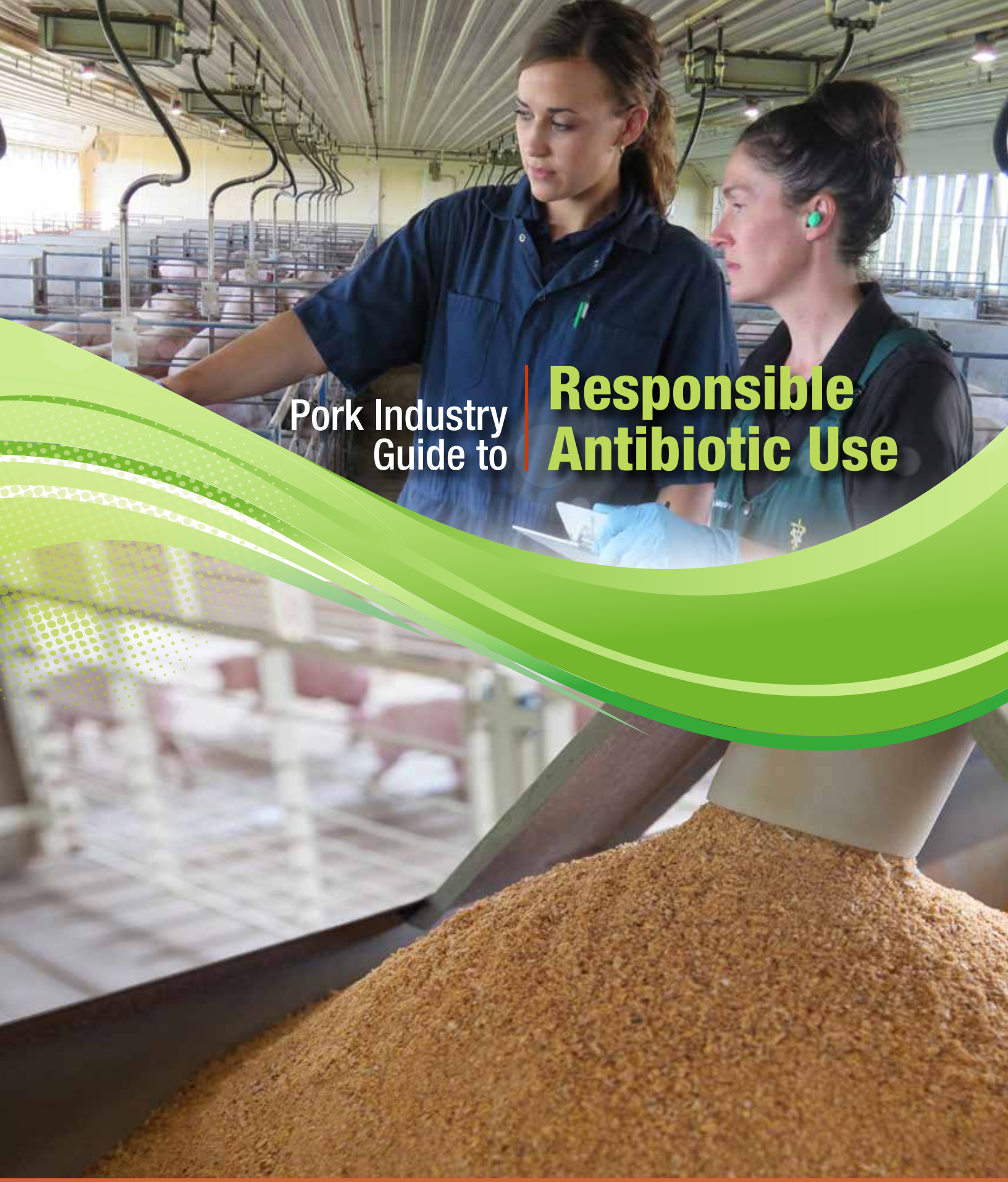


Pork Industry Guide to Responsible Antibiotic Use

Pork Checkoff Service Center **1.800.456.7675**

National Pork Board Policy on Antibiotic Use in Pork Production

On behalf of America's pig farmers, the National Pork Board has created the following values that reflect farmers' commitment to using antibiotics responsibly on the farm. We affirm that:

- Using antibiotics responsibly in animals and humans is essential to protect the health and wellbeing of both.
- Preventing disease, rather than treating disease, by using disease-prevention strategies, that may include antibiotics, is essential for animal health and well-being and can prevent unnecessary illness, suffering and mortality.
- Protecting the efficacy of antibiotics is important today because it can help ensure the overall health and well-being of future generations of people and animals.
- Reducing the need to use medically important antibiotics by using best management practices is a worthy objective.

