Animal Welfare Training at the University Level

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Animal welfare is the well-being of animals. The standards of "good" animal welfare vary considerably between different contexts. These standards are under constant review and are debated, created and revised by animal welfare groups, legislators and academics worldwide.

Animal welfare - Wikipedia, the free encyclopedia
https://en.wikipedia.org/wiki/Animal_welfare  
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Animal welfare science - Animal Welfare Act of 1966 - List of animal welfare groups

Animal Welfare Institute
https://awionline.org/
Since its founding in 1961, Animal Welfare Institute has sought to alleviate the suffering inflicted on animals by people. We seek better treatment of animals ...

USDA APHIS | Animal Welfare
https://www.aphis.usda.gov/animal-welfare/
Animal and Plant Health Inspection Service The Animal Welfare Act and its associated regulations require that federally established standards of care and treatment be provided for certain warm-blooded animals bred for commercial sale, used in research, transported commercially or exhibited to the public.

Animal Welfare Act | Animal Welfare Information Center
The Animal Welfare Act was signed into law in 1966. It is the only Federal law in the United States that regulates the treatment of animals in research, exhibition, ...

Animal Welfare League: Chicago Animal Adoptions and Pet ...
https://www.animalwelfareleague.com/
FIVE FREEDOMS

1. Freedom from hunger and thirst
   By ready access to water and a diet to maintain health and vigor

2. Freedom from discomfort
   By providing an appropriate environment

3. Freedom from pain, injury and disease
   By prevention or rapid diagnosis and treatment

4. Freedom to express normal behavior
   By providing sufficient space, proper facilities and appropriate company of the animal’s own kind

5. Freedom from fear and distress
   By ensuring conditions and treatment which avoid mental suffering
ANIMAL WELFARE CONCEPTIONS

Affective State

Natural Living

Basic Health and Biological Functioning

Broom (1986):
- Animal welfare is the state of animal regarding its attempts to cope with its environment

The UFAW handbook (Webster, 2011)
- Animal welfare is “the physical and mental state of the animal as it seeks to meet its physiological and behavioral needs”
Animal welfare

‘means how an animal is coping with the conditions in which it lives. An animal is in a good state of welfare if (as indicated by scientific evidence) it is healthy, comfortable, well nourished, safe, able to express innate behaviour, and if it is not suffering from unpleasant states such as pain, fear, and distress. Good animal welfare requires disease prevention and veterinary treatment, appropriate shelter, management, nutrition, humane handling and humane slaughter/killing. Animal welfare refers to the state of the animal; the treatment that an animal receives is covered by other terms such as animal care, animal husbandry, and humane treatment.’

http://www.oie.int/doc/ged/D5517.PDF
Animal Welfare: What Is It?

Animal welfare means how an animal is coping with the conditions in which it lives. An animal is in a good state of welfare if (as indicated by scientific evidence) it is healthy, comfortable, well nourished, safe, able to express innate behavior, and if it is not suffering from unpleasant states such as pain, fear, and distress. Good animal welfare requires disease prevention and veterinary treatment, appropriate shelter, management, nutrition, humane handling and humane slaughter. Animal welfare refers to the state of the animal; the treatment that an animal receives is covered by other terms such as animal care, animal husbandry, and humane treatment. Protecting an animal’s welfare means providing for its physical and mental needs.

https://www.avma.org/KB/Resources/Reference/AnimalWelfare/Pages/what-is-animal-welfare.aspx
ANIMAL WELFARE VS. WELL-BEING

• Animal Welfare
  – Quality of life
  – Broader context

• Well-being
  – Psychological state

• Europe vs. North America
• Understanding factors affecting animal welfare
• How animal welfare is measured and evaluated
• Ethical considerations
• Using scientific evidence to form opinions
Chimpanzee ‘personhood’ case sows confusion

New York judge amends an order that animal rights group said granted a writ of habeas corpus to two research animals.

Brendan Borrell

22 April 2015

An animal rights group wants two chimpanzees in a New York laboratory moved to a sanctuary.

Chimpanzees Get Their Day in Court in N.Y. ‘Personhood’ Hearing

Animal-advocacy group argued for the rights of Hercules and Leo, two chimpanzees currently held at Long Island’s Stony Brook University.

