



**Credits:** C.A. Porr, C.C. Crisman, R.K. Splan, Virginia Tech, Blacksburg, VA

Project funded by the Virginia Horse Industry Board. Artwork by Pam Talley Stoneburner. Thanks to the Virginia 4-H Cloverbud Advisory Group and Virginia Tech Equine Science Undergraduate Students for ideas and support.

Special thanks to Kathy Samley for her efforts on this module.

The 4-H name and emblem are protected under 18 USC 707.

## Virginia Cooperative Extension



[www.ext.vt.edu](http://www.ext.vt.edu)

Produced by Communications and Marketing, College of Agriculture and Life Sciences, Virginia Polytechnic Institute and State University, 2011

Virginia Cooperative Extension programs and employment are open to all, regardless of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg, Jewel E. Hairston, Interim Administrator, 1890 Extension Program, Virginia State, Petersburg.

Publication 380-105

# Eat Like a Horse!

It's not all grass! Knowing what a horse eats is the first step to managing their nutrition and helping them stay healthy.

## Introduction

Horses, just like people, need to eat a variety of things to meet their nutritional requirements. If their diet is out of balance, then problems occur. A horse getting too much feed will become overweight, while one who eats too many treats may end up with colic. A young horse that eats an unbalanced diet may grow slowly or not grow correctly.

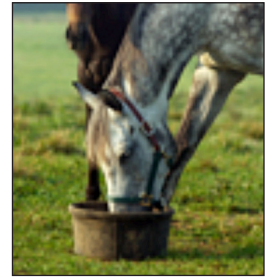
**Forages** should make up the bulk of the diet. Forages include fresh grass or hay (which is dried grass). The high fiber of this feed is important to the health of the stomach and intestines. Also, good quality forage is high in nutrients, including energy, protein, vitamins, and minerals. Most horses can live very healthy lives on good quality hay or grass alone. Good quality hay should smell like fresh grass, should not be dusty or moldy, and should be soft when squeezed in bare hands. A full-grown horse (1,000 pounds) will eat 15-20 pounds of hay each day.

**Concentrate (textured, pelleted, or extruded)** can be added to the diet if a horse needs more energy (for exercise or growth), protein (for muscle development), or vitamins and minerals (for healthy bones and body). Horses receiving good quality forage often do not need concentrates in their diet.

**Treats** can be used as a reward for good behavior or just as a snack. Horse treats can be bought at the store, but apples and carrots also make good snacks for horses. Treats shouldn't make up the bulk of the diet.

Horses also need access to fresh **water**. Water is the most important part of the diet, because a horse will get sick after just 2-3 days without water. A full-grown horse will drink 10-12 gallons of water each day.

**Salt blocks** provide horses with extra salt and are usually left out where the horse can eat a little when they want it. Most horses will not over eat salt.



*Are you hungry?*

**Skill Level:** Cloverbud, K-3

### Learner Outcomes

1. Identify basic horse feeds.
2. Explain why hay, grain, and treats are fed to horses.

**Science Standard(s):** Life Science/Characteristics of Organisms

**Success Indicator:** Correctly identify feeds that are commonly fed to horses.

**Life Skill(s):** Decision-making, Critical thinking, Cooperation

**Tags:** Cloverbud, horse, feed

**Time Needed:** 20-30 minutes

### Materials List

- Samples of 1) hay or grass, 2) horse feed (textured or sweetfeed is best), and 3) treats
- Samples of 1) vegetables, 2) granola bars, and 3) small candy pieces
- 5-pounds of horse feed, 20 pounds of hay (optional)
- Printed pages with food plate and feed ingredients
- Crayons, tape, and scissors

### Did You Know?

A full grown horse can eat up to 20 pounds of food a day!

A horse's stomach is small – it only holds about the same amount of food as a pig's!

### Glossary Words

**Colic** – abdominal pain often caused by overfeeding of grains

**Concentrate** – a blend of grains and protein, vitamins, minerals, and other feed supplements, often mixed with molasses;

**Extruded feed** – a ground concentrate that has been formed under high pressure and steam heat; it is less dense than a pellet, and individual ingredients cannot be identified

**Forage** – refers to hay or grass; should be the main part of the horse's diet

**Pelleted feed** – a concentrate that has been cooked and pressed into a pelleted form; individual ingredients cannot be identified

**Textured feed** – a concentrate where individual ingredients can be identified

## Experience / What to Do

Ask the children what they like to eat. Then ask them if there are foods they don't like as much, but that their parents tell them are "good for them." Explain that there is no one food that is perfect, and that a balanced diet is important for horses as well as people. Discuss the basics of nutrition and why it's important to eat healthy. Ask the children if they know what horses eat. As they answer, explain where those feeds fit into a balanced diet.

### Eat Like a Horse

1. Show the children the hay or grass. Explain that this should be the main part of the horse's diet. Have one child give out samples of the vegetable for each child to eat, and explain that the vegetable is similar to the grass or hay for horses.
2. Show the children the horse feed, and explain that grains can be another part of the horse's diet. Explain why horses might need grain in their diet. Have another child hand out pieces of a granola bar for them to eat.
3. Finally, show the children the horse treats, which can be given as a reward or a snack. Like candy, which can be handed out to each child, treats should not make up a large part of the diet or it can be unhealthy.

