

Grazing Corn Residue Can Be an Economical Winter Feed Source for Cows

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Part of the winter feed expense equation is deciding whether standing forage can be grazed, or hay must be fed. In dry years, winter grazing may be reduced or unavailable, and the value of what is available can increase. Winter feed not usually considered may offer an alternative, affordable option. UNL's Feed Cost Cow-Q-Lator (available at cap.unl.edu/livestock/tools) offers a way to compare feed options.

For this example, the herd consists of 80 spring-calving cows weighing 1,200 lb and monthly winter pasture costs \$45/cow or \$1.50/day. Consider winter pasture is limited and/or hay must be fed for an extended period. At \$165/ton in the field or \$0.08/lb, a cow consuming 30 lb/day would rack up a \$2.40 daily feed bill. Add in the hay waste and hay delivery and the cost increases to \$0.157/lb. of feed consumed or \$4.71/day for one cow.

Figure 1. This is a screenshot of the Feed Cost Cow-Q-Lator showing the inputs used to price the cost of brome hay. Please note values in the white boxes can be adjusted to fit each situation.

Inputs	
What is the name of this feed?	brome hay
How much does this feed cost?	\$ 165.00
The above price is for how many pounds of feed?	2000 pounds per unit
What is the percent dry matter?	90.0% *
What is the percent Crude Protein (on a DM basis)	9.0% *
What is the percent TDN (on a DM basis)	55.0% *
How far will this feed be transported?	100 miles
What is the cost per loaded mile?	\$ 5.00 per mile
How many tons are hauled per load?	20 ton
How much of the feed will be lost in hauling?	3.0%
How much will it cost to store this feed?	\$ 75.00 per ton
How much of the feed will be lost in storage?	4.0%
How much will it cost to feed this feed?	\$ 7.00 per ton
How much will be lost when feeding?	8.0%
Cost per pound of feed consumed \$ 0.157	

Corn residue offers another winter feed option. If stalks are renting for \$30/acre and a stocking rate of about 2 acres/cow is used, daily costs calculate to \$0.49/cow. This makes corn residue the more affordable option, but what about cows several hours from corn fields?

Assuming the same 80-cow herd resides 600 miles from corn residue, what would be the daily cost for each cow? Figure 2 shows how this scenario may pencil out.

Figure 2. This is a screenshot of the Feed Cost Cow-Q-Lator showing the inputs used to price the cost of grazing corn residue. Please note values in the white boxes can be adjusted to fit each situation.

Corn Stalk Inputs			Calculated Values
FEED AVAILABILITY	Corn yield	220 bu/ac	3,445 lbs DM per acre
	Stalk harvest efficiency (50% Recommended)	50.0%	1,722 Available DM
	Total number of animals	80 head	
	Average animal weight	1,200	
	Days on corn stalks	120 days	384 AUMs needed
	Acres rented	157 acres	157 Acres needed \$ 4,710 Stalk Rental \$ 0.49 per animal per day
Cost per acre	\$ 30 per acre		
NUTRITION	Percent crude protein (on a DM basis)	8.0%	
	Percent TDN (on a DM basis)	56.0%	
TRANSPORTATION	Cattle transportation distance (ranch to corn field)	600 miles	
	Transportation cost per loaded mile	\$ 5.00 per mile	\$ 3,000 Cost / trip / truck \$ 12,000 Total transportation \$ 150.00 Cost / animal
	Animals per load	40	
CARE & SUPERVISION	How far to check cattle (one way)	600 miles	
	Transportation cost per mile to check cattle	\$ 0.45 per mile	\$ 630 Cost / visit \$ 1,260 Total \$ 15.75 Cost / animal
	Other charges (labor) per visit	90	
	Number of supervisory visits	2	
Cost per pound of feed consumed			\$ 0.060
Costs Summary			
Total = Feed + Transport + Care			
Category Overall Total Costs	\$17,970	=	\$4,710 + \$12,000 + \$1,260
Category Total Per Head Costs	\$224.63	=	\$58.88 + \$150.00 + \$15.75
Category Per Head Per Day Costs	\$1.87	=	\$0.49 + \$1.25 + \$0.13

In this scenario, trucking cows to the corn residue field was valued at \$150/cow for a 1,200-mile round trip. Grazing corn residue for 120 days was calculated at \$58.88/cow. Two supervisory visits to the cattle were valued at \$15.75/cow (2 trips x 1,200 miles x \$0.45/mile plus \$90 for labor/other charges per visit). Total winter cost for this corn stalks grazing scenario comes out to \$224.63/cow. To compare each scenario, feeding brome hay (Figure 1) for 120 days would cost \$565.20/cow.

Assuming winter range is available for 60 days of grazing at \$1.50/day for a total of \$90/cow, and hay is fed for 60 days at \$4.71/day for a total of \$282.60/cow. Winter feed costs calculate to \$372.60/cow, still considerably more than grazing corn residue as assumed in Figure 2.

Each winter-feeding option has risks not accounted for in these scenarios. Download UNL's Feed Cost Cow Q Lator at cap.unl.edu/livestock/tools and use inputs suitable for your operation.

For more information on grazing corn residue please visit <https://beef.unl.edu/>. Additional analysis on grazing cornstalks is available at beef.unl.edu/beefwatch/2021/how-far-too-far-transport-cows-winter-cornstalks.

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