

How much hay do you need? How many animals can you winter?

What we **KNOW**:

- Livestock will consume about 2 – 2.5% of their body weight daily
- Grass hay is usually 90-93% dry matter; wrapped hay can be 20-55% (40-55% is ideal)
- Livestock tend to eat more hay they “like” and eat less hay they don’t “like”; example: they prefer higher quality hay; don’t prefer hay that was rained on or moldy hay.
- Bale size, bale density and moisture content affect bale weight. In general, 4x4 bales weigh 400-600 lbs.; 4x5 bales weigh 700-1,000 lbs.; 5x6 bales weigh 1200-1700 lbs.
- 5-20% of hay will be wasted depending on storage, feeding method, and quality
- Poor quality hay isn’t “better than snowballs.”
- “Boss cows” will eat more and keep timid, younger, smaller cattle from eating all they want/need
- Records from prior years can give you the information you need for this year.

ASSUME: 1,200 lb bred cow; hay that is 92% dry matter
2% of her body weight is 24 lbs of hay each day; hay is 92% dry matter
The math: $24 \text{ lbs} / 92\% = 26 \text{ lbs hay per day for } 1,200 \text{ lbs cow}$

PLAN:

- 10 cows that average 1,250 lbs
- 50 4x5 round bales weigh 1,000 lbs each; 92% dry matter

Each cow will eat: $1250 \text{ lbs} / 2.25\% = 28 \text{ lbs hay}$
Adjusted for dry matter, each cow will eat: $28 \text{ lbs} / 0.92 = 28 / .92 = 30 \text{ lbs/head/day}$

For your 10 cows, total hay per day: 300 lbs hay

You have 50 bales x 1,000 lbs = 50,000 lbs hay

$50,000 \text{ lbs} / 300 \text{ lbs/day} = 167 \text{ days' worth of hay}$

Start feeding November 1 – will be out of hay April 16

Another way to calculate using the above numbers; how many cows can you keep this winter?

You plan to graze meadows instead of baling second cutting. You have enough grass to get you to December 1. You plan to turn out cows April 20.

You’ll need enough hay to feed for 141 days. That is $141 \text{ days} \times 30 \text{ lbs/head/day} = 4,230 \text{ lbs hay/head}$.

$50,000 / 4,230 = 11.8 \text{ cows}$

Manage the what if’s:

- What if your cows are heavier/lighter? Be realistic and honest with yourself; remember, after calving intake will increase up to 2.6-2.8%). Use cull sale weights from previous years to help you estimate.
- What if your bales are lighter/heavier? If possible weigh bales (truck scales, baler manufacturers...)
- What if we have a long, cold spell? Be conservative with your calculations
- What if it continues to be dry through the winter/spring?
- Forage quality – test, don’t guess

Put in practice for your farm (remember to account for hay wastage: 5-20% LOSS):

	Number	Average Weight	Total Weight
Cows			
Bulls			
Yearlings			
Ewes/does			
Rams/bucks			
Round Bales (DM _____%)			
Square Bales (DM _____%)			

STEP 1: Calculate intake.

Calculate intake per animal: Average animal weight * .025 / dry matter of forage = _____ lbs/day

OR

Calculate intake for the flock/herd: Total animal weight * .025 / dry matter of forage = _____ lbs/day

STEP 2: How long should your hay last?

Number of days you can feed each animal: Total pounds hay / Intake per animal = _____ days

OR

Number of days you can feed your flock/herd: Total pounds hay / Intake of herd/flock = _____ days

OR STEP 2: How many cows/ewes/does can you winter this year?

I need to feed my animals for _____ days.

Number of days you will feed x intake per animal per day = _____ lbs hay/animal for feeding period

THEN

Total weight of hay available / lbs hay/animal for feeding period: _____ # head you can winter

Be REALISTIC ✦ Be CONSERVATIVE ✦ PLAN NOW

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