Steven Wise, president of the Nonhuman Rights Project, second left, and Assistant Attorney General Christopher Coakley, second from right, in Manhattan State Supreme Court on Wednesday. PHOTO: BLOOMBERG/JOHN LUCCHESI
McDonald’s Plans a Shift to Eggs From Only Cage-Free Hens

By STEPHANIE STROM
SEPT. 9, 2015

Eggs from a free-range farm in England. McDonald’s will begin phasing out the use of eggs from hens housed in cages. Nigel Roddis/Reuters

In a move that has significant implications for American and Canadian egg producers, the McDonald’s Corporation is announcing that it will begin phasing out the use of eggs from hens housed in cages.

The company uses some two billion shell and liquid eggs annually, or a little more than 4 percent of the 43.56 billion eggs produced in the United States last year. With the national announcement last week of plans to sell some breakfast items all day long, the company expects to buy even more eggs. For example, the Egg McMuffin, which uses one egg per sandwich, is among the company’s most popular menu items.
Number of students from an agricultural or non-agricultural background

*Data has been adapted from Parrish et al. 2015 and collected from other sources*
Numbers of male and female students in animal science

*Data has been adapted from Parrish et al. 2015 and collected from other sources*
Perceptions of animal use, animal rights and animal welfare in freshmen at the Ohio State University (Bennett-Wimbush et al., 2015)

- Distinction between animal welfare and animal rights
  - Men vs. women
  - Students older than 21 vs. students aged 17-20
  - Urban students vs. rural, farm, suburban
• Perceptions of animal use, animal rights and animal welfare influenced by (Bennett-Wimbush et al., 2015)
  – Career objective
  – Previous experience with owning animals
• Curricula changes
  – No longer training farmers
  – More interest and courses in
    • Equine sciences
    • Companion animals
    • Exotic animals
  – Courses that did not exist for previous generations
    • Behavior
    • Ethics
    • Biotechnology
    • Molecular biology

## TODAY’S ANIMAL SCIENCE DEGREE

- **Degree concentrations/specializations**

<table>
<thead>
<tr>
<th>University</th>
<th>Concentrations/Specializations</th>
</tr>
</thead>
</table>
| **Purdue U.**               | • Pre-vet  
• Production  
• Agribusiness  
• Biosciences  
• Behavior/well-being |
| **U. Minnesota**            | • Pre-vet  
• Production  
• Industry  
• Equine  
• Companion animal |
| **Michigan State U.**       | • Pre-vet  
• Production  
• Industry  
• Companion animal |
| **Iowa State U.**           | • Pre-vet  
• Animal products  
• Equine  
• Companion animal  
• General  
• Livestock management  
• Pre-graduate/pre-professional |
| **U. Illinois**             | • Science, pre-vet, medical  
• Companion animal  
• Technology and management |
| **Kansas State U.**         | • Pre-vet  
• Animal products  
• Business  
• Communications  
• Livestock production and management  
• Bioscience/biotechnology |
TODAY’S ANIMAL SCIENCE DEGREE

- Degree concentrations/specializations

<table>
<thead>
<tr>
<th>U. Wisconsin</th>
<th>The Ohio State U.</th>
<th>U. Missouri</th>
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<tbody>
<tr>
<td>Science</td>
<td>Biosciences</td>
<td>Biosciences</td>
</tr>
<tr>
<td>Business</td>
<td>Animal industries</td>
<td>Animal industries</td>
</tr>
<tr>
<td></td>
<td>Veterinary technology</td>
<td>Veterinary technology</td>
</tr>
</tbody>
</table>
ANIMAL WELFARE COURSE TITLES

- Introduction to animal welfare
- Domestic animal behavior and well-being
- Animal welfare and behavior
- Science of animal well-being
- Animal welfare
- Animal welfare assessment
- Animal welfare and bioethics
- Animal welfare, animal rights and the ethics of food production
- Contemporary issues in animal welfare
- Applied equine behavior and welfare
- Companion animal welfare issues
- Livestock behavior, welfare and handling
- Meat animal welfare management
Percentage of animal welfare courses at the undergraduate, veterinary and graduate levels.
History of the Contest

In 2001 faculty members from Michigan State University (MSU) and Purdue University presented the idea of promoting animal welfare science to university students by coupling it with the more traditional concept of livestock judging to the International Society for Applied Ethology. In 2002 MSU hosted the first Animal Welfare Judging and Assessment Contest (AWJAC) for four teams representing four universities (MSU, University of Guelph, University of Wisconsin, and Purdue University).

