



Preventing Drug Residues in Livestock

Dr. Jodi Sterle
Assistant Professor and State Extension Swine Specialist
Texas A&M University

As livestock producers, we use animal health products, commonly called drugs or medications, often on our animals. They prevent or treat disease, provide for the welfare of the animal, minimize production costs, improve rate of gain and feed efficiency. These products may be injectable, such as penicillin, or feed additives, in some cases already mixed into the feed we are using. Unfortunately, there is always the possibility of misuse of these products. One consequence of misuse of animal health products is residues of the medication in the meat. Many tissue residues in meat are caused by not following the label on medications and feed additives.

All medications and feed additives are required by law to state the trade name, active ingredient, lot number, dosage, application method (i.e. intramuscular), expiration date, and any precautions or warnings that may be associated with the use of the drug. Withdrawal times are also included. A **withdrawal time** is the amount of time required for the medication to be metabolized, or broken down, by the body. The withdrawal time is determined and set by research and governmental regulations and must be followed to ensure a safe, wholesome product. For example, the withdrawal time of LA-200™ (oxytetracycline), is 28 days. If you decide to treat your pig with this drug the day of the show, and the animal is sold for slaughter a few days later, you have not followed the withdrawal time. This is not only unethical and illegal, it is potentially dangerous for the consumer of the meat. Many research trials were necessary to determine a drug's safety, both for the animal and humans. Keeping complete records of medication use (which animal was injected with which drug, when, by whom, and even recording withdrawal time) will help prevent both errors and drug residues.

There are often situations when a certain medication would be more effective if used in a manner other than what is printed on the label. For instance, it may be more effective if given more often and in a higher dosage than the label states. This is considered **extra label** use and absolutely requires a recommendation by a veterinarian. A producer cannot legally use a drug in any manner except what is written on the label. If a producer does this without a veterinarian's involvement, it is called "off label" drug use and is illegal. Extra label use of an animal health product requires a good working relationship with your veterinarian. While it may often be difficult to find swine veterinarians in your immediate area, their direction is absolutely required when using medications in any other way than what is printed on the label. Examples of extra label drug use include:

- Your veterinarian may change the dosage of the drug (tell you to give it more or less than the label states)
- Your veterinarian may change the frequency of administration (tell you to give it more or less frequently)
- Your veterinarian may change the treatment period (tell you to give the drug longer or stop using the drug sooner than what is printed on the label)
- Your veterinarian may prescribe a treatment for a disease other than what is stated on the label
- Your veterinarian may prescribe a drug for your pig that is not labeled for use in swine. (This is done only if it is a logical choice and if label use of an approved swine drug is not available)

Altering the label use requires a veterinarian's guidance because it could change the withdrawal time or safeness of the meat product. Feed medication can **ONLY** be used as directed by the label. It is illegal for the producer or veterinarian to feed medication other than according to the label directions.

Reading labels, keeping good records and paying attention to detail can help you prevent tissue residues. It is **EVERY** producer's responsibility to do everything they can to provide a safe, wholesome product for the consumer.

Questions? Contact Dr. Jodi Sterle at (979) 845-2714 or j-sterle@tamu.edu. This information is presented in the Pork Quality Assurance for Youth program. For more information on the program, contact Jodi Sterle.