

More Options In The Herd

Amid Drought, Some Producers Turning To Multi-Species Grazing

BY RITA BRHEL
P&D Correspondent

Despite this winter's snows, climatologists forecast a continuation of the severe drought that has gripped the area since last summer. Most producers are past the initial shock and the fear of not knowing what the future would hold. Many have culled way more animals from their herds than they wanted to, whether to reduce pressure on the pastures or to lessen the cost from inflated feed and hay prices. And now, with spring just a few weeks away, farmers and ranchers are putting plans into place on how to survive another year, or more, of dry weather.

The silver lining of this situation is that many producers come up with exceptionally creative ideas.

"I can't think of a more exciting time to be in agriculture," said Greg Brann, Tennessee's state grazing lands specialist for the U.S. Department of Agriculture's Natural Resources Conservation Service. "We've re-discovered sustainable agriculture."

Brann also owns Big Springs Farm near Adolphus, Ky., located on the state border with Tennessee, which has transitioned from a beef cattle farm to a multi-species grazing operation. Multi-species grazing is not a new idea, but it was largely considered a novelty until a few years ago when different regions of the United States began experiencing devastating droughts. It's a subset of intensive-management rotational grazing that allows multiple livestock species to graze on the same pasture without adversely affecting pasture quality — in fact, improving it — yet resulting in more pounds of animal at the sale barn.

"They eat differently and have different gestations, so you're able to increase your production and therefore your income," Brann said.

The key point to multi-species grazing is that each livestock species has its own forage preference: Cattle eat grass, sheep eat mostly broadleaves and some grass, and goats eat mostly brush and woody plants but some broadleaves. Cattle-only pastures tend to have weed and brush problems, because the lack of grazing on these forage types promote their growth. Multi-species grazing, on the other hand, encourages a natural proportion of forage types, which tends to be mostly grass with some broadleaves and few areas of brush.

Big Springs Farm used to be a 300-head cow/calf operation rotated through pasture paddocks once a week when the grass was clipped off short. The result was a major problem with weeds that the cattle found unpalatable. Brann decided to try multi-species grazing as a way to reclaim the pastures for cattle production through weed control. He started with groups of 30 cows, 300 ewes and 60 nannies in a herd. This year, he's up to 900 animals in each group, including calves, lambs, kids, and a few hogs that root around in the manure to reduce feed waste and control flies that breed in the manure. He also sees an opportunity to add poultry to his grazing program, which will further add a profitable avenue, reduce feed waste, and provide pest control.

"We like diversity in all plants and animals," Brann explained.

This group is rotated through 350 acres of pasture broken up into 16 paddocks. And yes, all of the animals get along.

"I've learned to wait to introduce new species when they're rotated to fresh grass," Brann said. "You'll see little arguments between species, but that's OK. They figure out their pecking order soon enough."

While management is certainly more intensive in multi-species grazing, overall Brann says that he has found it to be a low-cost, low-stress grazing system that takes the environment into as much consideration as profit. Not only does multi-species grazing increase the number of animals Brann sells each year, but it also provides about \$5,000 savings in hay and up to \$30,000 savings in fertilizer each year.

"Manure is an overlooked asset," Brann said. "Residue management is very important, not only with cropland but with grazing."

The nitrogen, phosphorus, and potassium levels — the basic components of fertilizer — needed by his pasture each year is 120-30-30, he says. Just two cows apply this through their manure in less than one full growing season.

"There is an astronomical amount of nutrients in manure if it hits the right place," Brann said. "Any crop can be fertilized with 100 cows."

But there are challenges to multi-species grazing. First is determining the number of each species to put together. The starting point is the ideal stocking rate for cattle only, as these are the largest of the species and therefore will eat the most. The number of sheep and goats to add can be based off the cow number.



PHOTO: RITA BRHEL

"Two goats (or sheep) can be grazed per cow without competing with the cow," Brann explained.

Besides deciding on a stocking rate, one of the biggest challenges is fencing. Cattle are easy to keep in with a single-strand electric wire, Brann said. Sheep and goats need a stronger fence, since they are both smaller and bolder than cattle. Brann started out with woven wire but found it to be cumbersome, and then tried putting up a single strand to hold the cattle back but let the sheep and goats graze wherever, but the cow's condition went down markedly, and the sheep and goats became too fat.

"Now, I run them as one herd," Brann said. "It's much easier to manage the forage and recovery period when there's one group."

To keep all of the animals together, he switched to a high-tensile, electric, three-strand fence. Wires are spaced six to eight inches, 12 inches, and 27 inches off the ground.

