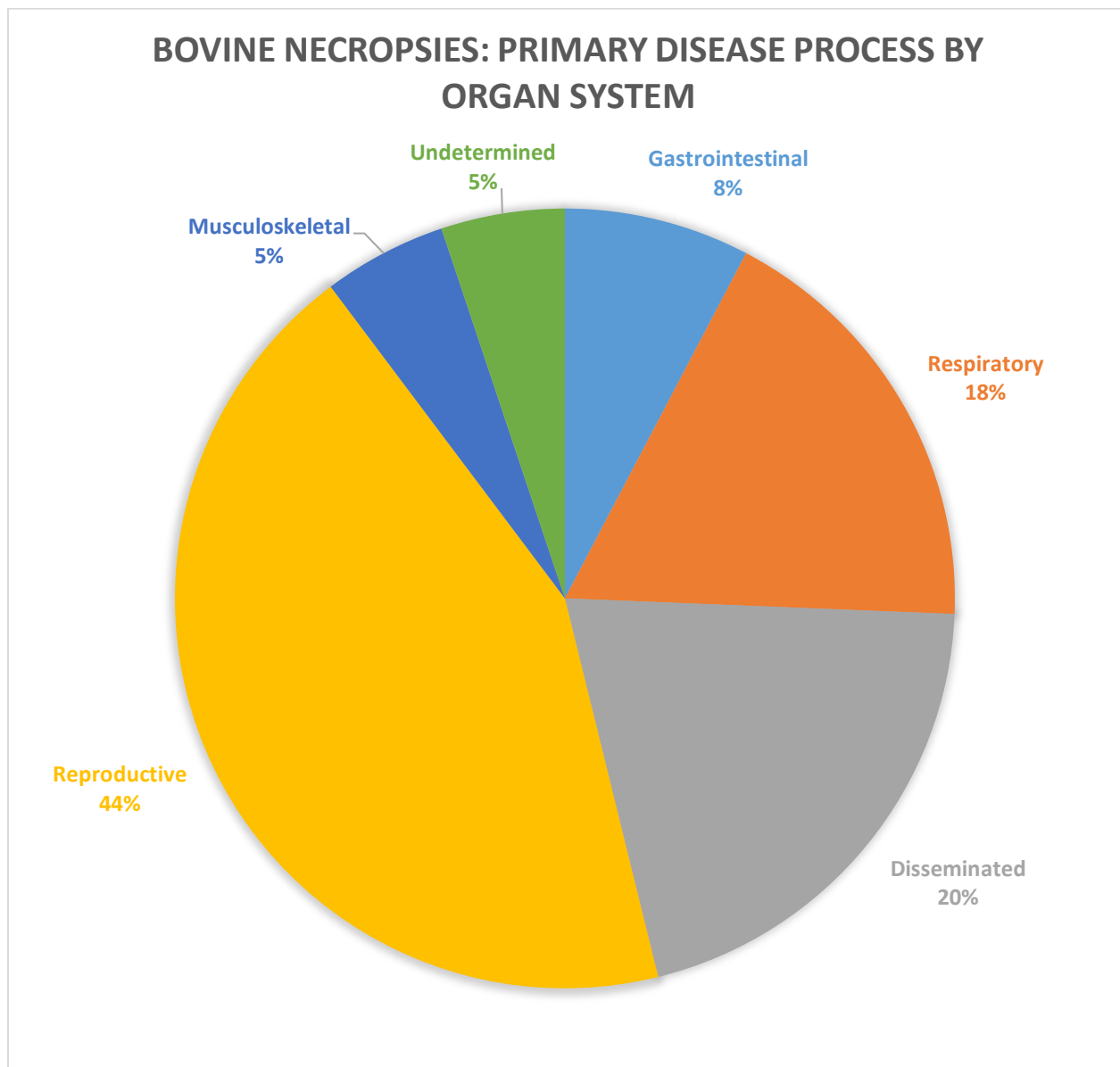


Q3 2019 Bovine Necropsy Summary

Thirty-nine bovine necropsies were performed at the MU VMDL between July 1st, 2019 and September 30th, 2019. A summary of the primary disease process, by organ system, is presented in the graph below. Details of the specific etiologies identified for major categories are described on the next page.



Gastrointestinal System:

Two of the three cases involving the gastrointestinal system were morphologically identified as ruminitis. Both cases of ruminitis were due to ruminal acidosis (rumen pH by selective electrode measured 4.4 and 5.2). The third was a diarrhea of unknown etiology.

Respiratory System:

Primary respiratory pathogens were identified in three of the seven respiratory disease cases. BRSV was identified in one case, *Mycoplasma bovis* in another, and both in a third via molecular techniques. *Histophilus somni* was also isolated via bacterial culture in the first case (+ for BRSV via PCR). The low rate of bacterial isolation from these specimens was likely due to recent antimicrobial therapy in several cases.

No primary respiratory pathogens were isolated in the other four cases. One was an interstitial pneumonia strongly suggestive of perilla mint toxicosis. *Trueperella pyogenes*, a common secondary invader in chronic cases of bovine respiratory disease, was cultured in one case. No etiology was identified in the other two cases of pneumonia.

Disseminated Disease:

Cases were categorized as disseminated when hematogenous spread was likely due to inflammatory lesions present in multiple organs, or the disease process was widespread in nature (e.g. neoplasms).

Three of the eight cases were diagnosed with bovine lymphoma. *Anaplasma marginale* was considered to be the primary infectious etiology and cause of death in one case.

Of the remaining four cases of disseminated infection, bacterial etiologies were identified in two of them (*Salmonella dublin* and *Streptococcus* spp.). No definitive etiology was identified for the final two cases.

Reproductive System:

Reproductive system failures (primarily abortions or stillbirths) represent the largest category in this quarter's data summary with 17 cases examined between July 1st and September 30th.

No cause of the reproductive failure was identified in 14 of the cases. One neonatal death was caused by multiple congenital abnormalities (hypospadias, bilateral cheiloschisis and palatoschisis, and goniodysgenesis/congenital glaucoma.) One death was the result of a dystocia, potentially complicated by concurrent infection with *Anaplasma marginale*. The final reproductive system case was a mastitis of unknown etiology (no laboratory testing performed).

This data summary was prepared by Lauren Delaney, DVM (VMDL Client Service Veterinarian). Please feel free to contact me at (573) 882-8367 or delaneyle@missouri.edu with questions about this summary.