

Preserving the Benefits of Antibiotics for People and Animals

Rationale:

Antibiotic resistance in pathogens occurs too often and with increasing frequency, interfering with treatment of sick people and animals. Although antibiotics and antibiotic resistance are natural phenomena, the population of resistant bacteria is increased by introduction of antibiotics into an environment. Therefore, it is important to examine carefully the wisdom of all uses of antibiotics, in both humans and animals.

Key considerations regarding the use of antibiotics in food animals include:

- Antibiotics are used in the care of food animals for disease treatment, disease prevention and increased production from limited feed resources.
- Feeding antibiotics to young animals is particularly effective in decreasing mortality and morbidity and thereby increasing animal welfare.
- In practice ¹, targeted restrictions on antibiotic use have resulted in less total antibiotic use than a total blanket ban on continuous feeding of antibiotics.
- Antibiotic use in animals can lead to resistant pathogens in humans, but the extent to which antibiotic use in livestock production contributes to the overall problem is not fully understood.
- Exhaustive reviews ^{2,3} have not shown clear evidence of a significant contribution.
- Some classes of antibiotics used in food animals are not currently used in human medicine, so elimination of their use would not be expected to affect antibiotic resistance in humans.
- Antibiotic use in food animals is strategically targeted, following judicious use guidelines based on reliable evidence developed by the American Veterinary Medical Association ⁴ and other organizations.
- To decrease antibiotic use, food animal producers have implemented an impressive array of approaches to keep animals healthy and reduce the need for antibiotics, including all-in/all-out animal flow, rigorous biosecurity measures to keep diseases out of farms, intense sanitation, and vaccines.
- The world must double food production in the next 4 decades with limitations and additional inputs and judicious use of antibiotics can contribute to efficient food production to meet this demand.

Policy Statement:

The Federation of Animal Science Societies (FASS) strongly supports the judicious use of antibiotics in food animal care consistent with the health and welfare of the animals, with preserving the value of antibiotics in protecting human and animal health, and with efficient use of the earth's resources in food production.

Policy Objectives:

- Develop strategically targeted regulations for antibiotic use in food animals that are focused on specific risks, specific classes of antibiotics and specific uses to most effectively protect human and animal health.
- Continue the use of antibiotic in food animal populations where it is demonstrably efficacious in treating disease, promoting health, and increasing global food security.
- Develop regulatory systems that support use of antibiotics for disease prevention where justified.

¹Ministry of Food, Agriculture and Fisheries. 1996-2008. *DANMAP 2008: Danish Integrated Antimicrobial Resistance Monitoring and Research Program*. <http://www.danmap.org/>. Retrieved January 18, 2010.

²National Research Council 1999. *The Use of Drugs in Food Animals: Benefits and Risks*. National Academy Press.

³Institute for Food Technologists. 2006. *Antimicrobial Resistance: Implications for the Food System*.

<http://www.ift.org/Knowledge%20Center/Read%20IFT%20Publications/Science%20Reports/Expert%20Reports/Antimicrobial%20Resistance.aspx?page=viewall>. Retrieved June 10, 2010.

⁴American Veterinary Medical Association. 2009. *Judicious Use of Antimicrobials*. <http://www.avma.org/products/scientific/jtua.pdf>. Retrieved June 10, 2010.