We agree to implement the following guidelines to demonstrate our values. They include:

- Advocating objective, scientifically rigorous studies and risk assessments to make informed decisions regarding on-farm use of antibiotics in food-animal production.
- Supporting veterinarian oversight and best practices as the basis of antimicrobial use decision-making on the farm.
    - Continual evaluation of treatment programs, appropriate diagnostics and timely interventions are important components of veterinary best practices.
- Promoting stakeholder education to continually enhance on-farm knowledge to improve antibiotic best practices.
    - Antibiotic stewardship guidance for veterinarians and pork producers includes Pork Quality Assurance® Plus, American Association of Swine Veterinarians' Basic Guidelines of Judicious Therapeutic Use of Antimicrobials in Pork Production and continuing education for veterinarians.
- Demonstrating compliance with all regulatory requirements to underscore antibiotic stewardship, e.g., treatment records as described in PQA Plus®.
- Encouraging transparency and providing assurances regarding farmers' commitment to raising healthy animals to help ensure a safe food supply.

ANTIBIOTICS
RESOURCE CENTER

Visit **pork.org/antibiotics** for more information.

New Antibiotic Regulations

On Jan. 1, 2017, the U.S. Food and Drug Administration's (FDA) new regulations addressing on-farm antibiotic use in food-animal production will take effect. The agency's effort is aimed at eliminating the use of medically important (to treat human infections) antibiotics for growth promotion purposes in food-animal production and bringing therapeutic use in feed and water – to treat, control or prevent specific disease – under additional veterinary oversight. Producers, veterinarians, feed mills and suppliers, will all face new requirements.

Table of Contents

All sectors of animal agriculture — from drug companies to producers and veterinarians to feed mills — are collaborating to implement the new FDA antibiotic regulations:

Guidance 209: In 2010, FDA outlined its intent and recommendations regarding growth promotion uses of medically important antibiotics in food animal production. FDA also specified that veterinarian oversight will increase for the remaining therapeutic applications (prevention, treatment and control) of medically important antibiotics. This action applies to both feed-grade and water-based antibiotics.

Guidance 213: On Dec. 11, 2013, FDA initiated a three-year transition process to complete its food-animal antibiotic strategy. This action requests animal-health companies to outline intentions to voluntarily remove any production/growth-promotion uses from product labels of medically important antibiotics. The guidance also eliminates over-the-counter status of these medications and increases veterinary oversight for on-farm therapeutic use by requiring a veterinary feed directive (VFD) for feed applications and a prescription for water treatments. Jan. 1, 2017, is when implementation must be completed.

Final VFD Rule: On June 3, 2015, FDA announced the final VFD rule. The final rule outlines specific requirements of the VFD process for medically important (to treat human infections) feed-grade antibiotics.

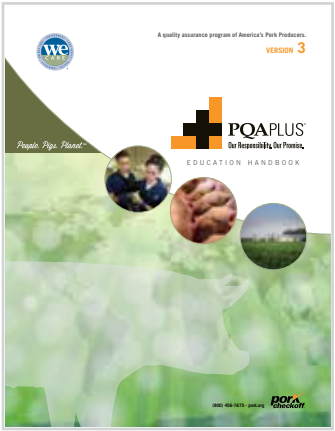
Pork Industry Guide to Responsible Antibiotic Use

The Shared Responsibility of Antibiotic Resistance

As a pork producer, you instinctively know that taking care of your animals is not only your responsibility, but your obligation. When you take care of your pigs the old axiom holds that "they'll take care of you." The same concept is true when thinking about responsible antibiotic use on the farm. You already know it's your duty to use antibiotics responsibly, but the reason for doing so may not be as clear.

Residues and Resistance: Know the Difference

One of the main reasons that Pork Quality Assurance® Plus (PQA Plus®) was created (originally called Pork Quality Assurance) nearly 30 years ago was to reduce the incidence of violative levels of antibiotic residues in pork at packing plants.



