Residue Avoidance or Veterinary Entrapment—What Do They Want?

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Two years ago a five state meeting was held in Guymon, Oklahoma with the USDA Extension and Food Safety Inspection Service between representation of cattlemen associations of Nebraska, Kansas, Oklahoma, Texas, and Colorado. The intent of the meeting was to launch a five state effort between the USDA and cattlemen to control antibiotic residues. None of the cattlemen groups wanted more than a cosmetic association to the project for fear of what they might find.

A year previous to this meeting a USDA-FSIS Veterinarian, Dr. Doug Marr, had started helping me check S.T.O.P. tests on tissue samples collected from the chronicly ill at the feedyard. We were looking for specific antibiotics (Penicillin, Tylan, Chloramphenicol, Spectinomycin, and Oxytetracycline, inc.) that might have been poorly excretated or metabolized following a chronic illness.

We found some animals clear of all suspect drugs as soon as 2 weeks and others to retain all suspect drugs for up to 4 weeks.

Based on our findings and what I thought was a very good record system at the feedyards, I volunteered at the five state meeting to let the USDA-FSIS have access to all of our animals and records for purpose of proving our meat was clean.

I took some time to work the bugs out of the system but the following is what we came up with. You will notice it is far more inclusive than just antibiotics.

Quality Assurance Program Covering Drug And Chemical Residues in Beef Carcasses From The Feedlot of Hitch Enterprises

I. Objective: To ensure that all beef carcasses from the feedlots of Hitch Enterprises are within established tolerances set by FDA and EPA for pesticides, drugs, and other chemicals. This program will be operated by Hitch Enterprises and will be monitored by USDA through evaluation and review of data as well as by periodic sampling of carcasses at packing plants by FSIS.

II. Procedures

A. *Feed Sources*

1. Hitch Enterprises will continue its quality-control program to ensure that no incoming feed ingredients contain substances that are present at levels known to be harmful to cattle or that would result in production of adulterated carcasses for marketing.
   a. Hitch Enterprises will issue a letter to all its ingredient suppliers notifying them of this agreement with USDA establishing a residue avoidance program. This agreement will require periodic sampling by Hitch Enterprises of the incoming ingredients for specific chemical compounds.
   b. Any ingredients suspected of contamination will be analyzed by Hitch Enterprises.

B. *Feed Medications*

1. Hitch Enterprises will provide FSIS with a standing certification that only FDA-approved additives will be used in the rations fed to the cattle in their feedlots.
2. Hitch Enterprises will provide FSIS with a standing certification that all additives used will be withdrawn as prescribed by FDA for each product.
3. Attached to this agreement is a list of all feed additives presently used by Hitch Enterprises. In the event that additional additives become available and are to be used by the Company, FSIS will be notified by certified mail.
4. The resident nutritionist in charge of feed formulation will determine whether animals have met FDA-specified withdrawal times before shipment to slaughter.
5. The staff veterinarian of Hitch Enterprises will monitor the withdrawal of feed antibiotics from animals to be slaughtered by administering the Live Animal Swab Test (LAST) or other suitable screening tests to these animals at least once a month. The staff veterinarian will retain the results of these tests as part of the medical records.
6. FSIS will monitor the effectiveness of the residue avoidance program by using the SWAB Test On Premises (STOP) at packing plants that receive cattle from Hitch Enterprises. In addition, FSIS, as part of its nation-wide monitoring program, will test tissue samples from slaughtered animals for residues that would not be detected by the STOP test.

C. *Individual Treatments*

1. Medication of individual animals in company feedlots will follow treatment schedules as developed by the staff veterinarian. Medication of each animal will be recorded by Hitch on an individual record card showing the pen number and individual identification number of the animal. The record will also include the date that the medication is administered as well as the medication and the amount of the dose (as in item II.E4).

2. All animals to be scheduled for slaughter will be checked by Hitch personnel responsible for treatment to ensure that all animals in the pen have met the withdrawal time established under Item II.B3 for the drug and disease condition.
3. The staff veterinarian of Hitch will institute a sampling procedure using the LAST test on at least ten (10) animals receiving individual hospital treatment. This procedure will ensure that the indicated therapy-disease combination does not result in unacceptable residues due to any pathological conditions affecting the adequacy of established withdrawal times, or for any other reasons.
4. FSIS will sample carcasses at the packing plant using the STOP test or other in-plant test to check the procedures used in the feedlot that are described in II.B6. In addition, FSIS will collect samples at slaughter to send to FSIS laboratories for detection of non-antibiotic residues.

D. *Pesticides*
1. Hitch Enterprises will provide FSIS with a standing certification that all pesticides used in beef production are EPA-approved and used in compliance with lable directions.

E. *Maintenance of Records*
1. All records of rations fed, feed additives added to individual rations, and individual treatments will be maintained by the feedlot for a period of 60 days after slaughter.
2. FSIS and Hitch management will annually review the records and pertinent operations in the feedlots to confirm the maintenance of these records.
3. Should unacceptable levels of residues be found in any of the carcasses submitted for slaughter by feedlots of Hitch Enterprises, the records will be available to FSIS personnel to aid in determining the source and cause of the residue.
4. Animals submitted for slaughter apart from the normal sale of the pen as a whole will be accompanied by individual treatment cards. The individual treatment information will be made available to the inspector-in-charge and returned to the feedlot for filing in accordance with the present practices of Hitch Enterprises. The inspector-in-charge will record post mortem observations and report results of any tests to Hitch Enterprises.

III. Action in Case of Potential or Actual Violation

A. Any known or suspected cause of unacceptable residues will be reported by Hitch Enterprises to FSIS by telephone.
B. Any unacceptable residues found by FSIS will be reported by telephone to Hitch Enterprises.
C. When an unacceptable residue is found, a joint assessment of source and cause will be made and corrective action taken.

