

Putting Science into Animal Science Projects

Area: Understanding Feed Labels

Activity: What am I feeding my animals?

Goal: Help members relate feed ingredients to the feed label

Materials Needed:

- Feed samples which are not pellets or crumbles (can identify some of the ingredients)
- Feed label from the feed
- Worksheet

How to do the Activity:

1. Provide each member (or pair of members) with a small sample (1/2 cup) of feed. Suggested types of feed are deer feed, horse sweet feed, or chicken scratch feed.
2. Have members separate feed into its components.
3. Have members write down what they think the components are on their worksheet.
4. Discuss their answers.
5. Give each member (or pair of members) a copy of the feed label from the feed you are using.
6. Have them compare ingredients on the feed label to their own list.
7. Discuss differences and “where” all of the ingredients are in the feed.
8. Discuss how ingredients in the feed could be changed without changing the feed label.
9. Look at the Guaranteed Analysis and discuss how the protein % could be adjusted or maintained with different ingredients.

Conclusion:

By completing this activity, 4-H members have been able to explore some concepts of science. They have asked questions, answered questions, gained some factual knowledge, and have hopefully been prompted/encouraged to ask more questions. *How else might this _____? What if _____ were done? Why did I get these results?* As they grow/expand their knowledge with Inquiry Based Learning, they are learning life skills that they will use again and again as capable adults.

WORKSHEET

What am I feeding my animals?

1. Separate your feed sample into its individual components. Identify each component to the best of your abilities and write down your answers below:

_____	_____
_____	_____
_____	_____
_____	_____

2. Compare the ingredients on the feed label to your list.

Write down the ingredients from the label that match your list above:

_____	_____
_____	_____
_____	_____
_____	_____

Circle the ingredients on the label that are NOT in your list.

Where are the rest of the ingredients? _____

3. Digging Deeper:

What is the guaranteed analysis for minimum crude protein? _____

Without changing the feed label, how could a feed manufacturer use different ingredients in the feed?

If a feed manufacturer wanted to increase or decrease the minimum crude protein, what could they do?

WILDLIFE FEED

16% Textured Deer Feed
A feed formulated for deer

GUARANTEED ANALYSIS

Crude Protein (Min.).....	16%
Crude Fat (Min.).....	5.5%
Crude Fiber (Max.).....	10%
Calcium (Ca) (Min.).....	1.75%
Calcium (Ca) (Max.).....	2.25%
Phosphorus (P) (Min.).....	0.75%
Salt (NaCl) (Min.).....	0.25%
Salt (NaCl) (Max.).....	0.75%
Selenium (Se) (Min.).....	0.7 ppm
Copper (Cu) (Min.).....	45 ppm
Vitamin A (Min.).....	16,500 IU/lb
Vitamin E (Min.).....	325 IU/lb

INGREDIENTS

Recleaned Oats, Whole Black Oil Sunflower Seeds, Steam Flaked Corn, Cane Molasses, Soybean Oil, Roughage Products, Forage Products, Grain Products, Dehulled Soybean Monocalcium Phosphate, Dicalcium Phosphate, Sodium Phosphate, Salt, L-Lysine, Dihydriodide, Ferrous Sulfate, Cobalt Carbonate, Sodium Selenite, Selenium Yeast, Vitamin A Supplement, Vitamin D-3 Supplement, Vitamin E Supplement, Zinc Methionine Complex, Cobalt Glucoheptonate, Copper Lysine Complex Biotin, Vitamin B12 Supplement, Riboflavin Supplement, Niacin Supplement, d-Pantothenic Acid, Chlorine Chloride, Hydrated Sodium Calcium Aluminosilicate, Brewer's Dried Yeast, Dried *Saccharomyces cerevislate* Fermentation Solubles, Diatomaceous Earth, Bentonite, Sodium Bentonite, Calcium Propionate, Thiaine Mononitrate, Beta Carotene, Ascorbic Acid, Dried *Lactobacillus acidophilus* fermentation product, Dried *Lactobacillus casei* fermentation product, Dried *Enterococcus faecium* fermentation product, Dried *Bifidobacterium Thermophilum* fermentation product, Natural and Artificial Flavoring.

WARNING: CONTAINS COPPER - DO NOT FEED TO SHEEP

CONTAINS NO ANIMAL PROTEIN PRODUCTS
FEEDING DIRECTIONS

Feed as complete grain ration to penned deer along with good quality forage.
Always allow access to free choice fresh clean water.

Net Weight – 50 LBS. (22.7 Kg.) – BULK – Shown on Invoice