

Non-Toxic Fescue & Perennial Clover Fit Grassfed Beef Niche

By Wayne Tankersley

Consumer desire for healthier and more natural meat products is fueling interest in grassfed production systems across the country. According to the American Grassfed Assn., meat and dairy products as well as poultry products from animals fed grass diets are higher in Vitamin A, conjugated linoleic acid and Omega-3 fatty acids than those fed grain based diets. Some research suggests these nutritive components may help reduce incidences of high cholesterol, diabetes, cancer, high blood pressure and other life threatening diseases in humans.

The primary focus of grassfed production has been on finishing beef animals. Those knowledgeable about this subject generally agree that a successful grassfed finishing enterprise begins with a sound forage production and management system. Forages used in finishing systems must be (1) energy dense (2) highly digestible and (3) high yielding. Ongoing research and on-farm demonstrations indicate a mix of non-toxic tall fescue and perennial white clover could be the premier forage system to support grassfed beef finishing enterprises.

Nutrient requirements for growing cattle change as the animal grows older and



Non-toxic tall fescue and perennial white clover can be premier forages for grass finished beef production systems.

heavier (Table 1). The challenge with grass finishing beef animals is obtaining adequate energy from forages to allow for fat deposition and marbling to take place. As can be seen from Table 2, summer annual and perennial forages tend to be lower in energy than cool season forages. If animals are to be finished on summer forages, it will be essential to keep the grass lush and vegetative.

In the Piedmont areas of the South and northward, perhaps the most successful grass finishing operations will be those that incorporate cool season perennials (fescue, timothy, orchardgrass) and/or annuals (ryegrass or small grains) along with legumes (clover, alfalfa, etc) into the forage system. This is because cool season forages and legumes provide the higher digestibility values needed to finish beef animals.

Many grassfed finished beef proponents are touting the combination of a novel endophyte, non-toxic fescue like Jesup MaxQ and a persistent and dependable

	<u>450 lbs</u>	<u>700 lbs</u>	<u>1000 lbs</u>
CP	12.7%	10.5%	9.5%
TDN	67.5%	73.5%	85.0%
NE _G (Mcal/lb)	0.44	0.51	0.64
Gain (lbs/d)	2.0	2.5	3.0

Source: NRC Nutrient Tables

Table 2 - Crude Protein & In-vitro DM Digestibility of Selected Forages

<u>Forage</u>	<u>CP%</u>	<u>IVDMD%</u>
Pearl Millet	6-17	59-60
Bermudagrass	7-16	51-58
Rye	24-28	79-81
Tall Fescue	17-22	73-78
White Clover	22-27	81-85

Source: C.S. Hoveland, et al. Southern Forages 3rd Edition

legume such as Durana or Patriot white clover as a premier forage system for grass finishing

beef cattle. University of Georgia extension agents Bill Hodge - a long time proponent of finishing beef on grass - and Matt

Comerford, conducted a demonstration whereby steers were grazed on stockpiled MaxQ tall

fescue from October 15 until March 17 with no feed other than free-choice mineral and approximately 250 lbs. of hay per head for this 153 day grazing period. From March 17 through April 15, the steers were allowed access to a bermuda pasture overseeded with rye after which, the first group of steers was taken directly to slaughter. The cattle

averaged 1208 lbs. off grass and all had a carcass yield grade of choice or better.

Average daily gain for this group was excellent at 2.52 lbs//day (Table 3).

A pasture mix of Jesup MaxQ tall fescue and

Durana/Patriot white clover can annually provide eight months or more of premium quality forage needed for grass finishing beef operations. The addition of a perennial clover also reduces the amount of purchased nitrogen needed to promote forage growth, thus resulting in less cost and a more natural and sustainable production system.

<u>Oct. 15</u>	<u>April 15</u>	<u>ADG</u>	<u>%Choice (or better)</u>
750 lbs	1208 lbs.	2.52 lbs.	100
Oct. 15 – Mar.17 – Animals grazed on MaxQ tall fescue			
Mar. 17 – Apr.15 – Animals grazed on MaxQ & rye			
*Bill Hodge & Matt Comerford – Ext. Agents – UGA Coop. Extension			

(Wayne Tankersley is a forage agronomist with Pennington Seed Inc.)