A violative residue occurs when a tissue sample taken at the slaughter plant is tested for select drugs and is found by the USDA inspectors to be above the FDA's maximum residue level (MRL) for the specific drug residue detected. This could happen if the proper withdrawal time is not observed before sending pigs to market or possibly when an incorrect dosage of an antibiotic is administered.

With the industry's great percentage of producers and pig caretakers certified through PQA Plus, and through closer guidance by swine veterinarians, the occurrence of residue violations in pork is extremely rare today. However, producers must maintain strict vigilance by observing all labeled withdrawal times of antibiotics to ensure food safety to build consumer trust.

For more information about Maximum Residue Levels, go to: www.pork.org/MRL.

"If they haven't already done so, producers should sit down with their veterinarians and determine what they need to do to comply with the new veterinary feed directive (VFD) and prescription requirement for water-based medications." – Jennifer Koeman, DVM, Pork Checkoff

Antibiotic Resistance

Antibiotic resistance is a completely different topic from residues and is generating the most interest. While combating violative residues is relatively straightforward, addressing antibiotic resistance is not.

For a start, the potential development of antibiotic resistance is a complex issue. Animal health and public health experts are in agreement that antibiotic resistance has occurred for millennia, completely independent of human involvement and the advent of modern-day antibiotics. However, the use of antibiotics, whether in human health, animal health or agriculture, applies potential selection pressures for the development of antibiotic resistant bacteria. Fortunately, there are still steps that both human and animal health professionals can take to help reduce the need for antibiotic use and to ensure that when antibiotics are used, they are used responsibly to maintain effective antibiotics for both animal and human health.

The main issue with antibiotic resistance is the negative impact it can have on human health and animal health. Specifically, antibiotic-resistant bacteria are ones that may not respond to treatment, if and when, they cause illness. Because of this possibility, it's important that all people do what they can to minimize this risk by maintaining their own health by practicing good food-safety practices when handling and preparing all types of food.

Because antibiotic resistance is a global concern of both human and animal health, the "One Health" initiative continues to grow as a worldwide umbrella approach to combat antibiotic resistance. This is a collaborative effort of multiple stakeholders to attain optimal health for people, domestic animals, wildlife, plants and the environment. Medical doctors and patients, veterinarians and farmers, along with government, academia and industry stakeholders, are working together to address this issue.

Pork producers play an important role in the shared effort to use antibiotics responsibly to help minimize the potential emergence of antibiotic resistant bacteria and to maintain effective antibiotics for animal and human health. In the end, this comprehensive and inclusive approach will create a win-win by protecting human and animal health.

To stay informed on all antibiotic-related information, go to:
www.pork.org/antibiotics.

Basics of On-Farm VFD Compliance for Producers

The biggest change for pork producers, veterinarians and feed mills will be the expanded veterinary feed directive (VFD) process. Previously, only three products required a VFD, and all are labeled for swine use. While you may be familiar with the current VFD regulation and process, the new FDA rule will require some additional time and effort on the part of producers and their veterinarians. Here are some key steps required to comply:

- The issuing veterinarian is required to keep the original VFD; the feed mill/distributor and producer (client) must each keep a copy of the VFD. Hard-copy or electronic versions are allowed.
- The VFD and records of the related feed distribution must be kept for a period of two years.
- Each VFD includes a specific expiration date. Any VFD feed remaining after its related VFD has expired may not be fed to animals without obtaining a new VFD. This would include any remaining feed in a bin or feeder.

The take-home message for producers: Talk with your veterinarian about using any antibiotics that fall under the new VFD requirement. Most antibiotics labeled for use in swine will be affected by the VFD rule; however, a few compounds of interest will not be affected. These include bacitracin, tiamulin, carbadox, ionophores and bambermycin.

For a list of affected products, go to www.pork.org/antibiotics.

Veterinary-Client-Patient Relationship Required

The new FDA antibiotics regulations will require pig farmers to have a valid veterinary-client-patient relationship (VCPR). Depending on the state in which the veterinarian practices, he or she can only issue a VFD in the context of a valid VCPR as defined by the state requirements. In simplest terms, this means a pig farmer will need to have a good relationship with their veterinarian and expect to spend more time in developing a plan that satisfies all VFD requirements. As for the veterinarian's role, he or she must be familiar with the production practices and herd health profile.

