

# **TTAR**

**Tennessee Team on  
Antimicrobial Resistance**

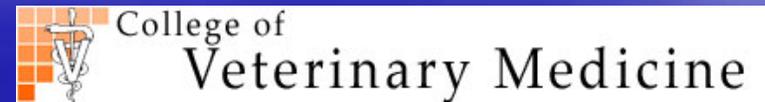
**TTAR**

# TTAR

A coalition of professionals working to help producers implement practices that will keep antimicrobials working



Department of Agriculture  
Ellington Agricultural Center  
Nashville, TN 37204  
615.837.5103



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## Members:

Tennessee Department of Agriculture

Tennessee Cattlemen's Association

UT College of Veterinary Medicine

Tennessee Veterinary Medical Association

UT Extension Service

Tennessee Department of Health

Large Animal Veterinarians

# **What is Antimicrobial Resistance?**

**Disease-causing bacteria can defend against the antimicrobials once used to kill them**

**For Example:**

**Strains of Salmonella that are resistant to multiple types of antimicrobials are now being found in food animals and humans**

# Reduce the Need for Antimicrobials in Cattle

## Prevent Problems

- Practice good animal husbandry
- Keep vaccinations current
- Perform routine health exams



# Select and Use Antibiotics Carefully

- Consult a veterinarian on selection and use
- Have a valid reason to use an antibiotic

**Avoid Using Antibiotics  
Important in Human Health as  
First-line Therapy**

**Consult your veterinarian**

# Use Laboratory Results to Help Select Antibiotics

Culture and susceptibility test results should be used to aid in selection of antimicrobials



# **Avoid Broad Spectrum Antimicrobials**

- Use narrow spectrum antimicrobials when possible**
- Combination antibiotic therapy is discouraged**

# Avoid Inappropriate Antimicrobial Use

- Limit antimicrobials to uses where they have been proven to be effective
- Antibiotics have no effect on Viruses

# Treatment programs should reflect best use principles



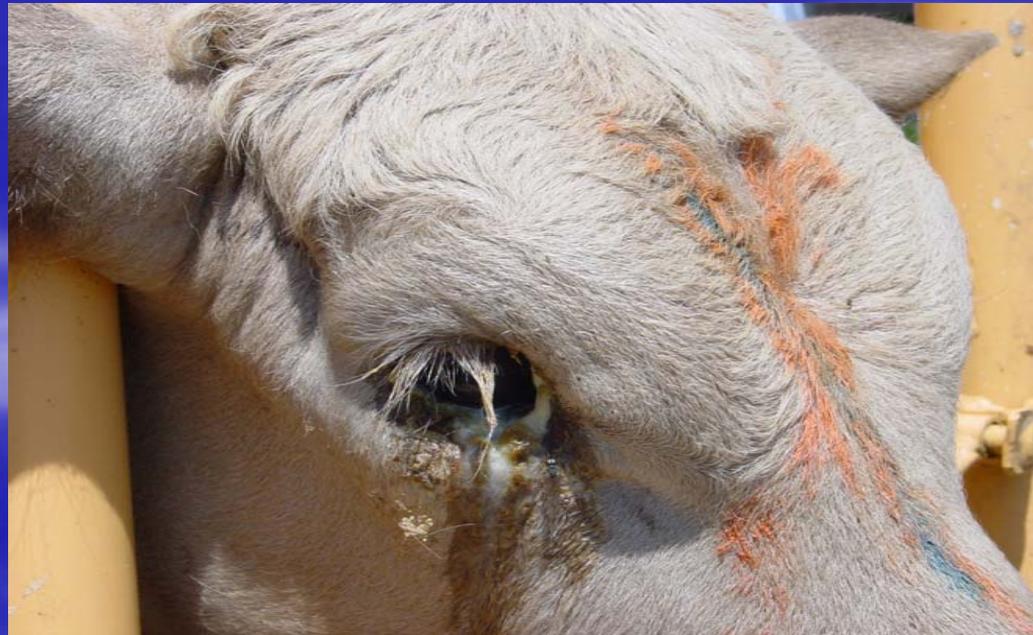
## A Producers Guide for Judicious Use of Antimicrobials in Cattle

