

Beef Cattle Newsletter

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Jimmy Driggers
County Extension Agent
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FIRST GREEN GRASS OF SPRING WON'T SUPPLY NUTRIENT NEEDS OF GRAZING

Even though some of you may have already turned your cow herds out to graze newly growing pastures, some of you might not have, so I thought I'd cover this topic anyway just in case.

Turning cow herds out to graze pastures at the first sign of green grass harms forage growth later in the season.

But there's another big reason to wait. Cows don't benefit from early grazing as much as most herd owners believe.

Early grazing provides little quality and small quantity of grass. In addition, early pasture growth contains mostly water, and only 25 percent dry matter. Herds need more nutrients than they get from early grass. Producers see this when they describe their cows as being 'washy' and early grass has a high rate of passage through a cow's digestive tract. In other words, don't stand behind them. After a hard winter, a cow nursing a calf needs extra feed until pastures are ready for grazing. With only 25 percent dry matter in the diet, a cow must eat 150 pounds of grass to meet her needs. A cow would have to walk constantly trying to find that much grass. Quantity of

growth at first green-up is minimal. A cow couldn't get a full mouthful of grass with each bite.

The answer won't appeal to farmers tired of winter feeding chores. Cows need continued feeding before grass grows large enough to supply nutrient needs.

Early grazing provides little quality and small quantity of grass

That means more hay and possible grain supplement. Delayed grazing helps cows and pastures. Grass that is nipped too short too early removes plant reserves needed for spring growth. Cool-season grasses stored sugar reserves in the lower stems last growing season. The reserves jump-start growth and nipping too early removes the reserves and the green leaves needed for photosynthesis. Early removal also slows growth all season long, so early grazing creates a lose-lose situation. Management may be more critical than usual this year as pastures recover from last summer's record-breaking drought.

I recommend a delay in turning herds onto pasture until at least a 5-inch growth shows. Allow 2,000 pounds of dry matter per

acre to accumulate, and focus on the nutrient needs of the cows. A lactating cow's daily nutrient demand equals 2.5 percent of her body weight. A dry cow requires 2 percent of her body weight. Accurate cow-weight estimates are needed. Many producers underestimate how big their cows are when calculating feed needs. Meeting nutrient demands may require buying more feed, or culling herd numbers.

Cows nursing a calf and preparing for rebreeding later this spring need nutrients. Cows with poor body condition scores are less likely to rebreed on time. Spring-calving cow herds reach their highest nutrient requirements in April and May. Late cold snaps have delayed grass growth but brought moisture needed for that growth.

I advocate taking weekly or biweekly measurements of pasture dry matter growth and plotting the forage accumulation. If you need help managing your pasture and analyzing the grazing needs of your cattle, call me at the Extension Office on 623-6841 and I'll be happy to assist you.

Native Warm-Season Grasses: Drought Proof or Drought Tolerant?

An article in a recent agriculture magazine had a quote claiming that native warm-season grass pastures are drought proof, and producers are excited at that possibility. Native warm-season grasses (for forage) in this case are defined as switchgrass, big bluestem, little bluestem and indiangrass.

Drought proof and drought tolerant are not the same thing. Many warm-season forages are drought tolerant. No forage is drought proof. Drought tolerance implies that a forage can tolerate effects of drought and survive. It doesn't mean that the grass will thrive during drought. All forages need water and an optimum temperature range to grow well. Drought proof means the grass suffers no ill effect of drought and keeps on growing as if weather conditions were normal. Native grasses can be part of a forage program and can be cost effective, BUT they must be managed differently and they are NOT drought proof.

The University of Tennessee has done work recently with native warm-season grasses through their biofuels program. Dr. Gary Bates leads the forage management effort. Gary

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provided several points at the recent Forage and Legume Management Conference in Harrison. (To see the presentation, go to <http://vimeo.com/61109401>).

He pointed out that native grasses require less fertilizer for good hay yield than bermudagrass. Hay quality is moderate and can be very poor if allowed to get mature before harvest. Yield can be 4-6 tons per acre with fertilization and proper harvest. Under grazing, these grasses can be stocked at a high rate during the first 6 weeks of the growing season, but the stocking rate must be reduced later in summer to avoid stand damage. Stocker calf gains can be quite good, exceeding 2 lbs/hd/day, under good management.