### Horse Food Plate

Hand out a copy of the food plate and a page of feeds to each child.

1. Have the children color the pictures of feed and then cut them out.
2. Have them tape or glue the feeds onto the correct area of the plate.
3. Remind children of the previous activity by asking them what feed should make up the largest part of their diet, then the next largest part, and finally the smallest part.

## For More Information

Search [www.extension.org/](http://www.extension.org/) for additional information.

## References

"Equine Science – Basic Knowledge for Horse People of All Ages" by Jean T. Griffiths. [www.Horsebooksetc.com](http://www.Horsebooksetc.com) or Phone: 1-800-952-5813

"Horse Science" by Ray Antoniewicz. [www.4-hmall.org/detail.aspx?ID=16681](http://www.4-hmall.org/detail.aspx?ID=16681)

"Horses & Horsemanship" by Ray Antoniewicz. [www.4-hmall.org/detail.aspx?ID=16680](http://www.4-hmall.org/detail.aspx?ID=16680)

## Talk It Over

### Share . . .

1. What type of feed should make up the biggest part of a horse's diet?
2. Why would you feed grain to a horse?
3. What foods do you eat that a horse also eats? Which food does a horse eat that you don't?

---

---

### Reflect . . .

1. Why is it important to eat a balanced diet?
2. How is keeping a record of what a horse eats helpful to horse owners?

---

---

---

### Generalize . . .

1. What has happened to you when you didn't eat a balanced diet – like too much candy?
2. What might happen to a horse that didn't eat a balanced diet?

---

---

---

### Apply . . .

1. How would you change what you eat to make your diet healthier?
2. How can you keep track of what you, or your horse, eat?

---

---

---

## More Ideas!

Horses should be fed by weight, not volume. For example, “one scoop” of feed can mean different things to different people. They may have different sized scoops, or may have different ideas on what a “full scoop” really means. The same goes for hay. Four flakes of grass hay will look like a lot more than four flakes of alfalfa hay, but there may be more weight to the alfalfa hay because it’s denser. Horses that are fed by “scoops and flakes” may be overfed and become obese or be more prone to colic.

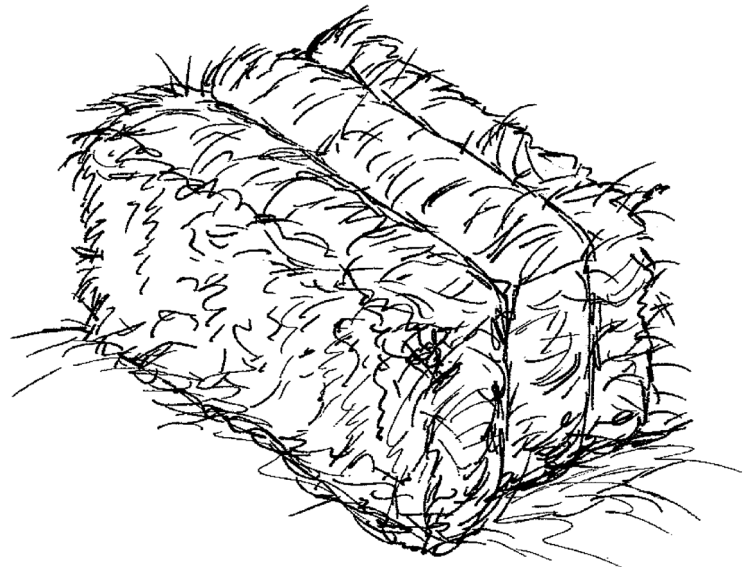
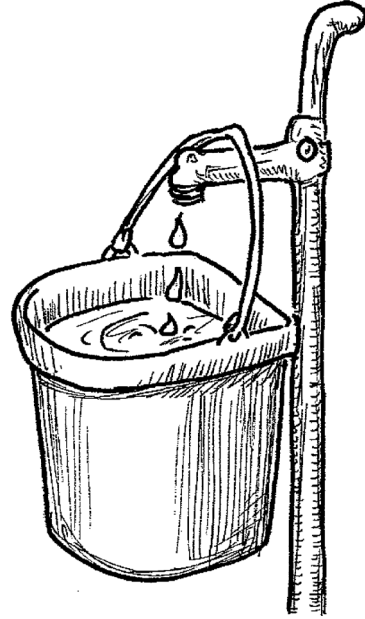
### Materials:

- A full bucket of feed (textured feed or pellets are fine), and an empty bucket
- Several flakes of grass hay and alfalfa hay, hay string
- Several different sizes or shapes of feed scoops (small and large coffee cans, different scoops, etc.)
- A scale (hanging scales are easier to use, but a bathroom scale can work)

Set out the scoops and the bucket of grain. Set the empty bucket on the scale and zero it out. Have each child come up and select a scoop, then have them dip out “one scoop” of grain and put it in the empty bucket. Record the weight and then dump the feed back into the bucket. Compare the results and discuss why there are differences.

Count out the same number of flakes of grass and alfalfa hay. Look at the difference in the size of each pile and ask the children which one they think weighs more. Tie the hay string around the flakes to keep them together, and then weigh each pile. Again, stress the importance of knowing the weight of the feed, not much how many flakes are in the pile.

On the average, a 1,000-pound horse should eat about 20 pounds of feed (hay and grain) each day.



# My Horse Feeds

