It didn’t sound totally out of left field. When his county agent explained the experiment that he wanted to run, Winchester, Tenn., cattleman Gordon Millsaps listened carefully. 

Chaparral™ herbicide, applied in early spring, held a double promise: It could provide excellent weed control, and it could suppress the production of seedheads in fescue. Millsaps knew the seedhead is where the alkaloids associated with fescue toxicosis concentrate. Those alkaloids — produced by an endophyte fungus commonly found in fescue — are known to cause heat stress, rough hair coats, poor gains, lower conception rates and the occasional loss of a hoof or tail switch in cattle.

Although cattlemen have lived with fescue toxicosis since the widespread adoption of Kentucky 31, the condition is no small issue. For the industry, losses from fescue toxicosis are roughly equal to those from bovine respiratory disease — in excess of $1 billion annually.

For an individual producer, the losses usually come in the form of poor gains and/or fewer calves from cattle grazing infected fescue compared with cattle grazing a noninfected forage.

**Managing toxicity**

Producers have tried to mitigate the problem by interseeding clover into infected fescue to dilute the toxicity and/or by clipping seedheads. Millsaps has done both. He tries to keep a stand of clover in his fescue pastures, and he typically clips fescue pastures early in the summer. But where he has less clover, he still sees a difference. “We have trouble getting cows to breed on a pure stand of fescue,” he says.

So, when Moore County Extension agent Larry Moorehead and Dow AgroSciences sales representative Whitney Murphy approached Millsaps and asked to use his pasture and cattle for a local test of the concept, Millsaps listened and agreed to participate.

Fewer seedheads produced should mean fewer seedheads grazed and fewer toxins ingested by his cows. And Millsaps was intrigued when he heard results from Kentucky.

In a series of USDA-University of Kentucky trials over two years, stocker cattle grazing pastures treated with Chaparral gained 0.56 pound per day more than those grazing untreated pastures. Stockers on fescue treated with Chaparral gained 2 pounds per day during the summer grazing.

In Millsaps’ demonstration, the experimenters would use his brood cows and calves. They wanted to see if, indeed, Chaparral suppressed the fescue seedheads and if that suppression had any effect on the herd.

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**The demonstration**

In early April last year, Millsaps sprayed 70 acres of one hillside pasture with Chaparral at the labeled rate of 2 ounces per acre.

On another farm the family owns, he sprayed another fescue pasture with Grazon® P+D herbicide at the labeled rate of 2 pints per acre. He sourced both herbicides through Bedford-Moore Farmers Co-Op in Shelbyville, Tenn.

Both herbicides controlled thistles, careless weeds (pigweeds), other broadleaf weeds and what clover was there. Chaparral™ herbicide also turned the fescue yellow, as Murphy had warned Millsaps it would. He was still surprised.

“The next week it was yellow, maybe even 48 hours later,” he says. “It was three weeks before it was really green again after some good rains.”

But, in that period, the herbicide did its work on seedhead emergence.

Through late spring and summer, few seedheads could be found in the pasture treated with Chaparral, and the cattle seemed to prefer it that way.

** Chaparral™ holds double promise on fescue. **

Label precautions apply to forage treated with Chaparral and to manure from animals that have consumed treated forage within the last three days. Consult the label for full details.

Grazon P+D is a federally Restricted Use Pesticide. Chaparral is not registered for sale or purchase in all states. Contact your state pesticide regulatory agency to determine if a product is registered for sale or use in your state. Always read and follow label directions.

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**The infected fescue that holds the soil on many steep slopes also depresses cattle performance.**

Gordon Millsaps and his son, Jessee, last year experimented with seedhead suppression as a means to reduce fescue toxicosis in their cattle.
“For 10 days to two weeks after we sprayed, the cows didn’t go in the treated part — they also had access to 25 acres of untreated fescue,” Millsaps says. “But after the treated part greened up, they started grazing it and didn’t go back to the untreated. They preferred the treated all summer.”

**Visual differences**

By mid-June, Millsaps and Moorehead could see a difference in the cattle grazing pasture treated with Chaparral versus those on pastures treated with Grazon P+D or not sprayed at all.

Both cows and calves on the fescue treated with Chaparral had slicker, healthier-looking hair coats. “Those cows looked so much better than any other cows Gordon had,” Moorehead says. Millsaps also noted that cattle in the pasture treated with Chaparral grazed more through the day and didn’t go to shade like cattle on infected fescue.

“Hair coat was the biggest difference we saw, then grazing and resting activity,” Millsaps says. He was surprised when differences didn’t show up on the scales.

Average daily gain was equal for calves on pastures treated with Chaparral™ herbicide or Grazon P+D. Both groups gained 2.2 pounds per day over the 142-day grazing period, March 30 to Aug. 18.

“The scale didn’t tell the story of what we saw, but there were some factors that may have influenced the outcome,” Millsaps says. “Where we used Grazon P+D is typically a better cattle farm, and those calves were three weeks older.”

Millsaps is still intrigued and willing to try seedhead suppression with Chaparral again.

“What I saw here, and what I heard about the studies in Kentucky, tells me this will work,” Millsaps says. “I think there’s potential there.”

The management team at Masonic Village Farm includes herdsman Steve McMahon (left), Director of Environmental Services Gerald Tracy (center) and farm operations supervisor Frank Stoltzfus.

**NCBA names stewardship winner.**

The National Cattlemen’s Foundation and National Cattlemen’s Beef Association (NCBA) recently named Masonic Village Farm, Elizabethtown, Pa., as the national winner of the 21st annual Environmental Stewardship Award.

Dow AgroSciences co-sponsors the award program with the USDA Natural Resources Conservation Service (NRCS) and the U.S. Fish & Wildlife Service.

On a 1,400-acre property with a 950-acre working farm in Lancaster County, Pa., Masonic Village is a nonprofit, continuing-care retirement community, owned and operated by the Grand Lodge of Pennsylvania.

The farm produces both Shorthorn seedstock and crossbred commercial cattle. An on-site feedlot finishes 200 steers annually, and some of the beef is sold online or through a market at the village.

Operating in the Chesapeake Bay watershed, water quality is a paramount for the village. Farm managers converted cropland to pasture, built eight miles of fence and laid two miles of waterline to install a rotational grazing system. They increased the grazing season from 210 to 285 days. Cattle move around the farm on grassed lanes and stabilized walkways. Creation of 7,000 feet of riparian buffers benefited both water quality and wildlife.

Masonic Village Farm initially was selected as one of six regional winners in the Environmental Stewardship Award Program. The farm represented NCBA’s Region I, which includes Michigan, Indiana, Kentucky and the 14 U.S. states to the north and east. The Pennsylvania USDA-NRCS nominated the Masonic Village Farm, which becomes the first national winner from the region.

Winners are selected by a panel of representatives from university faculty, federal and state government agencies, and conservation and sportsmen’s organizations. The program seeks to recognize cattle producers whose conservation practices are inventive and cost-effective. Winners then serve as environmental spokespersons for the industry.

For more details on the Environmental Stewardship Award, visit www.environmentalstewardship.org or call Jill DeLucero of the National Cattlemen’s Beef Association at 303-694-0305.

Along with its 950-acre working farm, Masonic Village comprises 1,700 residents in cottages, apartments, a nursing home, a personal care home and a children’s home.