

**Testimony of the
National Pork Producers Council**

On

Livestock Health Advances

Before

**United States House Committee on Agriculture
Subcommittee on Livestock, Dairy, and Poultry**

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INTRODUCTION

The National Pork Producers Council is an association of 43 state pork producer organizations and serves as their voice in Washington, D.C.

The U.S. pork industry represents a significant value-added activity in the agriculture economy and the overall U.S. economy. Nationwide, more than 67,000 pork producers marketed more than 104 million hogs in 2007, and those animals provided total gross receipts of \$15 billion. Overall, an estimated \$21 billion of personal income from sales of more than \$97 billion and \$34.5 billion of gross national product are supported by the U.S. hog industry. Iowa State University economists Dan Otto and John Lawrence estimate that the U.S. pork industry is directly responsible for the creation of nearly 35,000 full-time equivalent jobs and helps generate 515,000 indirect jobs. All told, the U.S. pork industry is responsible for more than 550,000 mostly rural jobs in the U.S.

The U.S. pork industry today provides 21 billion pounds of safe, wholesome and nutritious meat protein to consumers worldwide. In fact, 2007 was the sixth consecutive year of record pork production in the United States.

Exports of U.S. pork also continue to grow. New technologies have been adopted and productivity has been increased to maintain the U.S. pork industry's international competitiveness. As a result, pork exports have hit new records for the past 16 years. In 2007, exports represented nearly 15 percent of production. This year, approximately 2.8 billion pounds of pork and pork products are expected to be exported at a value of \$4.1 billion.

In providing pork to the world, producers operate under a set of ethical principles, which broadly include humane and compassionate care for their pigs. Specific to animal-health products, producers use antibiotics judiciously and responsibly to protect pig health, to produce safe pork and manage antibiotic use to protect public health.

To meet the tremendous demands for pork in the domestic and export markets, pork producers have designed systems that maximize animal health and production. Pig barns are built to protect

animal health by providing pigs a controlled climate and protection from the elements and predators. These barns help ensure that producers can observe animals daily and that each animal has access to ample water and feed, which is formulated to provide optimum nutrition for their life stage.

To better manage disease challenges, modern U.S. pork production uses the practices of multi-site production and all-in-all-out pig flow. Simply stated, that means that after baby pigs are weaned they are moved to barns that are geographically separated from the breeding animals. Pork producers strive to keep pigs together in groups that are the same age and come from the same breeding herd. Pork producers implement this to minimize disease. Before a new group of pigs is placed, the barns are completely emptied, cleaned and disinfected.

ANTIBIOTICS USED TO PROTECT PIGS, PROVIDE SAFE FOOD

The health and well-being of their pigs is critical to the success of the U.S. pork industry and pork producers. The prudent use of antibiotics in the pork industry is essential to providing consumers safe foods and to ensuring animal health. Antibiotics are only one tool to help producers do this. Today, the Food and Drug Administration's (FDA) Center for Veterinary Medicine (CVM) approves antibiotics for four uses:

1. **Disease Treatment:** antibiotics used to treat animals after they are clinically ill.
2. **Disease Control:** antibiotics used to reduce a specific disease after the animal has been exposed to the infectious agent.
3. **Disease Prevention:** antibiotics administered to animals prior to or directly following exposure to an infectious agent.
4. **Nutritional Efficiency:** antibiotics used in feed at low concentrations allow the animals to more efficiently utilize the feed they eat.

CVM allows antibiotics to be given to pigs through feed or water. Pigs can also be injected with antibiotics. Producers and veterinarians work together to make the decisions on how, when and which antibiotics should be administered.

Pork producers and veterinarians take numerous steps to maximize animal health and reduce the need to use antibiotics. In addition to current U.S. pork industry production practices of multi-site production, herd health management programs have been created and tailored to each production system and often to individual farms.

Pork producers work in collaboration with their veterinarians to design herd health programs. These programs may include diagnostics for determining the best time to vaccinate for diseases or the best time to use antibiotics for preventing a disease outbreak. The health management plans also may include information on ventilation of the barns, balanced feed rations and parasite control. The plans are about total system health management, not just about what antibiotic to treat a specific illness.

Diagnostics are used when pigs are sick. A producer calls his or her veterinarian who takes and submits samples to a veterinary diagnostic laboratory. The results of these tests isolate the bug or bugs causing the disease, as well as give an indication of the best way to treat the pigs and prevent the bug from making other groups of pigs sick.

