

## **Overseeding Cool-Season Legumes into Native Grasses**

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Overseeding legumes into established pastures is a tool that has been used for many years with cool-season pastures. It is only natural therefore, for producers to wonder about using that same practice in their native grass pastures. Can it work? How should I do it? What are the benefits? Below are some things to consider as you evaluate overseeding legumes into these pastures.

The first question to ask is, “is it a good idea, do I need to do this?” The quick answer is maybe. Keep in mind, overseeding legumes serves three purposes – providing a cheap source of organic nitrogen, improved forage quality, and a buffer for tall fescue toxicosis. Because natives are so thrifty with nitrogen, the need for legumes is less critical. Native grasses will still benefit, but the need is not as great. Also, because native grasses do not have an endophyte problem, the need for a buffer is not there. Finally, there is the question of improved forage quality. With species such as big bluestem and indiangrass, animal performance is already quite high (2.0 – 2.7 lbs/day on steers) and there is less opportunity for improvement. On the other hand, with switchgrass and eastern gamagrass, gains are not as high and the legumes can provide more benefit.

A second important question is, “will it work?” The simple answer is yes. You can drill clover or other legumes into established natives during February or March – or in the fall – and get a good stand. At UT, we have tried a number of legumes to see which is most compatible with switchgrass. Based on those studies, red clover is the most reliable and persistent option. However, there is a major challenge with growing any cool-season legume in a native warm-season grass stand: competition during the spring.

Cool-season legumes can produce a dense canopy by early April that can overtop native grasses emerging from winter dormancy and, as a result, suppress growth and reduce stand vigor and eventually, density. With some legumes, this can be particularly acute. Vetches and crimson clover can both easily overtop native grasses during this period and should be avoided. Even with red clover, fall seedings that allow clover to become well-established in October and November can be a problem because the clover then can grow rapidly during March and April.

It is critical to be prepared to manage that early growth, regardless of legume species or timing of seeding. Flash grazing to reduce the legume canopy is the best choice, but haying and wet-wrapping as haylage is also an option if the equipment is available. Although a less desirable approach, the legume canopy could also be removed with a rotary mower if there is no other option available.

One situation in which overseeding legumes may be particularly beneficial is where a switchgrass or eastern gamagrass stand is spotty or thin. Red clover (or another legume) can be

used to take advantage of that extra growing space and improve the production and quality of the pasture.

For more information see *Intercropping Legumes with Native Warm-season Grasses for Livestock Forage Production in the Mid-South* (SP731-G).