



Responsible Use of Antibiotics for Dairy Producers

A Message from Dr. Will Hueston

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Dairy producers are concerned about the safety of the food they produce for American consumers. The dairy industry is committed to producing safe, abundant and affordable food of the highest quality.

Responsible dairy producers know that healthy animals are the foundation of safe food. Disease prevention to keep cows well is the key to their success. When cows get sick and antibiotic treatment is necessary, producers and veterinarians take great care to use drugs carefully.

Good dairy producers use as few antibiotics as possible because they also want protect the public's health and be good stewards of the environment. Misuse of antibiotics is a bad animal health decision, a bad public health decision and a bad business decision.

The U.S. Food and Drug Administration (FDA) conducts an intense scientific assessment of all antibiotics to assure the food supply remains safe and that veterinarians and physicians continue to have important tools that aid in keeping animals and humans healthy.

America's dairy and beef producers believe that practicing responsible use of antibiotics is an important commitment to our Nation in order that we might continue to enjoy safe, wholesome and nutritious meat and dairy products.

Prohibited Drugs

Do not use these antibiotics in lactating Dairy Cattle:

(Current as of 6/1/2006)

1. The following drugs are banned for use in all food-producing animals:
 - a. Chloramphenicol
 - b. Dimetridazole, Iprnidazole, Other nitroimidazoles
 - c. Furazolidone, Nitrofurazone, Other nitrofurans
 - d. Glycopeptides (vancomycin and others)
 2. **Fluoroquinolones** (enrofloxacin and danofloxacin)—prohibited from **extra-label use in food-producing animals** (including use in any cattle intended for dairy production).
 3. **Sulfonamide drugs**—prohibited from **extra-label use in lactating dairy cattle**.
 4. **Aminoglycosides** (Gentamicin & Neomycin)— **strongly discouraged** by the American Veterinary Medical Association & American Association of Bovine Practitioners, except as specifically approved by the FDA.
- REMEMBER: It is always illegal to use any feed additive drug in an extra-label manner.**

Additional Sources of Information

- Your herd veterinarian
- Beef & Dairy Producer Organizations
- Pharmaceutical company representatives
- FDA-CVM website: <http://www.fda.gov/cvm/>
http://www.fda.gov/ora/compliance_ref/cpg/cpgvet/cpg615-200.html
- AVMA website: <http://www.avma.org/reference/amduca/amduca1.asp>

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The Responsible use of Antibiotics for Dairy Producers



Guidelines for Responsible Antibiotic Use

It takes a team effort to ensure the safety of our food supply. Every time an antibiotic is given to a dairy cow to treat an infection, there are important steps to follow in order to avoid residues in that animal's meat and milk. This brochure is a roadmap for dairy producers and all people involved in treating dairy cattle. Our educational goals are as follows:

- Recognize that antibiotics should be used with caution.
- Look at the label before using an antibiotic
- Stick to the correct dose and withdrawal time

Prevent Disease

- ◆ Prevent disease through management by emphasizing animal husbandry, bio-security, hygiene and health maintenance.

REMEMBER: Antibiotic use cannot replace sound management practices.

- ◆ Appropriate and timely management practices include:



- Vaccinations
- Parasite Control
- Stress Reduction
- Proper Nutrition
- Animal husbandry : sanitation, ventilation, cow comfort, animal handling

Diagnose Sick Animals

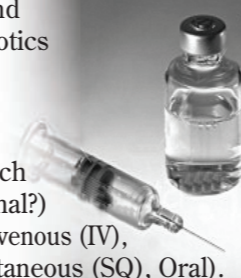
- ◆ Sick animals indicate a breakdown in preventative herd health practices.



- Diagnose problems early and accurately.
- Know which diseases are treatable with antibiotics.
- Consult your veterinarian. Use lab tests to help confirm an infection and determine which drug would be most effective.

