Bioethics

Using Animals in Science and Industry

A Bioethical Dilemma

Humans have a long history of using animals in agriculture and industry. Animals are used:

- As sources of food (beef, pork, lamb, etc.).
- As sources of raw materials (suede, leather, wool, rennin, collagen, gelatin, etc.).
- As sources of medicine (insulin from pig pancreas, growth hormone from cow pituitary gland, etc.).
- As transportation and laborers (horse, elephants, donkeys, etc.).
- As laboratory test specimen (rats, mice, dogs, cats, monkeys, chimpanzees, etc.).
- As educational tools (zoos, museums, etc.)
- As companions/pets.

In most countries, scientists are required by law to minimize to the greatest extent possible the pain and suffering they cause to animal during testing, research, and manufacturing. Many governmental (, i.e. National Institutes of Health (NIH) and professional organizations (i.e. American Psychological Association), publish guidelines on the ethical use care and use of animals.

Recently though, many people have begun to question how animals are used to improve the quality of human life. Many people question whether it is ethical to use any species of animal in any or every application. Should there be regulations about how and which animals should be used for which purposes?



Some people feel that almost any use of animals is justified to save or improve human life. Others feel that there is almost no reason to sacrifice an animal to improve human life. Where do you stand on the use of animals in science and industry?

In the following activity you are asked to decide if certain uses of animals should be allowed. If you decide an animal use is justified, then decide which animals should be approved for that purpose. In the activity you should use the values clarification model.

To Do Develop a personal position on the use of animals in science and research.

- 1. Obtain and review an Animal Use in Science and Industry chart from your instructor.
- 2. Using the code on the chart, label those animals and the uses of animals you think should be approved. Consider the pros and cons of using each type of animal for each type of application.

- 3. Compose a statement explaining how and why you have decided that certain animals should be approved for certain applications. Describe any conditions that could cause you to change your position(s) on the uses of these animals and the new position(s) you might take.
- 4. Join together with three other classmates. In two minutes or less, present your position on animal use to the others.
- 5. Each person should summarize the position of the other classmates and discuss whether or not anyone's position caused a change in their own position.

The Use of Animals in Science and Industry Place an "X" in each box that you agree with the use of that species for that purpose. Place an "NO" in each box that you do not agree with the use of that species for that purpose. Place a "n/a" is placed where a decision is not applicable)

	o animal of any kind should be used r this purpose.	y animal of any kind should be ed for this purpose.	orms (invertebrate with simple :rvous system)	ctopi (invertebrate with advanced :rvous system)	sh/ Zebrafish (vertebrate with latively simple nervous system)	ogs (vertebrate with relatively mple nervous system)	rds/ Fowl (vertebrate with latively simple nervous system)	odent/Rat/Rabbit (vertebrate with ore advanced nervous system)	ww/ livestock (vertebrate with Ivanced nervous system)	og/Cat (vertebrate with advanced :rvous system)	onkey (vertebrate with advanced :rvous system)	nimpanzee (vertebrate with very vanced nervous system)
Animal Use (general, - specific)	l Ž Ĉ	Ar us	Σų	ŏĕ	μË	Sir	E Bi	2 2	မိပိ	<u>d e</u>	Σĕ	a c
sources of food (whole animal)		ļ								<u> </u>	<u> </u>	
sources of food byproduct (i.e. eggs, milk)										<u> </u>	<u> </u>	
industrial raw materials applications												
- source of fabric/clothing (i.e. wool, leather)										<u> </u>	<u> </u>	
- source of industrial molecules (i.e. rennin)										<u> </u>	<u> </u>	
- testing of cosmetics										<u> </u>	<u> </u>	
medical applications	ļ									<u> </u>	<u> </u>	
- source of pharmaceutical molecules (i.e. insulin)										<u> </u>	<u> </u>	
- source of transplant organs (i.e. valves, cornea)										<u> </u>	<u> </u>	
transportation and laborers	ļ									<u> </u>	<u> </u>	
laboratory test specimen										<u> </u>	<u> </u>	
- testing of new drugs										<u> </u>	<u> </u>	
- testing of environmental hazards										<u> </u>	<u> </u>	
- for endangered species protection												
- for broaden ing scientific knowledge												
educational tools/teaching purposes												
- dissection												
- surgical practice												
- behavioral observation												
- physiological observation												
companions/pets												