

Preventing Drug Problems in the Feedlot: A Guide for Managers and Veterinarians

Alvin J. Edwards, DVM, PhD
Dept. of Surgery and Medicine
College of Veterinary Medicine
Kansas State University
Manhattan, Kansas 66506

Production of wholesome meat products for the consumer is the primary objective of the livestock industry. Veterinarians, as professional caretakers of animal health have a responsibility in aiding producers in achieving this goal.

The Problem

Preventing drug problems presents a new challenge to the livestock industry. Just as if weather, markets, inflation, higher feed costs, and the depressed economy were not enough to depress even the most optimistic livestock producer, the increased technology which makes detection of parts per *billion* of products fed, implanted, sprayed on, or injected into animals adds another dimension in producing "wholesome and acceptable" meat products for the consumer.

The list of products that are used in livestock production and can be considered as a form of "animal *drugs*" would include: Antibiotics, Sulfas, Vitamins, Implants, Wormers, Insecticide, Corticosteroids, Hormones, Prostaglandins, Prostaglandin Antagonists, Vaccines, Feed Additives — Rumensin, MGA, Organic Iodide.

It's time for all segments of the industry - including producers, managers, feedlot operators and **veterinarians** - to address directly the question of how to better handle drugs used in food animals.

Drugs are designed to help producers combat inherent disease problems faced by livestock producers as well as prevention measures and growth promotants. But in so doing, these same drugs can and have been misused for various reasons: to compensate for poor management; in an attempt to purchase "solutions to problems" in a bottle; or to mask symptoms of disease.

Veterinarians need to recognize that they share the blame when these residues appear - whether they were actually involved or not. The recent DES episode in cattle is a prime example.

More recently, a number of feedlots are quarantined for residues of an oral antibiotic not cleared for use in beef animals and known to be retained in certain organs for an extended period of time. This seems to be gross negligence on the part of feedlot operators as well as veterinarians for

allowing this to happen.

New legislation that more clearly defines residue problems and animal identification needs to be studied by veterinarians.

The USDA is submitting to the 1981 Congress proposals that would amend the Federal Meat Inspection Act to:

Define biological residue of any substance.

Define an unlawful residue as any biological residue which exceeds tolerances established under any federal statute.

Add authority to quarantine any animal, carcass or product to the premise where it is held for purposes of distribution, if there is reason to believe that it contains any unlawful residue.

Authority would also be provided to quarantine the farm or feedlot from which the animal came.

The Solution

Recognizing responsibilities seems to be one of the first steps in solving the drug residue problem.

The Feedlot Owner

Feedlot owners or managers need to establish and adhere to a drug purchasing policy and recognize the responsibilities that accompany such a policy. Figure 1 is an example of a printed notice of a feedlot's drug purchasing policy. A notice of this type is sent to all distributors of animal health products or given to any "drug salesman" that would visit the feedlot.

Many managers know that the detailing of drugs or health products by company representatives takes considerable time and energy. It is a waste of the company time and energy. It is a waste of the company's time to explain the virtues of a product to an individual who has no voice in deciding whether the product will be used. Section 2 of the written policy (figure 1) will clear up this problem. The manager may choose to have all products detailed through himself, his assistant, and the veterinarian, or perhaps only through the veterinarian. The main objective is to assign some authority and responsibility to both the feedlot and the companies involved.

Figure 1

DRUG PURCHASE POLICY

MEMO TO: ANIMAL HEALTH PRODUCTS DISTRIBUTORS

DATE: _____

FROM: _____ Feedlot

_____ Address

RECOGNIZING THE IMPORTANCE OF THE CONTROL OF ALL ANIMAL DRUGS AT OUR FEEDLOT, THE FOLLOWING POLICY SHALL BE IN EFFECT:

1. The procurement of all prescription animal health products will be as prescribed by _____, D.V.M.,

and purchased by:

2. The detailing of any and all products will be done **only** through the following individuals at this Feedlot:

3. The delivery of ordered products will be made to (office) (drug room). The following individuals are authorized to sign invoices:

4. It is recognized that considerable time can be wasted by salespeople visiting with cattle crew members and this practice will not be tolerated.

We would ask that a copy of this policy be distributed to your salespeople and we will expect them to honor it in its entirety.

Thank you for your cooperation.

