

**EXAMPLE**  
**BEEF EXTRAVAGANZA, DECEMBER 2021**  
**BALANCING THE BEEF COW DIET**

You have been asked to balance the diet for 50 cows with the assistance of a computer program. Nutrient levels of the feeds and brief descriptions of the commercial products are in the tables below. You can select up to 8 feedstuffs to work with but your final diet must contain no more than 5 feedstuffs. Points will be given for how closely you meet the expected dry matter intake, crude protein, Net Energy for Gain, calcium and phosphorus requirements of these cows. You will also be judged on how well you control the daily cost associated with your diet, and how feasible your diet is to feed. The station personnel will run the program for you, but you will be required to tell them the ingredients you wish to use and the daily feeding amount of each ingredient you use.

The conditions your diet will be fed under are as follows: You have crossbred late gestation cows coming off of stalks on December 1. Due to dry conditions, these cows weaned off at BCS 4.5 and are currently at BCS 5.2; the goal is to have these cows at BCS 6.0 by 1 month pre-calving. During the feeding period, the average temperature is expected to be 35° F; pen conditions will be dry and the cows will have a dry hair coat.

Feed Nutrient Specifications for Cow Nutrition Problem

Feed	%DM	%CP	NE <sub>m</sub> Mcal/lb	NE <sub>g</sub> Mcal/lb	% Ca	%P	#/Unit	\$/Unit
<b>Forages</b>								
Alfalfa hay, mid bloom	86	16	0.55	0.29	1.25	.24	2000	150
Mixed grass/legume hay	86	10	0.50	0.25	.8	0.25	2000	120
Grass hay, mature	87	6	0.47	0.22	0.25	.2	2000	85
Corn stalks	84	4.5	.44	.19	.24	0.14	2000	45
Corn silage, well-eared	38	7.0	0.75	0.48	0.25	0.22	2000	50
<b>Energy Feeds</b>								
Shell corn	86	7.5	0.96	0.66	0.03	0.30	56	5.00
Ear corn	86	7.0	0.84	0.55	0.07	0.27	72	4.25
Corn gluten feed pellets	90	20	0.87	.58	0.05	.75	2000	250
Dried Distillers Grains	90	28	0.94	.64	0.08	0.95	2000	240
Soy hulls	90	12.2	.84	0.55	0.50	0.20	2000	200
14% Range Cube	89	15.9	0.77	0.49	2.8	0.8	2000	315

### ***Protein Supplements***

Pasture Enhancer 40	65.0	61.5	0.77	0.54	0.6	1.8	2000	420
SteakMaker Grower 36-0	90	40	0.78	0.53	5	.9	2000	650
RangeLand Beef Block 39	91.6	42.3	0.62	0.36	2.5	1.5	2000	800
Ignite 40% Tub	94.5	42.5	0.83	0.57	2.1	1.06	200	99

### ***Mineral Supplements***

Wind & Rain Mineral	97.3	0	0	0	14.4	8.2	2000	875
CoProduct Mineral	97.5	0	0	0	24.7	0.5	2000	750

## **COMMERCIAL PRODUCT DESCRIPTIONS**

**Rangeland 14% Cube** – a 14% all natural energy cube fed at 2 – 8 pounds/head/day to supply energy and protein. Additional mineral supplementation is required with this product.

**SteakMaker Grower 36-0** – An all-natural (no urea), pelleted supplement fed at .75 – 1.5 lb./head/day to balance protein, minerals and vitamins for feedlot cattle. Can also be used with cows. When fed at recommended levels, no other mineral would be required.

**Pasture Enhancer 40** – A 40% protein liquid supplement that can be provided free choice in a lick tank. Consumption should range between .5 and 3 lbs./head/day. Additional mineral supplementation is required along with this product when the intake is below 2#.

**RangeLand Beef Block 39** – A 39% protein block fed at .75 – 1.5 lb./head/day to supply protein, minerals and vitamins. When fed at recommended levels, no other mineral would be required.

**Ignite 40% Tub** – A free-choice cooked molasses tub with 40% protein. Expected intake runs .75 lbs/head/day. When fed at recommended levels, no other mineral would be required.

**Wind & Rain Mineral** – A 7% phos, 2:1 mineral designed to be fed at 4 oz./head/day to cows when additional minerals, trace minerals, and vitamins are required.

**CoProduct Mineral** – A high calcium, no phosphorus mineral designed to be fed at 4 oz./head/day to cows when co-products are fed and additional minerals, trace minerals, and vitamins are required.