



Avoiding Milk and Meat Residues

NYS Cattle Health Assurance Program



Drug Storage:

Separate storage and labeling is required for lactating and non-lactating cow drugs.

- * Separate shelves and labeling in a cabinet, refrigerator, etc. is adequate
- * Some items need only be stored where they will not contaminate milk or equipment or surfaces that come in contact with milk. These are exempt from labeling requirements. Such items are:
 - antiseptics
 - wound dressings
 - vaccines
 - vitamins
 - minerals
 - water
 - saline
 - ringers solution
 - sugar solutions
 - propylene glycol
 - prostaglandins (lutylase)
 - pituitary hormones (oxytocin, PLH, PH, etc.)

Drug Labeling Requirements:

Over the counter (OTC) drugs can be purchased by a non-veterinarian. Manufacturer's label must have:

- * Name of drug
- * Active Ingredients
- * Directions for use
- * Withholding times (meat and milk)
- * Name of distributor or manufacturer

Prescription Drugs:

Any drug with the following statement is a prescription drug.

- * "Caution, Federal law restricts this drug to use by or on the order of a licensed veterinarian."
- * Other statements such as:
 - For veterinary use only
 - Restricted Drug
 - Do not confer prescription status
- * The name and address of the dispensing veterinarian must be affixed.

Label Requirements:

Manufacturers Prescription Drug Label must have:

- * Name of drug
- * Active ingredients
- * Directions for use
- * Prescription legend
- * Withholding time (meat and milk)
- * Name of distributor or manufacturer
- * Added: dispensing veterinarian name and address



Whenever there are questions consult the label or your veterinarian.

Extra Label drug Use (ELDU):

Giving an animal a drug no matter if the drug is over the counter (OTC) or prescription (Rx) or compounded, in a manner different **in any way** from what is written on the label. Examples include:

- * Tetracycline given at a greater dose or used in a foot bath
- * Banamine used in lactating cattle
- * Penicillin used in the uterus rather than intramuscular
- * Human drug used in an animal
- * Penicillin used at a higher dose than on label

ELDU Label requirements:

Veterinarian's label added to the manufacturers label on any product OTC or Rx dispensed or prescribed for an extra label use must have:

- * Name and address of veterinarian
- * Animal identification
- * Active ingredients
- * Animal class and health problem
- * Directions for use
- * Withholding time
- * Cautionary statements (residue test, dangers)

Requirements for ELDU:

- * Only by or on the order of a veterinarian
- * Drugs must be FDA approved for animals or people
- * There must exist a veterinarian/client/patient relationship
- * Drugs must be used for a therapeutic purpose, not for production enhancement.
- * Drugs must be given as a dose or in water, not as a feed additive.
- * ELDU is not allowed if it results in a violative food residue or any residue that may be a risk to public health.
- * If the FDA prohibits use of a drug it can not be used extra label contrary to that prohibition

Treatment Records:

- * Uniquely identify all animals
- * Maintain all treatment records for a minimum of 2 years after animal leaves the operation. Treatment records should contain the following information:
 - Identification of animal treated
 - Date treated
 - Product administered, lot/serial number, expiration date
 - Dosage used
 - Route and Location of administration
 - Earliest date animals will have cleared withdrawal time
 - Name of person administering product

Reasons Milk Residues Happen:

1. Milk from a treated cow was accidentally routed into the pipeline.
2. An antibiotic-treated dry cow was unintentionally milked.
3. The same milking unit was used to milk an antibiotic-treated cow before milking untreated cows; milking unit was not cleaned and sanitized between uses.
4. Lactating cows were purchased and the new owner was unaware of recent antibiotic treatments prior to sale.
5. One quarter of a cow was treated for mastitis and withheld from the bulk tank. However, milk from the other three quarters was not withheld and was permitted to enter the pipeline.
6. Equipment used to milk treated cows was handled carelessly; for example, vacuum from the milk pipeline was used to operate dump-milk buckets.
7. All antibiotic-treated dry cows were milked last, but the milk line was not diverted from the bulk tank.
8. Antibiotic residues remained in the milk of a cow that was treated in an extra-label fashion. These are the cows that should be tested individually.
9. Medicated feed was accidentally mixed into the lactating-cow feed.
10. Cows drank from a medicated footbath.
11. Treating cows intrauterine with antibiotic-containing pills, infusions, or capsules and not withholding/testing the animal's milk.
12. Cows treated with an antibiotic that have not reached the end of their discard time.
13. Cows that freshen early, with their short dry period unnoticed.
14. Using "dilution as the solution" - some large dairies have treated up to a certain number of animals with penicillin and would not withhold milk due to the perception that the rest of the herd will dilute out the antibiotics if the herd is large enough.

Source: Dick Wallace, DVM; Roger Saltman, DVM; Gary Neubauer, DVM
Bovine Veterinarian, October 2001, pg. 6



Reasons Beef Residues Happen:

1. Not following label recommendations for use (amount, route and species) and slaughter withdrawal. This is probably the most likely reason(s) for residue problems.
2. Animals get treated but no records are kept and it gets shipped. Poor records or none at all.
3. Misidentification of an animal or misreading the tag at shipment.
4. Injecting more than the recommended amount at an injection site. For example, if someone is to administer no more than 10cc of an antibiotic at one site and they put 20ml IM or SQ, residues can occur.
5. Animal could not be found by farm employee before loading on the truck and thinking it wasn't in the pen.
6. Non-responding, chronically treated animal with failing liver and kidney function, unable to clear the drugs in the withdrawal time, but withdrawal time had been adhered to.
7. Someone doesn't think they will really test the animal at the packing plant—blatant disregard for preventing residues in cattle intended for harvest.
8. Aminoglycosides used on the farm level (for example, on a scouring calf at an early age) and is still hung up in the kidney.
9. Animal had residues in it when purchased and was sold for slaughter; current owner did not know the previous owner had given drugs.
10. Unaware of the withdrawal times of drugs purchased over the counter for farm use, and then the animal was sold through the sale barn for salvage.
11. Extralabel use extended the withdrawal time and the producer was unaware of such issues.
12. Veterinarian did not inform owner of proper withdrawal time to observe before selling the animal.
13. Compound incorporated into the feed and it accidentally gets fed to another group of animals it was not intended for.
14. Feedgrade antibiotic fed to cattle too close to harvest without adhering to the established withdrawal procedures—high level feeding or extended periods of low-level feeding.
15. Feed/water contamination from pesticides, transmission fluid, transformer fluid, lead batteries, paint, solvents or petroleum waste can cause chemical residues.

Source: Jim Furman, DVM; Tom Edwards, DVM; Norm Stewart, DVM
Bovine Veterinarian, October 2001, pg. 7