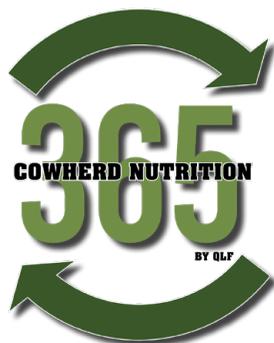




## Year-Round Supplementation



Providing a balanced nutrition program for the cowherd is important to maximize herd productivity. An economically productive beef cow must: deliver a live calf every year, return to estrus after calving, conceive early in the breeding season, wean a heavy calf and nourish a developing fetus; all on minimal inputs. Feed costs typically represent 50-75% of all cow/calf production costs. Therefore, the goal of an effective supplementation program should be to match the needs of the cowherd and to do so in a cost effective manner.

### Body Condition of the Cowherd

Body condition of the cowherd plays an important role on herd productivity and calf performance. Cows receiving inadequate maternal nutrition throughout gestation may negatively program the growth and development of the fetus throughout pregnancy and later in adult life. These lifelong changes may negatively impact offspring performance and producer profitability. Body condition score (BCS) at calving has the greatest impact on reproductive performance. Data would suggest that cows calving in a body condition score of a 4 or less will have fewer cows rebred, longer post-partum interval and wean a lighter, less uniform calf crop.

Improving cow condition takes time. Failure to monitor herd condition prior to important phases of production can potentially be detrimental to herd productivity. A change in one body condition score is approximately equal to an 8% change in body weight (Table 1). Advanced nutritional planning is necessary to best utilize forage and supplement resources to improve cow condition economically.

**Table 1. Estimated body weight gain needed to improve cow condition prior to calving**

1,300 lb cow - 150 days from calving to weaning				
BCS at Weaning	BCS Goal at Calving	Needed BCS Change	Needed Weight Gain	ADG Goal (lb.hd/d)
3	6	3	315	2.1
4	6	2	210	1.4
5	6	1	105	0.70
6	6	0	0	0

### Economics of Cow Condition

Economically, body condition of the cowherd directly affects net calf crop and the profitability of a cow/calf operation. Failure to conceive is the most important factor contributing to the reduction of calf crop. There is a substantial difference in potential profit margin in those cows calving in a BCS 5 compared to BCS 4 (Table 2).

**Table 2. Economics of improved body condition at calving**

Effects of Pregnancy Rate- based on 100 cows				
Ranch A				
BCS at Calving	Pregnancy Rate	Calves	Weaning Weight	Calf Price \$1.30/lb
5	87%	87	550	\$62,205
Ranch B				
BCS at Calving	Pregnancy Rate	Calves	Weaning Weight	Calf Price \$1.30/lb
4	64%	64	550	\$45,760
\$62,205 - \$45,760 = \$16,445 of additional income calving in BCS 5				

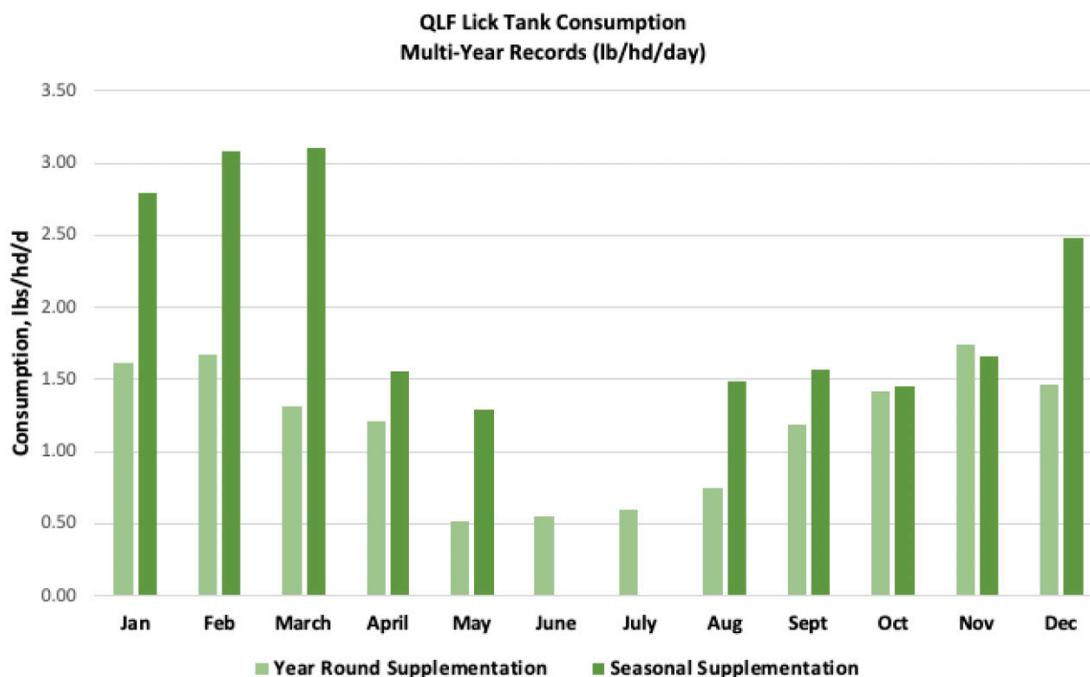
## Supplementation Strategies

Reducing feed costs while maintaining reproductive efficiency is key to profitability for a cow/calf enterprise. A strategic supplementation program can help improve and maintain condition. Commonly, two supplementation strategies exist among cow/calf producers.

1. Allow cows to lose weight and regain condition after it has been lost.
  - a. This strategy will likely require substantial supplemental feed and may carry significant costs.
2. Maintaining cow condition on a year round basis.
  - a. Maintaining condition is often the least expensive method of achieving adequate condition prior to calving for optimum reproductive efficiency.
  - b. The foundation of this approach is strategic supplementation. Providing a consistent supply of a protein supplement to complement and enhance utilization of available forages. Meeting the nitrogen needs of the rumen microbes has a major impact on intake and nutrient yield of available forage resources.

When managed properly, free choice supplements optimize forage use and promote cattle to maintain body condition. There are a wide range of factors that contribute to how much of a supplement cattle will consume and what nutrients need to be supplied within that supplement to meet her needs for maintenance and production. Based upon years of observation and research, free choice liquid consumption is driven by a series of factors including but not limited to; animal type and size, production phase, diet and environmental conditions. A multi-year consumption study demonstrates that cattle adjust their consumption to compensate for changing nutritional requirements and seasonal forage quality. A QLF liquid supplement offered year round provides a more consistent intake pattern with moderate rises and falls that correspond with seasonal changes in forage quality as compared to offering the supplement seasonally (Graph 1).

Graph 1.



QLF offers a targeted free choice supplementation program directly impacting forage utilization, herd productivity and reproductive efficiency. These convenient, free choice cow/calf products are designed to enhance forage utilization by supplying a source of degradable protein and energy which optimizes ruminal fermentation. Offering a QLF free choice supplement 365 days a year allows producers to take advantage of a practical feeding strategy and provides a window of opportunity for cows to effectively maintain condition throughout the year, optimize reproductive performance and enhance producer profitability.

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