

Native Warm Season Grasses for Grazing

The majority of Missouri's forage base is comprised of Kentucky 31 tall fescue. There are good reasons for this. Tall fescue, a cool-season grass, is well-suited to Missouri's climate. It is adaptable to a wide range of soil types, it produces well even in less than ideal conditions, and it is very resilient. Tall fescue is often able to withstand heavy grazing, poor management, flooding, and is relatively insect and disease free. However, tall fescue is not perfect. One of the main drawbacks to Kentucky 31 is that it contains an endophyte that can negatively impact animal reproduction and performance. The second drawback is that it does not produce well during our hot, dry summers. A potential forage alternative that does not have the drawbacks of fescue is native warm-season grasses (NSWG).

Missouri is considered to be in a transition zone, from a climate standpoint, compared to the rest of the United States. Missouri forage producers are able to effectively grow both cool- and warm-season grasses with great success almost anywhere in the state. In fact, the dominant forage species in Missouri prior to human settlement in the 19th century were native warm-season grasses. Even though the majority of NSWG acres have been replaced by fescue, native warm-season grasses still can be of value in grazing and haying systems. There are a few things that producers need to understand about NSWG's before considering them for their own operation:

1. NSWG's are difficult to establish – It is not necessarily true that NSWG's are difficult to establish, but they can be slightly more difficult to establish than other forage options. NSWG's, like most other plants, benefit from a well-prepared seedbed and/or good seed-to-soil contact at planting. NSWG's are also not very vigorous during their first year of establishment and have a difficult time competing with weeds. Regular and effective weed control must be a part of the establishment process.
2. NSWG's are suitable for poor or marginal soils – It is false that NSWG's don't need or benefit from good soil fertility and adequate moisture. NSWG's like fertility and water just as much as the next plant. However, NSWG's can perform better on more marginal soils than other species can, making them a good alternative for areas where producers struggle to maintain a traditional forage stand.
3. NSWG's are expensive to establish – It is true that NSWG's typically cost more, on a pound of pure live-seed basis, than other forage species. But, because most NSWG seed is very small, the seeding rates for these species are typically much lower than for standard cool-season species. The main economic impact from establishing NSWG's is from having a pasture or hayfield out of production for a year or longer. This is why it's often a good idea to select an already poorly-producing field for NSWG establishment.
4. NSWG's are not a complete forage base replacement – The majority of NSWG production is in June, July, and August. It grows very little or not at all in the spring and fall, periods when livestock still need to graze. As such, it is typically not appropriate to completely replace cool-season grasses with NSWG's. MU Extension recommends seeding just one pasture, or up to 10% of the total forage base, with NSWG's to begin with and adjusting from there based on need.

Native warm-season grasses have the ability to address two of our major forage issues, the tall fescue endophyte and lack of summer forage growth, and may be a reasonable option for many Missouri forage producers. Contact your county Extension center for more information.

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