

HAY FEEDER ECONOMICS

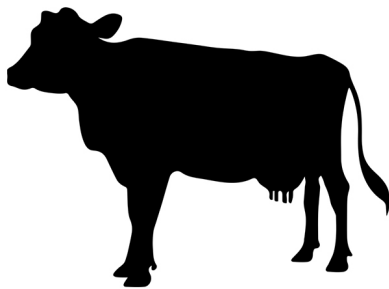
Estimating forage usage by cows is an important part of the task of calculating winter feed needs. Baling or purchasing too much hay is wasted and is an un-necessary cost that steals your profits. Hay or standing forage must be estimated in order to make calculations. Forage quality will be a determining factor in the amount of forage consumed. Higher quality forages contain a higher concentration of important nutrients, so these forages are more likely to meet the nutrient needs from forages. **Additionally, cows can consume a larger quantity of higher quality forages.**

Higher quality forages are fermented more rapidly in the rumen leaving a void that the animal can re-fill with additional forage. For example, low quality forage (below 6% crude protein) will be consumed at about 1.5% of body weight daily. Higher quality grass hays (above 8% crude protein) may be consumed at about 2% of body weight. Excellent forages such as good alfalfa, silages or green pastures, may be consumed at the rate of 2.5% dry matter of body weight per day. With these intake estimates, now producers can calculate the estimated amounts of hay that needs to be available. *Credit for content to Dr. Glenn Selk, Oklahoma State University Emeritus Animal Scientist.*

Low Quality Forage	Higher Quality Grass Hays	Excellent Quality Forages
1.5% Body Weight (dry matter)	2.0% Body Weight (dry matter)	2.5% Body Weight (dry matter)

There are lots of different kinds of hay with different protein and moisture contents. The feeding season lasts different durations depending on where you are located and then of course, cattle are different. As a beef producer, you need to plug in the values that are pertinent to your operation, but for the purposes of this example, we have to make assumptions.

Assuming 1200 lb. pregnant spring calving cows, let's assume that the grass hay quality is good and tested 8% crude protein. Cows will voluntarily consume 2.0% of body weight or 24 lbs. per day. The 24% is based on 100% dry matter. Grass hays will often be 7 -10% moisture. If we assume the hay is 92% dry matter or 8% moisture, then each cow will consume 26 lbs. of hay per day on an "as-fed" basis. Unfortunately, we have to consider hay wastage. This is just a fact. We are going to compare utilizing GoBob Hay Conserver feeders vs. cheap ring feeders. To be as accurate as possible, we are going to factor in that after calving and during early lactation, the cow may weigh 100 lbs. less but will be able to consume about 2.6% (dry matter) of her body weight per day. We are assuming a 180-day feeding cycle (mid-October to mid-April) with the last 45 days being a lactating cow.



1200 lb. cow
135 days
2.0% dry matter before wastage
26 lbs. hay per day x 135 = 3,510



1100 lb.cow w/ calf.
45 days
2.6% dry matter before wastage
31 lbs. hay per day x 45 = 1,395 lbs.

AVERAGE
27.25 lbs. of hay per day, per cow or 4,905 lbs. total per cow.

Remember, to predict your hay needs and feeding strategies, you need to know the average cow size in your herd, the average weight of your big round bales and the average number of feeding days for your area.

Another conversion you will need to make is your hay cost per lb. Big round bales vary in weight depending on diameter, length, density, type of hay and moisture content. Plus, many bales are sold "by the bale" vs. by the ton. Take the cost you paid for each bale and divide it by the average weight of the bales to determine your cost per lb. If you produce your own hay, the prevailing cost of hay in your area is still an indication of the "value" of your hay. An easy way to determine the average weight of your hay is to weigh a pickup and trailer empty at the local co-op or truck stop then select several bales from your stock, put them on your trailer and weigh your rig again loaded. For our example, we are using 900 lb. grass bales at a value of \$45 per bale (\$100 per ton).



