

**Veterinary Feed Directives
for the Sheep Industry
How Did We Get Here?
And What Do We Do Now?**

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Today's Topics

- **What is a Veterinary Feed Directive?**
- **Why is this change happening?**
- **The paper trail**
- **How does it affect you?**
- **Some specifics**
- **Other options**
- **Looking into the future**



What is a Veterinary Feed Directive?

- It is a *Marketing status* – animal drugs are approved as:
 - Over-the-counter (OTC)
 - Prescription (Rx) (injections, water medications, tablets, etc.), or
 - Veterinary Feed Directive (VFD) (medicated feed)
- This is based on the directions for use and whether (Rx, VFD) or not (OTC) a veterinarian's knowledge is needed to use the product safely/effectively.

Prescriptions

- *Some* antimicrobial water soluble powders used for preparing medicated water changed from OTC to Rx status.
- Rx status requires a licensed veterinarian.
- The prescription can be filled by your vet or by a pharmacist at a distributor.





The VFD

- It is prepared by your veterinarian and given to you for presentation to the feed mill, or it can go there electronically.
- Vet makes the diagnosis, chooses the medication, determines the dose and duration, notes the withdrawal period, etc. as labeled.
- It must be issued within a valid veterinarian-client-patient relationship (VCPR).

What's a valid VCPR?

- There are 3 main points (paraphrased):
 1. A licensed vet has assumed responsibility for making medical judgements for the animal(s)
 2. The vet knows the animal(s) well enough to make at least a preliminary diagnosis
 3. The vet is available for follow up in case of adverse reactions or failure of treatment
- State or Federal definition - See:

<http://www.fda.gov/AnimalVeterinary/DevelopmentApprovalProcess/ucm460406.htm>

OTC to VFD

- Till now medicated feeds and water were almost all OTC.
- As of this month (January, 2017) medically important antimicrobials used in medicated feeds and water are VFD or Rx, respectively.



Why is this change happening?

- **Antimicrobial Resistance!**
- **Complex issue – many causes**
 - All uses are part of the picture
(human, animal, horticultural, other)



Antimicrobial Resistance

- In very simple terms, use of an antibiotic, especially at a low dose, can kill the weak (sensitive) bacteria and leave the strong (resistant) ones to multiply.
- If food from treated animals becomes contaminated with these strong bacteria, and
- If people get sick from eating that food, the antibiotics normally used may not work.

Antimicrobial Resistance...

- This same problem occurs with resistance of parasites to de-wormers, etc.
- At this time, we are *only* looking at the issue of antibiotic use in animal agriculture that can have an impact on human medical use – “medically-important antimicrobials”.
- There are many people/groups concerned about use of these medicines, especially any prolonged low-dose use in farm animals.

The Paper Trail - Chronologically

- **Guidance for Industry # 152**
- **Guidance for Industry # 209**
- **Guidance for Industry # 213**



GFI #152 (10/2003)

Evaluating the Safety of Antimicrobial New Animal Drugs with Regard to Their Microbiological Effects on Bacteria of Human Health Concern

In other words, information a drug company needs to provide to FDA to address antimicrobial resistance as part of the human food safety data supporting a new approval of an antibiotic for use in a food-producing animal.

GFI #209 (4/2012)

The Judicious Use of Medically Important Antimicrobial Drugs in Food-Producing Animals

- **FDA's overall policy**
- **Limit use of medically-important antimicrobial drugs in food-producing animal to those uses**
 - **Considered necessary for animal health (therapeutic uses)**
 - **Include veterinary oversight/consultation**

GFI #213 (12/2013)

New Animal Drugs and New Animal Drug Combination Products Administered in or on Medicated Feed or Drinking Water of Food Producing Animals: Recommendations for Drug Sponsors for Voluntarily Aligning Product Use Conditions with GFI #209



GFI #213 Contents

- **Dec 2016 was the target for sponsors to make the changes recommended in GFI #209.**
- **Withdraw some production label claims –
E.g., “for weight gain and feed efficiency”.**
- **Transition to veterinary oversight –**
 - **Medicated drinking water to Prescription (Rx)**
 - **Medicated feeds to Veterinary Feed Directive (VFD)**

How Does This Affect You?

- **What drugs are included?**
- **What do you need to do?**
- **What do your vets need to do?**
- **What about the feed mills?**



What Drugs Are Included?

“Medically-Important” Antibiotics:

- Antimicrobial drugs that are considered important for therapeutic use in humans.
- These drugs are listed in Appendix A of GFI #152.
- And on the next slides...



