

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 2013-2015		Susceptibility profile of Avian pathogens received at ISU VDL			
<i>Data reported as: % susceptible (# isolates tested)¹</i>					
Antibiotic	E coli	Salm B ²	Salm D ²	Salm sp ²	
Amoxicillin	67% (146)	72% (18)	100% (6)	97% (30)	
Ceftiofur	90% (154)	94% (18)	100% (6)	97% (31)	
Clindamycin	0% (154)	0% (18)	0% (6)	0% (31)	
Enrofloxacin	95% (154)	94% (18)	100% (6)	100% (31)	
Erythromycin	0% (152)	0% (18)	0% (6)	0% (31)	
Florfenicol	34% (148)	78% (18)	33% (6)	63% (30)	
Gentamicin	81% (154)	83% (18)	100% (6)	90% (31)	
Neomycin	91% (148)	89% (18)	100% (6)	97% (30)	
Novobiocin	0% (146)	0% (18)	0% (6)	0% (30)	
Oxytetracycline	40% (148)	61% (18)	100% (6)	33% (30)	
Penicillin	0% (154)	0% (18)	0% (6)	0% (31)	
Spectinomycin	4% (148)	0% (18)	0% (6)	0% (30)	
Streptomycin	60% (146)	28% (18)	100% (6)	23% (30)	
Sulfadimethoxine	52% (148)	50% (18)	0% (6)	37% (30)	
Sulphathiazole	68% (146)	78% (18)	100% (6)	80% (30)	
Tetracycline	39% (146)	61% (18)	100% (6)	37% (30)	
Trimethoprim/Sulphamethoxazole	89% (154)	89% (18)	100% (6)	100% (31)	
Tylosin (Tartrate/Base)	0% (148)	0% (18)	0% (6)	0% (30)	

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

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

Antibiotic	B tre	E coli	H som	M bov	M haem	P mult	Salm B ²	Salm C ²	Salm D ²	Salm sp ²
Ampicillin	60% (25)	22% (888)	90% (355)	99% (78)	70% (623)	98% (543)	43% (143)	55% (33)	11% (148)	93% (187)
Ceftiofur	88% (25)	50% (888)	98% (355)	99% (78)	100% (623)	100% (543)	62% (143)	55% (33)	11% (148)	95% (187)
Chlortetracycline	68% (25)	11% (867)	97% (355)	99% (78)	61% (623)	85% (543)	31% (143)	45% (33)	3% (148)	76% (187)
Clindamycin	0% (25)	0% (868)	38% (355)	8% (78)	0% (623)	0% (543)	0% (143)	0% (33)	0% (148)	0% (187)
Danofloxacin	48% (25)	43% (867)	71% (355)	9% (78)	60% (623)	82% (543)	64% (143)	82% (33)	77% (148)	86% (187)
Enrofloxacin	56% (25)	53% (868)	76% (355)	100% (78)	63% (623)	92% (543)	87% (143)	100% (33)	98% (148)	99% (187)
Florfenicol	72% (25)	6% (867)	94% (355)	92% (78)	78% (623)	94% (543)	29% (143)	36% (33)	3% (148)	57% (187)
Gentamicin	92% (25)	69% (868)	21% (355)	96% (78)	67% (623)	83% (543)	92% (143)	100% (33)	98% (148)	98% (187)
Neomycin	60% (25)	33% (867)	7% (355)	99% (78)	59% (623)	36% (543)	61% (143)	97% (33)	45% (148)	98% (187)
Oxytetracycline	16% (25)	10% (867)	35% (355)	99% (78)	48% (623)	59% (543)	31% (143)	42% (33)	3% (148)	75% (187)
Penicillin	8% (25)	0% (888)	85% (355)	1% (78)	25% (623)	69% (543)	0% (143)	0% (33)	0% (148)	0% (187)
Spectinomycin	0% (25)	1% (867)	55% (355)	10% (78)	63% (623)	71% (543)	0% (143)	0% (33)	0% (148)	0% (187)
Sulfadimethoxine	36% (25)	12% (887)	13% (355)	99% (78)	12% (623)	15% (543)	1% (143)	0% (33)	1% (148)	30% (187)
Tiamulin	64% (25)	0% (867)	100% (355)	100% (78)	92% (623)	65% (543)	0% (143)	0% (33)	0% (148)	0% (187)
Tilmicosin	52% (25)	0% (867)	80% (355)	97% (78)	56% (623)	69% (543)	0% (143)	0% (33)	0% (148)	0% (187)
Trimethoprim/Sulphamethoxazole	80% (25)	42% (868)	96% (355)	97% (78)	98% (623)	91% (543)	66% (143)	97% (33)	82% (148)	96% (187)
Tulathromycin	NI	NI	67% (355)	NI	62% (623)	84% (543)	NI	NI	NI	NI
Tylosin (Tartrate/Base)	0% (25)	NI	58% (355)	NI	0% (623)	1% (543)	NI	NI	NI	NI