PORK INDUSTRY DEVELOPED GUIDELINES ON ANTIBIOTIC USE

U.S. pork producers take the use of antibiotics very seriously. After four years of development and tests, the pork industry rolled out the first producer responsible antibiotic use program, “Take Care – Use Antibiotics Responsibly,” in 2005. The program outlines principles and guidelines that protect public health, animal health and animal well-being through the responsible use of antibiotics. During the development of “Take Care,” the pork industry worked with federal public health agencies, including the Centers for Disease Control (CDC) and the FDA, as well as numerous stakeholders such as the American Association of Swine Veterinarians (AASV), the American Veterinary Medical Association (AVMA), the Animal Health Institute (AHI), the American Feed Industry Association (AFIA) and McDonald’s. The pork industry’s responsible-use program has been praised by many federal agencies, legislators, consumer organizations and food supply companies. The U.S. pork industry developed this program because it was the right thing to do. Like all Americans, pork producers care about animal health and public health.

The guiding principles in “Take Care” are:

- Take appropriate steps to decrease the need for the application of antibiotics.
- Assess the advantages and disadvantages of all uses of antibiotics.
- Use antibiotics only when they provide measurable benefits.
- Complete the Pork Quality Assurance (PQA) Plus Program and fully implement the management practices prescribed for responsible use of animal health products into daily operations.
- Follow the Responsible Use Guidelines:
 - Use professional veterinary input as the basis for all medication decision-making.
 - Antibiotics should be used for treatment only when there is an appropriate clinical diagnosis.
 - Limit antibiotic treatment to ill or at-risk animals, treating the fewest animals indicated.
 - Antibiotics that are important in treating antibiotic-resistant infections in human or veterinary medicine should be used in animals only after careful review and reasonable justification.
 - Mixing together injectable or water medications, including antibiotics, by producers is illegal.
 - Minimize environmental exposure through proper handling and disposal of all animal health products, including antibiotics.

Initially, “Take Care” started as a voluntary program, and many producers participated. Today, however, the pork industry understands how important it is to use antibiotics responsibly, and “Take Care” is the way the U.S. pork industry does business. It’s good for our pigs, it’s good for our producers and families, and it’s good for the bottom line. “Take Care” has been incorporated into the industry’s Pork Quality Assurance (PQA) Plus program, which includes on-farm assessments, including reviews of whether the antibiotic-use principles are being practiced. Producer PQA Plus certification is required by U.S. packing plants as a condition of sale. Through 4-H and FFA, PQA Plus, including “Take Care,” is also taught to the next generation of pork producers, as the young producers have an obligation to use antibiotics responsibly.

The veterinarians working in the U.S. pork industry also have been proactive in the responsible use of antibiotics. AASV was the first species-specific veterinary organization to collaborate with FDA and AVMA to create and endorse judicious-use guidelines for antibiotics.

ADDRESSING CRITICS' CONCERNS

There are some who believe that the use of antibiotics in pork production adversely affects public health. There is ample evidence to suggest that not only does the responsible use of antibiotics in pork production protect animal health and welfare, but it may actually protect public health.

Denmark's ban on antibiotic growth promoters (AGPs) is often cited as an example of why there should be restrictions on the use of antibiotics in pork production. However, the reality of the impacts of the ban on antibiotic growth promoters in Denmark is seldom discussed. In 1998, Denmark banned the use of AGPs in finishing swine and in all swine in 1999. It should be noted that this ban was **only** on the use of AGPs, not all antibiotics in feed or water. Danish pork producers saw an immediate increase in post-weaning diarrhea and an increase in baby pig mortality that has had long lasting impacts on the Danish pig industry.⁽¹⁾

These increases in baby pig mortality and the overall impact on animal welfare might be acceptable if there were improvements to public health. But public health improvements have not materialized. In fact, even with intensive surveillance of the public health impacts, the only demonstrable change to public health could be considered potentially damaging. The Danes observed an increase in the number of human Salmonella infections that were resistant to the antibiotic tetracycline. They believe it was due to an increase in the use of tetracycline in pigs to combat the post-weaning diarrhea.⁽²⁾

