MU builds new baseball 'field of dreams'

"If you build it, they will come - goes the memorable line from the baseball movie, "Field of Dreams."

University of Missouri-Columbia turf grass researchers will test that theory with a state-of-the-art infield diamond now under construction at its research facility at the MU South Farm. The goal is to draw students learning the profession of sports field management.

The diamond, on par with the playing surfaces used by professional teams such as the St. Louis Cardinals, will provide the only working laboratory in the country for students seeking careers in this area, said Brad Fresenburg, turf researcher in the MU horticulture department.

"No one in the country, to my knowledge, has a full-size infield like this for teaching," he said. "This will be an outdoor classroom for us. We can show students just about everything."

The laser-graded diamond is being installed free by MJM Services of Belleville, Ill., a company that installs sports fields and golf courses. The firm installed two Bermuda grass practice fields for the Mizzou Tigers football team.

In research, as much attention will be paid to the study of skinned infield soils as to the lush green grass diamond.

University of Missouri research associate Brad Fresenburg, right, works with Mike Munie, center and Dave Niebruegge of MJM Services to grade the new infield. Using a laser-leveling device they were able to create a .5 percent slope on four quadrants surrounding the pitcher's mound as the center point.

"Seventy-five percent of the baseball game is played on infield dirt," said Chad Follis, a graduate student from Fredericktown, Mo. "You have the pitcher's mound, batter's box and base paths. To date, there has not been much research generated on infield (soil) mixes."

The field will be nearly pool-table level. It will have one-half of one percent grades on four planes around the pitcher's mound. A laser beam is shot across the field and picked up

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Welcome New STMA Members

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Robert Trevino
Denton, TX

Turf Equip. & Supply Co., Inc.
Lance Ernst
Jessup, MD

Danny Turner
Clearwater Landscaping Co., Inc.
Sun Valley, ID

Roger Weinbrenner
University of St. Thomas
St. Paul, MN

Tony Wilcenski
Monroe Township
Monroe Township, NJ

Curt Williams
Town of Castle Rock
Castle Rock, CO

Scott Wilson
City of Fairhope
Fairhope, AL

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by an electronic eye on a tractor. That controls the valves for a blade on the tractor.

"We don't touch the controls," said Mike Munie, MJM Services owner. "When we did the two MU football practice fields, we laid a Number Two pencil on the far end and you could lay down and see the pencil from 300 feet away. We were within a hundredth of a foot."

A playing surface must be firm and playable yet workable so that cleats can dig in for traction. "Safety and playability are the main things we look for on skinned infield areas," Fresenburg said.

While the infield diamond will be "Baby" Bermuda grass, the aprons will be planted in a turf-type tall fescue, he said. Bermuda grass holds up better and can be mowed to five-eighths of an inch for a better playing surface.

MU is considering replacement of the bluegrass on its diamond at the infield of Simmons Field, home of the baseball Tigers, with "Baby" Bermuda grass.

In addition to installing the infield diamond, MU researchers plan to add research plots nearby to test different soil blends. Mixtures will include combinations of round and sharp sand, silt and clay from native soils and calcined clays. "It's possible that the MU baseball team may come over and use the field," Fresenburg said. "That's been discussed. It would relieve their game field from excessive wear and allow us to look at wear patterns to teach field maintenance."

ROOTS: GETTING TO THE BOTTOM OF TURFGRASS

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turf. This is especially important during times of environmental stress. Low mowing can dramatically reduce the depth and extent of roots of cool season grasses, though bentgrass is not as severely affected as the others.

Warm season grasses are less dramatically affected by low mowing. Bermudagrass especially will tolerate low mowing without significant reduction in rooting.

Constant defoliation by frequent mowing reduces the photosynthetic potential of the turf. The result is depleted carbohydrate supplies available for root growth. Cool season grasses are especially sensitive to this cultural stress.

Take care with herbicide applications. Avoid using herbicides when turf is under stress or when root growth is restricted.

Bensulide, benefin, oxadiazon, oryzalin, pendimethalin, prodiamine, siduron, DCPA and other herbicides may inhibit root growth. Healthy turf may be able to recover from this quickly. A turf stressed by drought, heat, traffic or with a root system already limited may be more seriously damaged and take a longer time to recover.

CONCLUSION

Roots are the foundation of a turf. Attention to the growth, development and health of the root system by the turf manager can ensure a deep and extensive root system able to sustain a vigorous, properly performing playing surface.

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