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

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

Antibiotic	S aur	S dysg	S epi	S ube
Ampicillin	100% (44)	100% (17)	97% (29)	85% (13)
Ceftiofur	100% (44)	100% (17)	100% (29)	92% (13)
Cephalothin	100% (44)	100% (17)	100% (29)	100% (13)
Erythromycin	100% (44)	100% (17)	100% (29)	85% (13)
Oxacillin ³	98% (44)	100% (17)	3% (29)	92% (13)
Penicillin	100% (44)	94% (17)	93% (29)	38% (13)
Penicillin/Novobiocin	100% (44)	94% (17)	100% (29)	100% (13)
Pirlimycin	98% (44)	94% (17)	93% (29)	62% (13)
Sulfadimethoxine	70% (44)	53% (17)	66% (29)	0% (13)
Tetracycline	95% (44)	12% (17)	69% (29)	62% (13)

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

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

Antibiotic	B bron	E coli	E fael	E faem	Ente	K pneu	P aer	P mult	Pseu	S aur	S can	S pint
Amikacin	100% (21)	98% (772)	18% (213)	18% (49)	99% (94)	98% (45)	94% (303)	97% (31)	88% (102)	100% (45)	5% (265)	99% (889)
Amoxicillin/Clavulanic Acid	86% (21)	79% (772)	97% (213)	31% (49)	27% (94)	80% (45)	1% (303)	100% (31)	43% (102)	80% (45)	100% (265)	82% (889)
Ampicillin	14% (21)	67% (772)	97% (213)	29% (49)	31% (94)	7% (45)	1% (303)	100% (31)	32% (102)	24% (45)	99% (265)	46% (889)
Cefazolin	0% (21)	81% (772)	1% (213)	4% (49)	23% (94)	73% (45)	2% (303)	97% (31)	28% (102)	80% (45)	100% (265)	82% (889)
Cefovecin	0% (21)	80% (772)	1% (213)	4% (49)	76% (94)	82% (45)	1% (303)	97% (31)	26% (102)	80% (45)	92% (265)	75% (889)
Cefoxitin	0% (21)	87% (772)	0% (213)	2% (49)	32% (94)	78% (45)	1% (303)	97% (31)	32% (102)	47% (45)	93% (265)	82% (889)
Cefpodoxime	0% (21)	86% (772)	11% (213)	4% (49)	84% (94)	89% (45)	1% (303)	97% (31)	24% (102)	73% (45)	98% (265)	76% (889)
Ceftiofur	0% (21)	88% (772)	7% (213)	6% (49)	85% (94)	89% (45)	2% (303)	100% (31)	32% (102)	80% (45)	100% (265)	81% (889)
Cephalothin	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	80% (45)	100% (262)	82% (884)
Chloramphenicol	100% (21)	88% (772)	94% (213)	94% (49)	87% (94)	84% (45)	2% (303)	100% (31)	53% (102)	80% (45)	99% (265)	85% (889)
Clindamycin	0% (21)	0% (772)	0% (213)	16% (49)	0% (94)	0% (45)	0% (303)	3% (31)	13% (102)	84% (45)	88% (265)	74% (889)
Doxycycline	100% (21)	84% (772)	72% (213)	41% (49)	86% (94)	76% (45)	5% (303)	97% (31)	76% (102)	87% (45)	60% (265)	61% (889)
Enrofloxacin	95% (21)	90% (772)	26% (213)	4% (49)	93% (94)	93% (45)	38% (303)	97% (31)	65% (102)	80% (45)	46% (265)	79% (889)
Erythromycin	0% (21)	0% (772)	32% (213)	2% (49)	0% (94)	0% (45)	0% (303)	23% (31)	21% (102)	56% (45)	0% (265)	73% (889)
Gentamicin	81% (21)	94% (772)	34% (213)	8% (49)	97% (94)	96% (45)	75% (303)	100% (31)	84% (102)	98% (45)	38% (265)	80% (889)
Imipenem	100% (21)	100% (772)	97% (213)	24% (49)	99% (94)	100% (45)	96% (303)	100% (31)	97% (102)	78% (45)	100% (265)	82% (889)
Marbofloxacin	100% (21)	91% (772)	24% (213)	4% (49)	95% (94)	98% (45)	72% (303)	100% (31)	88% (102)	87% (45)	71% (265)	84% (889)
Oxacillin ³	NI	NI	NI	NI	NI	NI	NI	NI	NI	80% (45)	NI	82% (889)
Penicillin	0% (21)	0% (772)	98% (213)	24% (49)	0% (94)	0% (45)	0% (303)	65% (31)	1% (102)	22% (45)	96% (265)	30% (889)
Ticarcillin	71% (21)	73% (772)	5% (213)	8% (49)	69% (94)	11% (45)	90% (303)	97% (31)	52% (102)	78% (45)	93% (265)	77% (889)
Ticarcillin/Clavulanic Acid	100% (21)	84% (772)	4% (213)	8% (49)	86% (94)	84% (45)	89% (303)	97% (31)	64% (102)	80% (45)	93% (265)	77% (889)
Trimethoprim/Sulphamethoxazole	38% (21)	89% (772)	79% (213)	73% (49)	94% (94)	89% (45)	11% (303)	97% (31)	51% (102)	96% (45)	93% (265)	77% (889)

