

## Managing Native Grass Forages

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

### Hay Production with Native Grass Forages

As is the case with most forages, timing of harvest for native grasses is very important. Harvesting at the boot stage will ensure the best balance between quality and yield. At this stage, crude protein content will typically be about 11 – 12% with big bluestem and indiangrass tending somewhat higher than switchgrass. Although hay feeding trials for native grasses are lacking, many producers have told me that their native grass hay is among the best that they have fed.

One challenge with native grasses is that they are less forgiving than cool-season grasses when it comes to late harvests. Harvesting more mature grasses (seedhead emergence) will result in greater yields, but lower quality and less palatable hay. However, ideal hay harvest dates for native warm-season grasses (boot stage) typically fall in late May/early June for switchgrass and mid- to late-June for bluestems and indiangrass. These dates typically provide weather more conducive to curing hay than is normal in early-May when cool-season grasses reach boot stage. This difference in timing can make it easier to harvest native grasses at the correct stage.

Because of the taller growth habit of native grasses, it is important not to harvest them too closely – leave an 8 inch residual height to maintain vigorous, productive stands. Using a “shoe” or “boot” on your mower (fabricated or purchased from your dealer) can enable you to consistently harvest at these greater heights. Repeated harvesting to lower heights will weaken stands, increase weed pressure, and reduce yields. Similarly, cutting hay late in the growing season (after late August) also can lead to weakened stands because such harvests remove so much plant energy just prior to fall dormancy.

Although a second cutting is possible with natives, typically in early- to mid-August, do not take two cuttings every year. Even with only one or two cuttings each year, native grasses can yield more than 4 tons per acre, well above what is typical for cool-season grasses. Producing the same amount of hay from fewer acres allows you additional land area for stockpiling cool-season grasses and/or grazing.

Native grasses do not need more than about 60 units of nitrogen per acre to achieve their high yields. Although we know that we are removing considerable amounts of both phosphorous (P) and potassium (K) when we harvest hay, most studies do not indicate a relationship between these nutrients and yield for native grasses. However, it is important to monitor soil in native grass hayfields and amend them whenever soil tests indicate low levels for either P or K.

Native grass hay can be produced at moderate costs (about 44% of the cost of cool-season hay) and can remain reasonably productive during drought conditions making them a valuable asset in a forage program. For more information, see UT Extension publications SP731-D (*Producing Hay from Native Warm-season Grasses in the Mid-South*). Both are available at

<https://utextension.tennessee.edu/publications/Pages/foragesLivestock.aspx> or <http://nativegrasses.utk.edu/publications/default.htm>.