Managing Native Grass Forages

Patrick Keyser, Professor and Director, Center for Native Grasslands Management

Keys to Successful Native Grass Establishment

Successful establishment of native grasses requires attention to detail. Put another way, you will need to practice good basic agronomic principles when you plant native grasses. Advanced competition control, quality seedbeds, proper planting depths, and good follow-up weed control are all important and should be attended to carefully. Let's consider each of these in turn.

Advanced competition control is important in establishing any perennial forage crop and natives are no exception. Cool-season perennials should be controlled during the fall and warm-season perennials in August – September before planting is planned. Winter annuals are rarely a problem but summer annuals can be very troublesome. Because of the limited options for annual weed control, advanced weed control is critical. Killing the first flush of summer annual grasses (goosegrass, crabgrass, seedling johnsongrass, etc.) prior to planting can reduce competition from these species.

Seedbed preparation: Either no-till or conventional seedbeds can be used for native grass establishment. Regardless of which you choose, it is critical to prepare a fine, clean, and firm seedbed because of the small seed size of these grasses. Coarse textured, loose seedbeds or those with a good deal of thatch or other debris will lead to poor establishment success.

Planting depth: Switchgrass, indiangrass and the bluestems all require shallow seeding depths, about 1/8-1/4 inches deep. When walking behind the drill, you should be able to see some seed on the surface within the rows – perhaps 10-15% of the length of a row. Eastern gamagrass has much larger seed and should be planted at about ¾-1 inch deep.

Follow-up weed control: Native grasses are typically slow to germinate and will not emerge for 2-4 weeks after an adequate rain. During this time, even with good advanced weed control, competition can become established and prevent your stand from being successful. Use of a pre-emergence material (1 – 1.5 oz a.i. of imazapic) on indiangrass and the bluestems should follow drilling as soon as possible. There are no labeled products that can be used effectively with switchgrass or eastern gamagrass, which is why *advanced* weed control is so critical.

You can still provide some relief from competition with a rotary mower or even by taking a hay cutting. The key to either method is ensuring cutting height remains above small (<10") seedlings and minimizes the amount of leaf area removed on larger (12 – 18") seedlings. As long as the native grass seedlings remain above the weed canopy, they will continue to grow. It is critical though, that you DO NOT allow a weed canopy to overtop the seedlings.

By following these guidelines, you should be able to provide yourself with a highly drought-tolerant stand of perennial summer forage that can last for many years with proper management. For more information see *Establishing Native Warm-season Grasses for Livestock Forage in the Mid-South* (SP731-B) at utk.edu.