

Beating The Cold: Denver Broncos Have It Wired

There is nothing Ross Kurcab would like to see more than the Denver Broncos reach NFL post-season play, for both personal and professional reasons. First, he's an avid Broncos fan. Second, he's the turf manager for the team's practice facility.

While Kurcab can only hope the team makes the playoffs, he knows that if they do, they won't have to fly to a warmer climate or cram into an empty gym or warehouse to avoid practicing on a frozen, rock-hard gridiron. Two years ago, the Broncos installed a warming system under one of their two practice fields.

"When a field freezes, it's like a parking lot," says Kurcab. "Cleats won't stick into the turf. It's downright dangerous to play on."

According to Dan Almond of Randall Blake, Inc., the Littleton, CO firm which designed the GraviTURF fields for the facility, heating systems are becoming increasingly common in cold-climate field installations. "In a cold climate, I strongly recommend implementing heating systems, just to keep the field playable," he points out. "Without one, the best field in the world will still freeze when it gets really cold."

Heating systems, of course, don't come cheap. They can cost \$100,000 and more just to install, and because most run on electricity, they can be expensive to operate. Kurcab estimates that the Broncos spent \$25,000 heating their practice field last year.

"But if a team gets into the playoffs, and you fly them to Atlanta or Phoenix a few times just to practice, that right there would justify the expense of hav-

"By heating the field one third at a time, we've reduced our 'demand cost,' which used to be as much as \$3,000 or \$4,000 in a given month, by 66 percent," Kurcab reveals.

Whether heating the field in sections or in its entirety, it is crucial, says the turf manager, to warm it gradually during the season, and allow it to cool gradually when the season has ended, so that the turf does not go into shock. He adds that his field heating learning experience is ongoing, and expects to discover more in this, his second season with the system.

"I found one thing last year that was pretty surprising," he says. "At the end of last season, when I put the field to bed, I brought the

temperature down slowly because I didn't want to shock the turf. I had guessed that in the spring, the heated field would come out of dormancy better, but the unheated actually came out of dormancy sooner. By late April, the heated field caught up.

"What I figure is that while the unheated field went dormant and started storing carbohydrates in its roots, the heated field was actually growing, and wasn't storing carbohydrates," he continues. "We'll see how that works this season, although I think this season will be different."

Adds Kurcab, "I think it will be longer." □

—Matthew Trulio



Denver Broncos Training Facility. Field in the foreground is heated.

ing a heated practice field so they could stay home," he points out. "Plus, you avoid the travel, which is really disruptive to the team."

Wire, some 21 miles of it, is the business end of the field heating system. The wire, which is run from sideline to sideline on six inch centers, carries the heat. The heat is measured, both at the root zone and on turf's surface, from a control station on site.

To help reduce the cost of running the system, this summer Kurcab and his crew divided the field into three cells. At each cell, they installed a relay and a thermostat, so that no more than one cell will heat at a time. They also added on override function, so the field can be heated as a whole when winter settles in.