In states that do not have VCPR requirements applicable to VFDs, the veterinarian will be required to follow the federal VCPR standards, which are outlined in the FDA regulation. The agency has posted a list of states on its website that do and do not have VCPR requirements for VFDs, as well as the key elements of the federally defined VCPR. The list may change over time as states update their veterinary practice requirements.

To determine if your state or federal definition of a VCPR prevails, go to the FDA tab at www.pork.org/antibiotics.

Record-keeping Priorities

Producers, veterinarians and feed processors will all need to be especially diligent in keeping records associated with VFDs and prescription water antibiotics once FDA's new policies go into effect. Producers with Pork Quality Assurance® Plus (PQA Plus®) certification should be familiar with requirements for accurate and complete record-keeping.

The "Pen or Individual Pig Treatment Record" within PQA Plus provides guidance on the type of records that FDA will require. The number of animals, reason for treatment, product name and who administered the treatment, are among the data to be recorded.

The record-keeping commitment will involve keeping hard copies or electronic versions of all VFDs for two years and one year for all prescriptions. The issuing veterinarian will maintain the originals for the same timeline. Distributors who manufacture VFD feed also will keep VFD copies for two years. Any of the parties must be able to provide the VFD orders (and prescriptions) to FDA upon request.

PQAPLUS®
Our Responsibility. Our Promise.

PQA Plus also provides useful tools that can be applied on the farm to help in the regulatory transition, such as:

- Drug storage inventory sheet
- Medicated feed-mixing record
- Pen/individual treatment record

USCARE

A CHECKLIST FOR ANTIBIOTIC SUCCESS

UNDERSTAND the new feed (veterinary feed directive) and water (prescription) rules:

As of Jan. 1, 2017, growth promotion use of medically important (to human health) antibiotics will not be allowed. Only therapeutic use (treatment, control, prevention) for a specific animal health condition will be allowed under the direction of a veterinarian.

STRENGTHEN your veterinary-client-patient relationship (VCPR):

Schedule periodic herd visits with your veterinarian and review health monitoring and herd health strategies.

COMMUNICATE with your feed mill:

Ensure the mill personnel understand and are prepared to implement new VFD record-keeping procedures for antibiotics and that stringent feed delivery protocols are in place.

ASSESS your herd health and welfare strategies:

Sit down with your veterinarian to outline production and management changes to maximize animal health and minimize antibiotic use.

RENEW your commitment to responsible antibiotic use:

Stay up to date with Pork Quality Assurance Plus certification and make it part of your worker education program.

ENSURE your record-keeping compliance:

For producers, this means keeping copies (print or electronic) of VFD for two years and prescription records for one year.

PQA Plus Provides Antibiotic Guidance

The Pork Quality Assurance® Plus (PQA Plus®) on-farm education and certification program outlines Good Production Practices to help guide pork producers and their employees in the responsible use of antibiotics on the farm. Here's a look at the Five Principles:

- **Principle 1:** Take appropriate steps to decrease the need for the application of antibiotics.
- **Principle 2:** Assess the advantages and disadvantages of all antibiotic use.
- **Principle 3:** Use antibiotics only when they will provide measurable benefits.
- **Principle 4:** Fully implement management practices for responsible use of animal-health products into daily operations.
- **Principle 5:** Maintain a working veterinary-client-patient relationship.

10 Good Production Practices of PQA Plus

The PQA Plus program uses 10 Good Production Practices (GPPs). When implemented, GPPs will help ensure pork is free from chemical and physical hazards; that the pigs are raised in a caring, humane manner; that our natural resources are protected by pork producers; and that caretakers have a safe place to work. These 10 practices are based on Hazard Analysis and Critical Control Point principles (HACCP). HACCP principles are the standard for controlling hazards in foods produced and processed in the United States and many foreign countries.

The 10 GPPs are:

GPP 1: Establish a Herd Health Management Plan

GPP 2: Correctly Store and Administer Animal Health Products

GPP 3: Ensure Safe, Wholesome Pork Products

GPP 4: Follow Proper Feed Processing and Feed Biosecurity Protocols

GPP 5: Provide Proper Care for the Pig

GPP 6: Provide Proper Care When Handling and Transporting the Pig

GPP 7: Protect Swine and Public Health

GPP 8: Maintain Proper Workplace Safety

GPP 9: Practice Good Environmental Stewardship

GPP 10: Participate in the Community

The National Pork Board has developed the following six guidelines to help producers, in consultation with a veterinarian, to use antibiotics responsibly:

Guideline 1: Use professional veterinary input as the basis for all antibiotic decision-making.

