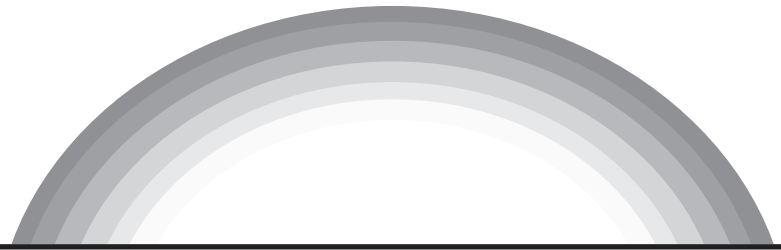


Disaster Recovery



Livestock

Feed inventory aid to management

A simple feed inventory can be a valuable management tool when planning your livestock feeding program for the upcoming year. By completing a feed inventory, you can

1. determine your available feed supply,
2. estimate your total feed needs for your planned herd size, and
3. adjust livestock numbers or plan feed purchases when prices are favorable.

Use the worksheet (Figure 1) to estimate your feed needs and supplies. Use part I to convert various size and species of livestock to standard animal units (cow equivalents). The amount of feed needed is calculated in Part II. Use Table 1 (Growing Beef), Table 2 (Beef Cow), Tables 3 and 4 (Dairy), or Table 5 (Sheep) to estimate the amount of forage, corn or protein supplement needed for your livestock. Note that the estimated feed needed for dairy cows is for one year. Consequently you will need to reduce the amount when estimating

Table 1. Feed requirements for growing beef cattle 550-800 lb. using forages.

	Forage Used				
	Barren corn silage	5-20 bu. corn silage	40-60 bu. corn silage	Oat ¹ hay	Mature alfalfa grass hay
To produce daily gains of 1.5 to 1.7, 147 to 167 days on feed					
Tons of forage	2.11	2.81	3.40	1.16	0.79
Bushels of corn	18.50	9.60	0.00	8.10	21.70
Lb. of supplement	115.00	120.00	115.00	155.00	120.00
To produce daily gains of 2.3 to 2.5, 100 to 110 days on feed					
Tons of forage	0.70	0.74	1.58	0.38	0.28
Bushels of corn	22.40	20.20	1.90	18.30	23.60
Lb. of supplement	80.00	85.00	105.00	125.00	80.00

¹ Assumes no feeding waste, add 15 to 25% to forage needs if fed free choice

Table 2. Estimated forage and concentrate requirements for a producing beef cow.

Cow weight	Corn silage 60% moisture	Alfalfa-brome hay medium quality	Oat hay Dough stage	Poor quality Hay
	10% waste	10% waste	20% waste	20% waste
tons/cow				
1,000	5.0	2.1	2.5	2.2
1,200	5.7	2.5	2.9	2.5
1,400	6.4	2.8	3.2	2.8
Corresponding supplement needs ¹				
lb/cow				
Corn	0	275	100	775
Soybean meal	50	0	60	25

¹ Except for poor quality hay, the supplementation is needed just before calving and during lactation.

your total needs from now until next year's hay or forage crop is harvested.

Use Part III to estimate the amount of feed available. Capacity charts for various silo types and crops are available from county extension offices. Once you have determined your feed needs and supply, the final step (Part IV) is to determine if you will have too much feed or too little. If you will be short of feed, you can decide whether to modify your normal feeding program, reduce livestock numbers or purchase additional feeds.

Table 3. Yearly forage requirement of a lactating cow.

Annual Forage Requirements ^a Tons as fed/cow ^b						
Avg Milk	Corn Silage Hay	100% 0%	75% 25%	50% 50%	25% 75%	0% 100%
15,000	Corn Silage ^c	11.7	8.8	5.8	2.9	0.0
	Hay	0.0	1.2	2.4	3.6	4.8
18,000	Corn Silage	12.9	9.6	6.4	3.2	0.0
	Hay	0.0	1.3	2.6	3.9	5.2
21,000	Corn Silage	14.0	10.5	7.0	3.5	0.0
	Hay	0.0	1.4	2.9	4.3	5.7
24,000	Corn Silage	15.2	11.4	7.6	3.8	0.0
	Hay	0.0	1.5	3.1	4.6	6.2

^aBased on a 1,300lb. BW cow, reduce amounts 10-20% for smaller cows

^bAmounts of 35% DM/corn silage and 88% DM hay; includes dry period and 15% storage and feeding loss

^cMultiply by 2 if hay-crop silages used

Table 4. Yearly concentrate requirement of a lactating dairy cow.

