

# Bermudagrass Research Showing Good Results In Central Virginia

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*Virginia Correspondent*

**HARRISONBURG, Va.** — In the spring of 2000, the region was in a drought when Michael and Susan Phillips stepped out in faith and began experimenting with bermudagrass.

The Phillipses of Valley View Farm, Harrisonburg, run about 80 head of Black Angus brood cows and 40 ewe sheep in their rotational grazing system.

"I just want to fit (bermudagrass) it into the niche of a rotational grazing system," Phillips said.

Rotational grazing offers an ideal management solution for the couple's diversified agricultural operation, by keeping machines off the land as much as possible and, as mid-life looms ahead, limiting their investment of time.

"Cut expenses at one end, the bottom line is stronger at the other end," Phillips said. So far the bermuda sprigs have been planted on about 25 acres.

The grass is typically seen in the south where temperatures of 90-100 degrees or more are not uncommon.

The (World Feeder) variety of bermudagrass the Phillipses selected is supposed to be more cold-tolerant, though perhaps not to the extent temperatures can plummet to in Central Virginia.

Last winter was harsh, cold and snowy. It followed the drought that began in 1999 and finally eased with the precipitation of late 2002 and early 2003.

This past spring followed with cool rains right through early days of summer.

"We've either been too dry or too wet," said Phillips, "I'm waiting for an average season."

Phillips is pleased with the cold-tolerance so far, but

wants to see more.

"We've got to prove winter hardiness," he said about the experiment. "That's the first priority, then production. I am getting more and more confident but I want it to go through another winter."

Prolonged droughts also pose a danger for bermudagrass.

"You have to be concerned about nitrate poisoning in drought years," Phillips said.

There was nothing he could do about the arid conditions. However, he did implement a strategy to protect the bermudagrass during the cold season: interseed it with rye.

"In order to maximize your bermudagrass you have to grow rye with it to make it work in this part of the country," Phillips said, noting that any cereal grain would be effective.

Phillips planted the rye to grow while the bermudagrass was in the dormant stage.

"I was really impressed when spring came. I put the cows in and they grazed (the rye) down short," Phillips said. He alternated the herd to another field until the rye grew enough to bring the cows back a second time, while the bermuda was still dormant.

Harvesting the rye as silage in the spring is key because bermudagrass doesn't like shade, he noted.

Ground saturation made it impossible to apply nitrogen this spring. The bermudagrass was left to stand on its own because Phillips would not risk inflicting crop and field damage by using a machine to make the application.

"I would have liked to see what it would have done with 40 to 60 units (of nitrogen)," he said.

Later, when the bermudagrass was ready to be cut, the soil was so wet Phillips

was forced to wait two weeks. That dropped the protein content a few points, but texture was fine, he said.

The experiment so far has seen the bermudagrass abused by drought, harsh cold snows and above average rainfall. This year it received no additional nutrients or weed control, yet the grass has done well and Phillips reported having detected no evidence of disease, rootrot, or army worms.

Jonathan Repair, the multi-county forage agent based in Rockbridge County, said ice is his primary concern. Ice is an enemy of bermudagrass.

"Even though it's dormant, the plant will die if ice is on it a while," Repair said.

Repair said the grass can handle snow and cold because

the snow itself insulates the plant. But ice on the leaf and stem can deplete oxygen and kill it, he explained.

According to Phillips, the purpose of interseeding rye is to prevent that from happening. Rye serves a twofold purpose, he said. During the winter it is a protective crop, and in springtime it's a grazing crop.

"By putting the cereal rye on it's like putting an overcoat on it," he said. "If you get your rye in in October, you should have enough protection."

Valley View's cool-season grasses did well this summer because temperatures were considerably cool until August. At that point, temperatures climbed into the high 80s and 90s. That's when the ber-

munagrass took off like gangbusters.

Repair said that, in hot weather, the nutrient content in bermudagrass is higher than in the cool-season grasses. Yields are better, too.

Typical protein content is 18-19 percent.

The bermuda 'sprigs' are planted by a sprigging machine. Repair said most people are not set up for sprigging.

By owning a sprigging machine, Phillips is able to help other interested farmers who are starting their own bermudagrass experiments. He can plant about 15 acres in 13 hours.

"We haven't found any livestock that doesn't like it," said Susan Phillips, naming

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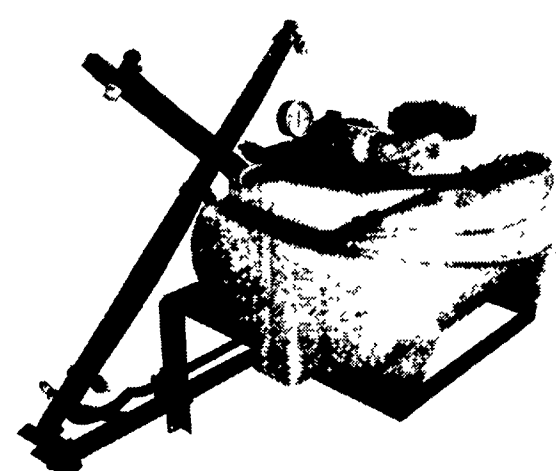


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