

Bovine Mastitis 2012-2014

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 | 92% (24) | 83% (6) | 75% (4) | 0% (13) | 100% (1) | 97% (76) | 100% (28) | 91% (43) | 79% (29) |
| Ceftiofur | 100% (24) | 0% (6) | 75% (4) | 92% (13) | 100% (1) | 100% (76) | 100% (28) | 95% (43) | 79% (29) |
| Cephalothin | 83% (24) | 17% (6) | 0% (4) | 92% (13) | 100% (1) | 100% (76) | 100% (28) | 95% (43) | 100% (29) |
| Erythromycin | 0% (24) | 50% (6) | 0% (4) | 0% (13) | 0% (1) | 100% (76) | 100% (28) | 93% (43) | 72% (29) |
| Oxacillin ³ | 0% (24) | 17% (6) | 0% (4) | 0% (13) | 0% (1) | 99% (76) | 100% (28) | 2% (43) | 83% (29) |
| Penicillin | 0% (24) | 83% (6) | 0% (4) | 0% (13) | 100% (1) | 96% (76) | 96% (28) | 88% (43) | 28% (29) |
| Penicillin/Novobiocin | 0% (24) | NI | NI | 0% (13) | NI | 97% (76) | 96% (28) | 95% (43) | 100% (29) |
| Pirlimycin | 0% (24) | 50% (6) | 0% (4) | 0% (13) | 0% (1) | 99% (76) | 96% (28) | 91% (43) | 69% (29) |
| Sulfadimethoxine | 29% (24) | 0% (6) | 0% (4) | 38% (13) | 0% (1) | 78% (76) | 61% (28) | 70% (43) | 0% (29) |
| Tetracycline | 71% (24) | 50% (6) | 25% (4) | 77% (13) | 100% (1) | 93% (76) | 7% (28) | 65% (43) | 62% (29) |

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

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| 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> | | |