

Switch to Switchgrass

It isn't a miracle forage, but it can fill in gaps.

Story & photos by Becky Mills, field editor

Always up for an adventure, Vance Mattox jumped at the chance when USDA Natural Resources Conservation Service (NRCS) grassland conservationist Philip Brown asked him to try switchgrass. The main advantage of the forage, its ability to handle less than ideal soil types, showed up first thing in the cattleman's choice of fields.

"We planted it in the worst soil on the whole place," Mattox shares. "It is rocky."

One of its main disadvantages showed up early, too. Establishing the warm-season grass is not for the impatient. While the Carlton, Ga., Angus breeder condensed field prep into seven or eight months, it can take much longer.

"You don't want anything to compete with it," he says. "Let it get a running start."

Establishing switchgrass

Mattox started in the fall of 2013 by plowing the field, which had formerly been in mixed timber, then planted rye and ryegrass. After grazing it down in the spring, he applied 3 ounces (oz.) of glyphosate per acre, then smoothed it up. He planted 10 pounds (lb.) of pure live



Vance Mattox says his cattle love switchgrass, and it gives them a break from fescue.

seed per acre with a no-till drill at the end of April.

While the fall to spring timeline worked for Mattox on the harvested timberland, Brown says it is an even longer process if you're trying to establish switchgrass in a Bermuda-grass field.

"New ground or cropland is probably best as far as ease of establishment," Brown says. "Realistically, you're looking at two years after you begin if you're having

to eliminate Bermuda grass."

Crabgrass is another challenge, says the grazing specialist. "It often takes a year to get it out of the way so you won't have to fight it in the spring."

Even with his shortened prep time, Mattox's description of a running start probably isn't quite accurate.

"We got nothing the first year," he notes. "We lightly grazed it the second year, then we stepped it up. We had full production in 2016."

He stresses, "Once it takes off growing, it grows."

Mattox compares the growing season for switchgrass to Bermuda grass, only a little longer. Depending on when they have the last frost, he says he can

generally turn cows on it in mid- to late April. Then, he grazes the 8-acre field with 60 to 65 mama cows for three to four days up to six or seven days, every 24 days or so, depending on moisture, until mid-October.

"After it frosts, graze it to the ground because they won't eat it anymore," he notes.

Because it is so prolific, it is tempting to overgraze. However, Mattox says he carefully follows Brown's recommendations.



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— Vance Maddox

“He is the brains behind it,” Mattox says. “We try not to push it too hard.”

He waits until it is at least waist-high before he turns cows on it. Then, he is careful not to let the cows graze more than 50% before moving them.

University of Georgia Extension forage specialist Dennis Hancock agrees with this strategy.

“With switchgrass, there are a lot of sugar reserves in the stem,” Hancock says. “Depleting it is like depleting a savings account.”

However, with any rain at all, the challenge is to graze it often enough. Matt Backus, herdsman at Ames Plantation Research and Education Center, Grand Junction, Tenn., says, “In the late spring and early summer, when it starts growing, you better have some mouths to put on it. The nutrient composition tanks if you don’t keep it grazed.”

At Ames, which is part of University of Tennessee AgResearch, Backus uses put-and-take grazing with steers.

“Switchgrass can handle heavier stocking rates. We use a stocking density between 1,600 and 2,000 lb. per acre,” Backus says. He turns them in when the switchgrass is 18 to 24 inches (in.) tall, takes half and leaves half. Using that approach, they see gains between 2.0 lb. and 2.25 lb. a day.

With the right grazing management, Brown says the warm-season native grass usually provides more than enough nutrition for lactating cows.

“The lowest Relative Forage Quality (RFQ) we got was 150,” Brown says. However, again he emphasizes, that depends on proper grazing management.

“With long intervals between grazing, the quality drops like it does with Bermuda grass,” he says. Thirty days is about the maximum time



Vance Mattox’s cows mainly graze Bermuda grass and fescue, but graze switchgrass for anywhere from three to seven days, every 24 days.

between grazing before quality starts to decrease.

