

## **Harvest Height for Native Grass Forages – Why Does It Matter?**

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Most producers are very familiar with how to harvest tall fescue, orchardgrass and bermudagrass. Most of the principles that govern how to best harvest those species also apply to native grasses, but with one key difference: height. Native forage grasses such as switchgrass and big bluestem are tall grasses and therefore, require taller harvest heights.

There are several reasons why this is important. First, tall species have elevated growing points – the anatomical structure in grasses that produce foliage. For instance, in switchgrass, the growing point starts out early in the growing season at ground level. As the season progresses though, it ends up being 8 inches or more above the ground. Another issue with tall grasses is that they do not typically have much leaf surface area near the bottom of the plant. If you harvest an indiagrass plant, for example, at a height of 6 inches, you will have removed all of the leaves.

When leaves and/or growing points are gone, no photosynthesis can occur until they are replaced – and that means no energy is produced by the plant. Furthermore, during the period when they are regrowing, the plant must draw on root reserves to replace first the growing point and then the foliage. So the plant is penalized twice – drawing on root reserves to replace lost leaves/growing points and again by losing a week or two of active growth.

As with any grass, root vigor mirrors above ground plant vigor. Plants that are cut or grazed too closely (and this applies to bermudagrass or tall fescue as well) have weaker roots leading to reduced regrowth and lower yields. Plants are also more susceptible to subsequent droughts or other stressors. Maintaining a vigorous canopy on any grass leads to a more robust stand, less weed encroachment, and higher yields, especially in the long run.

Another reason low cutting/grazing heights are not desirable for native grasses is that you gain very little forage from the bottom of the plant. Below 8 inches on these plants there is very little forage – mostly stem. Taking this portion of the plant then, adds little by way of desirable forage yield to your harvest.

Whether harvesting hay or grazing, it is important to leave enough canopy to keep plants vigorous. In the case of hay harvest, purchasing a ‘shoe’ or ‘boot’ for your mower that allows you to consistently harvest at 8 inch heights is an excellent investment that will pay for itself many times over. For pastures, pay attention to canopy heights and adjust stocking and/or grazing periods to maintain minimum canopy heights of 12 – 18 inches.

For more information, see UT Extension publications SP731-C (*Grazing Native Warm-season Grasses in the Mid-South*) and SP731-D (*Producing Hay from Native Warm-season Grasses in the Mid-South*). Both are available on line at <https://utextension.tennessee.edu/publications/Pages/foragesLivestock.aspx> or <http://nativegrasses.utk.edu/publications/default.htm>.