Proponents of imposing a similar ban on antibiotic use in the U.S. cite the drop in total tons of antibiotics used in pork production in Denmark. While overall use of antibiotics has declined, there has been a marked increase in the therapeutic use of antibiotics – antibiotics used for treatment, prevention and control of disease. Today, the use of therapeutic antibiotics in Danish

pigs now surpasses what was used to promote growth prior to the ban in 1999 and continues to rise each year.⁽³⁾ The therapeutic antibiotics used are more modern molecules considered to be more important in human medicine than the older drugs used to promote growth. In 2002, two Iowa State economists used an economic model to estimate the effect that the Denmark ban would have on U.S. pork production, finding that the cost of production would rise by \$4.50 per pig in the first year after a ban. Over 10 years, a ban's cumulative cost to the pork industry would be greater than \$700 million. (In this model, the economists assumed the price of corn to be \$2.50 per bushel.) Clearly, implementing a ban on antibiotic use similar to that in Denmark would not be a wise course of action for U.S. pork producers.⁽⁴⁾

The Danish experience illustrates that if a ban were put in place in the United States on the use of antibiotics as feed additives, pig health and well-being would decline. More pigs would suffer, and more pigs would die.

An Iowa State University study conducted by Dr. Scott Hurd, who now is USDA Deputy Under Secretary of Food Safety, demonstrated that when pigs have been sick during their life, those pigs will have a greater presence of food safety pathogens on carcasses.⁽⁵⁾ This study reinforces the importance of using all of the tools available to protect the health of animals.

Another study also answers the critics who suggest that raising animals in large groups inside barns using modern production methods, including the use of antibiotics, presents a human health threat. Dr. Wondwossen Gebreyes from the Ohio State University found that pork from pigs produced in modern, conventional systems had levels of three food-borne pathogens lower than pigs raised in outdoor systems without the use of antibiotics.⁽⁶⁾

According to the AVMA, risk assessments on antibiotic use demonstrate a very low risk to human health from the use of antimicrobials in food animals, and some models predict an increased human health burden if antibiotic use in food animals were withheld.

A final word on the issue of AGPs: Contrary to the untruths spread by some organizations, AGPs represent only 4.6 percent of all antibiotics given to animals and even the overwhelming majority

of those antibiotics prevents and controls diseases.⁽⁷⁾ Additionally, very few of them are important to human medicine.

PRODUCERS WORK WITH VETERINARIANS

Pork producers work very closely with their veterinarians. Those swine veterinarians, upon graduation from veterinary school, take an oath stating that they solemnly swear to uphold their “scientific knowledge and skill for the benefit of society through the protection of animal health, the relief of animal suffering, the conservation of animal resources, the promotion of public health, and the advancement of medical knowledge.” Swine veterinarians need all the tools available to live up to that oath. Legislative attempts to ban certain antibiotics will compromise the oath that every veterinarian took on his or her graduation day.

In summary, pork producers and veterinarians have a moral obligation to use antibiotics responsibly to protect human health and provide safe food, both of which are paramount concerns to America’s pork producers. Producers also have an ethical obligation to maintain the health of their pigs. Antibiotics are merely one piece to the health care system that pigs need. The U.S. pork industry has a long history of being proactive and doing the right thing for its pigs and consumers. Pork producer developed “Take Care” and PQA Plus not because they had to but because it was the right thing to do. The U.S. pork industry continues to adopt better techniques and new technologies, but it cannot lose the tools it already has developed, including antibiotics, to protect the well-being of producers’ animals and the safety of pork.

Notes:

1. Agence France-Presse. World-leading pork exporter Denmark sees sharp increase in pig mortality. Copenhagen Business Online. 2005.
<http://archive.wn.com/2005/09/06/1400/copenhagenbusiness/>.
2. World Health Organization. Impacts of antimicrobial growth promoter termination in Denmark. Online. 2002.
http://whqlibdoc.who.int/hq/2003/WHO_CDS_CPE_ZFK_2003.1.pdf.
3. Danmap 2006. www.Danmap.org
4. Hayes, Jensen, Fabios. Technology choice and the economic effects of a ban on the use of antimicrobial feed additives in swine rations. Food Control, 2002.
5. Hurd H.S., Brudvig J., Dickson J, et al. 2008. Swine health impact on carcass contamination and human foodborne risk. Public Health Reports: (123) pp 343-351.
6. Gebreyes W., Bahnson P., Funk J., et al. 2008. Seroprevalence of *Trichinella*, *Toxoplasma* and *Salmonella* in antimicrobial-free and conventional swine production systems. Foodborne Pathogens and Disease: (5) pp 199-203.
7. Animal Health Institute. 2007. www.AHI.org