

News Article
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Establishing Bermudagrass Hayfields Using Clippings

Over the last couple years, the drought situation has resulted in hay crops being in high demand. While many of the hay fields in our county are in bahia, we sometimes get questions concerning establishing a bermudagrass hayfield. An important consideration is deciding what kind of bermuda to plant. Common bermuda can be planted using seed, however most producers prefer the much more productive hybrid bermuda varieties. The only problem with hybrid bermudagrass is that it must be established vegetatively, that is planting a portion of the plant itself such as the roots (sprigs) or clippings. Hybrid bermudagrasses do produce seedheads, but they produce very few seeds, and any seed that are produced are usually not viable. Below are some guidelines provided by Dr. Don Ball, our Extension Forages Specialist on establishing hybrid bermudagrass hayfields using clippings.

Dr. Glenn Burton, who worked at the Coastal Plain Experiment Station in Tifton, Georgia, developed the first improved hybrid variety 'Coastal' by crossing two productive strains of bermudagrass. An even more impressive accomplishment was that he subsequently convinced farmers that it would be worthwhile to go to the trouble of vegetatively establishing bermudagrass, a plant that prior to that time had been mainly viewed as a troublesome weed in cotton. Coastal is still a good hybrid variety, but others that are widely planted in Alabama today include 'Russell', 'Tifton 44', and 'Tifton 85'.

Generally, propagation of hybrid bermudagrasses is done by "sprigs," which are actually bermudagrass roots. Propagation with sprigs is probably the most dependable method of obtaining a stand of a hybrid bermudagrass and is a good option for many producers. We are fortunate in Alabama to have numerous people around the state who are in the business of commercially planting bermudagrass sprigs. These folks have expertise and the right equipment to dig and plant bermudagrass sprigs, and they perform a valuable service.

However, hybrid bermudagrass can also be established with green clippings. This approach is not used as commonly as sprigging because it involves much more physical labor, but does have the advantage of being less expensive than hiring someone to dig and plant sprigs. Some people reason that using this technique becomes more feasible in late spring or early summer when the optimum time for sprig planting has passed, as there is less financial loss if a stand is not obtained. Not every variety is equally well suited to be established in this manner. Of the varieties that have been mentioned in this article, Tifton 85 and Russell are probably the most suitable to establish using clippings, with Coastal being a bit more difficult but still acceptable. Tifton 44 is not well suited to establishment with clippings.

The first step in establishing bermudagrass with clippings is to prepare a fresh seedbed by turning (if necessary), disking, and smoothing the area to be planted, preferably several weeks prior to planting. Any lime recommended by soil test should be applied and worked into the soil at this time. Phosphorus and potassium recommended by soil test can also be applied. If the field is tilled well ahead of planting and a thick stand of weeds has appeared, it may be necessary to either disk or spray a non-selective herbicide on the field just prior to planting the clippings in order to eliminate them.

Weather is an important consideration in establishing any crop, but establishment of hybrid bermudagrass from clippings definitely requires the right conditions and good timing. It is important to plant when ample soil moisture is available. In addition, a good, slow rain after planting greatly improves the likelihood of success. Planting can be done anytime from around early June to late August, but the early

portion of this time period is best, because rain is usually more dependable and the grass has more time (especially in north Alabama) to develop a root system before winter.

Obviously it is necessary to have access to an established stand of hybrid bermudagrass from which clippings can be obtained. The standing grass should be cut when it is around 15 to 20 inches high. (Note that it needs to be at a later stage of maturity than agronomists normally recommend for cutting bermudagrass for hay, as on each stem there should be several nodes capable of generating roots). The time to propagate is when the grass has reached this stage and there is moisture in the prepared seedbed. Mowing and windrowing should be done early in the morning when the grass is wet with heavy dew or rain, and planting should be done as soon after mowing as possible. Cloudy, cool weather is desirable.

The clippings should be loaded onto a truck or manure spreader and broadcast over the area to be planted (loosely baling the green material to facilitate moving it may also work if the grass is unrolled and spread within a few hours). This should be immediately followed by lightly disking and cultipacking. Ideally, a high percentage of the clippings should be partially covered with soil and partially exposed to sunlight. Generally, an area in which bermudagrass is 15 to 20 inches tall will furnish enough clippings to cover an area 5 to 8 times larger.

After a couple of weeks it should be obvious as to whether the clippings are rooting and, thus, whether the propagation attempt was successful. If so, the area should then be fertilized with at least 30 units of nitrogen per acre. If there is little or no weed competition, 60 or more units of nitrogen can be applied per acre. As when establishing bermudagrass with sprigs, applying too much nitrogen too quickly will increase competition from crabgrass and other weeds.

For many situations, establishment of a hybrid bermudagrass with clippings is too labor intensive to be feasible. However, for someone who only has a small area to plant and who doesn't want to spend a lot of money, it is an option that might be worth considering.