

CALF VACCINATION BEFORE WEANING

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WHY DO WE VACCINATE CALVES FOR BRD?

STEERS

- Marketing
- Health (Summer Pneumonia)
 - Why? Should be a rare event

HEIFERS

- Marketing
- Health (Summer Pneumonia)
- Replacements and setting up for reproduction

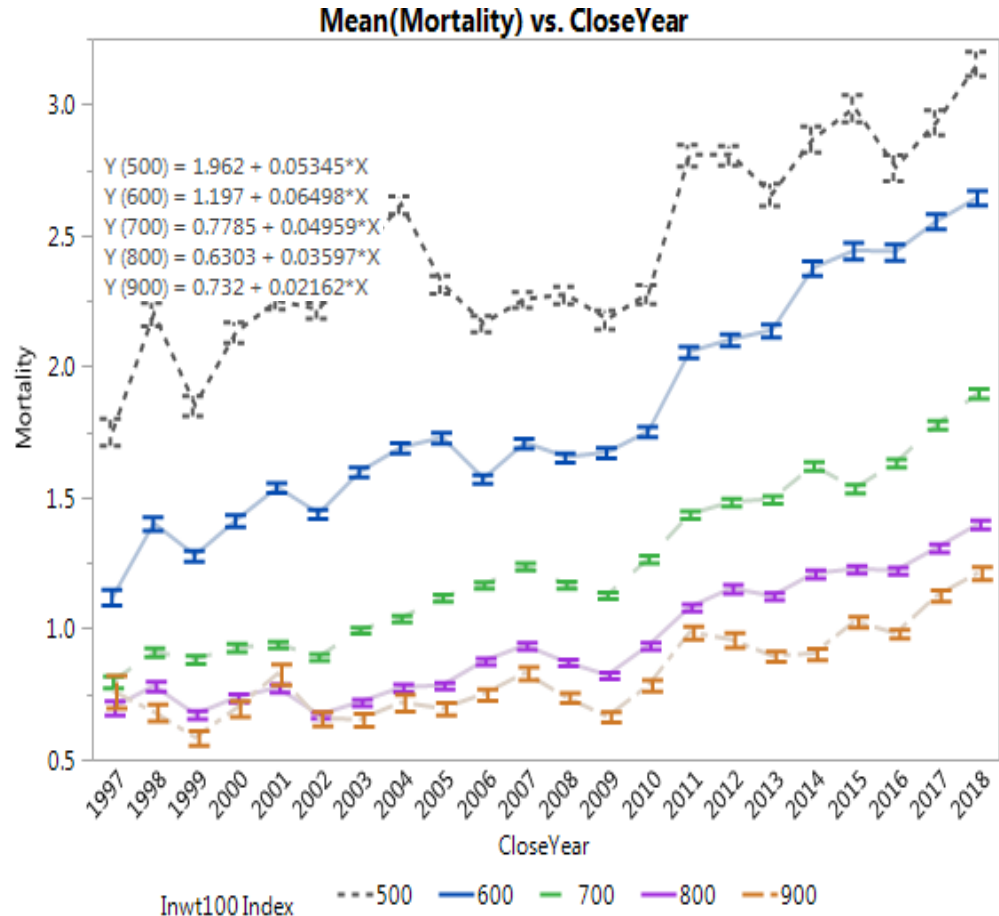
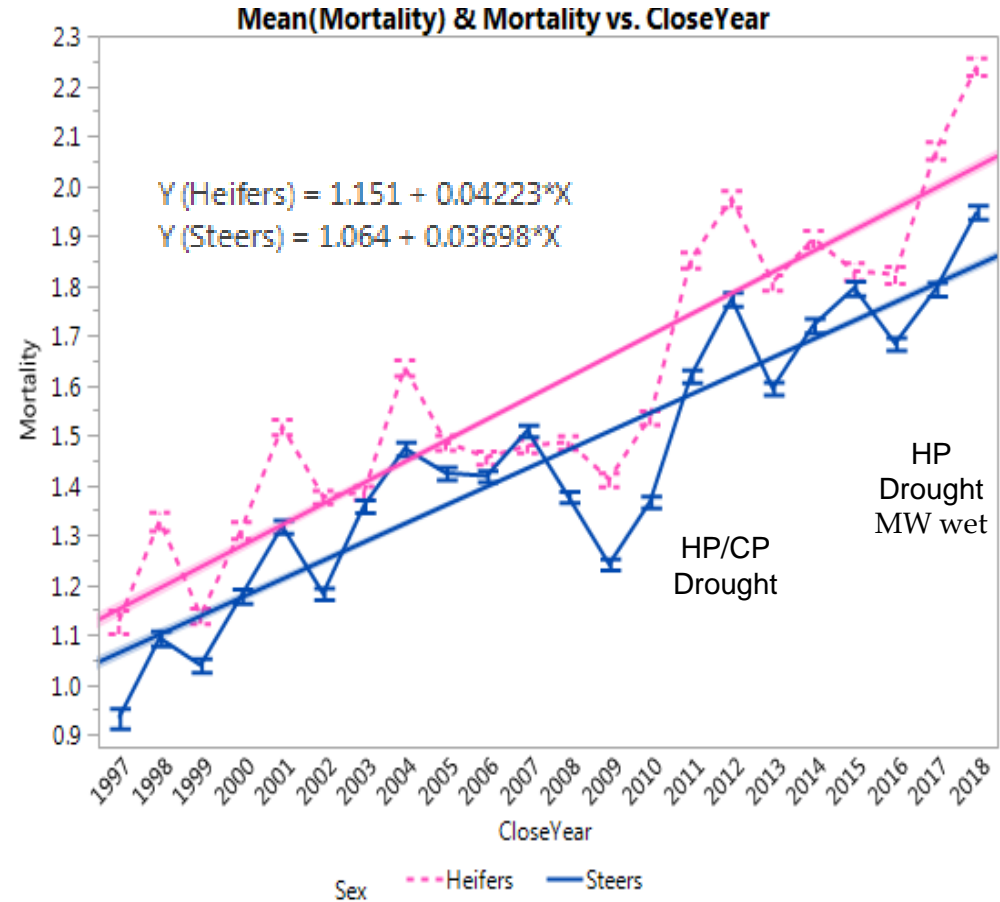
HOW ARE WE DOING?