"That keeps everybody back real well," Brann said.

Pasture watering to accommodate large and small species can be difficult, as lambs and kids can drown in a large water tank. Brann recommends putting concrete blocks in the tank so if lambs and kids fall in, they can get back out. Cows need a big tank, but they don't need a specific type of tank, and some types are more multi-species-friendly than others.

"I prefer a 55-gallon rubber trough, but they'll drink out of anything," Brann said.

In the same vein, winter haying needs the same attention as watering for multiple species. A large hay bale set out in the pasture by itself can cave and kill goats, Brann said. Head gates allow all species to eat hay, and can reduce hay waste as a bonus.

Predator control is another must-have with multi-species grazing, as sheep and goats are common targets.

"Cattle provide some predator protection. I've even had the cows break up a dog fight between the guardians," Brann said. But, "I wouldn't rely on that, and I wouldn't rely on any one guard animal."

Brann uses a combination of llamas,

donkeys, and dogs to guard against stray dogs, coyotes, foxes, and cougar. One dog can be used per 50 head of livestock, and either a llama or a donkey should be added as a second guardian per herd. Llamas and donkeys can't run together or they'll bond to each other rather than the production livestock. Whatever the guardian bonds to is what it'll protect when threatened by a predator.

"If you show up to buy a dog from someone, you want the one in the middle of the livestock, not up by the barn or hanging around the producer," Brann said.

There is also the concern of how to feed the dogs so that other animals, namely the donkeys, don't also eat the dog feed. But the livestock protection provided cancels out any concern of the dog food bill, Brann says.

Another challenge is managing each species' reproduction calendars. Sheep and goats have a five-month gestation and some breeds can be bred back to lamb or kid twice in one year. Brann lambs and kids in March and calves in May, and then sells unweaned kids and lambs in December and yearling calves in July. Mike Wallace, owner of Double M Ranch, a multi-species grazing operation near Nelson, Neb., calves, lambs, and kids all in May and sells each when finished on grass. While some breeds of small ruminants do better on range than others with lambing or kidding, Wallace says he prefers to have any of the species due to birth close to the farmstead, just in case farmer assistance is needed and as an added security against predators. This adds to the management difficulties, to be able to time pasture growth in specific paddocks for maintenance or lactation needs.

As with any livestock program, producers need to regularly cull and add production animals in a multi-species herd and manage according to pasture conditions. Brann says it's important that producers with any type of grazing program select animals that do well whether in drought years or typical weather, and to cull accordingly.

"The bottom 20 percent of the

herd will cost 80 percent of your overall costs," Brann said.

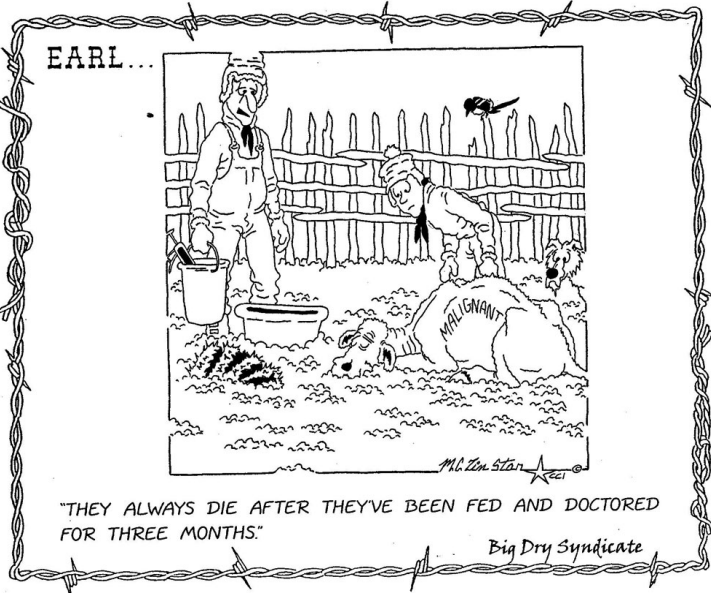
And as with any grazing program, producers need to manage the forage to last into the winter month and then green up well in the spring. Rotational grazing systems allow the paddocks to rest adequately between grazing cycles to allow pasture regrowth. It's as important with multi-species grazing as with single-species grazing that forages aren't grazed too short during grazing cycles or too hard for the growing conditions, whether in drought or not, Wallace says.

"If it don't rain, it don't grow," he added.

