

 **Project 5.5.5 Formulate a Feed****Purpose**

As a livestock producer, you have found it challenging to find high quality feeds that are both economical and nutritious for your animals. You have been purchasing several feeds and combining them to provide a properly balanced ration. However, you are planning a month-long vacation to Australia and need to hire someone to feed your livestock while you are gone. You cannot premix the feeds you are currently using, as they will spoil. In the past six months, feed prices have jumped far more than the prices of commodities. You decide it is time to take control of your feeding program and begin producing your own feed.

Materials**Per student:**

- Computer with Microsoft Excel®
- *Project 5.5.5 Ration Formulation Spreadsheet*
- *Modern Livestock and Poultry Production* textbook
- Calculator
- Pencil
- *Agriscience Notebook*

Procedure

You will design and develop a complete feed for the animal you are producing in your *Producer's Management Guide*. The feed must provide the nutrients your animal needs and be palatable, digestible, and contain ingredients available in your area at a minimal cost. You may not use premixed feeds with the exception of a vitamin and mineral supplement.

1. Design a ration for the animal you are researching for your *Producer's Management Guide*. In *Lesson 5.2 The Need for Feed*, you selected the age and stage of production of your animal as well as researched the nutritional requirements. Use this stage of development for the ration for your animal.
2. Make a list of feedstuffs available in your area and include the nutrient content of each. You may need to research the nutritional value of some supplements available to balance your ration. Check your local agricultural newspapers, feed stores, or interview crop producers to determine current commodity and supplement prices.

You will balance a ration using the feedstuffs you selected for your animal. Use the *Project 5.5.5 Ration Formulation Spreadsheet* to balance the ration.

1. Select the correct worksheet from the tabs at the bottom.
2. Insert the nutritional requirements of your animal from *Activity 5.2.3 Individual Requirements* in the Total Required row on your spreadsheet.
3. Input the feedstuffs you selected in Part Two and the nutrient composition of each in the spreadsheet.
4. Use the Pearson Square to estimate the correct proportions of your main feedstuffs.
5. Use the trial and error method to determine to quantities of other feeds and supplements for your ration.