1. **Prevent Problems:** Emphasize appropriate husbandry and hygiene, routine health examinations, and vaccinations.
2. **Select and Use Antibiotics Carefully:** Consult with your veterinarian on the selection and use of antibiotics. Have a valid reason to use an antibiotic. Therapeutic alternatives should be considered prior to using antimicrobial therapy.
3. **Avoid Using Antibiotics Important In Human Medicine As First Line Therapy:** Avoid using as the first antibiotic those medications that are important to treating strategic human or animal infections.
4. **Use the Laboratory to Help You Select Antibiotics:** Cultures and susceptibility test results should be used to aid in the selection of antimicrobials, whenever possible.
5. **Avoid Using Broad Spectrum:** Use narrow spectrum antimicrobials, whenever possible. Combination antibiotic therapy is discouraged.
6. **Avoid Inappropriate Antibiotic Use:** Confine therapeutic antimicrobial use to proven clinical indications, avoiding inappropriate uses such as for viral infections without bacterial complication.
7. **Treatment Programs Should Reflect Best Use Principles:** Regimens for therapeutic antimicrobial use should be optimized using current pharmacological information and principles.
8. **Treat the Fewest Number of Animals Possible:** Limit antibiotic use to sick or at risk animals.
9. **Treat for the Recommended Time Period:** To minimize the potential for bacteria to become resistant to antimicrobials.
10. **Avoid Environmental Contamination with Antibiotics:** Steps should be taken to minimize antimicrobials reaching the environment through spillage, contaminated ground run off or aerosolization.
11. **Keep Records of Antibiotic Use:** Accurate records of treatment and outcome should be used to evaluate therapeutic regimens and always follow proper withdrawal times.
12. **Follow Label Directions:** Follow label instructions and never use antibiotics other than as labeled without a valid veterinary prescription.
13. **Extralabel Antibiotic Use Must follow FDA Regulations:** Prescriptions, including extra label use of medications must meet the Animal Medicinal Drug Use Clarification Act (AMDUCA) amendments to the Food, Drug, and Cosmetic Act and its regulations. This includes having a valid Veterinary-Client-Relationship.

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# Treat the Fewest Number of Animals Possible

Limit antibiotic use to sick or at risk animals



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# Treating for Recommended Time Period...

Minimizes the potential for development of antimicrobial resistance

## EXAMPLE OF PACKAGE INSERT INFORMATION COWBIOTIC®

(hydrocillin and streptazolidin in aqueous suspension)  
For Use in Beef Cattle, Lactating and Non-lactating Dairy Cattle  
Read Entire Brochure Carefully Before Using This Product.

For Intramuscular Use Only

Composition: Cowbiotic is an effective antimicrobial preparation hydrocillin and streptazolidin. Each ml of this suspension contains 100 units of hydrocillin and 250 mg of streptazolidin. The combination treatment of many mixed bacterial infections with the convenience dosage form.

Indications: Cattle: Bronchitis; footrot; leptospirosis; mastitis; pneumonia; wound infections and other infections caused by or with hydrocillin - and streptazolidin - susceptible organisms.

### RECOMMENDED DAILY DOSAGE

Continue treatment for 1 to 2 days after symptoms disappear.

CATTLE	Body weight	Dosage
	up to 100 lbs	2 ml
	100 to 300 lbs	2 to 6 ml
	300 to 700 lbs	6 to 10 ml
	700 lbs or more	10 to 10 ml

CAUTION: 1. Cowbiotic should be injected deep within the flesh

# Avoid environmental contamination with antibiotics

Limit possibility of spillage or aerosolization



# **Keep Records of Antibiotic Use**

**Accurate records of treatment and outcomes should be used to evaluate therapeutic regimens**

**Aids in following proper withdrawal times**

# Follow Label Directions

Never use antibiotics  
other than as labeled  
without a valid  
veterinary prescription



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# Extra Label Antibiotic Use Must Follow FDA Regulations

Prescriptions, including extra label use of medications must meet the Animal Medicinal Drug Use Clarification Act (AMDUCA)



# Subtherapeutic Antibiotic Use Is Discouraged

Antibiotic use should be limited to control disease and should not be used if the principle intent is to improve performance



# Important Contacts for Tennessee Cattlemen

Tennessee Team on Antimicrobial Resistance

<http://www2.state.tn.us/health/CEDS/index.htm>

615-741-7247

800-404-3006

Tennessee Department of Agriculture

<http://www.state.tn.us.agriculture>

615-837-5120

University of Tennessee College of Veterinary Medicine

<http://www.vet.utk.edu/>

865-974-VETS

University of Tennessee Extension

<http://www.utextension.utk.edu/>

865-974-7114

Tennessee Cattlemen's Association

<http://www.tncattle.org/>

615-896-2333 (BEEF)

Tennessee Veterinary Medical Association

<http://www.tvmanet.org/>

American Association of Bovine Practitioners

<http://www.aabp.org/>