

## Determining Forage Availability

Measure forage in 5-6 different spots in inches  
Multiply inches by pounds/acre-inch  
Total is amount of dry matter in one acre.

## Cowboy Arithmetic

First step—how much will the animals eat each day?  
3% of body weight (dry matter) is average  
2+% for dry cows  
3% for steers  
4% for high milk/thin cows

30 cows—weigh 1000 lbs each  
Eat 3% of body weight (DM)—30 lbs DM  
30 cows x 30 lbs = 900 lbs consumed

Second step—How much of the forage available will be utilized?

If use 50% of forage available, then need  $900 \times 2 = 1800$  lbs of DM for the 30 cows.

If paddock has 1800 lbs of forage (6 inches @ 300#/ac-in), need one acre.  
Stock density is 30,000 lbs/acre.

If paddock has 2700 lbs of forage, need  $\frac{2}{3}$  acre.  
Stock density is 45,000 lbs/acre.

Another approach—decide how much forage to leave

Graze down to 1000 lbs DM residual (3 inches).

If has 2800 lbs available, then 1800 lbs can be "eaten".  
The 30 cows would eat 900 lbs so would need .5 acre.

For a weekly move, understand that livestock waste more pasture each day they remain on the pasture.  
Cannot simply multiple by 7. Must plan for 50% pasture wastage

Multiply by 7 then add in half again as much for cattle to waste

If pasture has 1800 lbs of forage & wish to leave around 2 inches of residue, that leaves 1200 lbs to use.  
30 head will eat 900 lbs of forage which is  $\frac{3}{4}$  acre per day.  
 $\frac{3}{4}$  acre X 7 is  $5 \frac{1}{4}$  acres  
Add in another  $2 \frac{1}{2}$  so you will need  $7 \frac{3}{4}$  acres for a week's worth of grazing



**Shepherd's Arithmetic (aka Cowboy arithmetic when working with cattle)**

**First step—how much will the animals eat each day?**

**4% of body weight (dry matter) is average**

**2% or less for dry ewes**

**3% for ewes 6 weeks from lambing**

**5% for ewes with triplets or big twins**

**50 ewes—weigh 125 lbs each**

**Eat 4% of body weight (DM)—5 lbs DM**

**50 ewes x 5 lbs = 250 lbs consumed**

**Second step—How much of the forage available will be utilized?**

**If use 50% of forage available,  
then need  $250 \times 2 = 500$  lbs of DM for the 50 ewes.**

**If paddock has 1800 lbs (6 inches @ 300 # DM/ ac-in) of forage, need little less than 1/3 acre.**

**Stock density is 22,500 lbs/acre.**

**Another approach—  
decide how much forage to leave**

**Graze down to 600 lbs (2 inches) DM residual.**

**If has 1800 lbs available,  
then 1200 lbs can be “eaten”.**

**The 50 ewes would eat 250 lbs  
so would need 1/5 acre.**