

Lesson 5: Balancing a Ration

Name: _____

Balancing Rations

Objective: Balance rations for protein using the Pearson Square method.

Balance the following rations using the Pearson Square method. Round to the nearest pound or dollar. Use sources to obtain any additional information needed to balance the rations.

1. A bred gilt requires a 13% protein ration. Corn with 9% protein and supplement with 40% protein is used in the ration. Find the number of pounds of corn and supplement needed to make a 100 lb. ration.

Corn _____

Supplement _____

2. A 1400-pound cow in the second trimester of pregnancy needs 6.9% protein. She is given 23.3 lbs. of feed, most of which is mature smooth brome hay at 5.5% protein. How many pounds of soybean meal should the cow be given to make sure that she receives 6.9% protein? The soybean meal has 49.6% protein.

Soybean meal _____

3. A lactating sow with a litter is fed high protein grain sorghum and a supplement with 40% protein. Find the number of pounds of high protein grain sorghum and supplement in a 1000 lb. ration.

Grain sorghum _____
Supplement _____

4. A lactating sow with a litter is fed yellow dent corn and a supplement with 40% protein. Find the number of pounds of corn and supplement in a 1000 pound ration.

Corn _____
Supplement _____

5. Using current prices, calculate the prices of the rations in Problems 3 and 4. Determine which ration has the least cost and should be fed to the lactating sow.

Cost of Problem 3 _____
Cost of Problem 4 _____
Which should be fed? _____