



Estimating Winter Hay Needs For Meat Goats

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 Adapted from: Bill Halfman, University of Minnesota Extension Service

1) Weigh several bales of hay to get an average bale weight:
 (add weights of bales and divide by number of bales)

_____ lb.

Average Bale Wt: _____ lb

X

2) Count the number of bales available for feed:

Number of bales: _____

X

3) Account for storage/feeding loss (see below)
 (loss factor is from published data)

Loss Factor _____

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Total lb Hay Available: _____ lb.

Type of Storage	Loss Factor
Inside on ground	.93 - .95
Inside on Crushed Stone	.95 - .97
Outside on ground, uncovered	.65 - .80
Outside on ground, covered	.65 - .85
Outside on stone, uncovered	.80 - .87
Outside on stone, covered	.83 - 90
Outside on other base, covered	.80 - .88

We can normally expect to feed hay from December through March in Kentucky (120 days). Feeding can start in November depending on weather conditions and grazing starts in late March or early April. Because of this you should plan for 150 to 160 days of winter feeding. Goats are rated between 0.14 and 0.18 AU depending on class. Animal units are based on the pounds of dry matter an animal will consume and 1 AU is the amount of DM for a 1000 lb cow.

4) Animals Units to Feed per day (Animal Unit Days)

Class	# Head	X	Days Fed	X	Factor	=	Animal Unit Days
Bucks		X		X	0.18	=	
Does		X		X	0.17	=	
Weaned Kids		X		X	0.14	=	

Total Animal Unit Days: _____

5) Daily hay Allocation/Animal Units: _____ Pounds Hay/Animal Unit Day: _____
 (Calculate this from a balanced ration. 20 to 30 lbs of hay/AUD would be a good estimate, but does not replace the need for a balanced ration)

$$\frac{\text{Animal Unit Days}}{\text{Animal Unit Days}} \times \frac{\text{Daily Hay Allocation}}{\text{Daily Hay Allocation}} = \frac{\text{Lbs. Hay Needed}}{\text{Lbs. Hay Needed}}$$

$$\frac{\text{Lbs. Hay Available}}{\text{Lbs. Hay Available}} - \frac{\text{Lbs. Hay Needed}}{\text{Lbs. Hay Needed}} = \frac{\text{Surplus or Shortage}}{\text{Surplus or Shortage}}$$

The above is an estimate, feeding waste is included at 3% but can range up to 20% depending on type of forage and how it is feed. Most hay feeders reduce loss to between 3 and 15%.

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