

Lesson B1–2

Discovering Ways Animals Help People

Unit B. Animal Science and the Industry

Problem Area I. Understanding the Animal Science Industry

Lesson 2. Discovering Ways Animals Help People

New Mexico Content Standard:

Pathway Strand: Problem Solving and Critical Thinking

Standard: IV: Solve problems using critical thinking skills (e.g., analyze, synthesize and evaluate) independently and in teams.

Benchmark: IV-B. Analyze information critically to ascertain its value to whatever discipline it is applied.

Performance Standard: 2. Assess problem solutions to determine their appropriateness and efficiency.

Student Learning Objectives. Instruction in this lesson should result in students achieving the following objectives:

1. Identify ways animals provide food for people.
2. Identify ways animals provide clothing for people.
3. Identify other ways animals help people.

List of Resources. The following resources may be useful in teaching this lesson:

Recommended Resources. One of the following resources should be selected to accompany the lesson:

Lee, Jasper S., et. al. *Introduction to Livestock and Companion Animals, 2nd Edition.*
Danville, Illinois: Interstate Publishers, Inc. 2000 (Chapter 1)

Other Resources. The following resources will be useful to students and teachers:

Gillespie, James R. *Modern Livestock & Poultry Production, 6th Edition.* Albany, New York: Delmar. 2002 (Unit 1)

List of Equipment, Tools, Supplies, and Facilities

Writing surface
Overhead projector
Transparencies from attached masters

Terms. The following terms are presented in this lesson (shown in bold italics):

By-product
Caviar
Companion animal
Dairy cattle
Game
Hide
Leather
Meat animal
Mohair
Service animals

Interest Approach. Use an interest approach that will prepare the students for the lesson. Teachers often develop approaches for their unique class and student situations. A possible approach is included here.

Ask students to name different roles animals play in the lives of humans. List them on the board. Some examples might be: pets, transportation, food, etc. Lead discussion to realize that animals play a very important role in the lives of all people.

Summary of Content and Teaching Strategies

Objective 1: Identify ways animals provide food for people.

Anticipated Problem: What are some ways animals provide food for people?

- I. Animals provide many foods that people enjoy. These foods are high in nutrients and help people live healthy lives. Foods from animals primarily include meat, milk, and eggs. Some animals give more than one kind of food product, such as chickens, that provide both meat and eggs.
 - A. Meat can come from animals that are raised on farms or ranches or it may come from wild animals. A **meat animal** is an animal raised especially for its meat. Some of the animals that are raised for meat include cattle, fish, turkeys, chickens, swine, and sheep. Horses are used for meat in some countries. Milk is primarily from cattle. Cattle specially grown to produce milk are called **dairy cattle**. Goats and a few other animals are sometimes milked. Eggs are primarily from chickens. A few other species may produce eggs for human food, including guineas and ducks. Some people enjoy fish eggs, known as **caviar**.
 - B. Wild animals used for food include deer, rabbit, quail, and fish. Wild animals are not included in livestock. They are known as game or wildlife. **Game** is wildlife hunted for food or other uses.

There are many techniques that can be used to assist students in mastering this material. Students need text material to aid in understanding some of ways animals provide food for people. Chapter 1 in Introduction to Livestock and Companion Animals is recommended. Use TM: B1–2A to aid in the discussion.

Objective 2: Identify ways animals provide clothing for people.

Anticipated Problem: What are some ways animals provide clothing for people?

- II. Livestock provide fiber and skins for the production of clothing. This clothing is made from many different animals by-products. A **by-product** is a product made from the parts of the animal that are not used for food. The demand for animal fibers for clothing is lower now because of the increased use of synthetic fibers for clothing.
 - A. Some animals are raised specifically for products to make clothing. Some of the most common are mink for their fur and certain breeds of sheep raised primarily for wool. Although other animal fibers are decreasing in demand, the use of wool in the United States has been almost constant for the past ten years. A special quality cloth is made from **mohair**, a product of angora goats.
 - B. Clothing may be made from animal skin (**hide**) or hair. Bones, antlers, and other animal parts may also be used. The prepared skin of animals is known as **leather**. From 5 to 10 percent of the market value of animals comes from the sale of hides.

There are many techniques that can be used to assist students in mastering this material. Students need text material to aid in understanding some of the ways animals provide clothing for people. Chapter 1 in Introduction to Livestock and Companion Animals is recommended.

Objective 3: Identify other ways animals help people.

Anticipated Problem: What are some other ways animals help people?

