

## Antimicrobial Residue Testing at the WVDL

The Wisconsin Veterinary Diagnostic Laboratory uses the [Premi®](#) test to detect the presence antimicrobial residues in urine. It is based on the inhibition of the growth of *Bacillus stearothermophilis*, a bacterium sensitive to a broad spectrum of agents. Spores and nutrients are embedded in agar that is exposed to sampled urine and then incubated for up to four and a half hours. Growth indicates that no inhibitory substances were present in the specimen.

The test is extremely sensitive not only to antibiotics but also to many disinfectants or environmental contaminants. Wash and rinse your hands and otherwise insure that a clean free catch is received by the lab. All specimens should be shipped chilled. The test should only be used as a screen, and the analysis may be inconclusive, requiring a retest to achieve a definitive result. If you resubmit a specimen from a previously tested animal, please provide the previous WVDL sample identification number, and we will waive the ten dollar accession fee. Premi® test kits can be purchased at [DSM](#) or [Nelson Jameson](#) for on-farm or in-clinic use.

The following drugs are known to inhibit growth spiked at a concentration of 100 ppb:

Beta-lactams: Penicillin, Amoxicillin, Ampicillin, Cephapirin, Cloxacillin

Tetracyclines: Chlortetracycline, Tetracycline

Macrolides: Erythromycin, Tylosin, Tilimicosin

Glycopeptides: Virginiamycin

Sulfonamides: Sulfadiazine, Sulfadimethoxine, Sulfathiazole

Miscellaneous: Dapsone

The following drugs are known to inhibit growth spiked at a concentration of 50 ppb:

Beta-lactams: Amoxicillin, Ampicillin, Cephapirin

Macrolides: Erythromycin, Tylosin, Tilimicosin

Miscellaneous: Dapsone

The following drugs are known to inhibit growth spiked at a concentration of 10 ppb:

Beta-lactams: Amoxicillin, Ampicillin

Miscellaneous: Dapsone

Antibiotic	Also Known As	Maximum Residue Limit Slaughter (Kidney) MRL	<i>B.sternothermophilus</i> Sensitivity (PPM)	Premitest Acceptable Detection
Amoxicillin	Amoxi-Inject	0.010	0.005	Yes
Ampicillin	Polyflex	0.010	0.005	Yes
Ceftiofur	Naxcel, Excenel, Excede, Spectramast	0.400	0.100	Yes
Cephapirin	Today/Tomorrow	0.100	0.100	Yes
Chlortetracycline	Aureomycin	12.000	0.050	Yes
Erythromycin	Gallimycin	0.100	0.100	Yes
Florfenicol	Nuflor	3.700	0.100	Yes
Oxytetracycline	LA200, OxyTet100, etc	12.000	0.050	Yes
Penicillin G	PenG, etc	0.050	0.005	Yes
Sulfachloropyridazine	VetSulid	0.100	0.100	Yes
Sulfadimethoxine	Albon	0.100	0.100	Yes
Sulfamethazine	Many	0.100	0.100	Yes
Tilimicosin	Micotil	14.400	0.050	Yes
Tylosin	Tylan	0.200	0.050	Yes
Cloxacillin	DariClox, Dry-clox, Orbenin	0.010	0.050	No
Danofloxacin	A180	0.200	0.600 ?	No
Dihydrostreptomycin	Quartermaster	0	3.000	No
Enrofloxacin	Baytril	0.100	0.600	No
Gentamicin	Gentamicin	0	0.100	No
Neomycin	Neomycin	0	0.300	No
Lincomycin/Pirlimycin	Pirsue	0.000	0.100	No
Tulathromycin	Draxxin	0.100	18.000	No
Hetacillin	Hetacin	Not Listed	Unknown	No
Novobiocin	Albadry, Biodry	Not Listed	Unknown	No
Flunixin	Banamine ( <b>not an antibiotic</b> )	0.025 muscle, 0.125 liver	NONE	NO