

# Step 3:

## Calculate the pounds of crude protein (CP) in each unit of sale.

Livestock also require a certain amount of protein to maintain productivity and rumen function. Protein is often one of the most expensive components of livestock feeding programs. To calculate the pounds of crude protein in each unit of sale, multiply the pounds of dry matter in each unit (column G) by the percent CP in the feedstuff (column D). Calculations of pounds of CP in each unit of sale are shown in **Table 6**.

**Table 6. Calculations for pounds of CP in each unit of sale.**

Feed	(Column G)	×	(Column D)	=	(Column I)
	DM in Each Unit of Sale, lbs		Percent CP		Result, lbs CP**
Prairie hay	1,800	×	4.9	=	88.2
Alfalfa hay	1,800	×	15.9	=	286.2
Corn silage	700	×	8.0	=	56
Barley	42.2	×	13.5	=	5.7

\*\* Note: To make the appropriate calculation, use the percentage as a decimal of 100 (for example, 90 % DM = 0.90) or divide the end result by 100.

For example, the high quality of the alfalfa hay is demonstrated by the amount of crude protein present in each ton, which is 3¼ times that of the prairie hay. We could have reached the same conclusion by simply looking at the percent of crude protein in each of the feedstuffs. However, the calculations are very important as we move to the next step of comparing the value of each feedstuff based on the purchase price or current value of the feedstuff.

▼ Use Table 7 to calculate the pounds of CP in your feedstuffs.

**Table 7. Calculations for pounds of CP in your feeds.**

Feed	(Column G)	×	(Column D)	=	(Column I)
	DM in Each Unit of Sale, lbs		Percent CP		Result, lbs CP**
_____	_____	×	_____	=	_____
_____	_____	×	_____	=	_____
_____	_____	×	_____	=	_____
_____	_____	×	_____	=	_____
_____	_____	×	_____	=	_____

\*\* Note: To make the appropriate calculation, use the percentage as a decimal of 100 (for example, 90 % DM = 0.90) or divide the end result by 100.