Approved applications for VFD medicated feed as of 1/2017

• Apramycin	• Oleandomycin	• Sulfamerazine
• Hygromycin B	• Erythromycin	• Sulfamethazine
• Neomycin	• Tylosin	• Sulfaquinoxaline
• Streptomycin	• Penicillin	• Chlortetracycline
• Ormetoprim	• Virginiamycin	• Oxytetracycline
• Lincomycin	• Sulfadimethoxine	

Note: **Red** = withdrawn. Some others may not be marketed

Already VFD status

Avilamycin, florfenicol, tilmicosin, and tylvalosin were already approved as VFD drugs before this change came about.



Drugs that need a prescription for use in drinking water

• Apramycin	• Erythromycin	• Carbomycin
• Gentamicin	• Tylosin	• Sulfachloropyrazine
• Neomycin	• Penicillin	• Sulfadimethoxine
• Spectinomycin	• Oxytetracycline	• Sulfamerazine
• Streptomycin	• Chlortetracycline	• Sulfamethazine
• Lincomycin	• Tetracycline	• Sulfaquinoxaline

Note: Some may not be marketed

Already Rx status

Florfenicol, tilmicosin, and tylvalosin were already approved as prescription drugs for use in drinking water before this change came about.



What do you need to do?

- **Don't panic.**
Most drugs aren't affected –dewormers, etc.
- **Be sure you have a valid Veterinarian-Client-Patient Relationship (VCPR).**
- **Be sure that your vet understands your needs.**
- **Check how to get prescriptions or VFDs to your distributor or feed mill.**



VFD Feed Distributors

Listed by state -

[http://www.fda.gov/downloads/
AnimalVeterinary/Products/AnimalFoodFeeds/
MedicatedFeed/UCM096059.pdf](http://www.fda.gov/downloads/AnimalVeterinary/Products/AnimalFoodFeeds/MedicatedFeed/UCM096059.pdf)



Online Sources for You

- <http://www.fda.gov/AnimalVeterinary/Products/AnimalFoodFeeds/MedicatedFeed/BlueBirdLabels/ucm081800.htm> shows the label claims and marketing status of medicated feeds for sheep (there is also a link for goats).
- <https://animaldrugsatfda.fda.gov/adafda/views/#/search> is a searchable database for approved animal drugs.



What do your vets need to do?

- Prepare the VFD – a *written* statement by a licensed veterinarian that authorizes the use of a VFD drug (or combination) in or on animal feed.
- Work in the context of a valid VCPR.
- Follow the rules for what information needs to be included.
- FDA Brochures available: *Veterinary Feed Directive (VFD) Requirements for Veterinarians 2015*: <http://www.fda.gov/AnimalVeterinary/DevelopmentApprovalProcess/ucm455416.htm>

This information *includes*:

- Vet's name, address, phone
- Client's name, address, phone
- Location of the animals
- Date issued, Date of expiration
- Name of the drug
- Species & production class & *approximate* number of animals to be treated
- Indication (disease or condition)



And...

- **Level of drug in the feed and duration of use**
- **Withdrawal time**
- **Statement: “Use of feed containing this veterinary feed directive (VFD) drug in a manner other than as directed on the labeling (extralabel use) is not permitted.”**
- **Signature (electronic or written)**
- **Some other information in special cases**

VFD Expiration Date

- Specifies the period of time for which the VFD authorization is valid.
- A VFD feed should not be fed after the expiration date (i.e., after VFD authorization expires).
- May be specified on the product label; if not – it cannot exceed 6 months after the date of issuance.
- The veterinarian can use his or her medical judgment to determine whether a more limited period is warranted.

Refills?

- **Currently, there are no approved VFD drugs that allow refills or reorders.**
- **Means that the vet cannot write on the VFD that you can refill it.**
- **If you have another outbreak, the vet needs to decide whether or not a new VFD is appropriate.**

What about the feed mills?

- **The regulations refer to a “distributor”**
There are two kinds of distributors:
 1. Only distributes VFD feed
 2. Manufactures and distributes VFD Feed
- **Distributors must notify FDA:**
 - Prior to the first time they distribute animal feed containing a VFD drug
 - Within 30 days of any change of ownership, business name, or business address

Excellent Resource for VFDs

<http://www.fda.gov/AnimalVeterinary/DevelopmentApprovalProcess/ucm071807.htm>



For very good overview video:

<http://www.fda.gov/AnimalVeterinary/SafetyHealth/AnimalFeedSafetySystemAFSS/ucm529868.htm>

Some Sheep/Goat Specifics

- What drugs are approved?
- Other options



What medicated feeds are *approved* for Sheep?

