

Why Use Native Warm-season Grasses? Heifer Development

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In September (2015), I addressed the question of *why* producers might want to use native warm-season grasses in stockering and/or backgrounding programs. I want to continue on this theme of *why* we might use these grasses in forage programs. Because native grasses produce large amounts of forage and strong gains at a low cost, they can be a good tool for heifer development. After all, this very important - and expensive – phase of cattle (beef and dairy) production is dependent on good quality feed, which makes up the bulk of development costs.

Achieving adequate gains from weaning until puberty is a key to successful heifer development. Depending on weaning weight and birth date of the calf in question, average daily gains (ADG) need to be 1.4 – 1.8 lb per day. Keep in mind though, that gain does not have to be consistent throughout the weaning-breeding period. So if feed is available that provides low-cost, accelerated gains for a portion of that time, it can make an important contribution to successful development. Likewise, during pregnancy, higher quality feed can supplement forages that produce lower gains.

Recent research at UT documented that bred dairy heifers (9-11 cwt) grazing native grasses had ADG of 1.64 lb on a big bluestem/indiangrass blend (105-day grazing season), 1.54 lb on switchgrass (61-day basis), and that bred beef heifers had ADG of 1.15 lb on eastern gamagrass (112-day grazing season). Clearly, these gains are acceptable for the development period, except that eastern gamagrass, because of its lower gains, would be more appropriate during pregnancy. It is worth noting that for these three trials, no nitrogen was applied to any of the pastures, making the cost of gain very minimal.

In fact, in an economic analysis conducted on one of these studies (the other two are still ongoing), cost of gain was \$0.40 per lb for the big bluestem/indiangrass blend and \$0.31 per lb for switchgrass. A separate analysis compared the cost (per head per day) of grazing these grasses to rations based on traditional commodity feeds that provided ADG comparable to the native grasses. The cheapest alternative was \$1.96 for corn silage with dry distillers' grains. Corn silage with soybean meal (the most expensive) was \$2.94, while the native grasses were considerably cheaper at \$0.48 for switchgrass and \$0.79 for the bluestem blend. The low cost of gain on native grasses resulted from their relatively high carrying capacities and rates of gain combined with limited input costs.

In addition to the good average daily gains and low cost of that gain, native grasses offer other advantages for heifer development. They are very drought-tolerant perennials and thus, can be reliably available each summer. Also, they do not have any of the negative health or reproductive implications of endophyte-infected tall fescue, which may be most pronounced during summer. Together, all of these factors make native grasses a good option for heifer development in the

Mid-South. For more information see *Grazing Native Warm-season Grasses in the Mid-South* (SP731-C) at extension.tennessee.edu/publications/Pages/default.aspx.