Tall Fescue Hay

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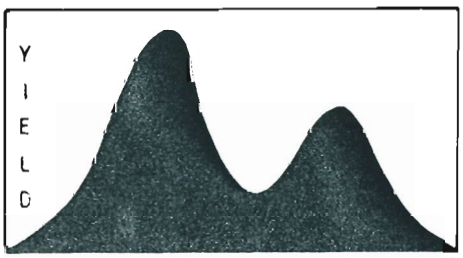
Tall fescue, grown on over one million acres in the upper one-half of Georgia, is the second most important hay crop in the state after bermudagrass. We will soon be in the main fescue hay making season so it may be a good time to talk about how to make higher quality hay.

Tall fescue produces the majority of its total growth during the first one-third of the growing season. Growth is slow during July and August followed by increased production during autumn if rainfall is adequate. Most tall fescue hay in Georgia is made from the spring surplus growth with grazing the rest of the year. However, when September rainfall is good as in autumn 1992, good yields of high-quality hay can be harvested. In addition to rainfall, fertility (especially nitrogen) affects yield and protein content.



Hay Quality

Of all the factors affecting fescue hay quality, stage of maturity when harvested is the most important and the one where greatest progress can be made. As tall fescue plants advance from the vegetative to reproductive (seed) stage in spring, they become higher in fiber and lignin content, but lower in protein, digestibility and acceptability to livestock. Research has shown that delaying the first harvest from early flowering to the seed stage can result in more than a 45 percent loss in protein.

Digestibility drops at a rate of almost 9.5 percent per day for each day harvest is delayed beyond the early flowering stage. Conversely, fiber and lignin (anti-quality components) increased 21 and 36 percent, respectively, over that same period. Average daily gains with growing beef steers decreased from 1.4 lbs/day for tall fescue hay cut in the boot stage to 0.42 lbs/day for hay cut in the late flowering stage.

Tall fescue hay harvested at seed dough stage is just barely adequate for a dry beef cow but for a lactating cow with requirements of 10-12% crude protein and 60% digestibility, early cut hay is needed to avoid substantial supplement feeding. Harvesting at earlier maturity will reduce yield but result in much higher quality hay. Sometimes rainy weather prevents early harvest, but when it can be done the advantages are substantial. Another benefit of early harvest is much more rapid recovery growth from more tillers at the base of the plant, often resulting in another late spring cut of hay.

Guidelines for Producing and Harvesting High Quality Tall Fescue Hay

1. Soil test and fertilize to ensure adequate fertility.
2. Harvest at boot to early flowering stage for first cutting. If subsequent cuts are to be made, they should be at about 6-week intervals as growth permits.
3. Keep harvesting equipment in good condition.
4. Check weather forecast daily. Rain damage not only lowers hay quality and quantity but also increases the total harvest time.
5. Store bales under cover to reduce losses. Storage of large round bales outside on the ground can result in losses of 25 to 35 %.

Forage yield, crude protein and digestibility of Ky 31 tall fescue as affected by maturing at spring harvest, Athens, GA. Values for quality shown are ***at harvest*** *but after curing, baled hay can be about 3 % points lower for crude protein and 8 % points lower for digestibility.*

Maturity stage	Dry forage yield	Crude protein	Digestibility
	Tons/acre	%	
Late boot	1.65	17	71
Early flowering	2.04	15	61
Seed dough	2.51	10	56