

Antimicrobial Susceptibility Profiles

- Note: The susceptibility information presented below is a summary of data gathered at ISU VDL for the time period listed. The information may be useful to understand susceptibility trends or as an aid in making clinical decisions, but may not be accurate for specific disease situations.
- In vitro antimicrobial test results do not represent therapeutic recommendations from the VDL or personnel therein. Extra/Off label usage of an antimicrobial which is limited/prohibited for certain species may result in legal action by FDA-CVM.
- Data is reported as: % susceptible (# isolates tested) – not all bacteria isolated at ISU VDL have been tested for antimicrobial susceptibility.

Avian 2016-2018

Susceptibility profile of Avian pathogens received at ISU VDL in 2016-2018

Data reported as: % susceptible (# isolates tested)

Antibiotic	E coli	G ana	P mult	Salm B ¹	Salm D ¹	Salm sp ¹
Amoxicillin	70% (246)	90% (30)	100% (16)	75% (28)	100% (2)	57% (35)
Ceftiofur	93% (246)	100% (30)	100% (16)	96% (28)	100% (2)	86% (35)
Clindamycin	0% (246)	0% (30)	0% (16)	0% (28)	0% (2)	0% (35)
Enrofloxacin	94% (246)	93% (30)	100% (16)	100% (28)	100% (2)	91% (35)
Erythromycin	0% (246)	0% (30)	6% (16)	0% (28)	0% (2)	0% (35)
Florfenicol	33% (246)	100% (30)	100% (16)	50% (28)	0% (2)	31% (35)
Gentamicin	76% (246)	100% (30)	100% (16)	86% (28)	100% (2)	54% (35)
Neomycin	80% (246)	77% (30)	94% (16)	96% (28)	100% (2)	83% (35)
Novobiocin	1% (246)	3% (30)	81% (16)	0% (28)	0% (2)	0% (35)
Oxytetracycline *	44% (246)	13% (30)	94% (16)	79% (28)	100% (2)	49% (35)
Penicillin	0% (246)	0% (30)	63% (16)	0% (28)	0% (2)	0% (35)
Spectinomycin	20% (246)	33% (30)	13% (16)	4% (28)	0% (2)	11% (35)
Streptomycin	52% (246)	97% (30)	6% (16)	61% (28)	100% (2)	29% (35)
Sulfadimethoxine	56% (246)	47% (30)	56% (16)	25% (28)	0% (2)	17% (35)
Sulphathiazole	58% (246)	73% (30)	69% (16)	75% (28)	100% (2)	69% (35)
Tetracycline	44% (246)	7% (30)	88% (16)	79% (28)	100% (2)	49% (35)
Trimethoprim/Sulphamethoxazole	94% (246)	100% (30)	100% (16)	100% (28)	100% (2)	86% (35)
Tylosin (Tartrate/Base)	0% (246)	0% (30)	0% (16)	0% (28)	0% (2)	0% (35)

¹ See Salmonella serotype table for most common serotypes isolated within each group.

*Oxytetracycline can be used to represent Chlortetracycline.

Key:

A equ Actinobacillus equuli
A suis Actinobacillus suis
APP Actinobacillus pleuropneumoniae
B bron Bordetella bronchiseptica
B tre Bibersteinia trehalosi
(formerly Pasteurella trehalosi)
C per Clostridium perfringens
Clos Clostridium species
E coli Escherichia coli
E fael Enterococcus faecalis
E faem Enterococcus faecium
Ente Enterobacter species
Erys Erysipelothrix
H ecol Hemolytic E.coli
H som Histophilus somni
HPS Haemophilus parasuis
G ana Gallibacterium anatis
K pneu Klebsiella pneumoniae
M bov Moraxella bovis
M bovo Moraxella bovoculi

M haem Mannheimia haemolytica
P aer Pseudomonas aeruginosa
Past Pasteurella species
PMul A Pasteurella multocida group A
PMul D Pasteurella multocida group D
Pseu Pseudomonas species
R equ Rhodococcus equi
S aur Staphylococcus aureus
S can Streptococcus canis
S equus Streptococcus equisimilis
S hyi Staphylococcus hyicus
S pint Staphylococcus pseudintermedius
S suis Streptococcus suis
S zoo Streptococcus zooepidemicus
Salm B Salmonella species group B
Salm C1 Salmonella species group C1
Salm C2 Salmonella species group C2
Salm D Salmonella species group D
Salm sp Salmonella species

2018 *Salmonella* Serotypes Isolated at
Iowa State University
Veterinary Diagnostic Laboratory

