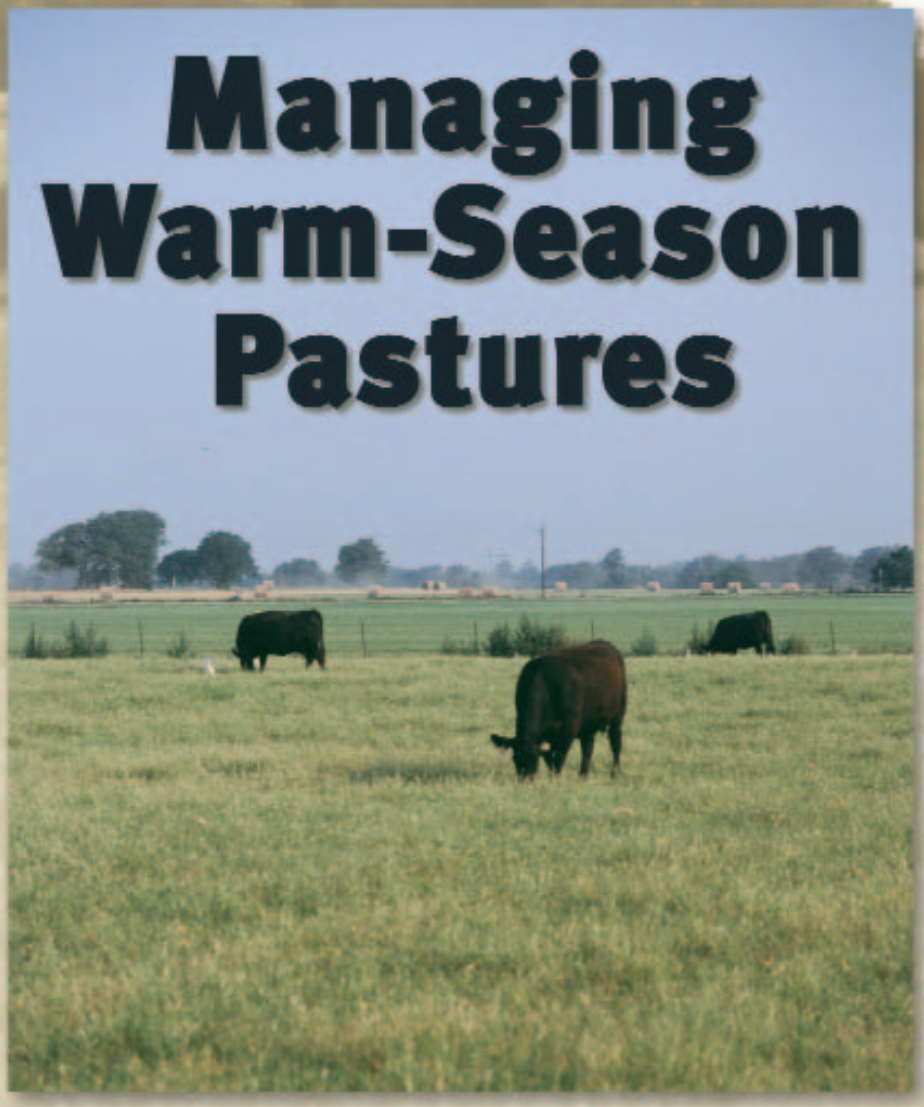
Managing Warm-Season Pastures



Texas Angus producer utilizes adapted forages to deal with Texas' climate demands.

Story & photos by ***Jen Biser***

With annual temperatures statewide ranging from the low 50s to over 100° F, the majority of Texas is consumed by subtropical climates. With average rainfall across the state at less than 30 inches (in.) to as much as 40 in., these conditions create a need for adapted forages and forage management for Texas cattlemen.

Andy Herring, associate professor of animal sciences at Texas A&M University, says much of the pastures that are utilized by the state's cattlemen are improved pastures consisting of native bluestem with varying Bermuda grasses, overseeded with a cool-season grain, such as rye or wheat. This combination of warm- and cool-season grasses offers year-round grazing.

"It has also become a common practice to stockpile pastures," Herring says. "Stockpiling is simply letting a pasture grow without cutting it, allowing it to accumulate growth with the goal of feeding cattle throughout the winter when grasses go dormant. This can lessen the demand for feeding stored hay."

Herring advises that producers remember to use caution when pasturing cattle on their land. Land is any farmer or rancher's most valuable asset, Herring points out, advising ranchers to consider stocking rate and carrying capacity as two separate values.

"The stocking rate is the number of animals that a producer chooses to run on a certain acreage of land," Herring says. "The carrying capacity is the land's ability to maintain a specific number of cattle by itself, without changing the condition of the cattle or damaging the forage value of the land."

(For a more detailed explanation of stocking rate and carrying capacity, see "Find Your Footprints," pages 42-44, in the June 2002 *Angus Journal* and "Grazing in the Black," pages 90-93, in the February 2003 *Angus Journal.* Both articles are available via a back issues search at *www.angusjournal.com.*)

Herring says that the average stocking rate for improved pastures is 4-5 acres per cow.

Down at the ranch

Center Ranch, located at Centerville, Texas, and owned by Finis Welch, takes pride in the grass management program that allows the ranch to be self-sufficient.

