

## Lesson B6–3

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# Understanding Animal Welfare Issues

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**Unit B.** Animal Science and the Industry

**Problem Area 6.** Meeting Environmental Requirements of Animals

**Lesson 3.** Understanding Animal Welfare Issues

### **New Mexico Content Standard:**

**Pathway Strand:** Ethics and Legal Responsibilities

**Standard: XII:** Know and understand the importance of professional ethics and legal responsibilities.

**Benchmark: XII-B.** Evidence interest and concern to demonstrate natural resource stewardship and ethics.

**Performance Standard:** 1. Explain how personal choices are related to natural resource sustainability.

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

1. Identify ethics involved with animal production.
2. Discuss animal welfare and animal rights issues.
3. Describe animals used for genetic engineering and biotechnology.

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

Cheeke, Peter R. *Contemporary Issues in Animal Agriculture*. Danville, Illinois: Interstate Publishers, Inc. 1999

Lee, Jasper S. *Introduction to Livestock and Companion Animals 2nd Edition*. Danville, Illinois: Interstate Publishers, Inc. 2000

Ensminger, M. E., *Animal Science*. Danville, Illinois: Interstate Publishers, Inc. 1991

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

Jackson, Nancy S., Greer, William J., and Baker, James K. *Animal Health*. Danville, Illinois: Interstate Publishers, Inc. 2000

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

Internet keywords: animal welfare, animal rights, animal ethics, animal research, and genetic engineering of animals

## List of Equipment, Tools, Supplies, and Facilities

Writing surface

Overhead projector

Transparencies from attached masters

Copies of student lab sheet

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

**Animal rights**

**Animal welfare**

**Biotechnology**

**Cloning**

**Ethics**

**Genetic engineering**

**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.

# Summary of Content and Teaching Strategies

**Objective 1:** Identify ethics involved with animal production.

**Anticipated Problem:** What ethics are involved with animal production?

- I. **Ethics** involve examination of moral issues to determine right from wrong when dealing with human character and conduct. The main ethical question that arises is whether we should raise animals in order to kill and eat them, or not.
  - A. Humans have used animals for their meat and hides for many years. Some people wonder if we should have the power as humans to do so. The argument has been long asked why we need to eat the animals. Since we are not forced to eat animals because of hunger or nutrient requirements some think we do so just because we like to. There is no list of facts available to make everyone think that we should or should not eat animals. The decision is up to each consumer to decide for themselves.
  - B. Most people do agree on the fact that animals should be raised free from pain and suffering. It is difficult to agree on what terms are needed to raise an animal in the most comfortable manner possible.
  - C. In advanced countries like the U.S. questions are raised about specific animal raising techniques like dehorning and castrations without the use of numbing medication. The point is made that we should not partake in these practices because we have the means to make it better for the animals.
  - D. Many practices that ensure the well-being of animals are not economically feasible to producers and consumers. Faculties are set up to be profitable to the owners. Many consumers are not willing to pay extra for meat that animal-friendly production facilities would bring.
  - E. Some major ethical issues involve the following:
    1. Use of confinement and small living areas for animals
    2. Withholding of medical attention to decrease production costs
    3. Slaughter of animals in view of other animals
    4. Selection of animals for rapid growth that can also have other medical problems because of it
    5. Creating turkeys by natural selection that can not reproduce naturally because of their large breast muscles

Use TM: B6–3A to discuss animal ethics issues.

**Objective 2:** Discuss animal welfare and animal rights issues.

**Anticipated Problem:** What is the difference between animal rights and animal welfare?

- II. **Animal rights** is the belief that animals have the same right to life and liberty as humans. **Animal welfare** is the belief that humans should provide animals with surroundings that meet their needs while under their control.
- A. If you believe in animal rights, the slaughter of livestock is viewed as murder. If you believe in animal welfare, the slaughter of livestock should be done in a humane manner.
  - B. The choice to believe in animal rights or animal welfare is up to each individual. Like any view, it is one that is made based on your knowledge and feelings about a situation. As the size of farms increases and the number of farmers decreases fewer and fewer people have the opportunity to see how animals are raised.
  - C. Most animal producers are concerned with animal welfare. They know that raising an animal improperly can cause the animal to become sick or die. Sick and dead animals take from the producers profit so most producers raise animals as humanely as possible.
  - D. The debate over what animals need has been long and is far from over. Basically freedom from the following stresses are the focus of discussions: thirst, hunger, malnutrition, discomfort, pain, injury, disease, and mental suffering.

