

When producers see a sick calf or cow in their herd they will likely give it a shot of an antibiotic, turn it back out in the pasture, and go on with their day. A week later the calf is healthy again and is hauled off with the rest of the calves to be sold at the sale barn. The problem with this is that the antibiotic given likely has a meat withdrawal that is greater than 7 days. But what is a meat withdrawal? And why is it so important that this number be given so much attention? This week we will answer these questions and discuss the risks that come when withdrawal times are disregarded.

The first step in understanding what withdrawal time is is to take a look at the process a drug undergoes in an animal's body. Any time a food producing animal is treated with a drug there is a chance that chemical residues of that drug may be in or on the food products made by that animal. In order to ensure that the chance of this occurring is very low and in safe proportions, studies have been done to measure the Acceptable Daily Intake, tolerance, and withdrawal time for each drug and product used for food animals. Acceptable Daily Intake, or ADI, is the first number calculated for each drug. This figure represents the largest amount of the drug that will not be harmful to a person if he/she ingests that amount every day. Using ADI, chemists can then calculate the tolerance for the drug, which reveals the level of chemical residues that are allowed to be in or on food products made from food animals. Lastly, the tolerance of a drug is used to calculate the withdrawal time. The withdrawal time is the time from when the animal was last treated to when the animal can be slaughtered for food. This time frame (which varies from drug to drug) allows for the drug to get to levels that are at or below the tolerance level in the animal's tissue. It is this number that producers should pay special attention to before and after deciding to treat their cattle.

Below, we have created a small chart that represents various drugs and their individual withdrawal times. Please note that the length of withdrawal time is not the same for each drug. This is why it is imperative to look at each drug label for individual withdrawal time and not simply place a general withdrawal time over every drug.

Drug/Product Used	Withdrawal Time
Dectomax injectable wormer	35 days
LA 200	28 days
Panacur (oral)	8 days
Penicillin	10 days
Sustain III Sulfa boluses	12 days

Because withdrawal time is the best way to know when it is safe to sell a food animal for slaughter, it is important to always strictly adhere to drug label instructions. Some factors that negatively affect withdrawal time occur when dose given, route of administration, amount given per injection site, and duration of treatment are not done according to label instructions. Failure to follow drug label instructions may not only result in involvement of the FDA in your operation, but poses a health risk to consumers as well. If an animal is tested for residue after slaughter and amounts greater than the tolerance level are found, the carcass will be condemned. Any violations that occur may result in inability to sell more cattle until the problem is resolved.

Next time you have a sick animal in your herd, follow the FDA's Center for Veterinary Medicine guidelines and T.A.L.K. before you treat. First, **Talk** to your vet to determine which drug should be given. Then, **Ask** if the drug has been FDA approved for use in your animals and that the drug label is appropriate and accurate. Third, **Look** at the label and determine how much, how often, and where the product should be administered. Lastly, **Keep** accurate and thorough treatment records. This good record keeping will help you avoid illegal chemical residue levels because you will have treatment records that show which animal was treated, why, how, and with what drug they were treated, and when it is safe for the animal to enter the food supply.

Please refer to the articles below for more information about drug withdrawal time. If you have any questions about withdrawal times, or the treatment of sick cattle in your herd, please contact us.

<http://beefmagazine.com/blog/guide-understanding-animal-drug-withdrawal-times>

<http://www.fda.gov/AnimalVeterinary/NewsEvents/FDAVeterinarianNewsletter/ucm221957.htm>