HISTORICAL MORTALITY* HEIFERS & STEERS BY CLOSE YEAR



2019
Heifers 2.42%
Steers 2.12%

2020
Heifers 2.49%
Steers 2.13%



So what? Investing more but losses +0.02-0.06%/yr. Calves > yearlings

TOO MANY SHOTS?

- Cattle administered a modified-live-viral vaccine 3 times before the feedlot had a greater first treatment for BRD (21.32%) compared with cattle vaccinated 1 time (9.56%; P = 0.06).
- There is great variability in BRD morbidity among cow-calf operations. A greater number of vaccinations administered before the feedlot was detrimental to health outcomes. Additional research is needed to further evaluate the entire host, environment, and pathogen triad for development of BRD.

Bovine respiratory disease during the mid-portion of the feeding period: Observations from vaccination history, viral and bacterial prevalence, and rate of gain in feedlot cattle Miles E. Theurer,¹ * Myriah D. Johnson,² Trent Fox,¹ Travis M. McCarty,¹ Ryan M. McCollum,¹ Tom M. Jones,³ and Deke O. Alkire⁴ ¹ Veterinary Research and Consulting Services LLC, Hays, KS 67601; ² Noble Research Institute, Ardmore, OK 73401; ³ Hy-Plains Education and Research Center, Montezuma, KS 67867; and ⁴ Independent Consultant, Warrensburg, MO 64093

GOOD RANCH CALVES

- Morbidity caused by BRD in high-performing cattle is greater than expected
- Timing of BRD morbidity occurs at later DOF

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BOVINE RESPIRATORY DISEASE VACCINATION

WHAT IS THE EFFECT OF TIMING?

- To be effective, vaccination against bovine respiratory disease (BRD) antigen should be administered several weeks before homologous or heterologous infectious challenge.
- Physiologic stress can result in transient immunosuppression, and vaccination during this time can differentially alter the antigenicity of killed virus and modified-live virus vaccine agents.
- If BRD vaccines are administered at inappropriate times, they are capable of being more detrimental than beneficial, and vaccine safety should be considered when designing vaccine regimens at various periods in the beef production system.
- The current USDA biological approval process uses safety and efficacy models that consider ideal vaccine timing relative to infectious challenge, but this model is not always representative of current field application of BRD vaccine timing in cattle.

VACCINATION OF CALVES

IS ADDING INTRANASALS HELPING US?

- Shorter duration of immunity
- IgA verses IgG
- Interferon
- Incidence of H. somnus?

THANK YOU

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