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

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

Antibiotic	E coli	M haem	Salm sp
Ampicillin	46% (41)	97% (35)	69% (16)
Ceftiofur	76% (41)	100% (35)	75% (16)
Chlortetracycline	27% (41)	94% (35)	69% (16)
Clindamycin	0% (41)	0% (35)	0% (16)
Danofloxacin	66% (41)	91% (35)	81% (16)
Enrofloxacin	88% (41)	100% (35)	100% (16)
Florfenicol	10% (41)	100% (35)	50% (16)
Gentamicin	95% (41)	97% (35)	100% (16)
Neomycin	63% (41)	91% (35)	88% (16)
Oxytetracycline	27% (41)	89% (35)	69% (16)
Penicillin	0% (41)	11% (35)	0% (16)
Spectinomycin	7% (41)	89% (35)	0% (16)
Sulfadimethoxine	17% (41)	49% (35)	25% (16)
Tiamulin	0% (41)	97% (35)	0% (16)
Tilmicosin	0% (41)	97% (35)	0% (16)
Trimethoprim/Sulphamethoxazole	54% (41)	100% (35)	88% (16)
Tulathromycin	NI	89% (35)	0% (16)

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

Antibiotic	A equ	P aer	R equ	S aur	S equi	S equus	S zoo	Salm B
Amikacin	100% (23)	100% (10)	100% (19)	100% (20)	21% (14)	9% (22)	3% (108)	91% (11)
Ampicillin	100% (23)	0% (10)	0% (19)	35% (20)	100% (14)	100% (22)	95% (108)	55% (11)
Azithromycin	NI	NI	NI	68% (19)	92% (13)	82% (22)	97% (101)	NI
Cefazolin	100% (23)	0% (10)	0% (19)	90% (20)	93% (14)	100% (22)	97% (108)	73% (11)
Ceftazidime	96% (23)	100% (10)	0% (19)	95% (19)	100% (13)	100% (22)	98% (101)	82% (11)
Ceftiofur	96% (23)	0% (10)	0% (19)	90% (20)	93% (14)	100% (22)	96% (108)	82% (11)
Chloramphenicol	96% (23)	0% (10)	79% (19)	95% (20)	93% (14)	100% (22)	99% (108)	82% (11)
Clarithromycin	NI	NI	95% (19)	68% (19)	NI	NI	0% (101)	NI
Doxycycline	100% (23)	0% (10)	95% (19)	65% (20)	100% (14)	77% (22)	82% (108)	55% (11)
Enrofloxacin	96% (23)	70% (10)	74% (19)	75% (20)	29% (14)	77% (22)	31% (108)	100% (11)
Erythromycin	9% (23)	0% (10)	95% (19)	70% (20)	93% (14)	77% (22)	90% (108)	0% (11)
Gentamicin	100% (23)	90% (10)	100% (19)	50% (20)	36% (14)	50% (22)	7% (108)	91% (11)
Imipenem	100% (23)	100% (10)	100% (19)	85% (20)	100% (14)	100% (22)	100% (108)	100% (11)
Oxacillin ³	NI	0% (10)	NI	90% (20)	NI	NI	NI	NI
Penicillin	0% (23)	0% (10)	0% (19)	30% (20)	100% (14)	95% (22)	96% (108)	0% (11)
Tetracycline	100% (23)	10% (10)	63% (19)	47% (19)	77% (13)	68% (22)	29% (101)	45% (11)
Ticarcillin	100% (23)	100% (10)	0% (19)	85% (20)	100% (14)	100% (22)	100% (108)	55% (11)
Ticarcillin/Clavulanic Acid	96% (23)	100% (10)	0% (19)	90% (20)	93% (14)	100% (22)	100% (108)	64% (11)
Trimethoprim/Sulphamethoxazole	87% (23)	0% (10)	79% (19)	70% (20)	100% (14)	100% (22)	96% (108)	91% (11)

