

TABLE 2

Calving to breeding: Most critical period in terms of a cow's nutritional requirements.

From calving until the cow's uterus is in a condition for a new pregnancy is about 40 days.

- Weight loss during this period results in lower first-service conception rates than cows that gain some weight
- Given a 282+ day gestation period, if a cow is to calve every 365 days, she must be bred with-in 83 days of calving.
- Weight loss at this stage decreases milk production and weaning weight of the calf.

Breeding to weaning: Milk production declines during this period as the calf matures.

- Consequence of poor nutrition during this period is lowered weaning weights.
- Nutritional plane of cow rarely affects developing fetus at this stage.

Mid-gestation: Cow requires only sufficient feed quality to maintain her weight.

- Cows entering this stage in good condition can lose 10 to 15 percent of their body weight to just after calving and still reproduce satisfactorily if they get ample feed in the spring to initiate estrus early in the breeding season.

Late gestation: At this stage, the fetus gains at a rate of about 1 pound per day, fetus will make 70 percent of its growth in last trimester.

- Cows losing weight during this period take longer to start cycling after calving and may have lowered conception rates.
- Because the unborn calf is largely protein, the need for protein increases as calving time approaches.
- Cow requires 15 to 20 percent more protein at this stage than during mid-gestation

Rasby, R., and Rush. 1996. Feeding the beef cow herd-Part I; factors affecting the cow nutrition program. NebGuide G80-489-A, Cooperative Extension, University of Nebraska-Lincoln.

TABLE 3

Nutrient requirements for a mature lactating beef cow, mature weight 1,000 pounds, and first calf heifer. Values shown are on a percent dry matter basis:

Date	Condition	Cow*		Heifer*	
		CP	DOM	CP	DOM
Feb	Lactating w/30-day old calf	9.60	59.10	9.60	63.00
Mar	Lactating w/60-day old calf	10.10	59.70	10.80	65.00
Apr	Lactating w/90-day old calf	9.40	57.80	9.50	64.00
May	Lactating w/120-day old calf	8.90	56.50	8.90	58.00
Jun	Lactating w/150-day old calf	8.30	55.20	8.30	56.00
Jul	Lactating w/180-day old calf	7.80	53.90	8.00	54.00
Aug	Lactating w/205 day old calf	7.50	53.20	8.30	52.00
Sep	Dry Maintain at BCS 5	6.90	48.80	8.30	50.00
Oct	Dry Maintain at BCS 5	7.10	50.10	8.40	52.00
Nov	Dry Increase BCS to 5.3	7.80	53.20	8.5	56.00
Dec	Dry Increase BCS to 5.3	8.80	57.10	9.0	58.00

*Values shown are from the National Research Council, Nutrient Requirements of Beef Cattle, 1996.