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Pros and cons of using perennial ryegrass for sports turf

By Dr. John Street and Pam Sherratt

erennial ryegrass Lolium perenne is the most predominant cool-season sports turf grass. It is also used by many warm season turf managers as the overseeding grass of choice in

While perennial ryegrass is revered in Europe, it is somewhat "suffered" in the United States, with cool-season turf managers much preferring to use Kentucky bluegrass Poa pratensis, even if the chance of success is minimal. The distaste for perennial ryegrass as a sports turf grass has always perplexed me, since we know that most fields are already composed of ryegrass and I know just how great it can perform as a sports surface. It does have its issues and some of those can lead to major headaches, but its "pros" far outweigh its "cons," as listed here in a Point-Counterpoint format:

Point: It is a bunch-type grass and therefore does not have the capability to spread laterally. Counterpoint: Ryegrass is a prolific producer of tillers, particularly if mowed at the lower end of the preferred height of cut (1-1.5"). In studies conducted at Ohio State over the past several years, ryegrass has had as good recuperative potential as Kentucky bluegrass or tall fescue under traffic. In addition to its recuperative ability it is very wear tolerant, and so persists during heavy traffic.

Point: Because it is a bunch-type grass, fields must be overseeded constantly. Counterpoint: There is no such thing as an athletic field that doesn't need constantly overseeding, regardless of turf type. On native soils, where traffic and compaction are commonplace, all cool-season turfgrasses need regular overseeding to keep fields safe.

Point: It is "slippery." Counterpoint: It is "shiny" on the underside of the

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leaf, which makes it look wet from a distance.

Point: It has poor heat, drought, and cold tolerance. Counterpoint: Like bluegrass and tall fescue, it is a cool-season grass and so prefers air temperatures of 60-75F (15-24C) and soil temps of 50-65F (10-18C). In extreme conditions, it may not be as heat and drought tolerant as tall fescue, or as cold tolerant as bluegrass, but it will survive in most areas.

Point: It is susceptible to grubs. Counterpoint: Like many other turfgrasses, it is susceptible to grub attack. However, many perennial ryegrass cultivars contain "endophytes" (microscopic fungi in the plant cells) that prevent attack from surface insect pests, such as bluegrass billbugs, chinch bugs and sod webworms.

Point: Lignin in the leaf produces leaf tissue so strong that the leaves "tear" rather than cut cleanly, resulting in poor mowing quality. Counterpoint: In every instance we have seen this phenomenon, dull mower blades were the culprit.

Point: In fall and spring, ryegrass does not mix

well with other grasses. The color is different and the clumps of ryegrass stand out. Counterpoint: Ryegrass staying green longer into the fall/early winter and greening up quickly in spring is a major advantage for sports turf managers with fall or spring sports. Masking color differences can be helped by applications of iron or nitrogen, choosing bluegrass cultivars with short winter dormancy or painting the field with a green dye in early spring. Some turf managers may also cover the field with a growth blanket, to promote spring growth of all the grasses. In Europe, ryegrass cultivars are much lighter green, to mask the Poa annua that invariably encroaches on sports fields.

Point: Ryegrass takes over the field like a weed. Counterpoint: The number one reason it does so well is its ability to germinate and establish so quickly. The ability to grow quickly means it shades out the bluegrass and prevents seed germination and establishment. Athletic fields are not perennial stands of grass like lawns, they are

in a constant state of renovation and as such the key to success is "quick" grass.

Point: Perennial ryegrass is susceptible to a whole host of turfgrass diseases. Counterpoint: Yes, it is. No arguing on this point. If the conditions are favorable for a disease attack, ryegrass is prone to get it. Turf managers need to be extremely vigilant with irrigation and nitrogen and choose cultivars that have shown better resistance. Where possible, especially on game fields, preventative applications of fungicide may be required. As a side note however, because it is so quick to grow it can sometimes "outgrow" a disease like damping off much more successfully than slower-growing species.

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