

## Choosing Grasses for Repairing or Renovating Fairways

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Though we are still weeks away from determining the extent of winterkill damage on golf courses, it is not too early to consider grass choices on fairways if reseeding will be needed. Though no grass is the perfect fit anywhere in Nebraska and the northern Great Plains, fairway grasses come to down to one of four cool-season grasses:

**Creeping bentgrass:** usually considered the Cadillac among fairway grasses, creeping bentgrass can be maintained under surprisingly low fertility and irrigation. Creeping bentgrass is remarkably tolerant of cold temperatures once established, but desiccation and snow mold can be problematic. Creeping bentgrass is tolerant of most damaging diseases at fairway height, but may require occasional dollar spot fungicides. While newer cultivars have improved dollar spot resistance, it can also be susceptible to brown patch and/or pythium in low wind environments. There are multiple labelled herbicides and growth regulators to minimize annual bluegrass in creeping bentgrass. Creeping bentgrass spreads aggressively by stolons and can repair itself from divots without reseeding. However, this aggressive horizontal growth creates one of its major drawback, which is the potential for significant thatch build-up and thus requires aerification at least twice per year. The other drawback is that it should be mowed less than 0.5" which reduces playability for higher handicap golfers. Creeping bentgrass is best-used in higher budget golf courses in the eastern third of Nebraska.

**Kentucky bluegrass** is the best adapted fairway grass in the western two-thirds of the state. Newer cultivars can be mowed at 0.75" and is easily the most tolerant to winterkill of the cool-season grasses. Kentucky bluegrass has low susceptibility to dollar spot, brown patch, and/or pythium, which are the primary diseases of other fairway grasses. Kentucky bluegrass is also surprisingly drought tolerant and will survive most droughts if allowed to go dormant (and traffic is minimized). Kentucky bluegrass can survive with limited nitrogen (1-2 lbs N/1000 ft<sup>2</sup>/yr), but newer low-mow cultivars compete most favorably with annual bluegrass at >4.0 lbs N/1000 ft<sup>2</sup>/yr in higher precipitation areas. Kentucky bluegrass persists through the weather extremes of Nebraska winters and summers, especially as precipitation decreases from east to west across the state. Kentucky bluegrass's major flaws are slow germination, susceptibility to the disease summer patch and its relative poor competition with annual bluegrass at lower annual nitrogen regimes.

**Perennial ryegrass** is often used as an overseeding/repair grass because it germinates quickly and tolerates traffic fairly well as a seedling. It provides an excellent playing surface at 0.75" mowing heights. However, it is extremely susceptible to winterkill and to dollar spot, brown patch, and pythium, plus gray leaf spot that can be extremely damaging in the late summer/early fall. However, newer cultivars appear to have improved tolerance to gray leaf spot once established. Perennial ryegrass can be maintained in relatively open areas in the eastern third of the state with judicious use of fertilizer, summer fungicides, and annual bluegrass controls, but can be susceptible to winterkill on exposed sites in dry winters or in lower areas during wet winters. Perennial ryegrass is more susceptible to winterkill as one moves east to west across Nebraska. Perennial ryegrass is best used in a seed mix when establishing or overseeding fairways. Our current research is evaluating the optimum ratio of these two species in a seed mix for fairways, and early data suggest that 80 to 90% Kentucky bluegrass plus 10-20% perennial ryegrass by weight provides the best long-term survival of bluegrass and fairly quick cover with the perennial ryegrass.

**Fine-leaf fescues** are limited to use in low rainfall areas such as the Sandhills of Nebraska. Fine-leaf fescues are extremely drought tolerant and best suited to infertile, well drained soils. Fine-leaf fescues are susceptible to a wide variety of diseases in high rainfall/high humidity areas and can produce a tremendous amount of thatch if fertilized or irrigated regularly.

This is a general overview of fairway grasses for Nebraska and your individual choice will depend on your budget and specific location. Please contact us at UNL if we can help.

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