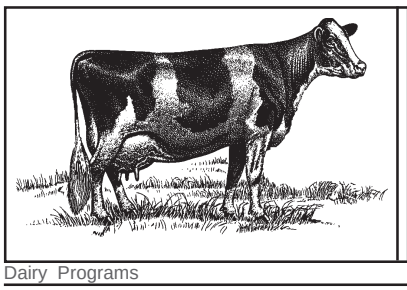

B.C. DAIRY TALK

Dairy Programs Editor: Annette Moore

Use and Storage of Veterinary Drugs on the Dairy Farm

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Introduction

Public concern about the quality of milk and milk products in terms of residues is relatively new in North America. The concern regarding the use of drugs in agricultural production is thirty years old in the U. K. and the restrictive use of drugs in that country reflects this attitude. If we wish to **maintain these privileges** we must be able to assure the consumer that we are responsible in the use of veterinary drugs and that the products we produce are quality. **Quality Assurance Programs** are the route that most agricultural commodity groups are taking to provide this assurance. The purpose of this publication is to increase the awareness of the **responsible** use of veterinary drugs by the dairy producer.

Legislation

All veterinary drugs are licensed by Health and Welfare Canada, Bureau of Veterinary Drugs. The criteria used for licensing include both the human and animal health effect, whether it be direct or indirect.

The Food and Drug Act is the main legislation covering veterinary drugs. The act classifies drugs into two groups:

1. Drugs that are restricted and can only be used or dispensed by a licensed veterinarian. To fulfill this requirement the veterinarian must have a **Veterinary Client Patient Relationship (VCPR)** which consists of the following:
   (a) animals that have been recently seen and the veterinarian is personally acquainted with the condition of the keeping and care of the animal or makes regular visits to the farm;
   (b) assumed the responsibility for making the clinical judgments;
   (c) ensured the client will follow the instructions as stated; and;
   (d) made provisions for follow-up evaluation.

   Examples of drugs that fall in this group are Gentocin and Estrumate.
2. Drugs that may be purchased by a producer from veterinarians, pharmacies or agriculture supply stores. A VCPR is not required. Examples of this group of drugs are Liquamycin and Penicillin.

Use Of Drugs

Labels

Any deviation from the label makes the information on the label invalid. **READING THE LABEL PRIOR TO USING A PRODUCT IS EXTREMELY IMPORTANT!** Products dispensed to you by your veterinarian that are not in the original labelled container *must* be labelled by the veterinarian in the same manner that appear on the commercial label! **Following label instructions is critical if residues are to be avoided.**

The following information appears on the label of all products:

☞ Trade Name

Trade names are marketing schemes and often have little relationship to the active ingredient. Read the label to be sure that the active ingredient is the one you want.

☞ Active Ingredient and Concentration

Lists the active ingredient, other ingredients and their concentrations. Always check that products of different trade names, but same active ingredient are of the same concentration. Dosage is calculated using the concentration. Remember, the volume per treatment will vary depending on the concentration of the active ingredient.

☞ Indications

Information under this heading will give general indications of diseases or disease conditions for which the drug is effective. Using a product to treat mastitis that is indicated to treat pneumonia could cause problems in many ways, with residues being only one possibility.

☞ Dosage and Administration

The amount to be given is usually expressed in ml per 45 kg and the method of administration is given. Method or route of administration will be IM (intramuscular), SQ (subcutaneous, under the skin), oral, intra-mammary or topical. Some important units of measure equivalents: 1 ml = 1cc and 45 kg = 100 lbs.

☞ Contraindications

Will indicate situations occurring in the animal when the product should **not** be used.

☞ Precaution(s)

Will indicate storage temperature, usually expressed as a range, e.g., protect from freezing, store between 5° & 23° C.

☞ Warning

Will indicate the amount of time after the last treatment before milk may be used for human consumption or slaughter for food. Note, the withdrawal time is only applicable if all the directions on the label are followed. Will indicate animals that the product may **not** be used in, e.g., lactating dairy cows.

☞ Caution(s)

Will state situations that the animal may be in when the product should **not** be used. Also will list possible side effects and treatment of those side effects, e.g., “in case of anaphylactic reaction, administer epinephrine immediately.

☞ Expiry Date

Product should not be used after this date. This is the shelf life that is indicated when the drug is submitted for licensing. The manufacturer does not know what happens to this product after the expiry date.

☞ Lot Number

This is a number assigned by the manufacturer to a particular batch of that product. It is important to keep track of that number in case you have a problem with the product. This number allows the examination of the product even though you may not have any of the product left.

☞ Drug Identification Number (DIN)

All products licensed for use in Canada have a DIN. This number is on all labels and is recorded at the poison control centers. A call to the poison control centre with the DIN number will provide a treatment protocol in accidental poisonings.