Ross Holcomb, Mattox’s business partner, adds, “If you don’t graze it regularly, it will get so tall and stalky they don’t like it as much.”

However, when it is grazed on time, Mattox says, “The cows love it.”

Low maintenance forage

Better yet, other than grazing management, switchgrass is the model for low maintenance forage.

“It takes very minimal fertilization,” says Mattox. “We’ll probably never have to fertilize it.” However, since he has broiler houses on site, he says he may put out a ton and a half of chicken litter per acre once a year.

Backus says, “It will take all the fertilizer you put on it, but it doesn’t require much. We put out 60 units of nitrogen per acre and apply phosphorus and potassium according to soil test recommendations.”

Brown says switchgrass also has a wide range of acceptable pH levels, between 5.0 and 7.0.

Weed control can go into the advantage or disadvantage column. “There are no herbicide options for switchgrass. Big bluestem or Indiangrass, other native warm-season grasses, would be better options for weedy areas,” UGA’s Hancock says.

However, Mattox says, “You don’t get a lot of weeds. It covers so much it chokes out weeds.”

It is also immune to armyworms, a real plus in drought years when the pests

tend to attack Bermuda grass and Bahia grass.

Because of its thick thatch, however, one practice switchgrass does need is controlled burning. “We burn it to the bare soil the first of March, 30 to 45 days before grazing,” Backus says.

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Prescribed burning for the native grass is so important, it needs to be one of the main factors in site selection, Brown says. “You need to make sure you’re in an area where you can burn, and make sure you are comfortable with prescribed burning.”

You should always follow safety precautions, get the needed permits and alert your neighbors before burning.

“It can be a real conversation piece when you do a burn,” Mattox says.

If you’re looking for a hay crop, the thick, tall-growing grass probably isn’t it.

“We haven’t tried hay because it is so hard to cut,” Mattox says. “You don’t want to cut it close to the ground, no more than 10 to 12 inches.”

Hancock adds, “Making hay is a challenge. You can put a stob through a tire if it is cut down to 4 inches.”

Switchgrass is also hard to overseed. Mattox added hairy vetch the last two falls, though, with the goal of adding nitrogen.

He used a spin seeder to scatter the vetch seed, then mowed the switchgrass down to about 12 in.

“Hairy vetch has a long runner,” he says. “It will come up inside the clumps if it doesn’t reach the ground.”

Brown says the addition of hairy



Matt Backus at Ames Plantation says switchgrass can produce a phenomenal amount of beef short term.

vetch did mean the cattle could go on it slightly earlier in the spring than normal, but not like they could on winter annuals seeded in Bermuda grass.

Hancock says it is also possible to broadcast winter clovers in it.

If you’re looking for a pretty crop for a showplace operation,



Ga., since the early ‘90s.”

Mattox adds, “Our stand has held up really well and is in really good shape.”

If you are thinking about adding the warm-season native grass to your operation, Brown says, “It isn’t a miracle grass, but fits as a piece of the puzzle. It gives cows a break off Kentucky 31 tall fescue in the summer.”

He also says it can provide drought relief by taking advantage of available moisture if it is planted in a poorly drained field.

“Short-term, early season, the amount of beef you can produce off it is pretty phenomenal,” Backus says.

Mattox agrees.

“It produces a lot of forage. I’ll get more grazing from it than anything else, fescue or Bermuda grass. And it is a good mix, it blends with what we’ve got. I’m going to plant some more of it.” **AJ**

switchgrass probably isn’t for you.

“It is unsightly,” says Backus. “Unless you have enough animals grazing it, you can’t find them.”

It can also cause photosensitivity in horses. However, with its deep roots and cover, it is conservation and wildlife-friendly.

It is also persistent, says Brown. “We’ve had a stand in Americus,

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— Phillip Brown