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

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

Antibiotic	E coli	E fael	E faem	Ente	P aer	P mult	Pseu	S aur	S can	S pint
Amikacin	100% (139)	20% (55)	6% (17)	100% (11)	100% (46)	98% (60)	69% (26)	100% (35)	0% (18)	98% (43)
Amoxicillin/Clavulanic Acid	77% (139)	96% (55)	29% (17)	55% (11)	0% (46)	95% (60)	54% (26)	74% (35)	100% (18)	81% (43)
Ampicillin	71% (139)	93% (55)	29% (17)	45% (11)	0% (48)	98% (60)	15% (26)	26% (35)	100% (18)	60% (43)
Cefazolin	80% (139)	4% (55)	0% (17)	27% (11)	2% (46)	95% (60)	23% (26)	86% (35)	100% (18)	81% (43)
Cefovecin	78% (139)	4% (55)	0% (17)	91% (11)	2% (46)	92% (60)	15% (26)	66% (35)	94% (18)	70% (43)
Cefoxitin	89% (139)	0% (55)	0% (17)	45% (11)	0% (46)	95% (60)	23% (26)	54% (35)	100% (18)	79% (43)
Cefpodoxime	91% (139)	9% (55)	0% (17)	100% (11)	0% (46)	92% (60)	23% (26)	63% (35)	94% (18)	72% (43)
Ceftiofur	95% (139)	4% (55)	0% (17)	100% (11)	10% (48)	100% (60)	27% (26)	83% (35)	100% (18)	81% (43)
Cephalothin	Not Tested	Not Tested	Not tested	Not tested	Not tested	Not tested	Not tested	86% (35)	100% (18)	83% (42)
Chloramphenicol	83% (139)	91% (55)	88% (17)	100% (11)	2% (46)	100% (60)	46% (26)	83% (35)	100% (18)	79% (43)
Ciindamycin	1% (139)	2% (55)	29% (17)	0% (11)	0% (48)	2% (60)	0% (26)	89% (35)	94% (18)	58% (43)
Doxycycline	88% (139)	71% (55)	41% (17)	100% (11)	7% (46)	95% (60)	69% (26)	91% (35)	78% (18)	67% (43)
Enrofloxacin	91% (139)	18% (55)	6% (17)	100% (11)	67% (48)	98% (60)	58% (26)	86% (35)	72% (18)	72% (43)
Erythromycin	1% (139)	36% (55)	12% (17)	0% (11)	0% (46)	8% (60)	4% (26)	80% (35)	0% (18)	56% (43)
Gentamicin	99% (139)	35% (55)	6% (17)	100% (11)	94% (48)	98% (60)	69% (26)	100% (35)	33% (18)	79% (43)
Imipenem	99% (139)	89% (55)	18% (17)	100% (11)	93% (46)	100% (60)	85% (26)	86% (35)	100% (18)	81% (43)
Marbofloxacin	94% (139)	18% (55)	0% (17)	100% (11)	91% (46)	100% (60)	81% (26)	86% (35)	78% (18)	81% (43)
Oxacillin ³	NI	NI	NI	NI	NI	NI	NI	86% (35)	NI	81% (43)
Penicillin	0% (139)	93% (55)	24% (17)	0% (11)	0% (48)	73% (60)	0% (26)	26% (35)	100% (18)	37% (43)
Ticarcillin	76% (139)	9% (55)	0% (17)	82% (11)	87% (46)	95% (60)	38% (26)	69% (35)	100% (18)	72% (43)
Ticarcillin/Clavulanic Acid	90% (139)	9% (55)	0% (17)	100% (11)	89% (46)	95% (60)	69% (26)	71% (35)	100% (18)	72% (43)
Trimethoprim/Sulphamethoxazole	92% (139)	76% (55)	53% (17)	100% (11)	25% (48)	97% (60)	58% (26)	100% (35)	100% (18)	70% (43)

