

RESPONSIBLE DRUG USE & CONSUMER CONFIDENCE IN BEEF

How many beef recalls have we had in the recent past? I try not to think about this aspect beef production on a daily basis as it can get depressing in short order. It is important however, to review the impact of these recalls to understand where we might prevent some future problems. The Topps meat company recall was one of the biggest beef product recalls in history. In this case, it was hamburger products contaminated with *E. coli* O157:H7 that sickened dozens of people and affected consumers in many states. This recall came after several years of success nationwide in drastically reducing *E. coli* contamination of ground beef products. What went wrong at Topps? We may never know all the answers to that question; however, some things are obvious. The Topps Company apparently stopped performing their mandatory *E. coli* prevention steps in the production process. Adding to this problem, the Food Safety Inspection Service (USDA-FSIS), apparently did not identify the failures in time to prevent the product contamination. About a year ago, the Humane Society released video of dairy cattle being abused at Hallmark in Chino, California. Eventually, this prompted the largest beef recall in history—not because of product safety—but because of the failure to treat some of these dairy cattle humanely and for the possible inclusion of “downer cattle” in the food supply—which is specifically against the law. What went wrong at Hallmark? Again, we may never know all the answers; however, it is obvious that some employees at Hallmark were mistreating cattle and that appropriate oversight by the Hallmark management and the USDA-FSIS inspectors was not being done. The upshot in both cases was that the companies involved went out of business and rightfully so. Also, and more importantly, consumer confidence in beef products decreased and this eventually affects the entire industry in terms of consumer demand. It also added ammunition for the “anti-agriculture” activists. These are bad consequences for the inappropriate actions of a few individuals. So one question is, “What might go wrong in the future?”

One of the things that went wrong in the past with beef products was illegal drug residues. This was a significant problem in the 1980's and was one of the major reasons the Beef Quality Assurance programs were started. At the present time, violative (illegal) residues are not an issue in fed cattle (cattle going to slaughter from the feedlots). It is a very minor problem in non-fed beef cows and bulls going to slaughter and a somewhat bigger problem in cull dairy cattle. The potential problem of cattle having residues is an issue that all producers can help prevent. Just as the industry needs to prevent inhumane handling of cattle and bacterial contamination of products (*E. coli* in particular), we need to make sure that drug residue issues don't come back to undermine consumer confidence.

How do we prevent residue problems?

The primary method is by following label directions! This applies to drugs we use to treat sick animals (injections and oral medications), vaccines we give to prevent disease, hormones (for reproduction or implants), pesticides and herbicides we use on animals and crops grown for feeds, and feed additives that are used in cattle feeds and supplements. All of the drugs and compounds that could end up in the cattle have a withdrawal time on the label that must be followed. This withdrawal time is the time from which the animal is last treated until it can be slaughtered with no risk of having a violative drug residue in the animal's tissues.

What is the withdrawal time based on?

Simply put, the withdrawal time is based on scientific evidence that accurately measures the metabolism of the drug in the animal's various tissues (muscle, liver, lung, kidney, etc). There are many factors that affect the concentration of drugs, pesticides, or other compounds in animal tissues. These factors include (1) the drug itself, (2) the formulation of the drug, (3) the route of administration (oral, subcutaneous, intramuscular, topically [on the skin], etc), (4) the dose, (5) the frequency of administration, (6) the species (sheep, cow, or pig), (7) the target tissue(s), and (8) various disease and management factors (age of animal for example). All of these factors influence the way the drug "moves" in the animal's body and how soon it is eliminated—the withdrawal time.

Where do I find the withdrawal time information?

It is on the label—always in fine print! The label contains the necessary information for the use of the product and it is a legal document. When you purchase a drug or other compound for use in your cattle you have agreed to follow all the label directions—if you deviate from the label you are legally responsible. The label information contains (1) the species that the drug can be used on, (2) the dose, (3) the route(s) of administration, (4) the disease conditions (pneumonia, scours, etc) or purpose (heat synchronization), (5) frequency and duration of treatment, (6) any precautions or warnings, and (7) the withdrawal time (time from last treatment until the animal can go to slaughter). This is the situation for what we call "Over The Counter" drugs—or OTC drugs. You can buy and use OTC drugs—but you are responsible for using them according the label and you are responsible for any residue problems that occur.

What if I need to use a drug at a higher dose than on the label?

Using a drug in this manner is called Extralabel Drug Use. It means you have used a different dose (usually higher) than that on the label. It may also mean (1) you used the drug for a different disease or condition (foot rot versus pneumonia), (2) used the drug in a different species than that approved on the label (cow versus pig), (3) gave the drug by a different route (subcutaneous versus oral), (4) used a different frequency or duration of treatment, or (5) any other condition of approved use. If you use a drug in an

Extralabel manner you must have a prescription from your veterinarian and that prescription must be affixed to the drug container. That label will have a different withdrawal time listed. It will usually be a longer withdrawal time than on an OTC label for the same compound.

Where does my veterinarian get this withdrawal time information?

Generally, they get this information from a group called FARAD (this stands for Food Animal Residue Avoidance Databank). FARAD is housed on three university campuses in the U.S. (University of Florida, North Carolina State, and UC Davis) at their respective veterinary colleges. They maintain a database of all the information available worldwide that relates to drugs, pesticides, or environmental contaminants that might find their way in food animals, including cattle. Your veterinarian can access this expertise when necessary by phone or email. Most veterinarians have the FARAD number on speed dial. The withdrawal times for Extralabel Drug use is based on the best available science which includes research journals, agency information, and unpublished data from pharmaceutical companies. This information is essential to our ability to prevent problems in our cattle and to treat them if they become ill. Just as importantly it is essential to prevent residue problems in the beef supply.

Who pays for FARAD's operation?

FARAD is funded from grants from the U.S. government (usually USDA) and has been in operation since 1982. The funding has been a continuing problem and needs to become an ongoing program with a secure base. The program was included in the recent Farm Bill but the money (appropriations) has not been approved.

What if FARAD ceased to operate?

Producers and veterinarians would no longer be able to use drugs in an Extra Label manner to treat animals. That is to say, the current Extra Label drug use in cattle would be illegal as there would be no available science-based withdrawal time information. This would result in more sickness and death loss in our beef cattle herds. Also, there would be a greater risk of violative residues in meat and milk products.

What can I do to prevent violative residues?

There are a number of steps we all must take to prevent residues. One of the first is to work with your veterinarian on treatment protocols for sick cattle. Have a plan in place ***before*** an animal gets sick and needs treatment. Here is a list of other things to do:

Read the label thoroughly. Note all precautions and warnings.

Follow the instructions on the label.

Observe the withdrawal time before the animal leaves for slaughter.

Follow your veterinarian's instructions for withdrawal times on Extra Label use drugs and prescriptions.

Support FARAD through your state cattlemen's association.

Keep records of your treatments.

Doing these simple things will help prevent violative residues, secure consumer confidence, and keep important drugs available to use when needed for the health and welfare of our cattle.

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