Corn and Protein Supplement Needed ^a tons as fed/cow/year ^b						
Avg Milk	Corn Silage Hay	100% 0%	75% 25%	50% 50%	25% 75%	0% 100%
15,000	Corn	1.08	1.53	1.98	2.44	2.89
	Prot Suppl.	1.08	0.78	0.49	0.19	0.00
18,000	Corn	1.14	1.64	2.14	2.64	3.13
	Prot Suppl.	1.30	0.97	0.65	0.32	0.00
21,000	Corn	1.20	1.75	2.29	2.83	3.38
	Prot Suppl.	1.52	1.16	0.81	0.45	0.09
24,000	Corn	1.27	1.85	2.44	3.03	3.62
	Prot Suppl.	1.74	1.35	0.97	0.58	0.19

^aBased on a 1,300 lb. BW cow, reduce amounts 10-20% for smaller cows

^bIncludes dry period and 5% storage and feeding loss

Table 5. Estimated roughage and concentrate requirements for mature ewes.

Ewe weight	Corn silage (5-20 bu) (60% moisture 10% waste)	Alfalfa brome hay medium quality (big bales-20% waste)	Oat hay dough (25% waste) poor quality	Mature grass big bales (30% waste)
tons/ewe				
150	1.0	.43	.45	.54
175	1.1	.48	.5	.6
200	1.2	.53	.55	.66
Corresponding supplement needs				
150 Corn	92	135	63	124
SBM	102	16	104	112
175 Corn	102	150	70	138
SBM	113	18	116	124
200 Corn	112	165	76	152
SBM	124	20	128	136

Assumes Oct. 1 to May 1 feeding period.

Prepared by Lee Kilmer, extension dairy specialist, Dan Loy and Daryl Strohbehn, extension beef specialists, and Dan Morrical, extension sheep specialist, Iowa State University

. . . and justice for all

The Iowa Cooperative Extension Service's programs and policies are consistent with pertinent federal and state laws and regulations on nondiscrimination regarding race, color, national origin, religion, sex, age, and disability.

Cooperative Extension Service, Iowa State University of Science and Technology and the United States Department of Agriculture cooperating. Robert M. Anderson, Jr., director, Ames, Iowa. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.

Feed Inventory Worksheet

I. Animal Inventory

A. Dairy

1. Number of adult cattle _____ x 1.00 = _____
 2. Number of yearlings _____ x 0.50 = _____
 3. Number of calves (<12mo) _____ x 0.25 = _____
 4. Total dairy animals _____

B. Beef

- Number of feeder cattle: _____
 Number of cows: _____

C. Sheep

- Number of ewes: _____

II. Feed Needs

	Tons/animal or animal unit	x	No. of animals or animal units	=	Tons Needed	Days in Feeding Period
A. Forage-hay	_____	x	_____	=	_____	_____
Haylage	_____	x	_____	=	_____	_____
Corn Silage	_____	x	_____	=	_____	_____
B. Corn grain	_____	x	_____	=	_____	_____
C. Protein supplement	_____	x	_____	=	_____	_____

III. Feed Available

A. Forage:	Bales	x	lb/bale	=	lb	÷ 2000	=	Tons Available
Hay	_____	x	_____	=	_____	÷ 2000	=	_____
Hay	_____	x	_____	=	_____	÷ 2000	=	_____
	Crop		Silo size		Hay Equiv.			
Silage	_____	x	_____	x	_____		=	_____
Silage	_____	x	_____	x	_____		=	_____
Silage	_____	x	_____	x	_____		=	_____

IV. Summary:

	Silage	Forage	Corn	Protein Supplement
Available (-)	_____	_____	_____	_____
Needed	_____	_____	_____	_____
Shortage(-) or Excess(+)	_____			