

## National 4-H Livestock Skillathon Contest

### Nutrition Station: Team Activity

TEAM: \_\_\_\_\_

**Your Team Tasks:**

- A. Identify the following feeds and whether they are considered a forage/roughage, (F) concentrate (C), protein supplement (P) or vitamin/mineral (M). (20 points)

**Feed Identification:**

Number	Feed Name	Description (F,C, P, or M)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

**Feed Analysis & Pricing Information:**

Feed Number	Dry Matter	%CP	%TDN	Price
1	0.89	18.0	65	\$150/Ton
2	0.89	7.5	60	\$75/Ton
3	0.85	5.0	59	\$15/Ton
4	0.33	8.0	67	\$28/Ton
5	0.87	8.0	89	
6	0.89	13.3	77	
7	0.90	48.7	83	
8	0.30	29.5	112	
9	0.91	0.0	0	
10	0.97	0.0	0	

**B. Ration Mixing:**

**Team Feeding Scenario:**

You have 200 lb ewes that are in late gestation, currently in average condition and from which you expect approximately a 180% lamb crop. Select appropriate feeds from those above, weigh out the correct amount (as-fed basis) of each feed for **a complete diet for one day that will meet one ewe’s TDN, protein and dry matter intake needs.**

- Assume that mineral needs will be met and balanced appropriately, so do not select any minerals for ingredients.
- Assume that you will be feeding at least some grain due to the limited rumen capacity of the late gestation ewe.
- Consider the overall cost of the ration.
- The table provides room for up to four ingredients. It may or may not be necessary to use four different ingredients.

When finished with the ration, your team will be expected to provide a brief explanation to judges regarding:

- the feeds you selected
- whether the ration meets the animal’s needs
- if there could be any improvements or changes made in your ration
- how the cost of the ration compares to other potential rations
- other information you deem appropriate.

Name of Ingredient	DRY MATTER BASIS			AS-FED BASIS
	Lbs of <b>Dry Matter</b> of this ingredient in ration	Lbs of <b>CP</b> provided by this ingredient	Lbs of <b>TDN</b> provided by this ingredient	Lbs of Ingredient to Feed
<b>Totals from all Ingredients</b>				
<b>Ewe Nutrient Requirements</b>				
<b>Difference between provided and required nutrients</b>				

Scoring for this section: 80 points based on the following:  
 20 points for selection of appropriate ingredients  
 20 points for approximate correct amounts  
 40 points for check that ration meets nutrient needs and oral explanation

<b>Ewe Nutrient Requirements</b>					
	Ewe Wt.	TDN (Lbs/day)	CP (Lbs/day)	Ca	P
Maint.	110	1.2	0.21	2.0	1.8
	132	1.3	0.23	2.3	2.1
	154	1.5	0.25	2.5	2.4
	176	1.6	0.27	2.7	2.8
	198	1.7	0.29	2.9	3.1
Flush-	110	2.1	0.33	5.3	2.6
ing	132	2.2	0.34	5.5	2.9
	154	2.3	0.36	5.7	3.2
	176	2.5	0.38	5.9	3.6
	198	2.6	0.39	6.1	3.9
Early Gest.	110	1.5	0.25	2.9	2.1
	132	1.6	0.27	3.2	2.5
	154	1.7	0.29	3.5	2.9
	176	1.8	0.31	3.8	3.3
	198	1.9	0.33	4.1	3.6
Late Gest	110	2.1	0.38	5.9	3.4
lo lamb	132	2.2	0.40	6.0	4.0
crop	154	2.3	0.42	6.2	4.5
(< 130 - 150%)	176	2.4	0.44	6.3	5.1
	198	2.5	0.47	6.4	5.7
L. Gest	110	2.4	0.43	6.2	3.4
hi lamb	132	2.6	0.45	6.9	4.0
crop	154	2.8	0.47	7.6	4.5
(175 - 225%)	176	2.9	0.49	8.3	5.1
	198	3.0	0.51	8.9	5.7
Lactating	110	3.0	0.67	8.9	6.1
singles	132	3.3	0.70	9.1	6.6
	154	3.6	0.73	9.3	7.0
	176	3.7	0.76	9.5	7.4
	198	3.8	0.78	9.6	7.8
Lactating	110	3.4	0.86	10.5	7.3
twins	132	3.7	0.89	10.7	7.7
	154	4.0	0.92	11.0	8.1
	176	4.3	0.96	11.2	8.6
	198	4.6	0.99	11.4	9.0