Sand-based turfgrass field at the University of Missouri withstands pounding of track and field events.

Not many events top the hammer throw in destroying sports turfgrass. Imagine what happens to grass when a 235-pound athlete throws a 12-pound hammer (a steel ball on a chain) into it.

“When it hits, it goes all the way into the subgrade,” says Brad Fresenburg, sports turf researcher at the University of Missouri. But the hammer throw is just one of several track and field events that challenge the university’s track/soccer area.

Even so, the field stays in excellent shape, says MU Track Coach Rick McGuire who describes it as “state of the art”.

Fresenburg and McGuire give a lot of credit to Missouri’s grounds crew for the work it does on the sand-based field. But, credit must also go to the designers of the field and the contractors who installed it.

Sand base, fibers for stability

The track/soccer field contractors installed a herringbone-design drain, which they laid into the subgrade and packed with pea gravel in the trenches. Then they put a 4-inch sand base above the drains. It can drain 15 inches of water in an hour.

The field was brought back to grade and sodded. The sod, which came from S&S Seed/Evergreen Sod operated by Gene Sanders, Rocheport, MO, is a blend of Kentucky bluegrass varieties. Turf-grid fibers tilled into the sand add stability to the base.

“We only have a four-inch sand base above sub grade, so when a hammer hits, it’s like a cannonball coming into the turf at a 45-degree angle,” says Fresenburg.

“That’s the best angle for maximum distance,” says MU Track Coach Rick McGuire. He says his best throwers are Judd Price who flakes the 12-pound hammer 159 feet, and Heather White who flings the 8-pound, 10-ounce ball and chain 167 feet.

Once the ball hits, it slides more than half way under the sod. Meet officials just pull it out and get the hammer back to the athletes. Later the grounds crew fills in the holes with sand and tamps it down. In a couple of weeks, the hole is sealed shut by growing turf.

“The hammer does the most damage. The discus does very little and the javelin may actually be beneficial for aerification,” says Fresenburg. “In fact, when our three-point-hitch aerifier wasn’t working, we suggested to Rick McGuire that his team members take about 20 javelins and aerate the field.” (Note: the aerifier was fixed before they had to do that.)

Field replacement job

The MU grounds crew maintains a lot more than just the track/soccer field. It also cares for all the grassy athletic areas between the MU golf course and the Hearnes Center. And MU’s football field, unlike the track/soccer field, is crowned.

This season marks the third year that Missouri football players will be competing on real turfgrass at Faurot Field. After several attempts to patch damaged areas on the field, it was decided to renovate that field as well.

“We replaced the middle of Faurot Field from hash mark to hash mark, goal to goal, after the spring Black and Gold Game,” says Fresenburg. “We removed all the sod and the silt loam soil down to the sand base and brought the field back to its original grade. Then we laid new sod.”

Fresenburg says MU coaches cooperate when it comes to field maintenance. For instance MU Baseball Coach Tim Jamieson “spends a lot of time taking care of his field. If he sees a disease or sees something that needs to be done, he gets on the phone to us or takes care of it himself. In fact, he’s so good at this, we’ve been thinking of giving him an honorary horticulture degree.”

The next major task by Fresenburg and the grounds crew is the new softball diamond. “We’ll lay the sod in April or May of ’98 and the team will play on it in ’99,” says Fresenburg.