

Nutrition for Cattle 101

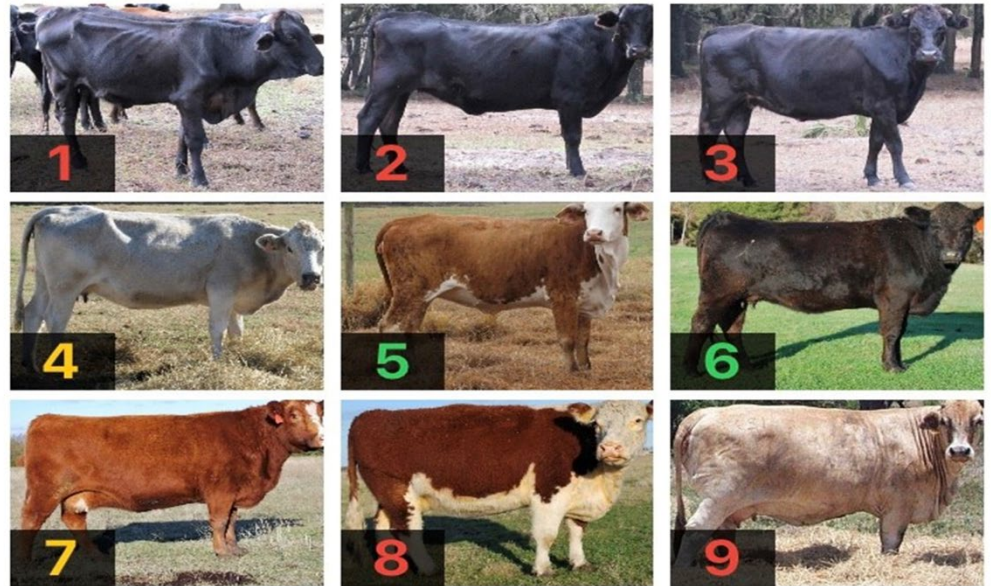
By Anthony Carver, UT Extension Grainger County Agent

Cattle nutrition is arguably the most important factor in raising cattle. Without proper nutrition animals lose weight, not gain it. They don't rebreed, produce sufficient milk, fight off diseases, and much more. The best way to gauge the animal's nutrition level is to become familiar with **Body Condition Score**. The body condition score is best understood with pictures. A picture chart has been added for a quick reference.

Please note that the numbers 1-4 represent the thin animals. Most of the time ribs can be seen when animals are standing still. It will be extremely hard for them to get pregnant.

The numbers 5-7 are just right, having good flesh and their diet is sustaining them.

Fat cattle, numbers 8 and 9 are too fleshy. They may have missed a calf and used all the nutrients to fatten up. It will be easier for them to miss another calf.



Now that knowing body condition is directly tied to good herd management, it is vital to understand the **Nutrient Needs of Cattle**. The key is knowing that the nutrient needs change with the age or stage of the animals. The chart denotes the TDN (Total Digestible Nutrients). TDN is the same as saying energy. Protein is also represented on the chart. Both units are in percentages. I will illiterate this point later in the publication.

Animal	Dry Matter Intake (lb)	TDN %	Protein %
Medium-frame steer calf (500 lb, ADG = 1.5 lb)	12.8	63	10.5
Large-frame finishing steer (1000 lb, ADG =3)	23.6	72	9.3
Dry, mature cows, mid-pregnancy (1100 lb)	19.5	48.8	7
Cows nursing calves (average milking ability, 1100 lb)	21.6	56	9.4
Two-year old heifer (3.4 months after calving, 950 lb)	20	62.3	10

Grass and its Nutrient Value is the number 1 feed for cattle. That's just the way The Good Lord made them. Cattle take cheap grass and convert it to muscle mass, which we can eat or sell. This is the first true value-added project of the ages. So, if grass is the #1 feed for cattle, then as producers it is important to understand grass's nutrient value at all stages.

Grasses can be fed in many different ways and have different nutrient values for each. The best three ways to feed grass are as follows. Tennessee's main grass is tall fescue, and that will be the grass that is covered.

1. Active Growing Fescue can be defined as grass growing from 3 inches tall to seed-head production. The crude protein is 13% and TDN is 62%. Some farmers add clovers to the pasture mixture. Clovers add quality to the feed. Clovers are 20-25% crude protein and 70-80% TDN.
2. Fescue Hay (put up in mid-bloom) is 9.5% crude protein and 48% TDN.
3. Stockpiled Fescue is fescue-heavy fields which are clipped in late August and fertilized with 100 pounds of Urea and let grow and stand until frost or until cattle eat it. These nutrient levels are good even through February of the following year. Crude protein is 15-17% and TDN is 68-70%

Combining the Information

Feed	CP	TDN
AGF	13	62
HAY	9.5	48
Stockpiled	16	69



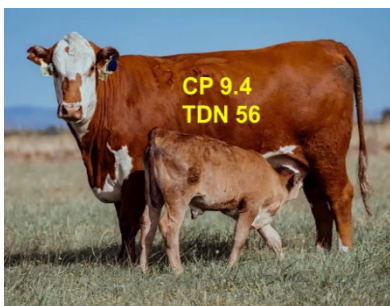
500 Pound Calf

- AGF – Meets Need
- Hay – Doesn't Meet
- Stockpiled – Meets Need



Dry Cow

- AGF – Meets Need
- Hay – Meets Need
- Stockpiled – Meets Need



Milking Cow

- AGF – Meets Needs
- Hay – Doesn't Meet
- Stockpiled – Meets Need



Growing Heifer Just Calved

- AGF – Maybe
- Hay – Doesn't Meet
- Stockpiled – Meets Need

Therefore, it is determined grass only isn't meeting most of the herd's needs. The limiting factor in the herd is TDN (Total Digestible Nutrients) or otherwise known as energy. Now, that the problem has been identified, a solution must be found.

Supplements Can Be Added to the feed ration to build up the TDN in the intake. There are several feeds that are high in energy (TDN). A short list has been added:

- Corn
- Corn Gluten
- Cottonseed Meal
- Alfalfa
- Many Other Feeds

Producers can consult their local farm stores for availability and other feed solutions.

When adding a supplement, one should start slow (low levels) and build their way up. An example would be to start with 1 pound per animal per day and stair-step upward. The top end of feeding probably will end around 10 pounds per animal. If animals are cleaning up a supplement, then more could be added. When supplements are not cleaned up animals have reached their limit of need for that stage of growth.

