

Clump, clump, clump

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Questions?
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My fescue soccer/football field is clumping and no one is pleased with the playing surface. Our administrators are considering my suggestions for improving the field but they are requesting outside consultation to develop a renovation plan. Reconstruction is not possible so I have been talking to them about coring, topdressing, and seeding concepts that I have learned through STMA.

We have a dark loamy clay soil over a hardpan and drainage is very slow. Can you give specific renovation recommendations to reduce surface clumping? The field receives high traffic and doubles for youth football and soccer. We have used both a 5-way blend of turf-type tall fescue (finer, denser, darker green, more traffic tolerant, but less heat tolerant) and also K-31 tall fescue (wider bladed, lighter green, and faster growing). We have irrigation so heat stress is less of a concern except for extreme years.

I have suggested to administration that our normal seeding rate of 7 lbs/1000sq.ft. may need to be increased based on newer evidence, but they want more justification. We have a sand plant 30 miles from the field. We would like to do the renovation now (June) to accommodate flag football in September. Specifically, we want information on sand size, timing of the renovation, and seeding rates and methods.

Richard English
Beloit, KS

Rich, Here are some specific suggestions for your field renovation project:

Timing. Avoid starting your renovation in mid-summer since this is a difficult time to establish tall fescue in Kansas; anticipate too much heat, disease, and weeds to guarantee successful establishment. On the other hand many high school field managers may be forced to seed in mid-summer when there is only a 2.5-month period starting in June when the field will be idle and renovation is possible.

In your situation I would seed in late August or early September and move flag football to another location. If flag football can't be moved then consider shifting the flag football field set up so that there is minimal traffic on the worn and clumpy areas that you are regrassing. The whole renovation will take about 1-3 days of work that could be spread over a 1-2 week period depending on weather. Plan to scalp mow and aerify during the last week of August followed by topdressing and seeding during the first week of September.

Where the field is clumpy mow as short as possible and remove all of the clippings. Getting it scalped down helps smooth the field when you topdress and drag. If the grass is too tall then you won't have enough loose soil and sand

to drag around the surface. I like to use a three-prong approach when your goal is to maximize turf cover in a shortest period of time.

After scalping drill seed in a minimum of 2 to 4 directions, broadcast seed and drag into aerifier holes, and broadcast and cover seed with topdressing. Seedlings will only establish into areas where there is exposed soil; seeding into areas with 100% turf cover does not improve turf density and is a waste of seed. Unfortunately, in a situation with 50% turf cover you will need to seed 100% of the area just to get the proper amount of seed into the bare areas. If funds are limited concentrate your resources such as seed and sand into the high traffic areas only.

Seed. Even though K-31 is a course pasture type tall fescue I have seen it provide a suitable, but unattractive, surface for both football and soccer. The turf-type tall fescues are a much better choice for appearance and playability compared to K-31. In fact, the K-31 may be causing some of the clumps within the finer textured improved tall fescue varieties.

To further reduce clumping consider using the newer rhizome producing tall fescues such as Defiance ('Grande' or 'Grande II') and RTF ('Labarinth'). These first generation rhizome producers for tall fescue are a step in the right direction, but don't expect them to be completely resistant to field clumping. Plan on annual over seeding in high traffic areas of the field.

Our traffic and seeding trials show that a heavy single seeding of tall fescue near 1 September is better than spreading the same amount of seed out over the entire autumn growing season. Seeding rates up to 35 lbs/1000 sq.ft. improved turf cover during autumn traffic and following spring recovery. If you don't anticipate any traffic during the fall 20 lbs/1000 sq.ft. may be your upper limit for a one time seeding in early September.

Topdressing sand. Here is a general specification for topdressing sand that should be incorporated into the top three inches of the field by routine aerification. Ideally you want a sand composed mostly of coarse and very coarse sand because you are trying to create macropores for better water movement. Avoid sands high in fine or very fine sand. Your minimum topdressing target should be a 75% sand content by weight in the top three inches over a 3-year period. Existing soils that have twice as much silt as clay may be impossible to improve. (See <http://www.hort.iastate.edu/turfgrass/extension/EGaerifytab.pdf>.)

Tall fescue is gaining popularity as a good choice for many athletic field situations because of its relatively low seed cost, good traffic tolerance, and potential for recovery from newer varieties with some rhizomatous growth. ■