University of Missouri Extension 28 November 2005

Synthetic turfgrass costs far exceed natural grass playing fields

COLUMBIA, Mo.—Synthetic turfgrass costs more, a lot more, than natural grass to install and maintain, concludes a University of Missouri Extension turfgrass expert.

Brad Fresenburg, an MU Extension turfgrass specialist, recently completed a cost analysis of installing and maintaining natural and synthetic fields. He will present the analysis that includes yearly cost averages on Nov. 30 at the Heartland Green Industry Expo in Overland Park, Kan.

Fresenburg calculated the costs of four field options: a regular native soil-based grass field; a six-inch sand-capped natural grass field; a basic infill synthetic grass field; and a premium infill synthetic grass field.

In a 16-year scenario, Fresenburg came up with an annual average cost for each field type as follows: the natural soil-based field, $33,522; the sand-cap grass field, $49,318; the basic synthetic field, $65,846; and the premium synthetic field, $109,013.

He said he was asked by fellow turfgrass professionals to do the analysis in response to claims that synthetic fields were cheaper. Fresenburg said there is a national trend toward high schools and parks and recreation departments installing the synthetic fields. Often the low cost of maintenance is a reason cited for the investments.

"Don't let anyone come around and say it's for cost reasons," Fresenburg said. "Maybe they can say they'll have more events. That's true. I can't argue with that. No natural field is ever going to stand the same amount of use as a synthetic field."

In Fresenburg's scenario, an existing soil-based field would have no start-up cost but a $25,000 annual maintenance budget. The sand-capped field with a six-inch base would have a $300,000 start-up cost and also the high $25,000 annual maintenance cost.

The basic synthetic field would cost $600,000 initially and have an estimated $5,000 annual maintenance budget. The premium artificial turf installation was estimated to cost $1,000,000, plus $20,000 annually for maintenance.

Fresenburg factored in sod replacement costing roughly $25,000 every four years for the natural fields and surface replacement on the synthetic fields after eight years.

If anything, Fresenburg said, his cost estimates are too much in favor of the synthetic turf industry. He said most public agencies spend much less than $25,000 annually maintaining a natural field. Some turfgrass managers have said $5,000 annually for a synthetic field's maintenance is a fourth of the actual cost.

Fresenburg said a public agency could take the same money it would cost to install a synthetic field and instead put in a sand-capped field. The remaining money could be placed into a maintenance fund with recurring bond revenue. Then the agency would have a premium natural grass field with most of the maintenance costs covered.

"Schools say 'we don't have the money to maintain natural fields but then turn around and spend $600,000 to install a synthetic field,'" Fresenburg said. "Everyone is going to this because they want to keep up with the Joneses."

Sand-capped fields are natural grass fields made with a mostly sand base. The fields are less prone to compaction and muddy conditions common in native clay soils.

Synthetic grass infill fields are fake grass with a base of rubber pellets or other materials.

Fresenburg will present his study at 3:30 p.m., Wednesday, Nov. 30, at the turf industry expo at the Overland Park Convention Center.

For more information on turfgrass budgeting and the numbers used in the analysis, contact Fresenburg at (573) 442-4893.

<agebb.missouri.edu/news/ext/showall.asp?story_num=3545&iln=15>