

Porcine 2013

Susceptibility profile of Porcine pathogens received at ISU VDL

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

Antibiotic	A suis	APP	B bron	E coli	Erys	H ecol	HPS	Pmul A	Pmul D	S suis	Salm B ²	Salm C1 ²	Salm sp
Ampicillin	98% (328)	90% (110)	3% (364)	34% (340)	100% (12)	20% (1641)	98% (487)	98% (754)	98% (275)	95% (2175)	31% (1010)	67% (192)	61% (320)
Ceftiofur	100% (328)	99% (110)	0% (364)	61% (340)	92% (12)	66% (1641)	99% (487)	100% (754)	100% (275)	98% (2175)	78% (1010)	76% (192)	78% (320)
Chlortetracycline	95% (328)	83% (110)	98% (364)	13% (340)	25% (12)	6% (1641)	99% (487)	97% (754)	94% (275)	16% (2175)	11% (1010)	49% (192)	43% (320)
Clindamycin	0% (328)	1% (110)	0% (364)	0% (340)	50% (12)	0% (1641)	3% (487)	0% (754)	0% (275)	20% (2175)	0% (1010)	0% (192)	0% (320)
Enrofloxacin	100% (328)	97% (110)	95% (364)	83% (340)	92% (12)	79% (1641)	99% (487)	100% (754)	100% (275)	95% (2175)	92% (1010)	98% (192)	87% (320)
Florfenicol	100% (328)	99% (110)	18% (364)	4% (340)	8% (12)	14% (1641)	100% (487)	99% (754)	100% (275)	98% (2175)	13% (1010)	18% (192)	33% (320)
Gentamicin	99% (328)	1% (110)	100% (364)	79% (340)	0% (12)	63% (1641)	85% (487)	99% (754)	99% (275)	94% (2175)	82% (1010)	76% (192)	72% (320)
Neomycin	97% (328)	5% (110)	97% (364)	76% (340)	0% (12)	61% (1641)	58% (487)	98% (754)	97% (275)	82% (2175)	79% (1010)	84% (192)	79% (320)
Oxytetracycline	82% (328)	6% (110)	98% (364)	12% (340)	25% (12)	5% (1641)	92% (487)	20% (754)	51% (275)	4% (2175)	11% (1010)	49% (192)	42% (320)
Penicillin	0% (328)	14% (110)	0% (364)	0% (340)	92% (12)	0% (1641)	17% (487)	86% (754)	89% (275)	76% (2175)	0% (1010)	0% (192)	0% (320)
Spectinomycin	0% (328)	5% (110)	0% (364)	0% (340)	50% (12)	0% (1641)	49% (487)	1% (754)	0% (275)	15% (2175)	0% (1010)	0% (192)	0% (320)
Sulfadimethoxine	98% (328)	43% (110)	25% (364)	32% (340)	8% (12)	29% (1641)	35% (487)	25% (754)	33% (275)	31% (2175)	2% (1010)	20% (192)	8% (320)
Tiamulin	97% (328)	96% (110)	0% (364)	0% (340)	67% (12)	1% (1641)	94% (487)	59% (754)	14% (275)	82% (2175)	0% (1010)	0% (192)	0% (320)
Tilmicosin	94% (328)	88% (110)	1% (364)	0% (340)	67% (12)	0% (1641)	87% (487)	90% (754)	33% (275)	24% (2175)	0% (1010)	0% (192)	0% (320)
Trimethoprim/ Sulphamethoxazole	99% (328)	96% (110)	26% (364)	77% (340)	25% (12)	71% (1641)	95% (487)	94% (754)	98% (275)	96% (2175)	84% (1010)	85% (192)	92% (320)
Tulathromycin	0% (328)	89% (110)	99% (364)	0% (340)	0% (12)	0% (1641)	0% (487)	99% (754)	96% (275)	0% (2175)	0% (1010)	0% (192)	0% (320)
Tylosin (Tartrate/Base)	0% (328)	0% (110)	0% (364)	0% (340)	0% (12)	0% (1641)	0% (487)	0% (754)	0% (275)	0% (2175)	0% (1010)	0% (192)	0% (320)

Carbadox ⁴	E coli		Salm	
	>2 ug/ml	<= 2 ug/ml	>2 ug/ml	<= 2 ug/ml
	29% (778)	71%(778)	10%(348)	90%(348)

² See [Salmonella serotype](#) table for most common serotypes isolated within each group⁴ 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).

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>		