

# Frequency of concurrent lesions in feedlot mortalities at necropsy

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## Introduction

Feedlot mortalities continue to be a major economic issue for cattle producers. Necropsies have been utilized to help diagnose disease processes in commercial feedlots. However, identification of concurrent diagnoses and multiple-affected organ systems have been rarely recorded. The study objective was to determine the frequency and most common combinations of concurrent lesions and multiple-affected organ systems in feedlot mortalities.

## Materials and methods

In this cross-sectional, observational study, systemic necropsies were performed on all mortalities with minimal autolysis at 6 feedlots in central Kansas in June and July 2022. All lesions or abnormalities were recorded. Data on feedlot, arrival weight, sex, days on feed and number of treatments were also collected.

## Results

From the 400 necropsies performed, over 80% identified more than one lesion, and mortalities averaged 2.8 lesions. The most common concurrent lesions were bronchopneumonia with an interstitial pattern (BIP) and gastrointestinal lesions (11%);

followed by bronchopneumonia (BP) and gastrointestinal lesions (6%), and BIP and gastrointestinal lesions and congestive heart failure (5%). The systems affected concurrently were digestive and pulmonary (30%); cardiovascular, digestive and pulmonary (24%); and cardiovascular and pulmonary (10%). Using a generalized linear mixed effects model, the probability of a feedyard mortality having greater than one lesion or one system affected was not significantly associated with any demographic factor ( $P > 0.05$ ).

## Significance

After finding concurrent lesions in over 80% of feedlot mortalities, recording all abnormalities from a systemic necropsy may help producers, researchers and veterinarians improve treatment protocols and management strategies.

