

Standard Report

Sample: 125340 Profile Name: Female Hereford -Med Frame 2010-04 10648
Date Collected: 2019-05-08 Animal Kind: Cattle
Report Date: 2019-06-04 Animal Breed: Hereford -Med Frame
Pasture Name: Greenhouse Gender: Female
Vegetation Type: Native Range Intermediate Grass

Comments: a lot of rain, mature cows

Current Animal Condition

Standard Ref. Wt.: 1065 lbs Average Age: 9.1 Years
Weight: 1065 lbs Duration Pregnant: 20 days
Body Condition: 5.0 (1-9) Duration Lactating: 90 days
Description: Hereford Cows 10

Performance

Weight Change Goal: 0.51 lbs/day Weight in 30 Days: 1085 lbs
Predicted Weight Change: 0.68 lbs/day Body Condition in 30 Days: 5.3 (1-9)
Performance Limited by: Energy

Feeds Applied

<u>Name</u>	<u>Amount</u>	<u>Crude Protein</u>	<u>Total Digestible Nutrients</u>
Distillers Grains	2.5 lbs daily	26.0%	87.0%

Daily Nutritional Status

	<u>Crude Protein</u>	<u>NEm</u>	<u>NEg</u>
Intake:	2.82 lbs	18.63 Mcal	1.8 Mcal
Requirement:	2.18 lbs	15.94 Mcal	0.0 Mcal
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Balance:	0.64 lbs	2.69 Mcal	1.8 Mcal

Daily Dry Matter Intake

	<u>Intake</u>	<u>Percent of Std. Ref.</u> <u>Wt.</u>	<u>AUE</u>
Concentrates:	2.29 lbs	0.22%	0.09
Roughage:	0.0 lbs	0.0%	0.0
Forage:	25.24 lbs	2.37%	0.97
Calf DM/d:	2.07 lbs	-	0.08
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Total:	29.61 lbs	2.58%	1.14

Diet Quality

	<u>Overall</u>	<u>Forage</u>
CP Consumption:	10.23%	8.8%
DOM Consumption:	62.4%	60.7%
DOM / CP Ratio:	6.1	6.9

Daily Milk Production

Potential: 12.1 lbs
Actual: 12.1 lbs

Daily Fecal Output

Total: 9.46 lbs
Phosphorus: 0.04 lbs
Nitrogen: 0.13 lbs

Model Weather

	<u>Temp Max</u>	<u>Temp Min</u>	<u>Humidity</u>	<u>Wind</u>	<u>Daylight</u>
7 day Average:	78° F	61° F	94%	8 mph	13.4 hrs
30 day Average:	78° F	57° F	85%	-	-

Understanding the NUTBAL Report

Performance

This section shows the weight change goal, predicted daily weight gain, weight after 30 days, body condition after 30 days, and the most severely deficient nutrition. Weight change goal will show the daily weight needed to maintain BCS if a goal was not entered.

Feeds Applied

This section shows the name, amount fed, crude protein, and total digestible nutrients of any feeds added to the sample description where any of the fed amounts (amount fed, minimum fed, maximum fed) were greater than zero. If no feeds fit that criteria, then it will state that no feeds were applied. If min and max amount fed are non-zero, model determinations of a better feeding regime will be listed on the Mediation Report.

Nutritional Status

The requirement describes how many pounds of crude protein and mega calories of Net Energy for Maintenance (NEm) is needed by these animals given their breed type, physiological status, environmental conditions, etc. Net Energy for gain (NEg) is the amount of energy consumed above NEm that can be applied toward gain. The Balance row indicates whether or not nutritional intake is sufficient for that animal's nutritional requirements.