IV. Monitoring Responsibility

A. Hitch Enterprises will monitor animals sent to slaughter for antibiotic residues under a program directed by the staff veterinarian.
B. FSIS will collect and analyze tissue at its discretion. Results of such analyses will be made available to Hitch Enterprises.

V. Length of Program

This program will become effective on January 1, 1984, and will remain in force until termination by FSIS or Hitch Enterprises. Termination may be effected by telephone notification by either party and shall be confirmed by letter.

VI. Changes in Tolerances

Hitch Enterprises will be notified by FSIS at least 30 days in advance of any changes in tolerances that could affect the marketing of cattle.

VII. Cooperation for Mutually Beneficial Information

Either party to this agreement may ask the other to cooperate in a project to obtain additional information on distribution of residues or conditions influencing withdrawal times in feedlot cattle. The acceptance of the project will be dependent on resource requirements, mutual benefit, and perceived need. Acceptance or rejection of the proposed projects shall not influence actions under the rest of this agreement.

Program Implementation

Implementation of the Hitch Enterprises/USDA-FSIS Quality Assurance Program is summarized below.

A. Six categories of animals are marketed.
1) *Regulars* - Animals that were normal on arrival, remained normal and performed normally.
2) *Regulars - Mass medicated* - Animals that were normal on arrival, but as a group became ill and were medicated as a group and subsequently performed normally.
3) *Regulars - Individually medicated* - Animals that were normal on arrival, but individuals in the group became ill and were removed from the group for identification and treatment. These animals were subsequently returned to the group and performed normally.
4) *G & Y Buyer sorts* - Animals that have not performed normally and were sorted from the pen at time of selling, are to be sold on a grade and yield basis.
5) *G & Y Feedlot sorts* - Animals that have not performed normally and are sorted from the pen previous to selling of the pen and sold on a grade and yield basis.
6) *Emergency* - Animals which are injured previous to selling of the pen and are sold for immediate slaughter because of the emergency.

B. The medications identified for possible use in our feeding program include:

1. Rumensin 60
2. Bovatec
3. Decox
4. AS 700
5. Areo 338
6. Tylan 100
7. MGA
8. Neo Terr
9. Furacin
10. Terramycin

Each one, when used, will be withdrawn as per the manufacturer's directions.

Samples will be taken by us monthly and tested to assure our animals free of the above compounds.

C. The medications identified for possible use in our treatment program include:

1. Oxytetracycline
2. Procaine Penicillin G.
3. Amoxicillin
4. Sulfachlorpyridazine
5. Triple Sulfa's
6. Erythromycin
7. Gentamycin
8. Furacin
9. Spectinomycin
10. Tribrissen
11. B. Complex Vit.
12. C Vit.
13. K Vit.
14. E-SE Vitamin
15. Furosemide
16. Dexamethasone
17. Fenbendazole
18. Levamisole
19. Ivermectin
20. Nal
21. Flunixin
22. Tylan 200
23. Ergonivine
24. Prolate
25. Coumaphos
26. Ptohrdyrtonr
27. Estradiol
28. Testosterone

Each one, when used, will be administered in accordance with veterinary direction and when applicable will be tested with the L.A.S.T. test if administered less than 30 days prior to slaughter.

Those compounds not applicable to L.A.S.T. testing will be screened monthly to assure our animals are free of those compounds.

D. In addition to the above testing (C & D) screening for other organic and inorganic compounds will be done monthly.

The most difficult part is making a smooth process of collecting tissues each month. We have settled on a mutual suspect tag plus spray painting the face of the steers to be collected. These steers are then easier for plant personnel to separate for individual tissue collection (4 inches of hanging tender, ½ kidney, candate liver lube, 1 pound kidney fat). These samples are then sent to the USDA's laboratory for testing (they test for anything they want). We furnish previous treatment information on all animals thereby giving them a drug to target. I'm not trying to hide anything - if it's there I need for them to find it such that I can adjust my medication management. To date, not a single positive has been found. We have however, found numerous positive urine samples from sale barn animals.

It is obvious that many of us do not trust the CVM's motives. In March of this year, Dr. Bixler asked for documentation of clinical efficacy for extra label usage of various drugs used in food animals. A survey was put together and has been completed - yet will never be released because of the fear of entrapment. Short sighted bureaucrats assure us we have an abundant armamentarium of drugs as they remove products like nitrofurans from the market for treatment of salmonella. They accuse us of killing ranchers with CHPC and pay no attention to bottles of "Horse Aspirins" (Bute tablets) sold over the counter to, and taken by, the same ranchers. For these reasons and others, we have a right to be concerned.

I believe we can, and must whole heartedly, support and participate in Quality Assurance. The Beef industry has a black eye with the consumer. We shouldn't try to be their saviour. In fact, many PhD animal scientists hold hold our profession in contempt believing we are egocentric quacks. So forcing our form of salvation won't help those who think we already have too much control of the use of drugs. Many practicing veterinarians have the other eye black from many in the academic community and the F.D.A. We must become involved - to protect ourselves. We may become entrapped, but when it comes to doing the best we can for our clients, we've got to play to win, play honest, with our cards on the table. The animal owner shouldn't have to wonder, the USDA shouldn't have to wonder and the consumer *can't* wonder if we have executed our responsibilities properly. We have been trained to execute our responsibilities and we must continue to improve our knowledge in that area. Let no one mistake the quality and appropriateness of our education, our degrees, and our licensing including ourselves. But if its not cherished, and its abused, it will be rightfully LOST. And I'm not ready for some malcontent PhD, bureaucrat or politician to put their thumb on me.