- III. Some functions of livestock benefit all of society. Other functions are important mainly to individual farms. Taken together, the functions of livestock are a vital part of the total agricultural industry of the nation. In addition to food and clothing, there are several other ways that animals help people. Some of them are:
 - A. Companionship and pleasure—Companionship and pleasure are important to people. A **companion animal** is an animal that provides benefits that help people enjoy life. Most common examples are dogs cats, and ornamental fish. Some animals are used for sporting events. Horseback riding is a major source of recreation and pleasure for many people.
 - B. Service—**Service animals** are animals that assist people in living and work. They are used in many ways and may be given special training. Dogs may be used to lead visually impaired people, herd sheep, or guard property. Some animals are carefully used in laboratories for finding new medicines to cure human diseases. Dogs in police canine units are helpful against crime.
 - C. Conservation—Livestock help conserve soil and soil fertility. The grasses and legumes that are used to feed livestock are soil-conserving crops. They form protective covers on the land and help to prevent wind and water erosion. Nutrients are removed from the soil by the crops being grown. When the crops are fed to livestock, about 80 percent of the nutrient value is excreted in the manure. By putting the manure back on the soil, the rate of loss of soil fertility can be decreased.
 - D. Stabilize Farm Economy—Livestock help bring stability to the farm business. Raising livestock makes good use of the resources already available to farmers—land, labor, capital, and management ability—and can increase the farming income. Including livestock in a farm business helps to spread the risks involved in farming over more enterprises. Therefore, the farmer is not dependent on only one or two sources of income. Also both labor and income are spread more evenly throughout the year.

There are many techniques that can be used to assist students in mastering this material. Students need text material to aid in understanding some of the other ways animals help people. Unit 1 in Modern Livestock & Poultry Production is recommended. Use TM: B1–2B to aid in discussion.

Review/Summary. Use the student learning objectives to summarize the lesson. Have students explain the content associated with each objective. Student responses can be used in de-

termining which objectives need to be reviewed or taught from a different angle. Questions at the end of the textbook chapters may also be used in the review/summary.

Evaluation. Focus the evaluation of student achievement on mastery of the objectives stated in the lesson. Measure student performance on classroom participation, laboratory assignments, and written tests or quizzes.

Answers to Sample Test:

Part One: Matching

1 = i, 2 = h, 3 = c, 4 = f, 5 = a, 6 = e, 7 = b, 8 = d, 9 = j, 10 = g

Part Two: Completion

1. spread
2. 80
3. decreasing, almost constant
4. 5, 10

Part Three: Short Answer

Food, clothing, companionship, and pleasure, service, conservation, stabilize farm economy

Test

Lesson B1–2: Discovering Ways Animals Help People

Part One: Matching

Instructions. Match the term with the correct response. Write the letter of the term by the definition.

- | | | |
|--------------------|------------|---------------------|
| a. By-product | b. Caviar | c. Companion Animal |
| d. Dairy Cattle | e. Game | f. Hide |
| g. Meat Animal | h. Mohair | |
| i. Service Animals | j. Leather | |

- _____ 1. Animals that assist people in living and work.
- _____ 2. A product of angora goats.
- _____ 3. An animal that provides benefits that help people enjoy life.
- _____ 4. The prepared skin of animals.
- _____ 5. A product made from the parts of the animal that are not used for food.
- _____ 6. Wildlife hunted for food or other uses.
- _____ 7. Fish eggs.
- _____ 8. Cattle specially grown to produce milk.
- _____ 9. Animal skin.
- _____ 10. An animal raised especially for its meat.

Part Two: Completion

Instructions. Provide the word or words to complete the following statements.

1. Including livestock in a farm business helps to _____ the risks involved in farming over more enterprises.
2. When the crops are fed to livestock, about _____ percent of the nutrient value is excreted in the manure.
3. Although other animal fibers are _____ in demand, the use of wool in the United States has been _____ for the past ten years.

4. From _____ to _____ percent of the market value of animals comes from the sale of hides.

Part Three: Short Answer

Instructions. Provide information to answer the following question.

List the various ways animals help people identified in this lesson.

HOW ANIMALS PROVIDE FOOD FOR PEOPLE

Animal	Food Item Name*
Meat	
Cattle Younger than 3 months Older animals	Veal Beef
Swine (hogs)	Pork
Sheep Young (less than 1 year) Older (older than 1 year)	Lamb Mutton
Goat	Goat mutton
Chicken Young (less than 12 weeks) Neutered young male Old hen	Broiler Capon Hen
Turkey	Turkey
Fish	Fish
Milk	
Diary cattle	Milk
Goats	Goat's milk
Eggs	
Chickens	Eggs
Fish	Caviar
*Variety meat is the general name for food made from organs and glands of different meat animals. Potted meat animals and Vienna sausage are examples.	

WAYS ANIMALS HELP PEOPLE

- Food
- Clothing
- Companionship and pleasure
- Service
- Conservation
- Stabilize Farm Economy

