

12 Use of Critically Important Antimicrobials in Food Production

Table 2.1. Antimicrobial classes and specific agents used in food animals and horticultural production in the United States, EU and/or Australia^a

Antimicrobial class	Subclass	Agents (some examples)	
Antimicrobials used in animals and humans			
Aminoglycosides ^b		Apramycin Dihydrostreptomycin Framycetin Gentamicin Kanamycin	Neomycin Paromomycin Spectinomycin Streptomycin
Amphenicols		Florfenicol	Thiamphenicol
Cephalosporins	First-generation cephalosporin	Cephalexin Cephalonium Cephapirin	Cefazolin Cephacetrile Cefadroxil
	Second-generation cephalosporin	Cefuroxime	
	Third and fourth generation cephalosporin ^b	Cefoperazone Ceftiofur	Cefquinome
Lincosamides		Lincomycin	Pirlimycin
Macrolides ^b		Erythromycin Gamithromycin Kitasamycin Oleandomycin Spiramycin	Tildipirosin Tilmicosin Tulathromycin Tylosin Tylvalosin
Nitroimidazoles		Dimetridazole	
Penicillins	Beta-lactamase-sensitive penicillins ^b	Benzathine benzylpenicillin Benzathine phenoxymethylpenicillin Benzylpenicillin	Penethamate hydriodide Phenoxymethylpenicillin Procaine benzylpenicillin
	Beta-lactamase-resistant penicillins	Cloxacillin Dicloxacillin	Nafcillin Oxacillin
	Penicillins with extended spectrum and/or beta-lactam inhibitors ^b	Amoxicillin Ampicillin	Clavulanic acid
Polypeptides ^b		Bacitracin Colistin	Polymyxin B
Quinolones ^b	Fluoroquinolones	Danofloxacin Difloxacin	Enrofloxacin Marbofloxacin
	Other quinolones	Flumequine	Oxolinic acid
Streptogramins		Virginiamycin	
Sulfonamides (Sulfas) and diaminopyrimidine potentiators	Sulfonamides	Formosulfathiazole Phthalylsulfathiazole Sulfacetamide Sulfachloropyridazine Sulfaclozine Sulfadiazine Sulfadimethoxine Sulfadimidine Sulfadoxine Sulfafurazole Sulfaguanidine	Sulfamerazine Sulfamethazine Sulfamethizole Sulfamethoxazole Sulfamethoxyipyridazine Sulfamonomethoxine Sulfanilamide Sulfapyridine Sulfaquinoxaline Sulfathiazole
	Trimethoprim and derivatives	Ormetoprim	Trimethoprim
Tetracyclines		Chlortetracycline Doxycycline	Oxytetracycline Tetracycline
Other antibacterials		Rifaximin ^c	
Antimicrobials used only in animals			
Aminocoumarins		Novobiocin	
Arsenicals		Roxarsone	
Benzamides		Dinitolmide	