

Zoysia Sports Fields

Have questions? Send them to Dave at:
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by Dr. Dave Minner

We have a local school district that is interested in using Meyer zoysiagrass for football, soccer, and baseball. The football field will be sand capped and used for games only. The native-soil soccer and baseball fields will serve as practice areas for football.

Football is played in the fall and soccer and baseball are played in the spring. All fields will have drainage and irrigation. I have no first-hand information on how zoysia might perform for this use in Arkansas. What do you recommend?

- David Seargent
Athletic Director
Cathedral School
Little Rock, AR

Zoysiagrass is one of my favorite grasses for the transition zone and further south. It has been successfully used in residential areas and golf courses.

In terms of recommending zoysia, though, you hit the nail on the head. There are very few, if any, athletic fields that use zoysia in the United States. That makes it difficult to give you first-hand information on how it may perform at your facility.

I personally think that zoysia will be a very suitable grass for low-traffic sports such as baseball and softball. It provides a good, stable surface for soccer and football, but there are just not enough fields out there to help determine how it will stand up to sports that are played in fall or spring, when zoysia is less actively growing.

Once established and actively growing, zoysia is a tough grass that is slower to wear down than most cool- or warm-season grasses. Its dense mat of vegetation often separates players from the soil below. This reduces muddy games and subsequent compaction.

In China, Korea, and Japan

zoysia is widely used for many turf areas, including athletic fields. It has been successfully used for soccer, and some of the 2002 World Cup soccer matches held in Korea will be played on zoysia.

Zoysia vs. bermuda

Bermudagrass has long been the standard grass for athletic fields. A comparison between zoysia and bermudagrass may help with your decision.

- **Adaptation:** Zoysia has better cold tolerance, and winterkill is seldom a problem. It will grow and survive as far north as Chicago, but will only be green and actively growing June through August in northern climates.

In Arkansas, zoysia will begin to green-up in March and then go dormant in November. However the period of greatest active growth and recovery will come in summer, between May and September.

- **Mowing:** Both grasses can be mowed between 0.75 and 2.0 inches. Reel mowers will be needed for mowing below 1.0 inch.

Zoysia is more prone to scalp at mowing heights greater than 1.0 inch. It has a slower vertical growth rate, and you should anticipate mowing about 10 fewer times per year compared to bermudagrass. Zoysia has tough blades and seed head stalks that will require more conditioning to keep blades sharp.

- **Water:** Bermudagrass has better drought tolerance, but also requires slightly more water to keep it actively growing. Don't expect one grass to significantly reduce your water bill compared to the other.

- **Fertility:** Plan on using about half as much nitrogen and potassium to manage zoysia. Phosphorous and micronutrients will be about the same for both grasses.

- **Establishment cost:** Zoysia sod is more expensive than bermudagrass sod. Winrock Grass Farm in Arkansas markets a product called Z-net, which places zoysia sprigs between two layers of

biodegradable cotton netting. The netted material is rolled onto a prepared soil surface and topdressed. The company claims faster establishment compared to conventional zoysia sprigging. The cost of Z-net is about half that of zoysia sod, and it's similar to bermudagrass.

- **Traffic tolerance:** Zoysia wears down more slowly than bermudagrass, but bermudagrass is quicker to recover. Either grass will be able to withstand modest traffic conditions associated with baseball and softball.

Since the stadium football field receives game play only, the zoysia should perform well once fully established. It should also recover sufficiently with no activities in the spring and summer.

On the other hand, you should anticipate severely worn areas on the soccer and baseball fields that will be used for spring soccer and baseball, as well as for football practice in the fall. Using fields in the spring, summer, and fall would be difficult for both zoysia and bermudagrass.

In limited- or non-traffic areas of the field, zoysia will provide a good playing surface with some benefit of reduced maintenance. Like most fields, high-traffic areas will require sufficient time to recover and additional inputs to reestablish grass.

If there are others out there that know of any zoysiagrass athletic fields or have personal experiences with them, I would sure like to hear from you.



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