

Antibiotics basics: Know what's prohibited

THERE are big food safety and public health concerns that we must always be aware of whenever we use antibiotics for any reason on our farms (See related article on page 697 in this issue.)

Let's make sure we're all talking the same language when it comes to safe and responsible drug use.

- **Antibiotics** are a class of natural compounds produced by microorganisms that kill or stop the growth of microorganisms.

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

- A **violative antimicrobial residue** is 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.

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

- The specific disease or condition to be treated is listed.

- It tells which species and what class of animal (beef/dairy, lactating/nonlactating, calves).

- The approved dose and route, duration, and frequency of administration is shown.

- You will see a 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 okay 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 veterinarian-client-patient relationship (VCPR).

Drugs for which adequate instructions for use by a layperson cannot be written are designated prescription (Rx) drugs. This must be dispensed by or used 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: Only the uses listed on the label are legal. Any other use REQUIRES 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.

Do not use these antibiotics in

lactating dairy cattle. The following drugs are banned for use in all food-producing animals:

- Chloramphenicol.
- Metronidazole, dimetridazole, ipronidazole, other nitroimidazoles.
- Furazolidone, nitrofurazone, other nitrofurans.
- Glycopeptides (vancomycin and others).
- Fluoroquinolones (eg, Enro-


floxacin and Danofloxacin). These are prohibited from extra-label use in food-producing animals, including use in any cattle intended for milk production.

- Sulfonamide drugs are prohibited from extra-label use in lactating dairy cattle.

- Aminoglycosides (Gentamicin and Neomycin) are strongly discouraged by the American Veteri-

nary Medical Association and American Association of Bovine Practitioners, except as specifically approved by the FDA.

- Although "Bute" or phenylbutazone is not an antibiotic, it should also be mentioned as a banned drug for use in all dairy cattle.

Remember, it is always illegal to use any feed additive drug in an extra-label manner. 

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