

Locke Bids KY31 Good Riddance

By Brenda Black

The Missouri Soil and Conservation Board awarded Ron Locke of Long Lane, MO, the 2008 State Grass Land Farmer of the Year last November. His annual spring cleaning for the past few years may well be the reason he gained the board's respect. Nearly 100 farmers and cattlemen across Southwest Missouri attended the 86th Annual Dallas County Soils & Crops Conference Feb. 6, to hear Locke's adamant theory on the eradication of old-school fescue.

"You can twiddle your thumbs and let bulls run with cows all year long and what do you have?" Locke asks. "Or you can synchronize and A.I. and have uniform calves. It's the same when talking about grass. You can have old KY31 and cows losing three-fourths of a pound a day or you can roll up your sleeves and put something else out there. I think you ought to be as productive as you can be."

Locke is headed into his fourth season of killing 25 acres of Kentucky 31 Fescue each year on his 400 acres. He runs 70 registered Angus and commercial females and develops Black Angus bulls with management intensive grazing that includes strip grazing as well as the eradication of KY31.

"As we know in Southwest Missouri, 70% of our forage is KY31," says Locke. "Our fields are abundant with fescue. I want to get rid of all of it! Frankly, it has allowed us to be the cattle producers that we are, but unfortunately it contains a toxin that is detrimental to cattle and horses in particular. And it is causing huge economic losses in the state."

Locke's grassland renovation began about seven years ago. After reading the extensive research on the toxicity of fescue, he began his hunt for alternatives.

"I was probably the first producer in Dallas County to try Legend Lespedeza. I remember that particular year I was extremely impressed with the seed," Locke says. "I'm a 'show-me' guy. I bought 50 pounds and sowed it. I was absolutely astonished. I didn't graze it or anything; just let it grow – and it got waist high. I had the university come out and see it, I was so impressed. The next year I incorporated it into my grazing paddocks."

Recently Locke revisited all the data to date on fescue, and concluded the only way to get rid of KY31 is to eradicate and replace it with something else. He tells those who attended the conference that you can reduce it by increasing other stands. "The more clovers and lespedezas in the pasture, the less toxic fescue you'll have there." Locke's pastures contain Eastern Gama Grass, a variety of legumes clover, lespedeza, and mixed grasses. He says it is a way to intercede, but it doesn't resolve the problem. Locke's solution is to plant an endophyte-friendly fescue. Pennington's MaxQ Fescue variety maintains fescue's hardiness, without the harmful toxin, he says.

"Sure, there is a cost involved," says Locke. "But there is a cost benefit as well. It takes about \$125 per acre, but the cattle gain up to three-fourths of a pound daily by getting rid of the toxin. Plus you'll increase pregnancy by eliminating the toxin."

The cost for eradicating and reseeding with MaxQ Fescue is outlined in the following 40 acre example:

Spraying: $\$22 \times 40 = \$880 \times 2 = \$1760$

MaxQ Seed: $20 \text{ lbs.} \times 40 = 800 \text{ lbs.} \times \$4 = \$3200$

(Works out to be about \$125 per acre)

Smother crop:

Pearl Millet $60 \text{ lbs.} \times 40 = 2400 \text{ lbs.} \times .50 = \1200

NoTill Drill: $\$8 \times 40 = \320 *(Works out to be about \$38 per acre however you will recover this in grazing or hay harvested)*

Locke follows a university extension recommended procedure for eradication. "Spray, smother, spray." He uses a general all-purpose herbicide to kill everything when it is about 10-12 inches tall in April or May. Three weeks later he no till drills pearl millet at a fairly heavy rate. That

smothers everything left. In July when the millet is ready to harvest, he cuts and bales it. After a little regrowth, Locke sprays one more time with Round-Up. By then, the ground is pretty sterile. Finally, Locke plants Max Q about the middle of September, and with sufficient rain, a viable stand is in place before it freezes.

“If I replace KY31 with Max Q,” Locke says, “I get all the benefits including hardiness, without the problems.”

Research on fescue toxicosis from Craig Roberts, Department of Agronomy, University of Missouri, and John Andrae, Department of Crop and Soil Sciences, University of Georgia, is reported in **The Tall Fescue Toxicosis and Management**, published Apr. 27, 2004. Their research says the reason for such an involved process of eradication is that old stands of well-established tall fescue are not easily eliminated. A single spray coupled with cultivation may kill most of the existing plants, but it does not kill them all. Within a year, escape tillers and viable seed from the seed bank can reestablish the toxic field. “The smother crop is used to form a shade canopy over the ground; this prevents aggressive reestablishment of the old crop while providing a source of forage until the new crop is ready to plant. After the smother crop is removed, any escape tillers and volunteer seedlings of toxic tall fescue can be killed by the second spray. The new crop can then be no-till drilled into the stubble. If the new crop is a cool-season grass, and if it forms a healthy canopy, the field will not be re-infected unless the stand thins. This is because only seed or residual surviving plants can spread the endophyte.”

Locke follows the scientific advice and others are taking notice. Gary Naylor, Livestock Specialist for Dallas County University of Missouri Extension invited Locke along with Howard Miller, a former Grass Land Farmer of the Year recipient, to serve on the Grazing Producer Panel at the 2009 Dallas County Conference because each is “recognized by his peers for doing a great job.”

“The information Locke had to share was well received,” Naylor says. “Many folks were interested in his watering system and his innovative adoption of new forages on his farm.”

Naylor has served Dallas County as its specialist for 25 years and knows the advantage of providing expert advice from close to home. “The Extension prides itself in that we provide research based and unbiased opinions,” Naylor says.

Local experts likewise bring a level of trustworthiness to the table when ranchers and farmers are looking for information, says Naylor. “It is quite believable when they see a practice that their neighbor adopted,” he says. “They can ask him questions and it is more convincing when it happens across the fence or across the county than across the state.”

After Locke shares his story, he contends it is up to every cattleman to decide for himself whether he makes or loses money. “If I eradicate KY31 and my neighbor doesn't,” he says, “it leaves the neighbors with money coming out of their pocket, not mine. It is false that toxic fescue will be in your field if you are the only one addressing the problem. Fescue seeds can't fly, they drop straight down. I keep my cows home, strip graze and bale my own hay.”

Locke concludes with this challenge: “If you kill it, it's gone.”

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