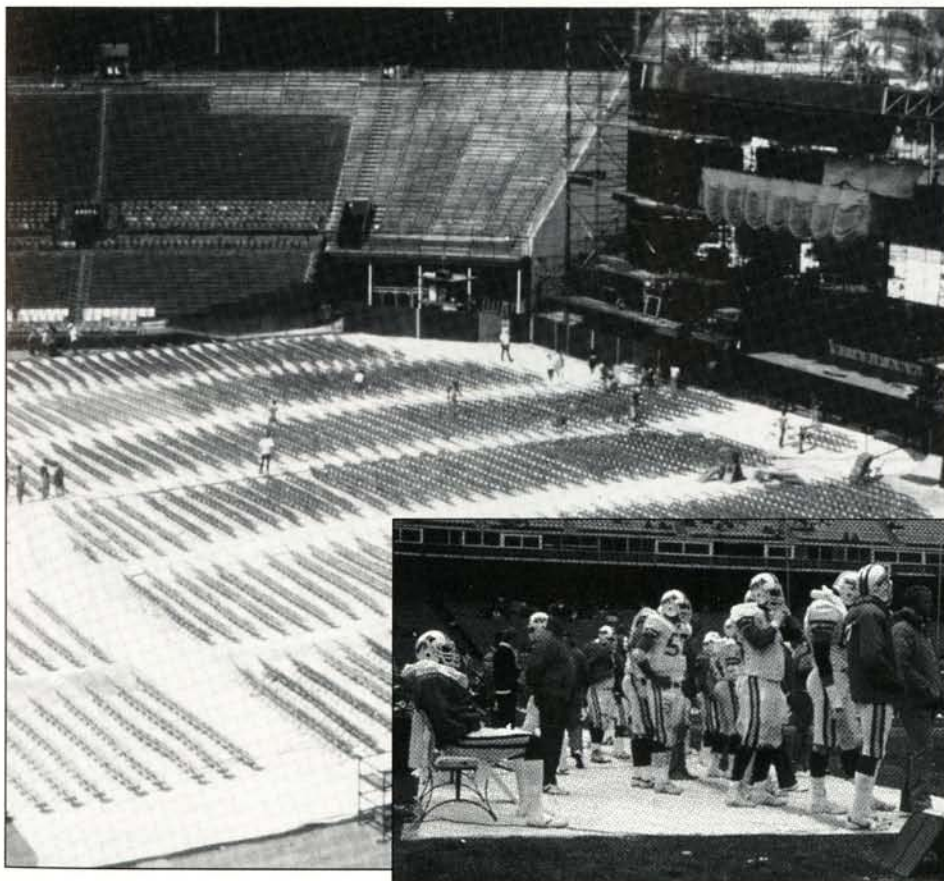
vital to sports turf management in general.

"At Mile High, we do as much as we can to have everything in place, ready to go when it's needed," he says. "Scheduling, monitoring everyone and everything that impacts the field, sticking precisely to specifications in materials and application rates, and manipulating the P.A.T. system give us pretty good control.

"The one thing we can't control is Mother Nature," Lujan concludes. "All we can do is predict what she might send our way and have all the equipment, supplies and people prepared to deal with whatever it is she decides on."

And because this is Denver, home of majestic peaks, driving winds, fluctuating humidity, subzero winters and scorching summers, what Mother Nature delivers could be just about anything — but nothing Tom Lujan and his Mile High stadium crew can't handle. □

Editor's note: Bob Tracinski is the manager of public relations for the John Deere Company in Raleigh, NC, and public relations chairman for the Sports Turf Managers Association.



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