Picking a Site for Establishing Native Grasses

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

If you are considering incorporating native warm-season grasses (NWSG) into your forage program, now is the time to decide where to make next spring’s planting. Although NWSG will grow on almost any site where you can realistically grow and manage forages, establishment is much easier on some sites than others. In addition, by properly matching NWSG species/varieties to available sites you will be able to maximize stand productivity and longevity.

Competition control is easily the biggest challenge we have in establishing native pastures/hayfields and should be your first consideration for site selection. In order of increasing risk of weed problems (and therefore, decreasing ease of establishment), consider fields with the following history: new ground, cotton, soybeans, winter annuals, corn, hay, and pasture. Any field with appreciable amounts of bermudagrass may be an especially tough challenge for successful NWSG establishment.

The second consideration should be site quality. As is the case with all forage grasses, NWSG produce more forage on better sites. On the other hand, poorer sites (those with lower fertility) tend to have less weed pressure and typically allow for greater success in establishing NWSG. Because of the competitive advantage that NWSG have over other common forage grasses (e.g., orchardgrass, tall fescue, hybrid bermudagrasses) on poorer, thinner soils, you may want to initially select a site where you have struggled to maintain good stands of other grasses in the past. These are often the same sites where you have lost stands following severe droughts. On the poorer sites, avoid planting eastern gamagrass and consider blends that include little bluestem, a species that does particularly well on drought-prone or low productivity soils.

On the other end of the spectrum, you may have struggled to maintain good stands of grass on wet-natured or poorly drained sites. Some NWSG produce very well on such sites, most notably lowland switchgrass (Alamo in TN and southward, Kanlow in KY and northward) and eastern gamagrass. Upland switchgrasses, big bluestem, indiangrass/little bluestem (in that order) need better drainage and are less suitable for wet sites.

Finally, you should consider management flexibility in determining where to plant NWSG. If your initial planting is fairly small and will provide only a few days of grazing per rotation, you will want easy access to an alternate summer pasture. Also, access to shade and reliable water are more critical for summer pastures and should be considered carefully. Although rotational grazing is not essential for managing NWSG, it can be the preferred approach and some consideration should be given to fencing and flexibility for implementing such a system in the future.
Taking into account potential weed problems, site quality, and management issues all will help ensure successful establishment of native grasses and will allow you to make them work more effectively for you for years to come.