\$45 per Bale



**\$100 Ton
=
\$.05/Lb**

Wastage is also an estimated value. For our example, we will assume outside stored bales with ground contact. We will compare the waste of these bales in a cheap ring feeder, wasting as much as 40% of a bale, to a single bale GoBob Hay Conserver feeder with 5% waste, primarily as a result of ground contact while in storage.

Typical Hay Ring Feeder



**40% waste
Cost: \$170
5 year life
Cost per season: \$34***

GoBob Hay Conserver Feeder



**5% waste
Cost: \$848
25 year life
Cost per season: \$33.92***

To determine a Return on Investment, we will also assume 16 cows per feeder.

Ring Feeder



Amount of hay required to feed one cow during a 180 day feeding cycle:

27.25 lbs. per day x 180 days = 4,905 lbs.

Factor in waste of 40%:

4,905 lbs. / .60 = 8,175 lbs. of hay required to be hauled to pasture, per cow per feeding season.

Total cost of hay to feed one cow, per season:

8,175 lbs. @ \$.05 per lb. = \$408.75

Total cost of feed using a ring feeder:

16 cows @ \$408.75 = \$6543.20

Cost of feed using a ring feeder - \$6,543.20

GoBob Hay Conserver



Amount of hay required to feed one cow during a 180 day feeding cycle:

27.25 lbs. per day x 180 days = 4,905 lbs.

Factor in waste of 5%:

4,905 lbs. / .95 = 5,163 lbs. of hay required to be hauled to pasture, per cow per feeding season.

Total cost of hay to feed one cow, per season:

5,163 lbs. @ \$.05 per lb. = \$258.15

Total cost of feed using GoBob Hay Conserver feeder:

16 cows @ \$258.15 = \$4,130.04

Cost of feed using a GoBob feeder - \$4,130.04

SAVINGS PER FEEDER:

Ring feeder COST OF FEED \$6543.20 per year PER FEEDER

GOBOB feeder COST OF FEED \$4130.04 per year PER FEEDER

Net SAVINGS \$2,413.16 per year, PER FEEDER



SAVINGS PER COW:

\$2,413.16 / 16 (cows using feeder) = \$150.82 PER COW

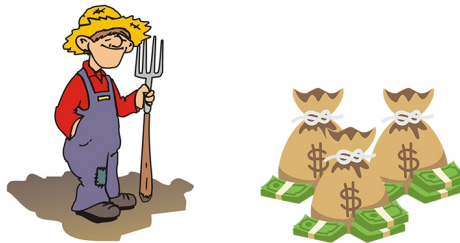
$$\begin{array}{c} \text{\$}\text{\$}\text{\$} \div \text{cow} \times 16 \\ = \\ \text{\$150.82} \end{array}$$

SAVINGS FOR ENTIRE HERD:

**\$150.82 X Number of cows in your herd.
(Example)**

75 mama cows x \$150.82 = \$11,311.50*

***Added to your bottom line annually**



To determine the net savings feeding your herd based on our example, take \$150.82 (\$2413.16 / 16) time the number of cows in your herd. For example, if you have **75 mama cows** in your herd, You would add **\$11,311.50** to your bottom line annually.

It is really amazing the difference a good hay feeder will make to your profitability. There is no better feeder than GoBob's Hay Conserver in terms of saving hay and durability.

BONUS: Because Hay Conservers have to be refilled 30% less than a standard hay ring, you will make less trips to the pasture, saving time, fuel, wear and tear on your equipment and compaction of your turf. For example, if you have 5 feeders, that's 15 less times you have to go out to re-fill your feeders. What does that save you? Well, that's another article.

Start making more money today or be ready when the feeding season begins. Don't wait until prices are higher either. GoBob manufactures several versions of the Hay Conserver feeders, including feeders for cattle, Longhorn cattle, bison and horses. GoBob also has feeders that feed from one to six bales at a time.

Call your GoBob representative today and let them help you determine the best feeder and best feeding strategies for your herd. 1-877-851-2365