Drugs and Drug Prescriptions

Figure 2 is an example of a drug prescription form used in a feedlot. Supplying drugs at competitive prices is a very competitive business and particularly when supplying large quantities to feedlot operations. If there is any one main area that tends to get veterinarians in poor standing with feedlot managers it is supplying drugs to them. Even if the veterinarian supplies them at 10% over their cost, if the products are not purchased in large enough volume these prices may be severely over priced. Drug business is big

Figure 2

DRUG PRESCRIPTION FORM

FEEDLOT _____

Date _____

TO WHOM IT MAY CONCERN:

The following products are being utilized in treatment schedules and directions for their use as well as withdrawal times have been reviewed and are posted:

Feedlot Manager _____ (signature)

Prescribed by _____, D.V.M. (signature)

Effective through _____ (date)

business and scorning the "lay distributors" is equally unproductive. Likewise the feedlot manager is cost conscious, dealing regularly in buying grain as reasonably as possible; buying and selling cattle and trying to make a profit. So it is natural that he would be aware of the price of drug products and want to have them supplied at the cheapest possible cost to him.

If a veterinarian can justify a large enough inventory or can purchase in quantities to be competitive, then drugs can be another source of revenue.

There is a simple and fair way of making the drugs available to the feedlot. Figure 3 is an example of a drug bid sheet that can be distributed to the various animal drug suppliers. This is not only a method of making the pricing of these products fair and in the open, similar to the method used by the nutritionist who writes up the specifications for the protein supplements and then puts them out for bids. It then becomes the responsibility of the manger to accept the company's bid that is most favorable. This also allows the veterinarian to enter into this competition.

According to a recent survey of 16 Texas feedlots, they all agreed they would rather pay their veterinarian for advice and buy their drugs elsewhere. Charging for the decisions required in drug selection, prescription and treatment

© Copyright American Association of Bovine Practitioners; open access distribution.

Figure 3

PRODUCT PRICE LIST

_____ Feedyard

Submitted by: _____ Date _____

for period beginning _____

Please submit prices on (✓) items:

| Product | Company | Unit Price |
|---|---------|------------|
| <u>Vaccines</u> | | |
| () Four-Way Blackleg | _____ | _____ |
| () Eight-Way Blackleg | _____ | _____ |
| () IBR-BVD | _____ | _____ |
| () IBR-PI ₃ (Nasal) | _____ | _____ |
| () _____ | _____ | _____ |
| <u>Implants</u> | | |
| () Synovex | _____ | _____ |
| () Ralgro | _____ | _____ |
| <u>Iniectables</u> | | |
| () Tramisol Inj. 500 ml | _____ | _____ |
| () Tylan 200 250 ml | _____ | _____ |
| () Oxytet 50/100 500 ml | _____ | _____ |
| () Vit. B Complex 250 ml | _____ | _____ |
| () Flucort (Azium) 100 ml | _____ | _____ |
| () _____ | _____ | _____ |
| () _____ | _____ | _____ |
| <u>Other</u> | | |
| () Triple Sulfa Boluses 240 gr./480 gr. | _____ | _____ |
| () CoRal (Wetable powdr.) | _____ | _____ |
| () GX 118 | _____ | _____ |
| () Spot-On | _____ | _____ |
| () _____ | _____ | _____ |
| () _____ | _____ | _____ |
| () _____ | _____ | _____ |

schedules is part of the health program and this needs to be considered when this program is established with the feedlot.

Before any drug purchasing policy goes into effect, the manager (owner) must approve it. The manager alone is responsible for proper control of all drugs used in the feedlot. The manager has many other responsibilities, including maintenance of facilities, the procurement and marketing of cattle, and the nutritional and health programs.

A manager may delegate some responsibilities, for example: to an assistant manager or foreman to take charge of the cattle or manage the feed mill; to a nutritional

consultant to formulate rations; and to a veterinarian to outline a health program. No matter how much responsibility the manager delegates, the type of program conducted at the feedlot is still his responsibility. **Blaming a poor health program on indifferent cooperation from a veterinarian, or on the inavailability of a concerned or qualified veterinarian does not reduce the manager's responsibility for health problems or drug residue problems in the feedlot.**

The Veterinarian

The veterinary profession - and individual veterinarians involved in feedlot practice - need to accept the challenge of providing health programs that meet the needs of their clients. The modern feedlot needs a veterinarian for more than just emergencies.

The veterinarian's role in the past, as depicted in James Herriot's "All Creatures Great and Small," has been to be on call for the emergencies that arise with any of the species of animals his clients might possess. In modern feedlot medicine, this type of service is as outmoded as inflation of the cow's udder in treating milk fever. Emergency service is, and will continue to be, a responsibility of veterinarians in private practice but some changes need to be made and specialties should be recognized when dealing with modern feedlot operations that have personnel who are totally capable of performing routine veterinary tasks.

A professional person is needed who has knowledge of drug actions, disease agent, pathologic changes, and immunologic response. This expertise is needed with regard to species and disease conditions involved, and in relation to current circumstances in the local area as well.

Health Program

The feedlot manager should demand a well defined health program for his operation. Just as he may "shop around" before selecting his nutritional program, the manager may have to shop for a veterinarian who will provide this type of health program that will most benefit the feedlot operation.