However, unlike single-species grazing, pastures grazed by multi-species herds may recover faster because of the diversity of forage types being grazed, Wallace says.

Ultimately, what multi-species grazing offers to drought-ridden pastures is the same that it offers in years not affected by extreme dry weather: weed control and more animals produced on the same amount of pasture.

"With multi-species grazing, there are fewer 'weeds,' because what is a weed for one species of animal is not for another species of animal," Wallace said. "And coming out the drought, cattle producers will be worrying about weeds because of their overgrazed pastures, and weeds are great feed for sheep."



Soy100 Event Slated For Brookings March 5

BROOKINGS — Today's soybean farmers are reaching high for 100-bushel soybean yields, and they will learn about increasing yields during the 2013 soy100 meeting held March 5 at the South Dakota State University campus. Farmers can register for soy100 online at www.sd-soybean.org.

The free event is sponsored by the South Dakota Soybean Research Promotion Council, SDSU Extension and the South Dakota Agricultural Experiment Station. It will be held in on the SDSU Campus in Brookings. The meeting will be in Room D of the Rotunda, located on Rotunda Lane.

"This program helps farmers learn how to improve, increase and enhance soybean productivity in their fields by looking at what the state's top soybean producers are doing and management tips gained from research," said Greg Carlson, professor of Plant Science at SDSU.

During the event, growers will get a sneak peak at the newest SDSU Extension publication, "iGrow Soybeans: Best Management Practices for Soybean Production."

The iGrow Soybeans: Best Management Practices for Soybean Production Manual is the result of a five-year research coordinated project with SDSU and the South Dakota Soybean Research Promotion Council. Starting March 4, producers will be able to visit iGrow.org/agronomy to get a spring planting preview.

For more information visit www.sdssoybean.org or www.igrow.org or contact Sarah Even, South Dakota Soybean communications director, at seven@sdssoybean.org or 605-330-9942 for more soy100 information.

Forum On Livestock Production Is March 6

PIERRE — The South Dakota Department of Agriculture (SDDA) and South Dakota State University (SDSU) Extension will hold a forum at Yankton Livestock at 6:30 p.m. Wednesday, March 6, to discuss South Dakota's vision for livestock production.

"South Dakota has progressive, forward-thinking entrepreneurs who understand the exciting potential of today's agri-business marketplace," said S.D. Secretary of Agriculture Walt Bones. "We're starting the conversation about the challenges and advantages South Dakota has to increase the number of livestock in our state."

For more information, contact Sarah Caslin, SDDA Livestock Development Specialist at 605-773-3649 or visit <http://sdda.sd.gov>.

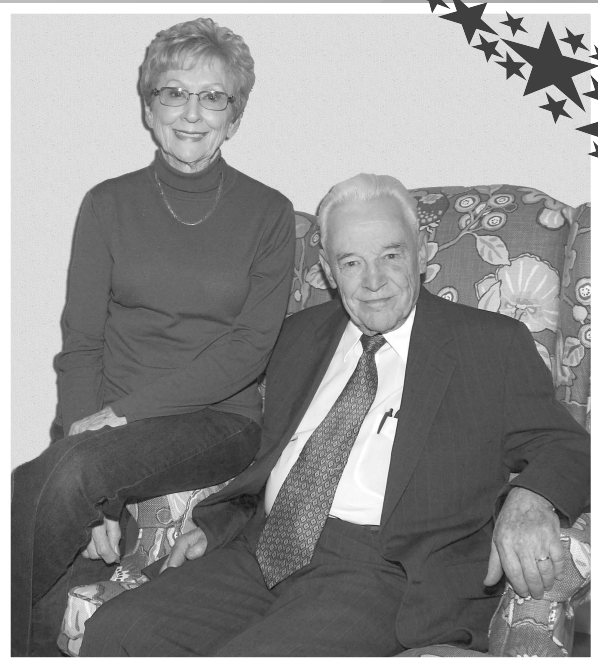
Western Corn Belt Conference March 13 In S.F.

BROOKINGS — SDSU Extension is hosting the Western Corn Belt Precision Agriculture Conference March 13 in Sioux Falls. The conference will be held at the Sioux Falls Convention Center.

This conference will inform and educate producers on the interpretation and use of on-farm data collection. Attendees will also have the opportunity to learn about the financial benefits of on-farm precision agriculture technologies.

Event attendance is limited to 350. Online registration is available at iGrow.org. For further information, contact Larry Wagner, SDSU Extension Agronomy Field Specialist, larry.wagner@sdsstate.edu or 605-782-3290.

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