



Manure scorecard for free ranging beef cattle

Dr Louis du Pisani | 082 773 9778

Manure scoring is a valuable tool to determine the quality of nutrition the grazing animal has recently consumed and is used to either adjust the supplementation regime to prevent loss of body condition score during critical production phases and to prevent production losses. It can also be used as an indicator of the condition of the paddock the animals are currently grazing and whether moving to fresh grazing is required.

The production of beef cattle is directly correlated to:

- (1) the amount of grazing material ingested and
- (2) the amount of nutrients extracted from the material ingested.

This in turn is directly correlated to the digestibility of the grazed material, although the intrinsic nutrient density of the pasture also plays a role.

The digestibility of tropical grasses is correlated with their fibre content. The higher the fibre content, the lower the digestibility, the slower the rate and quantity of pasture ingested, and the lower the amount of nutrients

extracted from the ingested pasture.

There are especially two minerals used in lick formulations to improve the forage intake and rate of digestibility under free ranging conditions, i.e., phosphorous and nitrogen (specifically non-protein nitrogen, i.e., urea). Using licks unnecessarily can be costly, resulting in a waste of money. On the other hand, inadequate supplementation leads to production losses, which also impacts negatively on profitability.

The quality of beef cattle diets is also influenced by the quality of the grazing available. Manure scoring can also be used to assess when the herd needs to be moved to fresh pasture or when the stocking rate is too high. The less the fluctuation of diet quality, the better rumen health and the entire process of nutrient extraction from the ingested forage. As soon as more than 50% of the observed dung heaps have a score of less than 3, it must be considered to move the livestock to fresh grazing.

Monitoring intervals of at least once every week is recommended. Under conditions of ultra-high-density

grazing, short duration grazing, etc., daily monitoring is advised. Special attention is required during the last trimester of pregnancy, the first two months of lactation and during the transition period between autumn and winter. Variations in manure counts within the herd (ranging from 1 to 4) are a symptom of limited lick space for the cattle in the herd.

POO SCORE 1



- Distinct dung rings, firm, stacked up to 5 cm high.
- Dark brown to black in colour
- Rough structure – Undigested plant fractions visible in the dung
- Access to inferior quality forage that is inadequate in protein, carbohydrates and high/low quality fibre.
- Less than 5% protein and <55% TDN – poor digestion rate and slow rate of passage through the intestines (TDN - total digestible nutrients)
- Supplementation needed or adjust the current supplementation regime and/or move to fresh grazing.
- Rumen health is poor.



POO SCORE 2



- Soft rings starting to form.
- Dark brown in colour
- Some undigested fractions in the dung
- 5% – 7% protein and 60% TDN - digestion rate and/or diet quality starting to deteriorate – monitor dung condition more regularly
- Starting to show signs of protein deficiency – start systematically with supplementation or adjust the current supplementation regime.

POO SCORE 3 (IDEAL)



- Dung heap is soft and still shows some structure.
- Dark green to light brown in colour
- Look out for the small depression in the centre of the dung ball.
- Little to no undigested fractions in the dung
- 8% – 10% protein and 62% - 70% TDN – ideal digestion rate and diet quality
- Adequate protein - current supplementation optimal (if supplementation is provided)

POO SCORE 4



- No structure in the dung and less than 2.5 mm thick
- Dark green to light brown in colour
- More than 10% protein and >70% TDN – high digestion rate and good diet quality
- Excess protein and carbohydrates, but low in fibre - rate of passage through intestines is high with a decreased rate of absorption of nutrients
- No supplementation is required, or current supplementation rates are excessive - adding roughage to the diet will improve nutrient absorption.

POO SCORE 5



- Dung soft and scattered - diarrhoea.
- Light green in colour
- >12% protein and >70% TDN
- Often a symptom of very lush and actively growing pastures, with low dry matter content and low nutrient absorption, or a rumen whose health is severely compromised by a feeding disorder, i.e., acidosis and/or elevated levels of internal parasites, i.e., conical fluke, coccidiosis, etc.