Veterinarians need to become more aggressive in selling their expertise. Prepare a written program for clients to observe; outline a resume that includes qualifications; be prepared to sell a manager or owner on a preventive program. A health program for a feedlot should include a set of goals; procedures; receiving schedules; examples of treatment schedules; records; and above all **written reports** to aid in communication and map the progress of the program.

1. *Objectives* should be clearly defined and can be used as a set of guidelines for the health program. Figure 4 is an example.

2. *Receiving Schedules*, figure 5, are utilized in outlining procedures to be exercised on incoming cattle into a feedlot. They define what products to use and provide a positive

© Copyright American Association of Bovine Practitioners; open access distribution.

Figure 4

OBJECTIVES

1. Reduce losses due to disease
 - Death losses
 - Depressed performance
 - Treatment costs
2. Avert disease outbreaks
 - Receiving programs
 - Early detection of sickness
 - Diagnosis
3. Provide professional assistance in health management
 - Definite plan
 - Health record system
 - Current developments
 - Drug Control
 - Treatment schedules
 - Preventive residue

Figure 5

RECEIVING SCHEDULES 1980

(To Be Administered As Soon As Possible After Arrival At The Feedlot)

1. Light Calves (under 500 lbs.)
 - Vaccinations:
 - a) IBR-PI₃ Nasal
 - b) BVD IM
 - c) Four-way Blackleg SubQ
 - Injectable Wormer SubQ
 - Vitamin A (if needed) Im
 - Implant (Ralgro)
 - Brand (tag)
 - Bob Tails
 - Castrate bulls (in highly stressed calves wait 30 days)
 - Dip (Pour-on)
 - After 60-80 days:
 - a) Vaccinate with Blackleg (8-way) SubQ
 - b) Re-implant
2. Yearling Weight Cattle
 - Vaccinations:
 - a) IBR-BVD IM
 - b) Blackleg (8-way) SubQ
 - Injectable wormer SubQ
 - Vitamin A (if needed) IM
 - Implant (Ralgro)
 - Brand (tag)
 - Bob Tails and Tip Horns
 - Dip (Pour-on)
 - After 60 Days:
 - Re-implant (Synovex)

guideline in a preventive medicine program.

3. *Treatment Schedules.* By the same token definite treatment schedules can be utilized as an accurate set of directions for treating certain conditions. Figure 6 is an example of a treatment schedule for respiratory conditions

in a feedlot. Treatment schedules emphasize two very important facts:

- 1) There are no miracle drugs and
- 2) Early treatment for any condition is the only effective treatment

Figure 6

| FEEDLOT _____ | | PRESCRIPTION TREATMENT SCHEDULE | | |
|---|------|---|----------------------|------------|
| | | DATE _____ | | |
| RESPIRATORY CONDITIONS (Yearlings) | | | | |
| day | code | drug | route | withdrawal |
| 1 | Y 1 | 40 ml Oxytet-100 5 ml Dexasone 10 ml B complex 3 Triple sulfa Boluses (240 gr) | I.V. I.V. I.V. | |
| 2 | Y 2 | 40 ml Oxytet 3 Triple sulfa | I.V. | |
| 3 | Y 3 | 40 ml Oxytet 2 Triple sulfa | I.V. | 28 days |
| RESPIRATORY (Calves) R | | | | |
| 1 | R 1 | 25 ml Tylan-200 5 ml Dexasone 10 ml B complex 2 Triple sulfa boluses (240 gr) | I.V. I.V. I.V. | |
| 2 | R 2 | 25 ml Tylan 2 ml Triple sulfa | I.V. | |
| 3 | R 3 | 25 ml Tylan 1 Triple sulfa | I.V. | 14 days |
| | | | | D.V.M. |

The veterinarian should establish a tentative treatment schedule as he plans the health program. Having such a well defined plan has a number of advantages. It puts the emphasis on the time of treatment rather than on product used, and gives the veterinarian the prerogative to change a proposed schedule if the one being used for its designated purpose isn't producing the expected results.

4. *Records.* An effective record system maps progress and separates success from failure. Figure 7 shows an example of a pen treatment card that gives information on the health status of an entire pen or group of cattle without requiring a new card for each sick animal. It also lists drugs used, their effectiveness, withdrawal dates, the number of animals treated and number and reason for deaths.

In feedlots 6 x 9 cards are kept in a file box in the treatment room where the procedures are carried out. Smaller operators find it convenient to keep them in a small three ring notebook and for the farmer feeder who only keeps a few cattle around keeping these in a zip lock plastic bag with his medical supplies works out very well.

Identifying the animal being treated with a numbered ear tag is most effective for positively identifying that individual animal. If that particular animal needs treatment later on in