Daily Dry Matter Intake

This section breaks down total intake by concentrates (currently feeding or what you are considering to feed), roughage (see note), and forage (the pasture). Note: If you are currently feeding hay, silage, etc., this is read in the NIR analysis, thus reflected in the lab results ~ pasture+hay fed=lab results. NUTBAL allows you to hypothetically feed a hay, etc.; to see how your cattle may perform~the roughage row would reflect that situation. These numbers are reported in dry matter basis instead of 'as fed' or 'wet weight'.

Diet Quality

This section takes an overall (pasture+feed) look at Crude Protein (CP) and Digestible Organic Matter (DOM) as well as just the forage. DOM is a measure of energy. DOM multiplied by 1.05 approximates Total Digestible Nutrients (TDN). The DOM/CP ratio is an indicator of rumen efficiency. The acceptable range for this ratio is 4 to 7 with 4 being optimal. A ratio of 4 or less usually coincides with very lush, cool season or early spring pastures and very runny feces. Most warm season and native range grazing has a ratio of 5 to 6. Late summer or drought stressed forage, some stockpiled grasses, and very mature, dry grass often has a ratio greater than 7.

Daily Milk Production

Potential milk production is the average amount producible by these animals based on protein and energy balance conditions during this 30 day period. Any discrepancy between potential and actual indicates a possible nutritional issue that may need to be addressed.

Daily Fecal Output

This describes the amount of feces that is deposited on the ground per day, including the proportion of phosphorus and nitrogen. Note that cattle recycle nutrients, they do not manufacture nutrients.

Disclaimer

This report describes the nutritional status, performance, dry matter intake and diet quality for the animals described on your sample sheet with or without supplementation. The nutritional information provided in this report is accurate for approximately 14 to 30 days so long as pasture and forage conditions stay similar to what they were at the time the sample was collected.

This report is generated by the NUTBAL model and is accurate to the best of our ability based off of the information used to parameterize the animals and environment within the NUTBAL model. The predicted performance may not be observed if the entered information is not accurate. Unless otherwise specified, the projected performance is based on the assumption that forage availability is adequate and intake is not restricted due to lack of available forage. If forage availability is not adequate, the predicted performance will not be observed.

The NUTBAL model is a decision support system. As with all decision support systems, sound judgment, previous knowledge, and experience should all be considered.

NIRS Report

Sample: 125340	Crude Protein: 8.8%
Animal Kind: Cattle	Digestible Organic Matter: 60.7%
Pasture Name: Greenhouse	DOM/CP Ratio: 6.9
Date Collected: 2019-05-08	Fecal Nitrogen: 1.42%
Report Date: 2019-06-04	Fecal Phosphorus: 0.5%

Comments: a lot of rain, mature cows

Understanding the NIRS Report

The GAN Lab uses near infrared spectroscopy (NIRS) to evaluate the forage component of the diet and predict the quality of the grass and hay the animals were consuming for the past 36 to 48 hours. Therefore, the analyses do not reflect supplements that may have been fed.

Crude protein (CP) analysis measures grams of crude protein per gram of dry matter in the manure.

Digestible organic matter (DOM) measures grams of digestible organic matter per gram of dry matter in the manure.

The DOM/CP ratio is an indicator of rumen efficiency. The acceptable range for this ratio is 4 to 7 with 4 being optimal. A ratio of 4 or less usually coincides with very lush, cool season or early spring pastures and very runny feces. Most warm season and native range grazing has a ratio of 5 to 6. Late summer or drought stressed forage, some stockpiled grasses, and very mature, dry grass often has a ratio greater than 7. This sample's ratio of 6.9 is inside the ratio for positive rumen efficiency.

Fecal nitrogen (FN) is a direct measurement of the amount of nitrogen in the manure and is not necessarily correlated to dietary nitrogen. FN can be used to roughly quantify the amount of nitrogen going back onto the pasture were the animals were grazing.

Fecal phosphorus (FP) analysis measures the percent of phosphorus (P) in the manure itself. FP can be used to roughly gauge whether dietary P is adequate. An FP value greater than 0.3 generally indicates that dietary phosphorus intake is adequate.