CATTLE

Antimicrobial resistance has been documented in the bacterial pathogens that affect cattle health and can have significant economic consequences. Therefore, preventing infections and preserving the efficacy of antimicrobials to treat, prevent and control infections is crucial.

PATHOGEN OF CONCERN:

- *Moraxella* spp.
  - *M. bovis*
  - *M. bovoculi*
- *Bovine respiratory disease*
  - *Mannheimia haemolytica*
  - *Pasteurella multocida*
  - *Histophilus somni*

Antimicrobial-resistant infections affecting cattle can have significant impacts on health, animal welfare, herd health, and economic consequences for cattle producers.

What you need to know

- Efforts to promote herd health, including good management practices and routine use of vaccines, can help prevent disease.
- Early identification of infectious bovine keratoconjunctivitis and bovine respiratory disease can help prevent outbreaks and reduce morbidity and mortality.
- Resistant infections can be difficult to treat.
- More research is needed regarding strategic approaches for disease prevention, diagnostic testing, and use of antimicrobials to treat both individual disease cases and outbreaks of infections in herds.

WHAT VETERINARIANS CAN DO:

- Assist producers in development of comprehensive herd health programs to prevent infections which may minimize the need for antimicrobial use.
  - Vaccines can be a tool used to prevent infections as part of a comprehensive herd health program.
  - Modify the practices that introduce stressors which can adversely impact animal health and the immune system (e.g., weaning, transport, commingling, crowding, dust, inadequate ventilation, parasites, and poor nutrition).
  - Utilize biosecurity and biocontainment practices to prevent introduction of pathogens or prevent effective contacts.
- Use diagnostic testing to inform treatment decisions – for example, to justify the need for antimicrobial therapy.
- Monitor antimicrobial treatment outcomes to evaluate past therapeutic performance and guide future therapeutic protocols.