Two big factors that must be accounted for in managing these grasses is that they should never be cut or grazed shorter than 8-12" and the grazing or hay season is about 100 days at most. Native grasses should not be harvested or grazed past mid-August at all. Any late-season growth must be left to allow the plants to store root reserves for winter. Grazing too late, grazing during winter and grazing too early in spring will damage stands. Winter annuals like wheat or ryegrass should not be overseeded into native grasses or the competition and grazing can damage stands. Under hay management, these grasses should not be cut more than twice in a year. To avoid weakening stands, hay should only be cut once the year following a two-harvest year.

Establishment is slow and requires patience. Native grasses are notorious for poor seedling vigor. Very little topgrowth is produced the seeding year. Most growth is directed toward

root growth. That means weed control is critical during the seeding year. With good weed control, native grass yield the second year will be about half to two-thirds of a fully established stand with top yields not occurring until the third year after planting.

Herbicide options are available but differ for the different species. Seeding rates are generally 5-6 pounds of Pure Live Seed ((PLS) per acre as pure stands. This rate can be adjusted in mixtures so the total seeding rate of mixtures is 10 pounds PLS/acre. The PLS of many natives may only be 30 percent, so it may take 3 pounds bulk seed to get 1 pound PLS.

Switchgrass is usually planted alone because it can dominate in mixtures. Big bluestem is a good choice for hay or grazing and has good wildlife benefit under deferred forage harvest management. Big bluestem and indian-grass mixtures are commonly recommended, although big bluestem alone is easier to manage and maintain stands. Natives are promoted heavily for their benefit to wildlife, especially quail and rabbits. However, optimizing forage production from native grasses will not opti-

mize wildlife habitat. Hay harvest or grazing must be deferred until forage is poor quality to protect the major quail nesting period of mid-summer.

These grasses can be effective additions to a forage program but in no way are replacements for all other forages. Planting these grasses without realistic expectations will lead to disappointment and stand failures. Native grasses have been around since before settlers. Overgrazing took them out before. Good management must be part of a program to keep them around and make them work now.

Construction of a Tire Drag to Aid Forage Establishment

Broadcast seeding is a popular forage planting method, but adequate seed-to-soil contact in pasture sod can be problematic. This can be remedied by scarifying the sod with a harrow or field drag. Many producers either do not have a drag, the drag is not easily transported or the drag is too heavy or aggressive for covering small-seeded forages. Homemade tire drags work well to scarify short sod, expose soil and improve stand establishment.

Tire drags have many advantages. They make use of salvaged tires, they are inexpensive, and the tires flex over or around rocks, stumps, trees, etc. Our tire drag is constructed with salvaged 10- to 14-ply road grader tires; however, the drag can be sized to match the tractor or ATV to be used to pull the drag.

The tires are cut in half vertically down the middle of the tread to make a “cut side” and a “slick side.” This makes the drag more versatile for variable field conditions. The “cut” side is more aggressive for heavy sod conditions and the “smooth” side can be used to smooth and firm tilled seedbeds or in thin sod pastures.

A heavy ply rating is needed so the cut tires hold shape and do not fold up when in use. The cut tires are laid out in a six-tire pyramid formation with one tire in the front, two tires in the middle and three tires on the end. The drag width using road grader tires in this formation is approximately 13 feet. Only use bias-ply tires. Steel-belted tires should be avoided because sharp wires protrude and can cause injury.

Drill a ½" hole through the tire tread and insert an eye bolt, leaving the “eye” on the outside of the tire. A thin piece of metal, approximately 2" x 4", is used on the inside of the tire as a washer to prevent the eye bolt

from pulling through the tire.

Large snap-rings are used to connect the tires. Snap-ring connectors allow each tire to flex independently and follow the ground contour. Snap-rings also allow the drag to be assembled or disassembled as needed. A piece of pipe, used for a pull bar, is then placed horizontally between the tires and the machine that will pull the drag. Chains are welded to the pull bar, and snap-rings are used to connect the chains to the eye bolts of the tires. The first and second rows of tires are attached to the pull bar to keep the drag in line when turning. Chains are welded to the front side of the pull bar for connecting the drag to the tractor or ATV. A portable tire drag is a durable, economical and effective tool for preparing pasture sod for broadcast seeding small-seeded forages.

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