Guideline 2: Antibiotics should be used for prevention, control or treatment only when there is an appropriate clinical diagnosis or herd history to justify their use.

Guideline 3: Limit antibiotic use for prevention, control or treatment to ill or at-risk animals, treating the fewest animals indicated.

Guideline 4: Antibiotics that are important in treating infections in human or veterinary medicine should be used in animals only after careful review and reasonable justification.

Guideline 5: Mixing together injectable or water medications, including antibiotics, by producers is illegal.

Guideline 6: Minimize environmental exposure through proper handling and disposal of all animal health products, including antibiotics.

For more information about PQA Plus, go to www.pork.org/certification.

Expanding the Herd Health Role

Responsible use of antibiotics is just one part of an overall herd health management plan. Producers should sit down with their veterinarians to discuss how to apply the new VFD and prescription requirements and other herd health strategies. A veterinarian can help design herd health and production plans to decrease disease, enhance performance and produce safe, wholesome pork. Each producer should review these on-farm protocols to further minimize the need for antibiotic use.

Biosecurity – Prevent diseases by controlling traffic of pigs, people, vehicles and other items that can carry diseases into a herd, such as boots, coveralls and supplies.

- Apply all-in/all-out pig flow by site, or at least by room. See that workers honor this flow in their daily movements.
- Thoroughly clean, disinfect and heat/dry facilities or rooms between pig groups. This includes feeders, waterers and all other equipment.
- Limit pig commingling within a site as much as possible.

Disease Strategies

Vaccinations – Successful vaccination depends on targeted use of vaccines at the right time for the right health concern.

- Use diagnostics to confirm health issues.
- A vaccination program customized to your herd can help control and prevent disease.
- Administer the vaccine as outlined on the label.
- Store and handle vaccines correctly to ensure viability.

Environment – Provide the proper environment for the animals' age, weight and stocking density.

- Adjust ventilation systems to manage gases and humidity levels and to provide fresh air.
- Manage barn temperatures to meet pigs' needs.
- Eliminate drafts.

Management – Consider whether making certain management changes would further reduce the need for antibiotic use.

- Wean pigs at an appropriate age for the production system. The appropriate weaning age will vary between production systems because differences exist in genetics, management, health status, nutrition programs and housing environments.

Feed additives – So far, no antimicrobial alternative has proven as universally effective as antibiotics alone. Evaluate each alternative with your veterinarian for the application in question. As always, read and follow all label directions for any additives.

- Acidifiers, probiotics, essential oils may be options.
- Active proteins may help in young animals.
- Zinc and copper, which have antimicrobial properties, may be considered for swine.

Other Disease Strategies - A veterinarian can work to develop strategies to minimize disease risk through pig flows, herd health monitoring, disease surveillance and appropriate diagnostics.

- Work closely with your veterinarian to see where any of these other strategies can help manage overall pig health.

Don't forget about your farm employees, talk to them today about what lies ahead.

DID YOU KNOW?

One Health Umbrella: Shared Responsibility, Opportunity to Combat Antibiotic Resistance

Because antibiotic resistance is a global concern, the worldwide "One Health" approach to combat antibiotic resistance is critical to human and animal health. This is a collaborative effort of multiple stakeholders to attain optimal health for people, domestic animals, wildlife, plants and the environment. Medical doctors and patients, veterinarians and farmers, along with government, academia and industry stakeholders, are cooperating. Pork producers play an important role in the shared effort to use antibiotics responsibly to help minimize the potential emergence of antibiotic resistant bacteria. In the end, this comprehensive and inclusive approach will create a win-win by protecting human and animal health.

To stay informed on the VFD and related regulations, bookmark **pork.org/antibiotics,** home of the Pork Checkoff's Antibiotics Resource Center, on your computer or smart phone.

ANTIBIOTICS
RESOURCE CENTER

Visit **pork.org/antibiotics** for more information.

ANTIBIOTICS
RESOURCE CENTER

Visit **pork.org/antibiotics** for more information.

#04072-02/16