2018 <i>Salmonella</i> serogroups/serotypes	Avian	Bovine	Porcine
Group B	29	39	735
<i>Salmonella</i> 4, [5], 12:i:-	5	8	382
<i>Salmonella</i> Agona		7	39
<i>Salmonella</i> Bredeney	2		
<i>Salmonella</i> Derby			96
<i>Salmonella</i> Heidelberg		15	33
<i>Salmonella</i> Reading	3		
<i>Salmonella</i> Saintpaul		1	1
<i>Salmonella</i> Schwarzengrund	1	4	17
<i>Salmonella</i> Typhimurium	18	4	167
Group C1	12	24	136
<i>Salmonella</i> 6,7:-:1,5			1
<i>Salmonella</i> Braenderup	2	4	17
<i>Salmonella</i> Choleraesuis_(Kunzendorf)			24
<i>Salmonella</i> Infantis	5	2	53
<i>Salmonella</i> Livingstone			1
<i>Salmonella</i> Mbandaka	5	2	4
<i>Salmonella</i> Montevideo		15	1
<i>Salmonella</i> Ohio			19
<i>Salmonella</i> Rissen		1	16
Group C2	16	15	26
<i>Salmonella</i> Albany	1		
<i>Salmonella</i> Altona		2	1
<i>Salmonella</i> Bovismorbificans		3	2
<i>Salmonella</i> Chailey			3
<i>Salmonella</i> Hadar	2		
<i>Salmonella</i> Kentucky	13		1
<i>Salmonella</i> Litchfield			2
<i>Salmonella</i> Muenchen		4	14
<i>Salmonella</i> Newport		6	3

2018 Salmonella serogroups/serotypes	Avian	Bovine	Porcine
Group D	25	85	15
<i>Salmonella</i> Berta			7
<i>Salmonella</i> Dublin		84	1
<i>Salmonella</i> Enteritidis	25		3
<i>Salmonella</i> Ouakam			2
<i>Salmonella</i> Panama		1	3
Group E	22	23	113
<i>Salmonella</i> 3,10:e,h:-		2	
<i>Salmonella</i> 3,19:Nonmotile	1		
<i>Salmonella</i> Amager	1		
<i>Salmonella</i> Amsterdam		1	
<i>Salmonella</i> Anatum	5	3	40
<i>Salmonella</i> Anatum_var_15+		1	
<i>Salmonella</i> Cannstatt			1
<i>Salmonella</i> Give		4	4
<i>Salmonella</i> Krefeld			1
<i>Salmonella</i> Liverpool	6	1	1
<i>Salmonella</i> London			13
<i>Salmonella</i> Meleagridis		1	
<i>Salmonella</i> Muenster		4	5
<i>Salmonella</i> Muenster_var._15+,34+	1		
<i>Salmonella</i> Orion		1	2
<i>Salmonella</i> Orion_var_15+			1
<i>Salmonella</i> Senftenberg	1		18
<i>Salmonella</i> Uganda	3	5	27
Group G	2		8
<i>Salmonella</i> Havana	1		5
<i>Salmonella</i> Putten	1		3
Group I			1
<i>Salmonella</i> Barranquilla			1
Group K		5	2
<i>Salmonella</i> Cerro		5	2
Group L		2	1
<i>Salmonella</i> Minnesota		2	1
Group O	1		15
<i>Salmonella</i> Adelaide			14
<i>Salmonella</i> Alachua	1		1

2018 Salmonella serogroups/serotypes	Avian	Bovine	Porcine
Group Poly		1	24
<i>Salmonella</i> Gera			1
<i>Salmonella</i> Idikan			1
<i>Salmonella</i> Kedougou_			1
<i>Salmonella</i> Soerenga		1	
<i>Salmonella</i> Worthington			21
Group R	1		45
<i>Salmonella</i> Johannesburg	1		45
Untypeable	16	2	14
NOT <i>Salmonella</i> Enteritidis	1		
NOT <i>Salmonella</i> Enteritidis (S. Javiana)	1		
Not <i>Salmonella</i> Heidelberg	10		
<i>Salmonella</i> Ealing		1	
<i>Salmonella</i> Ill 13,23:gz51:-	4		
<i>Salmonella</i> Rough O:b:l,w			2
<i>Salmonella</i> Rough O:e,h: 1,6			1
<i>Salmonella</i> Rough O:z:l,w			1
<i>Salmonella</i> Rough_O:b:e,n,x			1
<i>Salmonella</i> Rough_O:c:1,5			6
<i>Salmonella</i> Rough_O:e,h:e,n,z15			1
<i>Salmonella</i> Rough_O:fg:-			1
<i>Salmonella</i> Rough_O:gms:-		1	
<i>Salmonella</i> untypeable			1
Grand Total	124	196	1135