FEATURE ARTICLE

Is Max Q for you?

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Most of you in areas adapted to tall fescue have heard about the new Max Q tall fescue developed cooperatively between the University of Georgia and AgResearch in New Zealand. This remarkable grass contains a non-toxic fungal endophyte, which gives it the toughness and stand persistence of toxic Kentucky 31 tall fescue but also furnishes much better cattle performance.

In case you are wondering if it is worth the money to destroy old stands and replant with Max Q, maybe some more research results from our field trials will be helpful in making a decision. These trials were conducted cooperatively with Vaughn Calvert at the Central Georgia Branch Station, Eatonton, and Phil Worley at the Northwest Georgia Branch Station, Calhoun.

How do Max Q Stands hold up under hard grazing? Endophyte-free tall fescue gives excellent animal performance, but stands will not hold up under hard grazing in the summer, especially in competition with bermudagrass. Stands of endophyte-free tall fescue will survive much longer if grazed lightly or rotationally in summer, but too often there is the temptation to overgraze it.

Max Q was tested under tough conditions at both Eatonton and Calhoun, planted in bermudagrass sod and grazed continuously and closely with cattle for three years. Severe summer drought at Eatonton each year of the test created very harsh conditions for grass survival. After three years, stands of Max Q were 90 percent, and endophyte-free were 32 percent of toxic infected tall fescue. In trials at Calhoun, Max Q and toxic fescue both had excellent survival, and stand losses of endophyte-free were serious, but not as great as at Eatonton because of better soils and more rainfall during the third year. Obviously, if Max Q is planted alone rather than in a bermudagrass sod, no stand losses would be expected.

Beef cow-calf performance on Max Q pasture. In a new experiment at Calhoun, beef cows with calves born during January-March were grazed on Max Q and toxic tall fescue starting in mid-March and throughout the summer until weaned at the end of August. The first year's results are impressive.

Beef cow-calf performance on Max Q tall fescue at the Northwest Georgia Experiment Station, Calhoun, 2001

Cow condition score at mating, started April 1: Max Q: 4.9; toxic fescue: 5.0

Cow condition score at weaning, Aug. 29: Max Q: 6.2; toxic fescue: 5.3

Calf weight at weaning, pounds:
Steers: Max Q: 570; toxic fescue: 495
Heifers: Max Q: 505; toxic fescue: 455

Cow condition score on Max Q improved over toxic fescue from mating to calf weaning. Calf weaning weights on Max Q were 75 pounds higher than toxic fescue for steers and 60 pounds for heifers. The additional calf weaning weight on Max Q represents a considerable increase in income from a cow-calf enterprise. Producers using Max Q may find that it does not carry as many cattle as a similar acreage of toxic Kentucky 31 tall fescue. This is a result of higher intake by cattle on Max Q so grass consumption per animal is higher than on toxic fescue. Thus, it will require more animals to produce the same amount of gain on toxic than on Max Q tall fescue.

Beef stocker cattle on Max Q pasture. Steers were used at Eatonton and heifers at Calhoun to compare performance on pastures of Max Q, endophyte-free and toxic tall fescue during spring 2000. Drought at Eatonton resulted in termination of grazing in late May, while at Calhoun, grazing occured until mid July.

Stocker cattle grazing on Max Q tall fescue pasture at Calhoun and Eatonton, Ga., 2000

Pounds of average daily gain:

	Max Q	End-Free*	Toxic
Eatonton steers	2.6	2.5	1.7
Calhoun heifers	1.6	0.7	0.75

Pounds of gain per acre:

	Max Q	End-Free*	Toxic
Eatonton steers	530	510	320
Calhoun heifers	440	430	200

*Endophyte-free

At both locations, steers and heifers on Max Q and endophyte-free pasture gained about 0.9 pounds per day over those grazing toxic tall fescue. The high daily gains obtained on toxic fescue at Eatonton were a result of volunteer annual ryegrass contamination of pastures. Max Q gains per acre were equivalent to endophyte-free, but averaged 200 pounds per acre more than toxic tall fescue.

Body temperatures of animals on toxic fescue were higher in the summer and lower in the winter than those on Max Q. During the spring, animals on toxic fescue spent more time in the shade than those on Max Q. Our results indicate that Max Q is an excellent pasture with a potential of profitable production.

Feedlot performance of stocker cattle grazed on Max Q pasture. A big question is whether the gain advantage of Max Q stocker cattle will be continued in the feedlot or compensatory gain of toxic fescue stockers will make up the difference. To answer this question, steers from the Eatonton trial were shipped to Oklahoma State University and finished in feedlots. Steers from 56 days of spring grazing at Eatonton were in the feedlot for 112 days.

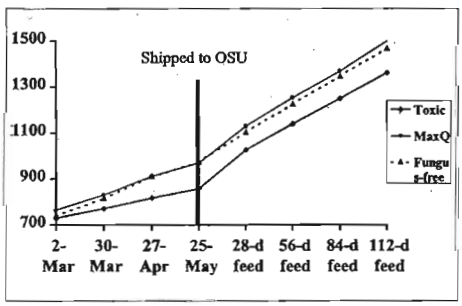
Both steer and heifer stockers grazed on Max Q or endophyte-free tall fescue continued to show the same gain advantage over toxic fescue in the feedlot as they did on pasture. Thus, Max Q stocker animals will require less time to reach desirable slaughter weight than those grazed on toxic tall fescue. Feed requirements will be reduced, making Max Q stocker animals more valuable, suggesting they should command a better price.

Is Max Q for you? Since Max Q pasture persistence is similar and animal performance is superior to toxic fescue, it offers an opportunity to improve profits. There is a cost to this: complete destruction of existing toxic sods and replanting along with better grazing management to utilize the full potential of Max Q. Only you can decide if Max Q is for you.

If you decide to plant Max Q tall fescue, planning must begin now. Planting on crop land is easy. Just soil test, apply needed lime and fertilizer, and have a

well-prepared seedbed ready to plant 20 pounds per acre from late September to early November. Renovating an existing toxic tall fescue pasture with Max Q will require more effort, and work must begin in spring of the planting year. Do not allow existing toxic tall fescue to bloom and produce seed during the spring. Graze pasture closely or mow off existing forage. Soil test and apply needed lime. Apply herbicide (Roundup) to kill existing tall fescue and bermudagrass. Leave dead sod alone during the summer, or drill pearl millet into the dead sod in late spring. Graze the millet or harvest for hay. Do not move animals from toxic tall fescue pastures to this area without a three-day interval on another forage to prevent contamination with infected tall fescue seed. In September, closely graze or mow off existing forage, and apply Roundup herbicide to kill any remaining tall fescue or bermudagrass. Apply recommended fertilizer. No-till drill Max Q at 25 pounds per acre during September to early November. Do not plant rye, wheat or annual ryegrass because it will directly compete with Max Q. Do not graze seedling Max Q pasture until the plants are eight inches tall. And do not move animals from toxic tall fescue pastures or toxic hay to Max Q without a three-day wait on another forage.

The graph below shows feedlot performance in Oklahoma of stocker cattle grazed on Max Q tall fescue pasture at Eatonton, spring 2000 graze-feedlot steers.



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