Use Antibiotics Correctly

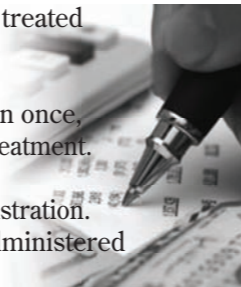
- ◆ Talk to your veterinarian. Use laboratory tests to help guide your use of antibiotics and other treatments. Select antibiotics only if you suspect an infection.
- ◆ **READ THE LABEL.** Follow the label's directions:
 - Treatment dosage (how much drug per weight of the animal?)
 - Route of administration (Intravenous (IV), Intramuscular (IM), subcutaneous (SQ), Oral).
 - Length of treatment (how many times?)
 - Withdrawal time (meat and milk hold-outs).
- ◆ Develop written treatment protocols (instructions) with your veterinarian. Protocols serve as a way to help you determine whether a cow needs a treatment, and which drugs to use.
- ◆ Treat the fewest number of animals possible. Withhold treated animals or animal products for the recommended length of time.
- ◆ If you are unsure of whether a cow has cleared the drug, use a test for meat or milk residues.
- ◆ Giving an antibiotic in a different way than is described on the label is an extra-label drug use (see Understanding Drug Labels)



REMEMBER: Using an antibiotic dose that is lower than the label recommendation (Sub-Therapeutic dose) is ALWAYS DISCOURAGED.

Record Keeping

- ◆ A good record system includes the following:
 - Identification of all animals treated individually or by group.
 - Drugs used.
 - Dates treated—if more than once, include first & last days of treatment.
 - Dosage (amount) used.
 - Route and location of administration.
 - Name of the person who administered the product.
 - ◆ Review treatment records before marketing to ensure proper meat and milk withdrawal are met.
 - ◆ FDA recommends that treatment records be kept three years.
 - ◆ **Record keeping is required for any extra-label drug use.**
- REMEMBER: "You cannot manage what you do not measure."**



Have Valid Veterinarian-Client-Patient Relationship (VCPR)

A valid veterinarian-client-patient relationship is required for the use of any prescription drug or any extra-label drug on the farm. It is defined as follows:

1. A veterinarian agrees to be responsible for making decisions about diagnosing and treating animals on the farm, and the client (owner or caretaker of the animal) agrees to follow the veterinarian's instructions.
 2. The veterinarian is familiar enough with the farm to be able to make a diagnosis of medical conditions of the animals on that farm.
 3. The practicing veterinarian is available for follow-up in case of a drug reaction or in case the therapy does not work.
- In summary, a veterinarian must be familiar with the farm and the animal health practices on that farm. Routine visits and discussions with your veterinarian are key elements in maintaining this relationship. Such a relationship exists only when the veterinarian has recently seen and is personally acquainted with the keeping and care of the animal(s), and/or by medically appropriate and timely visits to the premises where the animal(s) are kept.

Establish Written Protocols

A written protocol (set of instructions) serves as a guide for on-farm diagnosis and treatment decisions. A complete protocol should include signs of the disease and detailed directions for treatment, including meat and milk withdrawal times. You should establish written protocols for any antibiotic used on your operation. These protocols must include your veterinarian's input if prescription drugs are used, or if drugs are used other than according to the label (extra-label use).

Terms to Remember

Antibiotic – class of natural compounds produced by microorganisms that stops the growth of or kills microorganisms.

Antimicrobials – agents chemically related to compounds that are produced by microorganisms that kill bacteria or suppress their multiplication or growth. This includes antibiotics and synthetic agents.

Violative Antimicrobial Residue - the presence of an antibiotic or antimicrobial residue at a level in meat, milk or animal products that is higher than levels established as acceptable by the FDA.

Understanding Drug Labels

Extra-label Drug Use (ELDU)

Every drug approved by the FDA has a label which describes its uses:

- Specific disease or condition to be treated
- Which species (cattle, swine, horses), and class of animal (beef/dairy, lactating/non-lactating, calves)
- Approved dose, route, duration, and frequency of administration
- Slaughter or milk withdrawal time

Drugs for which adequate instructions for safe and effective use by a layperson can be written, are designated **Over-the-Counter (OTC) drugs**. Over-the-counter drugs are O.K. to use without a veterinarian as long as the label instructions are followed. Using these drugs in a way that differs from the label can only be done by or on the direction of a licensed veterinarian within a valid VCPR.

Drugs for which adequate instructions for use by a layperson cannot be written are designated **Prescription (Rx) drugs**, and must be dispensed by or on the written order of a licensed veterinarian within a valid VCPR.

Extra-label Use is defined as any use which is not on the FDA-approved label. Extra-label use of OTC drugs is prohibited except by or on the order of a licensed veterinarian with a valid VCPR. Prescription (Rx) use, whether label or extra-label, also requires a valid VCPR.

IMPORTANT: For OTC drugs, only the uses listed on the label are legal for use without veterinary involvement.

Because approved withdrawal times are based on label directions, any other use may result in a longer withdrawal time, and a residue violation if not properly extended.