Treatment protocols

Withdrawal times are only applicable if the route stated on the label is followed.

For example, Liquamycin LP given intramuscular has a withdrawal time of 60 hours following the last treatment. If given intrauterine the withdrawal time is not known.

☞ Amount Administered

Volume administered per injection site is important. The Liquamycin LP label states “do not administer more than 10 cc per site”. If you administer more than 10 cc the withdrawal time is not known.

☞ Method of Treatment

Intramuscular injections require a 1.5 inch needle to insure that the product is injected into the muscle. If the needle is not into the muscle and the product goes into the fat or under the skin the adsorption is affected and the withdrawal time is not known. Repeated injections in the same area interferes with adsorption of the product. Choose a new site for each treatment.

☞ Cleanliness

Use a new or well cleaned syringe and needle (washed with soap and water and rinse thoroughly). This is critical to avoid any contamination from previous uses.

☞ Extra-Label

This describes using a drug in any manner other than as the label describes. Sometimes referred to as off-label. It is illegal for anyone other than a licensed veterinarian to use a drug in a manner other than as stated on the label. When your veterinarian prescribes an extra-label use of a drug there should be a written "prescription" (example included in this section). The drug name, dosage, administration instructions, DIN, withdrawal time for milk and slaughter, animals to be treated, veterinarian's name and phone number must be included in the instructions. This is a critical step in avoiding miscommunications and residues!

☞ Pesticide Products

All drugs have a DIN. Pesticide products **do not** come under the drug legislation and **do not** have a DIN number but have a PCP number. They are registered under the Pesticides Control Products Act (PCP). It is an offense to use products registered under the PCP Act in an off-label manner. Veterinarians **cannot prescribe PCP products!**

☞ Prescription Form

Contains the instructions for extra-label use and non-labelled products. This form should be stored in the treatment records. An example prescription is as follows:

Records

The treatment record is useful in residue prevention and effective drug use. The focus in responsible use of drugs is to prevent disease. When disease does occur treat with the appropriate product which will give the desired response with the least amount of risk of residues.

☞ Information and Use

Record animals treated, number of treatments, dates and times, condition treated, drug used and response to treatment. Also use your veterinarian and a diagnostic laboratory to identify the causative agent of your disease problems. Identification of the organism will allow you **to identify areas of management** where you can make some changes to prevent future occurrence. If you have to treat it will provide you with the most appropriate drug to use.

☞ Customize

Management is unique at each dairy farm, use a record keeping system that you will utilize in your management plan.

Animal Identification

It is important to establish an animal identification for those that are treated and to establish a protocol as to who does the treating and recording of the treatments. The best management method of handling treated cows is to keep them in a separate pen away from the other herd. They still must be visibly identified to prevent errors if the cow manages to get out of the treatment pen.

B.C. Veterinary Medical Association
ABC Dairy Practice
Drs. Scratch & Associates

Box 000 Tel. 123-4567
Nowhere BC A1B 2C3 Fax 901-2345

Patient ID: Cows in herd with mastitis
Treatment: Newdrug 100 mg/ml
DIN: 1234,5678

Instructions for use:

Cows showing acute clinical mastitis, use 2.5 ml. per 45 kg intramuscularly every 12 hours for a total of six treatments. If the cow does not improve 36 hours after the first treatment please contact me. Do not administer more than 15 ml per injection site.
This product must be refrigerated.
Exp. date: 12/95

The following products from the above animal(s) cannot be used for the indicated number of days after the last treatment:

Milk: 6 days (150 hours) **Meat:** 42 days
Farm: Puremilk Dairy **Date:** 01/12/95

Dr. M.B. Scratch *signature* _____

I have read and understand the instructions, warnings and withdrawal times of the above prescription.
Owner or agent for the owner _____ *signature*

Storage of Drugs

Instructions regarding temperature and exposure to light appear on the label. Proper storage is necessary to maintain the efficacy of the products. Organized storage will also help prevent accidental use of the wrong product which could result in residues.

☞ **Types of Storage Requirements**

* a refrigerator capable of maintaining 3 - 8 degrees Celsius
* a closed cupboard to prevent exposure to light

☞ **Organization of Storage**

* physical separation of lactating and dry cow products
* physical separation of PCP products
* separate storage area for new and used syringes and needles.

☞ **Identification of Products in the Storage Area**

* make sure that all products are labelled. If label is damage or illegible do not assume that you know what the product is.

In Summary

Know your cows – identify

Know your drugs – use record

Know your treatment – use records

Know your withdraw l times – use records

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Know Your Success in Producing Quality Milk!

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