

Postpartum Nutrition

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The postpartum period is the 60 to 90 days after calving and nutrition can have a lasting effect on reproductive efficiency of rebreeding due to increased estrus interval, pregnancy rate, calving interval, calf age at weaning and calf daily gain. The problem is compounded by sub optimal body condition score (BCS) of the cow at calving (Table 1).

Table 1 Effect of BCS (1-9 System) on Postpartum Interval

Body Condition Score	Postpartum Interval in Days
3	83 - 93
4	65 - 75
5	55 - 65
6	47 - 57
7	25 - 35

Cows with BCS 3 or less will have a calving interval more than one year. The relationship of BCS at calving to reproductive performance is further illustrated by the percentage cycling and BCS (Table 2).

Table 2 Effect of BCS (1-9 System) Percent in Heat Post Calving

Body Condition Score	60 Days Post Calving	90 Days Post Calving
3	40 - 45	60 - 65
4	45 - 50	65 - 70
5	50 - 60	85 - 90
6	60 - 70	90 - 95
7	85 - 95	90 - 100

The importance of the calving interval and percent cycling has to be considered with the rate of pregnancy. The relationship of BCS and pregnancy rate must be evaluated. The lower BCS 4 or less does affect pregnancy rate depending on parity (Table 3).

Table 3. Effect of BCS (1-9 System) to Pregnancy Rate, Percentage

Parity	Body Condition Score			
	3	4	5	6

1	15 – 25	45 - 55	80 - 90	85 – 95
2	20 – 30	45 - 55	80 - 90	85 – 95
3	20 – 25	55 - 65	85 - 95	85 – 95
4 – 7	45 – 50	65 - 75	85 - 95	85 – 95

Nutrition is the easiest way to manage the postpartum period. Energy is the first priority and protein is the second priority for the postpartum cows. Table 4 illustrates an example for an 1100-pound cow grazing weathered mature Bermuda grass. Weathered matured Bermuda is 68 % dry matter, 0.32 Mcal of net energy for maintenance and 6.4 % protein on a dry matter basis. The projected intake without supplementation would supply the following Table 4.

Table 4. Energy and Protein Supplied to Cows from Weathered Bermuda Grass.

	Intake AsIs Lbs	DM Intake	NEM Mcal	Protein Lbs
Weathered Mature Bermuda Grass Supplies	32.4	22.0	7.1	0.5
Deficient		8.2	1.6	

Feeding of 8.5 pounds of a 20 percent protein (asis) and 0.77 Mcal of net energy for maintenance (asis) per pound would be necessary to meet the cow needs. The supplement would increase the forage consumption to about 40 pounds.

Conclusions

It is important to maintain a body condition at calving time that will allow the cows to reproduce economically and efficient. The maintenance of body condition is important to the profitability of a cowherd. Poor body condition affects pregnancy rate, calving interval, and calf age at weaning and calf daily gain. A BCS of 5 should be the goal of the cows at calving.

- Forage fed to spring calving cows should be tested to determine quality.
- Cows should be body conditioned scored.
- Cows less than 5 BCS should be separated and fed 20 to 30% more energy and protein depending on the BCS.
- Mineral should be fed.