



Food for Thought



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4-H STEM

Food as Feed

Most of us like to eat right? Whether it be breakfast, lunch, or dinner, we all enjoy our meals, and definitely notice if we skip one. Well our livestock are the same way!

Check for understanding

1) What are some of your favorite meal time foods?

Are you able to eat whatever you want, whenever you want? Although it would be fun to eat ice cream for breakfast and candy whenever we wanted, it would probably give us a tummy ache, right? Luckily, your parents tell you what you can eat, and the cafeteria staff at your school make sure your plate is full of fruits and veggies. They make sure you maintain a balanced diet with food from all 5 food groups.

The Human food groups are:

Grains, Vegetables, Fruits, Milk, Meat and Beans

Each of these groups is vital in creating a balanced diet.

Check for understanding

2) What are some things you think livestock like to eat

When we prepare meals for livestock it is not called a balanced diet, but a balanced ration. They need food from the 5 food groups as well. However, their food groups look a tad different than ours, but still similar.

Protein (soybeans) = Meats and Beans

Energy (corn) = Grains

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

Minerals and Vitamins (salt, minerals) = Milk



EXPERIMENT

Today we are going to be using the following items to make our very own lamb feed rations:

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

Soybeans for protein = peanuts or cashews

Oats for roughage = raisins

Minerals & Vitamins = chex cereal and pretzels

To end up with a 20% protein ratio let's 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?

If our lamb also needs a 30% supplement, or minerals and vitamins ration, how many cups is 30% of 10?

If we have 2 cups of protein and 3 cups of supplement, how many cups do we have left to make a complete feed ration

We need to complete the food ration with the remaining feeds. Remember, you have to include all the feed sources!

Now we need to mix our ration so that the lambs get a good mixture of all the ingredients! A farm will either mix all the ingredients in a large machine called a feed mixer, or buy it already combined.



EXPERIMENT

Today, we will be the feed mixer, mix all of your ingredients together with a spoon or spatula. Use large circular motions. Try to alternate between fast and slow circles till it is all mixed!

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.

If a show lamb needs lbs of feed each day, and is fed three times a day, how much will the lamb get at each feeding?

Today, we can use joes cups or a solo cup as our “coffee can”

Check for understanding

- 3) 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?

Check for understanding

- 4) Okay guys, tell me the things that animals need to have in their rations.

Fantastic! If we were on a farm, this would be feeding time if you were my lambs. If you would like, you can each have your serving, or ration, of feed. Good work!