In 2014, schools from across North America brought a total of 28 teams, 116 participants to compete. Originally the contest was for undergraduate students only, but it now consists of three divisions: undergraduate, graduate and veterinary students. (The veterinary division was initiated in 2008 with the assistance of the American Veterinary Medical Association.) Initially the AWJAC focused on livestock species; now it covers production, companion, laboratory and exotic animals.
ANIMAL WELFARE JUDGING
• Vet students enrolled in animal welfare class were more likely to (Lord et al., 2010)
  – Educate themselves on a new topic
  – Be better able to identify factors affecting welfare
Attitudes toward pests and production animals (Hazel et al., 2015)

- Pre- vs. post-course
- Greater concern for animal welfare in vet students but not animal science students
WHERE ARE WE HEADED?

Live Poultry Production

Data from: Food and Agriculture Organization of the United Nations
http://faostat3.fao.org/browse/Q/QA/E
WHERE ARE WE HEADED?

Poultry executives predict more, bigger birds

By Rita Jane Gabbett on 10/31/2014

WASHINGTON — An upbeat panel of industry leaders at the National Chicken Council annual conference here predicted demand will grow for chicken products, particularly abroad, as the U.S. industry continues to increase production in both bird numbers and weights.
DOING MORE WITH LESS

America’s farmers are feeding more people using fewer resources than ever before. In fact, the average farmer supplies food for approximately 155 people in the U.S. and abroad, compared with just 26 people in 1960.6

Improved technology = more food with fewer resources

<table>
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<tr>
<th>1940s</th>
<th>1964</th>
<th>Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 pounds of feed</td>
<td>7 pounds of feed</td>
<td>29 weeks</td>
</tr>
<tr>
<td>29 weeks</td>
<td>15 weeks</td>
<td>184,613,149 dozen</td>
</tr>
<tr>
<td>Number of eggs produced in the U.S.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To raise a 4-pound fryer chicken7
Time to raise a 35-pound turkey7

Proper animal care leads to the production of high-quality meat, milk and eggs. Improvements in livestock diets, clean, dry living conditions, regular veterinary care and advances in animal and plant breeding help farmers do more with less.

Each pound of pork raised requires 41% less water and 78% less land10
2009 vs. 1959

Each pound of beef raised requires 19% less feed, 33% less land and 12% less water11
2007 vs. 1977

Every gallon of milk produced requires 65% less water and 90% less land12
2007 vs. 1944

Source: The Indiana Livestock Farmers: www.farmersdeliver.com
Research Shows Temperament Influences Sow Productivity, Meat Quality

animal welfare and international trade

A.B. Thiermann (1) & S. Babcock (2)

(1) World Organisation for Animal Health (OIE), 12, rue de Prony, 75017 Paris, France
(2) Veterinary and Animal Legal Services, 32750 South River Road, Harrison Township, Michigan 48045, United States of America

Summary
Globalisation is becoming a force that is revolutionising international trade, particularly that of animals and animal products. There is increasing interest in animal welfare worldwide, and as part of its 2001-2005 Strategic Plan the World Organisation for Animal Health (OIE) identified the development of international standards on animal welfare as a priority. The OIE's scientific approach to standard-setting provides the foundation for the development, and acceptance by all OIE Member Countries, of these animal welfare guidelines.

The proliferation of legislation on animal welfare and the individualisation of animal farming systems have resulted in welfare improvements in livestock welfare. However, the use of battery (small, confining) cages.
WHERE ARE WE HEADED?

• Animal welfare training
  – More training for veterinary students
  – Interdisciplinary training
    • Physiology
    • Genetics
    • Behavior
    • Production
    • Ethics and science
      – Explanations of how science and ethics interrelate
      – Separation of scientific assessment from ethical judgment
  – Legislation and economics
  – Understanding industry practices
  – Ability to identify good sources of information
  – Understanding contentious issues
FROM STUDENT TO EMPLOYEE
ACKNOWLEDGEMENTS

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• Dr. Elizabeth Karcher
• What can be done at the college level to prepare students for careers in industry?

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