

## **Extending the Grazing Period and Reducing Feed Costs**

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Southern Indiana provides a unique opportunity to livestock producers not normally afforded to producers in other regions of the state. Cattle, sheep and goats producers can take advantage of the late-summer through fall growing conditions to obtain high-quality pasture for fall and early winter grazing. Successfully extending the grazing season beyond normal parameters involves the management practice of stockpiling.

Some management decisions that determine the success or failure of stockpiling include selecting the right forage specie, timing within the entire growing season, fertilization, grazing management/utilization, selection of the livestock class to be grazed, and the grazing system design.

### *Forage Species Selection*

The best forage specie for stockpiling is a cool-season grass that will retain its green color and its forage quality later into the winter months. In addition, the preferred grass should be somewhat resistant to low temperatures and have the capabilities of forming a good sod. Two grasses common to this region that have these characteristics are tall fescue and Kentucky bluegrass; of the two, tall fescue tends to produce more fall and winter growth. However, bluegrass gets the nod in terms of forage quality yet, tall fescue will out produce bluegrass in terms of pounds of protein per acre especially during the mid-August through early December time frame. The sugar content and digestibility of tall fescue are also better during fall through early winter than any other time of the year.

### *Timing*

The choice to stockpile, actually involves management decisions throughout the entire growing season. Late July to early August livestock need to be pulled from pastures to be stockpiled, be sure that any summer growth is removed to the 3 or 4 inch height by either grazing or by clipping (this will assure that stockpile production comes from new grass re-growth). When livestock are pulled, apply any recommended fertilizer. During the stockpiling period, graze livestock on other pastures such as grass-legume, warm-season annuals or warm-season perennial plantings. Be prudent in grazing pastures following a frost.

### *Fertilization*

A current soil test of pastures is needed to determine the phosphorus, potassium, and lime needed to optimize forage production. In addition, nitrogen should be topdressed at a rate of 40 – 60 lbs. of actual N per acre on bluegrass and 40 – 100 lbs. on tall fescue. Research studies support making these nutrient applications as soon after August 1 as possible. The source of nitrogen can also play a role in efficient plant use; urea is only about 80% to 90% as effective as ammonium nitrate on an equivalent nitrogen basis. Extensive studies have shown that the wise use and timing of fertilizer applications will result in higher fall and early winter forage production as compared to random fertilizer applications or no fertilizer use at all.

### *Utilization*

After a fall killing frost, graze any grass-legume pastures quickly before legumes start to deteriorate. After grazing those fields, move grazing attention to the stockpiled grass pastures. If you graze stockpiled grass pastures too lightly, trampling and wastage will be the result. Instead, install a temporary electric fence across fields dividing them so the area to be grazed first is small with a source of water and minerals. Once animals have grazed-off this area, move the fence back to allow access to more of the pasture or opening up a new strip of stockpiled pasture. Continue to do this in small segments until the entire field is grazed.

### *Animal Class*

The high quality of stockpiled cool-season grass results in good gains of both weaned stock and mature ruminant females. These gains are in response to the high crude protein levels and the improved digestibility of the fall growth of these grasses. This improvement in quality is particularly related to the sugar content rising to very high levels in response to lower temperatures and shortened day length. This nutritional change does not take place overnight but instead is spread over time. Another factor that can affect an animal's performance when grazing stockpiled cool-season grasses, in particular tall fescue, is the endophyte status of the grass. With regard to beef calves, extensive research and demonstration projects have shown that calf gains are higher when grazing endophyte-free tall fescue, but the detrimental effect of endophyte-infected tall fescue is much lower with late fall grazing in comparison to summer grazing.

Another area where stockpiling is helpful to the beef cattle producer (and to other ruminant livestock producers as well) is in terms of extending the grazing season for the cow herd (or ewe flock, etc.). By

extending the grazing season, the need for using stored feeds is reduced. If the use of stored feeds is reduced, its only reasonable to assume that labor requirements will be reduced as well.

*Adapted from: University of Kentucky publication AGR-162, "Stockpiling for Fall and Winter Pasture"*