

The Grazier

Inventory Your Cow Herd Winter Feed Supply

The unfavorable hay harvesting conditions encountered last summer are reminiscent of the same situation beef producers faced with the 1992 hay harvest. Producers should consider the disastrous effects of poor forage quality and winter weather on cow herd productivity as a reminder of the environment's role as a major player in cow-calf profitability.

As the saying goes, "pray for the best, but expect the worst." Cow-calf producers are encouraged to inventory their existing forage supplies and then examine all options in meeting the nutrient requirements of their cow herd.

Table 1. Example of Feed Resource Inventory (FRI)

Resource	Carryover in storage	Harvested current year	Total onhand
Prairie hay, tons	_____	_____	_____
dry matter %	_____	_____	_____
crude protein %	_____	_____	_____
TDN %	_____	_____	_____
Cane Feed, tons	_____	_____	_____
dry matter %	_____	_____	_____
crude protein %	_____	_____	_____
TDN %	_____	_____	_____

Objective of a Forage Resource Inventory

Simply put, a forage resource inventory assesses animal demand and carrying capacity of your operation. A FRI can be compared to a financial balance sheet. Like the balance sheet, the FRI lists assets (carrying capacity) and liabilities (forage demand) together with a statement of equity or net worth. As the term "balance" implies, forage supply must, at the barest minimum, equal the cow herd's forage requirements during feeding season.

Typically, a beef operation will carry over at least 10 to 20 percent forage to account for wastage as well as ensure against severe weather. By conducting a FRI now, producers can use the information obtained to reasonably estimate:

- 1) Amounts of supplemental feedstuffs to purchase, based on nutrient content of available forage.
- 2) Where forage of various qualities best fit each beef class.

Animal Demand

The animal unit month (AUM) concept commonly used by range scientists for estimating livestock forage use rates is an inexact method, but a step in the right direction for determining forage requirements of your cow herd by animal class. The standard AUM is defined as a 1,000 pound cow of above average milking with a calf less than 3 to 4 months of age that consumes approximately 750 pounds of dry forage per month.

Table 2. Animal Unit Values (AU) for Different Kinds and Classes

Class of Cattle	Animal Unit
Cow (1,000 lb.) and calf (spring calving, above average milking ability, first 3-4 months post-partum)	1.00
Calf (spring calving, 3-4 months post-partum)	0.30
Replacement heifers (24-36 months)	1.00
Cow (1,000 lb.) non-lactating	0.90
Yearling cattle (12-17 months)	0.70
Weaned calves (under 12 months)	0.50
Young bulls	1.20
Bulls (24-60 months)	1.50

Table 2 shows the AU values for different classes of beef cattle. If your cows are larger than 1,000 pounds or have greater milk production potential, raise the AU one-tenth for every 100 pounds increase in body weight (1,200 lb. cow = 1.2 AU).

Carrying Capacity

This portion of the FRI is much harder to estimate because it is comprised of two variable components. They are: 1) grazable forage such as milo residue, alfalfa aftermath, corn stalks, weathered native grass or small grains pasture such as wheat; and 2) harvested forage such as alfalfa, prairie and brome hay.

Only during extended periods of snow cover or storms do beef cow operations usually depend entirely on harvested feeds as the sole source of roughage. Hence, the difficulty in obtaining a reasonable estimate of bales of harvested feed required.

An important question you need to ask yourself is, "How many days during a typical winter feeding period are my cows totally dependent on my forage supply?" Take this estimate and multiply it by 1.50. This will build in an extra 50 percent of on-hand forage for feeding periods encountered like last year.

For example, Table 3 calculates amount of harvested forage required for a 100 head cow herd for a 30-90 day supply.

Table 3. Estimated amount of forage required for a 100 head cow herd*

Number of days of feed supply	Tons of feed required	Number of 1,200 lb. bales
30	45	75
45	68	113
60	90	150
75	113	188
90	135	225

*30 lbs./head/day intake including 15% wastage.

As a starting point, it is recommended to estimate an average "baseline" availability (animal grazing days) for each forage type available to your cow herd. For example, if milo stalks have traditionally lasted approximately 90 days (October through January) for your 200 head cow herd for the past five years, what would you use as a reserve forage supply if there was only 45 days of worthwhile grazing? In this particular situation, you would need to have an additional 135 tons of hay to compensate for the shortened grazing period.

200 cows x 45 days x 30 lbs. forage/cow/day = 270,000 lbs.

-Dale Blasi, Kansas State University Extension

Trample-in Clover for Best Results

It may sound too easy, but trampling-in is a simple agronomic practice that makes pasture improvement with red clover as easy as one, two, three.

1. Use stocking rates of 10 to 20 cattle per acre to suppress grass growth before broadcast seeding red clover in pasture during late winter or early spring.
2. Broadcast seed (10 lbs. per acre) into the pasture while cattle are still there. Move hay for feed around field to ensure the seed is trampled-in evenly.
3. Remove cattle before they bite off new clover plants. Return cattle when clover is 8 to 12 inches tall.

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