Drug	Indication	Status
Chlortetracycline	Vibrionic abortion	VFD
Thiabendazole	Roundworms	OTC
Decoquinate	Coccidiosis	OTC
Oxytetracycline (also + neomycin)	Bacterial enteritis & Pneumonia	VFD
Lasalocid	Coccidiosis	OTC
Neomycin	Bacterial enteritis	VFD

What water medications are *approved* for Sheep?

Drug	Indication	Status
Oxytetracycline	Bacterial enteritis & Pneumonia	Rx
Neomycin	Bacterial enteritis	Rx

Other Options

- Legal Extra-label use
- Compliance Policy Guide 615.115
- Drug Approvals in the pipeline



Ranking

- **Best** – use a drug *approved* for the species and disease to be treated – not a lot available
 - Shown to be safe and effective
 - Dosing and withdrawal times have been accepted
- **Next best** – *Legal extra-label use* – for water meds, not an option for medicated feed
- **Next best** – *Enforcement discretion* for medicated feeds for minor species – CPG 615.115
- **Worst** – *illegal use* – unapproved drugs

Legal Extra-label Drug Use (ELDU)

- **Veterinarians can use approved human and animal drugs in food-producing animals for uses not on the label if -**
 - **No approved product is available for the use**
 - **A valid VCPR exists**
 - **The use is therapeutic (not production)**
 - **The vet assigns a withdrawal time**
 - **The vet keeps appropriate records**

Limitations of Legal ELDU

- **Some drugs are prohibited from extra-label use in food-producing animals - E.g., clenbuterol, chloramphenicol, fluoroquinolones...**
- **ELDUE is ok for “dosage form” drugs (water medications, injectable, topical, tablets, etc.)**
- **EXTRA-LABEL USE OF MEDICATED FEED IS NOT PERMITTED.**

Status



- **So.**
- **Few medicated feeds for sheep.**
- **Extra-label use of medicated feed is not legal.**
- **FDA recognized the problem for producers of minor species that need medicated feed for treatment.**

CPG 615.115

- **CPG = Compliance Policy Guide**
- **A CPG gives directions to the enforcement part of FDA (inspectors in the field).**
- **It is a way to allow use under certain specific conditions.**
- **In short, if you follow this CPG, we are unlikely to take action against you even though what you are doing isn't legal.**

Brief History

- First published in April, 2001
- *Just for minor species* (not horses, cattle, pigs, chickens, turkeys, dogs, or cats)
- Use medicated feeds *just as approved* for a major species extra label in a minor species
- Could use medicated cattle feed for sheep, but could not change the label, concentration, nutrition, etc.
- Did *not* include VFDs

Revised CPG 615.115

- **Published 12/2016**
- **Change of many feeds to VFD – no ELDU**
- **Committee assembled to rewrite the CPG**
- **Covers how to use OTC and VFD feeds for minor species**
- **The CPG now allows the nutrition to be changed to be appropriate for the minor species.**

Conditions of the CPG

- You need a valid VCPR.
- The use must be therapeutic, not production.
- For sheep, the medicated feed must be approved in a mammalian species (the CPG limits avian to avian, mammal to mammal, and aquatic to aquatic species).
- You still cannot change the concentration of the drug in the feed from the approved level.

And...

- The responsibilities of the vet, producer, and feed mill are spelled out in the CPG.
- Includes instructions for how the vet should fill out the VFD (special instructions).
- Describes the records that each must keep and how long you need to keep them.
- <http://www.fda.gov/AnimalVeterinary/NewsEvents/CVMUpdates/ucm529164.htm>

Going Forward



Looking into the Future

- Need more drugs *approved* for sheep & goats.
- Tell the pharmaceutical companies what you need.
- Support researchers doing studies to support drug approvals.
- FDA's Office of Minor Use & Minor Species will continue to advocate for more safe and effective products for legal use.

Approvals in the Pipeline

- **The CPG is a short-term solution.**
- **More approvals are needed.**
- **USDA's Minor Use Animal Drug Program with FDA's Dr. Amy Omer are currently working to do the studies to support approval of more products for use in sheep and goats.**

Status of those Projects

A new animal drug application contains the following sections:

- Effectiveness
- Target Animal Safety
- Human Food Safety
- Environmental Safety
 - Manufacturing

Progesterone for Goats

Technical Section	Status
Effectiveness	Study complete – to be reviewed
Target Animal Safety	Complete
Human Food Safety	Complete
Environmental Safety	Complete
Manufacturing	Complete



Other Projects

- **Early work done with tulathromycin for respiratory disease in sheep and goats**
- **Looking at new projects for:**
 - **Chlortetracycline for sheep for respiratory disease**
 - **Meloxicam for sheep for pain, fever, & inflammation**





For More Information

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Questions?



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Thank You!