"We run 2,000 cows on about 6,000 acres, so that's realistically about three acres per cow," says Jay Dickson, general manager. "There's no [intensive] rotational system — just when the grass needs a break, we move [the cattle] to another pasture. We've always had enough grass to not warrant an intensive program."

Using a specific combination of seasonal grasses, including varying types of Bermuda, coastal, common and jiggs; Tifton 85; and some legumes and clovers, Dickson says Center Ranch can provide growing forage year-round.

"The Bermudas start in April, and they usually play out in the middle of October," Dickson says. "Then if you plant any oats or rye, such as on new ground where we are going to plant coastal the next spring, we'll plant a forage to keep the ground loose and fertile. We overseed with rye grass, which starts coming in around the first of January and plays out just after the coastal comes on, so we generally always have a little grain somewhere."

►**Above:** Center Ranch, located at Centerville, Texas, runs approximately 2,000 cows on 6,000 acres of adapted warm-season forages.

While the grass is growing, Dickson adds, cows get only a liquid feed supplement, which is provided year-round. "We have a unique situation that if we run out of grass, we usually always have a surplus of hay stored."

Dickson says the ranch is completely reliant on the weather for water for the pastures, since they do not utilize any irrigation techniques. So, if there's plenty of rain, there will be plenty of grass; if there isn't any rain, then there will be a shortage of grass.

►**Left:** Center Ranch bales all of its own hay and utilizes it as a roughage feed additive.

"We're on a recipient commercial cow base, and they've always had a free-choice liquid feed supplement and standard forages. All of the forages that we feed have been raised on the ranch, and we raise all our own hay," he explains. The liquid supplement is a Purina clay-based supplement (instead of an acid-based one) with 33% crude protein (CP), 5% urea and a micropack for microbial growth. Efficiency is best when fed with moderate-quality hay. Feeding the supplement with a high-quality forage usually results in too high of a protein content.

Hay is for horses

"We bale 60,000-80,000 bales each year of horse-quality hay," Dickson says, explaining that some of the hay is sold. The "horse hay" is clean, bright green and fertilized with 300 pounds (lb.) per acre of dry 5-1-4 grade fertilizer every 28 days. Dickson says the mix is backed by the Texas A&M Agricultural Research and Extension Center at Overton for being the most efficient ratio of percent nitrogen (N), phosphorus (as P_2O_5) and potassium (as K_2O) to replenish the nutrients in the soil that a 28-day cutting will take out.

"We've been doing that for 15 years and soil-tested numerous times and never had anything low," Dickson says. "We fertilize up to 250 pounds on grazing pastures in the spring unless we have to reseed with rye grass in fall. The manure from the livestock will replenish what you drained out of them other than that."

No free choice

"One thing that we use grasses for that few others do is the forage content of the feed," Dickson says. "We raise and grind the hay and put it in the feed without adding cottonseed hulls or alfalfa. We actually use a commodity that we make here to make the feed less expensive so that we can feed more cattle at a lesser price than buying a bulk ration."

Dickson says the cow herd, when needed, will receive a ration consisting of up to 70% roughage, with added corn, cottonseed meal, and a Purina macromineral and micromineral molasses supplement.

"There's no free-choice hay," Dickson says, adding that all hay is fed in a trough. "We have cut feeding hay by 50% — that's how much hay is lost in a year's time. We were feeding over 5,000 rolls per year, and we have gotten down to 2,500 rolls and are maintaining the same body condition scores (BCSs)."

Parasites and toxicities

As with any feeding management program, there will always be issues to watch out for and problems that can occur.

When producing cattle on warm-season grasses, one of the issues that can arise is Dallisgrass poisoning. It was used minimally for a short time at Center Ranch, Dickson says, adding the toxicity problem that can arise from this forage caused the ranch to cut it out of their forage program.

As explained in "Dallisgrass Poisoning Can Occur in Late Summer," published by North Carolina State University (NCSU), Dallisgrass poisoning occurs when a fungus, *Claviceps paspali,* gets into the seedhead. As the plant matures, the "ergot-like" fungus appears. The symptoms of Dallisgrass poisoning resemble those associated with grass tetany, but it rarely causes death.

Cattle affected by the fungus show neurological symptoms, including trembling of major muscles and head, as well as jerky, uncoordinated movements. Affected animals can be flighty and aggressive. Animals that startle and run usually will fall down in unusual positions.

There is no cure for this malady, the NCSU resource explains, except to get the cattle off the infected grass and provide them with higher-quality forage and a flatter pasture without hills or ponds that could pose a threat from neurologically-based tumbles.

Other problems with warm-season grasses can occur in the form of parasites, such as army worms and grasshoppers, Dickson says. They are usually the culprits that will eat up all of the profit and forage resources if not properly eliminated.

Self-sufficiency

"We like to think that we keep ourselves self-sufficient," Dickson says. "The fewer services and products you have to buy from other people, the more profit you are able to have."

During the years, Welch has purchased equipment that enabled the ranch to do many things for itself.

"Outside of purchasing all of the supplements, cereals and grains that we supplement with," Dickson says, "we spray all our own pastures, we bale all our own hay, and we feed all our own cows."