



# 4-H VOLUNTEER INFORMATION SERIES

Nebraska 4-H Youth Development

## Club Activity Idea: Learning About Livestock Feed Rations

**Outcome Area:** \_\_ SET \_\_X\_ Healthy Lifestyles \_\_ Life Skills \_\_ Career Development

**Curriculum Area:** Animal Science

**Specific Project (s):** Any Animal or Vet Science Project

**Description of Activity:**

This activity will help students learn about the similarities of the food humans eat and the food animals eat. They should leave with an understanding that livestock need balanced rations just like we must eat a balanced diet.

**Age Level:** 3<sup>rd</sup>-6<sup>th</sup> grades

**Group Size:** 1-25

**Time Involved:** Preparation time: 30 minutes      Activity time: 15-30 minutes

**Materials Needed:**

- MyPyramid Posters
- Large mixing bowl
- Measuring cups
- Ingredients for your ration. See recipe/ration below for suggestions.
- Sample of feeds if available
- Mixing spoon
- Small plastic cups for each participant

**Activity:**

Most of you like to eat don't you? What do you like to eat?  
*(Let students give their answers)*

Those all sound like good things to eat to me too. Are you able to eat whatever you want, whenever you want?

I didn't think so. Your parents tell you what you can eat and the kitchen staff at school decide what you're going to have every day at school. They make sure you have a balanced diet and are eating foods from all 5 food groups. Who can name one of the food groups for me?

Have a copy of My Pyramid poster for the group to look at. You can also have these available to give each student at the end of the session. It is available at:

[http://teammnutrition.usda.gov/Resources/mpk\\_poster2.pdf](http://teammnutrition.usda.gov/Resources/mpk_poster2.pdf)

Help the group get the following identified:

*Grains; Vegetables; Fruits; Milk; Meat and Beans. Emphasize Fruits and Vegetables are separate groups.*

Good.

Well, animals on the farm like to eat too. Do you think that animals like to eat the same things we do?

No. They have to eat different things because they are different than us. What are some things that livestock eat?

*(Take answers from students.—corn, hay, alfalfa, soybeans, milo, etc. As the students name things, you can pass around samples if you have them.)* Samples are great! I double bag my samples in zip lock bags because the kids love to feel them and have broken my bags. ☺

Do you think animals can eat anything they want to? No, they have to eat a balanced diet too. When a livestock producer prepares feed for livestock, he doesn't call it a balanced diet, but a **balanced ration**. They need food from all the food groups just like we do. Their food groups are a little different than ours. But they are similar.

Their food groups are: Protein, Energy, Roughage, Minerals, and Vitamins

These food groups can be matched to the MyPyramid food groups.

Protein (soybeans) = Meats and Beans

Energy (corn) = Grains

Roughage (prairie hay, oats, alfalfa, etc.) = Vegetables or Fruits

Minerals and Vitamins (salt, minerals) = Milk

As I mentioned earlier, a livestock producer will prepare a balanced ration for his livestock. Different livestock require different feed rations. A calf requires different things than a pig does and a lamb requires different feed than a horse does. Also, animals at different stages in their lives require different rations. Just like you require a different diet than your mother or father, a young animal has different nutritional requirements than their parents. Livestock producers have to know their animals and understand their nutritional needs just like the cooks at school need to understand your nutritional needs so they can prepare meals for you. Would you like to be a livestock producer and prepare a balanced ration for some feeder lambs? Good.

Today we're going to use the following ingredients to make our sheep ration:

Corn for **energy** = corn candy – (You could also use popcorn, various corn cereals for a healthier choice than corn candy).

Soybeans for **protein** = peanuts

Oats for **roughage** = raisins

Minerals & Vitamins = color coated round candies

What animal food groups does each of these fit? (Have students place containers by signs for each food group.)

Good. Now let's mix our "Ration"

To end up with a 20% protein ration help me determine how much of each of the feed sources we will need to make a total of 10 cups of feed. In other words, how many cups is 20% of 10?

That's right. Two cups. Now we need to complete the food ration with the remaining feeds. Remember, you have to include all the feed sources.

I suggest using the following amounts:

**2 cups peanuts** (If you are teaching an unfamiliar group you may want to use round oat cereal or something else because of peanut allergies.)

**4 cups corn candy**

**3 cups raisins**

**1 cup round color coated candies**

We need to mix this “ration” so all the lambs get a good mixture of all the ingredients. A livestock producer will either mix this with a big machine called a feed mixer or buy it already mixed.

Who would like to be the feed mixer today? (*It would be a good idea to have them wash their hands, use hand sanitizer, and/or wear plastic gloves. You may choose to mix it yourself.*)

Now that the ration is mixed, it is time to feed it to the animals. A livestock producer knows how much feed an animal needs everyday and will measure that amount out. A feeder lamb will need to get about 6 lbs. of feed each day. The feeder lamb is fed twice a day, so at each feeding a lamb will get 3 lbs. This is about a coffee can of feed. (*Show them a coffee can.*)

Here are your “coffee cans.” (*Give each a disposable cup.*)

You each get one “coffee can” of feed at this feeding. A farmer who has lots of lambs or calves is not going to carry feed to them by the coffee can, but will probably use a tractor with a feed wagon to feed them.

Okay, there is one last thing that all animals need in order to live. If animals don't have this they can die within a day. What is it?

That's right, water. Water is very important to every living thing. Animals, including humans can live longer without food than they can without water. If you're a livestock producer you always need to check to make sure your livestock have a clean fresh source of water everyday.

Can I see how well you have listened? Tell me the things that animals need to have in their rations. (*Energy, Protein, Roughage, Vitamins & Minerals, and WATER*)

Good, I think you've listened very well. This could be a normal feeding time if you were my lambs so if you'd each like to have your “ration” of a coffee can of feed you can come and get your serving. *Let them have their “ration.” Include a drink of water as well. (I've done this at a day camp event and simply put the entire “ration” in a bag and sent it home with the teacher to distribute in the classroom at an appropriate time.)*

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Adapted from an activity presented by Tom Drudik, University of Nebraska-Lincoln Extension.