Use TM: B6–3B to explain the difference between animal rights and animal welfare.

**Objective 3:** Describe animals used for genetic engineering and biotechnology.

**Anticipated Problem:** What issues are involved with using animals for genetic engineering and biotechnology?

- III. **Biotechnology** is the application of biology to technology. Often, biotechnology uses living cells and components to research advances in technology. Many different processes are used and several debates stem from these uses. The research done is used to benefit both animals and humans.
- A. **Genetic engineering** is the movement of genes from one cell to another. Improvement of feeds and breeds are two benefits genetic engineering will bring. Manipulation of genetics has also brought about cloning of animals. **Cloning** is creating exact duplicates of plants and animals. Modification of animals has caused great controversy over moral and spiritual grounds.
  - B. Many risks are involved with genetically engineering animals. Some risks include:
    - 1. Loss of genetic diversity could arise
    - 2. Some modifications could have harmful consequences that will not be detected right away
    - 3. Not foreseeing economic effects that could disturb the economy
    - 4. Use of animals to carry pathogens and infect humans could occur

- C. Many precautions are being made to regulate genetic engineering. It is difficult to weigh advantages and disadvantages because this procedure has not been around for very long.

Use LS: B6–3A to creatively design a new breed.

**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 to determine which objectives need to be reviewed or taught over with a different approach. Questions provided in the recommended textbooks may also be used to help review.

**Application.** Application can involve student activity with the provided labs.

**Evaluation.** Evaluation should focus on student achievement of the objectives for each lesson. Various techniques can be used, such as performance on the application activities. A sample written test is attached.

## Answers to Sample Test:

### Part One: Matching

1 = e, 2 = a, 3 = b, 4 = f, 5 = d, 6 = c

### Part Two: Completion

1. biotechnology
2. welfare
3. pain, suffering
4. raised

### Part Three: Short Answer

1. Loss of genetic diversity could arise.
2. Some modifications could have harmful consequences that will not be detected right away.
3. Not foreseeing economic effects that could disturb the economy.
4. Use of animals to carry pathogens and infect humans could occur.

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# Test

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## Lesson B6–3: Understanding Animal Welfare Issues

### Part One: Matching

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

- |                  |                   |                        |
|------------------|-------------------|------------------------|
| a. Animal rights | c. Animal welfare | e. Biotechnology       |
| b. Cloning       | d. Ethics         | f. Genetic engineering |

- \_\_\_\_\_ 1. The application of biology to technology.
- \_\_\_\_\_ 2. The belief that animals have the same right to life and liberty as humans.
- \_\_\_\_\_ 3. Creating exact duplicates of plants and animals.
- \_\_\_\_\_ 4. The movement of genes from one cell to another.
- \_\_\_\_\_ 5. Examination of moral issues to determine right from wrong when dealing with human character and conduct.
- \_\_\_\_\_ 6. The belief that humans should provide animals with surroundings that meet their needs while under their control.

### Part Two: Completion

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

1. Often, \_\_\_\_\_ uses living cells and components to research advances in technology.
2. Most animal producers are concerned with animal \_\_\_\_\_.
3. Most people do agree on the fact that animals should be raised free from \_\_\_\_\_ and \_\_\_\_\_.
4. As the size of farms increase and the number of farmers decreases fewer and fewer people have the opportunity to see how animals are \_\_\_\_\_.

### Part Three: Short Answer

*Instructions.* Provide information to answer the following questions.

Many risks are involved with genetically engineering animals. Name four:

# ANIMAL ETHICS

**Some major ethical issues involve the following:**

- 1. Use of confinement and small living areas for animals.**
- 2. Withholding of medical attention to decrease production costs.**
- 3. Slaughter of animals in view of other animals.**
- 4. Selection of animals for rapid growth that can also have other medical problems because of it.**
- 5. Creating turkeys by natural selection that can not reproduce naturally because of their large breast muscles.**

# **THE DIFFERENCE BETWEEN ANIMAL RIGHTS AND ANIMAL WELFARE**

**Animal rights is the belief that animals have the same right to life and liberty as humans.**

**Animal welfare is the belief that humans should provide animals with surroundings that meet their needs while under their control.**

**Give some examples of each.**

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# **Lab Sheet**

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## **Designing a New Breed**

***Create a super animal!***

If you could combine any number of traits from any number of different animals, what kind of creature would you develop that would serve the most purposes or benefits?

Please provide a name, description, and picture of your animal.