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

Porcine 2015

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 ⁵	Salm B ²	Salm C1 ²	Salm sp
Ampicillin	98% (273)	95% (80)	6% (36)	30% (556)	100% (27)	19% (1718)	99% (804)	98% (60)	100% (24)	96% (604)	22% (702)	52% (134)	53% (167)
Ceftiofur	100% (273)	99% (80)	0% (36)	62% (556)	100% (27)	61% (1718)	99% (804)	100% (60)	100% (24)	93% (604)	76% (702)	80% (134)	74% (167)
Chlortetracycline	94% (273)	89% (80)	97% (36)	17% (555)	19% (27)	10% (1707)	100% (804)	97% (60)	83% (24)	5% (604)	9% (698)	35% (134)	37% (166)
Clindamycin	0% (273)	1% (80)	0% (36)	0% (556)	67% (27)	0% (1718)	5% (804)	0% (60)	0% (24)	15% (604)	0% (702)	0% (134)	0% (167)
Enrofloxacin	100% (273)	100% (80)	97% (36)	75% (556)	93% (27)	72% (1718)	99% (804)	100% (60)	100% (24)	97% (604)	83% (702)	88% (134)	74% (167)
Florfenicol	99% (273)	100% (80)	67% (36)	11% (555)	7% (27)	24% (1707)	99% (804)	100% (60)	100% (24)	99% (604)	30% (698)	32% (134)	34% (166)
Gentamicin	100% (273)	1% (80)	100% (36)	74% (556)	7% (27)	64% (1718)	78% (804)	98% (60)	96% (24)	84% (604)	72% (702)	69% (134)	60% (167)
Neomycin	97% (273)	3% (80)	94% (36)	72% (555)	4% (27)	65% (1707)	39% (804)	88% (60)	96% (24)	27% (604)	65% (698)	77% (134)	66% (166)
Oxytetracycline	75% (273)	13% (80)	97% (36)	16% (555)	19% (27)	9% (1707)	95% (804)	27% (60)	42% (24)	3% (604)	10% (698)	36% (134)	36% (166)
Penicillin	0% (273)	20% (80)	0% (36)	0% (556)	93% (27)	0% (1718)	25% (804)	77% (60)	88% (24)	78% (604)	0% (702)	0% (134)	0% (167)
Spectinomycin	0% (273)	4% (80)	0% (36)	2% (555)	78% (27)	6% (1707)	61% (804)	2% (60)	4% (24)	9% (604)	0% (698)	0% (134)	0% (166)
Sulfadimethoxine	88% (273)	9% (80)	22% (36)	30% (555)	0% (27)	33% (1707)	19% (804)	43% (60)	33% (24)	28% (604)	3% (698)	22% (134)	10% (166)
Tiamulin	95% (273)	95% (80)	0% (36)	0% (555)	85% (27)	1% (1707)	97% (804)	73% (60)	17% (24)	82% (604)	0% (698)	0% (134)	0% (166)
Tilmicosin	96% (273)	90% (80)	6% (36)	0% (555)	74% (27)	0% (1707)	88% (804)	93% (60)	54% (24)	19% (604)	0% (698)	0% (134)	0% (166)
Trimethoprim/ Sulphamethoxazole	100% (273)	95% (80)	28% (36)	74% (556)	59% (27)	75% (1718)	92% (804)	95% (60)	96% (24)	97% (604)	79% (702)	75% (134)	84% (167)
Tulathromycin	NI	90% (80)	100% (36)	NI	NI	NI	NI	97% (60)	96% (24)	NI	NI	NI	NI
Tylosin (Tartrate/Base)	0% (273)	0% (80)	0% (36)	NI	NI	NI	NI	2% (60)	0% (24)	NI	NI	NI	NI

Carbadox ⁴	E coli		Salm	
	>2 ug/ml	<= 2 ug/ml	>2 ug/ml	<= 2 ug/ml
	20% (1,729)	80% (1,729)	16% (737)	84% (737)

² See Salmonella serotype table for most common serotypes isolated within each group

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).

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 In 2015 changes were incorporated into the test method.
- NA Not applicable
 ND Not done
 NI No interpretation

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