

Nutritional Evaluation of Cow Herds

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The nutritional status of the beef cow herd is linked to reproductive success, calf performance and profitability. This has been established both scientifically and in practical "on-farm" applications.

It is recommended that beef cow-calf herds be evaluated for nutritional status in advance of the breeding period. Ideally, the evaluation should occur prior to calving (60-90 days before parturition would be desirable, for example). In practice, the evaluation could also be done at other times (6-8 weeks before breeding; weaning).

In some cases, follow-up analyses will be indicated after the thorough initial nutritional evaluation has been completed. A nutritional history/status report should be developed. This is to include a description of the existing feeding / forage program and should include any problems which have been observed. Be sure to include as many details as possible. Include a mineral consumption estimate, if available.

The nutritional evaluation should include each of the following areas.

- **Body Condition** - A 1-9 body condition scoring system is used. Every cow should be scored, but recommendations are generally made based on herd averages. Remember that animals are fed and managed as a group. Consider culling animals that deviate too much from the average.
- **Forage Analysis** - The forage analysis should include T.D.N., C.P., moisture, A.D.F., N.D.F. and a mineral profile. Be sure to test all hay. Pastures need to be analyzed for minerals only. Separately obtained pasture samples should be tested for fescue fungus as appropriate. Information and submission forms for forage samples can be obtained at the local Extension office.

- **Blood Analysis** - A blood analysis is needed to assess copper & selenium status (possibly disease titer). Ten percent of cows should be tested (minimum of 5 head). A veterinarian is generally needed for obtaining and processing blood samples.
- **Fecal Egg Counts** - Fecal egg counts are needed to assess parasite levels. The presence of significant levels of internal parasites may indicate nutritional/physiological distances and may be part of the cause of the problem. At least 10 percent of animals should be sampled. It is important that the animals be identified, condition scored and be reflective of the nutritional condition of the herd (ie., do not sample only BCS 6 and 7 cows if the herd contains significant numbers of thinner cows).
- **Water Analysis** (optional): This should be done when there is evidence of sulfur, iron or other water contaminants.
- **Hair Coat Score**- A hair coat score can give an indication of mineral status in the animal. The healthier the hair coat, the less possibility of mineral deficiencies.
Use the following guide when scoring the hair coat.
 - 1 = No detectable problem; healthy coat appearance - appropriate to season
 - 2 = Slight indications, but not clear - could be genetically off color
 - 3 = Some "off" color; slightly slow to shed
 - 4 = Enough "dead/dull" hair to cover significant percentage of body; slow shedding
 - 5 = Hair clearly "dead" in appearance, cattle not slicking off normally, brittle

A guide to herd evaluation is presented in the table below.

**Procedures and Analyses Typically Included in a
Beef Cow-calf Herd Nutrient Analysis**

Evaluation Practice	What Is Evaluated	Samples
Body Condition Score	General health, energy status	100% of cows
Forage Analysis: Hay	T.D.N., C.P., A.D.F., N.D.F. (minerals optional)	2 hay samples
Pasture	Minerals Coenephalon	2 pasture samples (twice during year)
Blood Test	Copper & Selenium	10% of Cows (minimum 5 herd)
Fecal Egg Count	Internal parasite status estimate	10% of cows (minimal of 5 head)
Water Analysis	Water contaminants	1 per farm
Soil Test	Standard analysis for pasture plus copper	2 per farm

For additional information and assistance with the interpretation of the herd evaluation results, contact your Extension Agent.