

Bovine Mastitis 2011-2013

Susceptibility profile of Mastitis pathogens received at ISU VDL

Data reported as: % susceptible (# isolates tested)¹

Antibiotic	E coli	E faem	Ente	K pneu	P mult	S aur	S dysg	S epi	S ubc
Ampicillin	85% (39)	86% (7)	67% (6)	0% (14)	100% (2)	97% (86)	100% (33)	88% (58)	81% (37)
Ceftiofur	100% (39)	0% (7)	83% (6)	93% (14)	100% (2)	100% (86)	100% (33)	97% (58)	84% (37)
Cephalothin	79% (39)	14% (7)	0% (6)	93% (14)	100% (2)	100% (86)	100% (33)	97% (58)	100% (37)
Erythromycin	0% (39)	43% (7)	0% (6)	0% (14)	0% (2)	99% (86)	97% (33)	91% (58)	76% (37)
Oxacillin ³	0% (39)	14% (7)	0% (6)	0% (14)	50% (2)	99% (86)	100% (33)	2% (58)	84% (37)
Penicillin	0% (39)	86% (7)	0% (6)	0% (14)	100% (2)	95% (86)	97% (33)	84% (58)	32% (37)
Penicillin/Novobiocin	0% (39)	NI	NI	0% (14)	NI	98% (86)	97% (33)	97% (58)	100% (37)
Pirlimycin	0% (39)	57% (7)	0% (6)	0% (14)	0% (2)	98% (86)	94% (33)	90% (58)	73% (37)
Sulfadimethoxine	31% (39)	0% (7)	0% (6)	43% (14)	0% (2)	77% (86)	61% (33)	69% (58)	0% (37)
Tetracycline	59% (39)	57% (7)	50% (6)	79% (14)	100% (2)	92% (86)	6% (33)	62% (58)	68% (37)

³ Isolates resistant to oxacillin are interpreted as potentially methicillin resistant.

Key:

- 1 Data is reported as: % susceptible (# isolates tested) - not all bacteria isolated at ISU VDL have been tested for antimicrobial susceptibility
2 See *Salmonella* serotype table for most common serotypes isolated within each group
3 Isolates resistant to oxacillin are interpreted as potentially methicillin resistant.
4 A result of <=2 ug/ml for Carbadox is a conservative indicator of bacterial inhibition by this antimicrobial agent. The result shown is based on pharmacokinetic research indicating an average Carbadox level of 4.5 mcg/ml in the small intestine of pigs fed a dose rate of 50 g/ton. (De Graff 1988).
5 Multidrug resistant isolates were found resistant to most classes of antimicrobial in the 1st round of testing. This table represents additional Disk Diffusion testing for those isolates.
- NA Not applicable
ND Not done
NI No interpretation

A equ - <i>Actinobacillus equuli</i>	H ecol - hemolytic <i>E.coli</i>	S aur - <i>Staphylococcus aureus</i>
A suis - <i>Actinobacillus suis</i>	H som - <i>Histophilus somni</i>	S beta- <i>Beta Streptococcus</i> species
Abua - <i>Acinetobacter</i> species	HPS - <i>Haemophilus parasuis</i>	S can - <i>Streptococcus canis</i>
Amy - <i>Actinomyces</i> species	K pneu - <i>Klebsiella pneumoniae</i>	S chol - <i>Salmonella choleraesuis</i>
APP - <i>Actinobacillus pleuropneumoniae</i>	M bov - <i>Moraxella bovis</i>	S dysg - <i>Streptococcus dysgalactiae</i>
B bron - <i>Bordetella bronchiseptica</i>	M haem - <i>Mannheimia haemolytica</i>	S epi- <i>Staphylococcus epidermidis</i>
B tre - <i>Bibersteinia trehalosi</i> (formerly <i>Pasteurella trehalosi</i>)	P aer - <i>Pseudomonas aeruginosa</i>	S equi - <i>Streptococcus equi</i>
Bact - <i>Bacteroides</i> group	P cab - <i>Pasteurella caballii</i>	S equus - <i>Streptococcus equisimilis</i>
C diff - <i>Clostridium difficile</i>	P mult - <i>Pasteurella multocida</i>	S pint - <i>Staph pseudintermedius</i>
C perf - <i>Clostridium perfringens</i>	Past - <i>Pasteurella</i> species	S suis - <i>Streptococcus suis</i>
Clos - <i>Clostridium</i> species	Pec - <i>Peptococcus</i> species	S ube - <i>Streptococcus uberis</i>
E coli - <i>Escherichia coli</i>	Pes - <i>Peptostreptococcus</i> species	S zoo - <i>Streptococcus zooepidemicus</i>
E fael - <i>Enterococcus faecalis</i>	Pmul A - <i>Pasteurella multocida</i> Type A	Salm sp- <i>Salmonella</i> species
E faem - <i>Enterococcus faecium</i>	Pmul D - <i>Pasteurella multocida</i> Type D	Salm B - <i>Salmonella</i> species group B
Enc - <i>Enterococcus</i> species	Prot - <i>Proteus</i> species	Salm C1 - <i>Salmonella</i> species group C1
Ente - <i>Enterobacter</i> species	Prp - <i>Propionibacterium</i> species	Salm C2 - <i>Salmonella</i> species group C2
Erys - <i>Erysipelothrix</i>	Pseu - <i>Pseudomonas</i> species	Salm D - <i>Salmonella</i> species group D
Fus - <i>Fusobacterium</i>	R equ - <i>Rhodococcus equi</i>	Salm E - <i>Salmonella</i> species group E
G ana - <i>Gallibacterium anatis</i>		