



Morbidity and mortality in Flemish veal calves

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Introduction

The Flemish veal calf industry is a niche market, which is specialized in rearing dairy, mixed breed or Belgian blue calves on an iron deficient milk powder diet in order to produce white veal meat. No detailed information on morbidity and mortality on Belgian veal calf farms is currently available. International references are limited as well (Sargeant et al., 1994).

Scientific aims

Collection of objective data on morbidity and mortality in the Flemish veal calf industry.

Identification of diseases which need further research to improve the health and welfare of the calves and the profitability of the farms.

Materials and methods

A longitudinal survey on 15 veal farms (5 of each breed) is performed. Data on mortality were registered by the farmer and necropsies were performed partially by the local veterinarian and partially at the Flemish animal health organisation (DGZ-Vlaanderen). Data on morbidity were collected based on the daily registration of individual treatments by the stockmen. Additional information on nutrition, group treatments, cleaning procedures and production results were collected for further analysis.

Results

Global mortality was 5.17%. Pneumonia, peritonitis (polyserositis) and acute ruminitis are the major causes of mortality (Fig 2). A typical age related distribution of morbidity (Fig 3) was seen, with diarrhea (week 1-3) shortly after arrival, followed by respiratory problems (week 2-5). Bovine respiratory disease (BRD) is the most important reason for individual treatment (Fig 4).

Both herd and breed differences for morbidity and mortality were observed for pneumonia and peritonitis. The Belgian blue breed is more susceptible to enterotoxaemia (*Clostridium perfringens*) (16%) and arthritis (9%).

Additional projects

Based on the preliminary data of the study on morbidity and mortality two additional projects are running.

- Determination of etiological agents in 25 natural outbreaks of BRD in Flemish veal calves.
- Study into the pathogenesis of *Clostridium perfringens* enterotoxaemia: molecular identification of pathogenic strains and epidemiological study for eliciting factors.

References: Sargeant et al., 1994, *Canadian Journal of Veterinary Research* 58, 189-195

Figure 1: Individually housed dairy veal calves during the first 6 weeks after arrival



Figure 2: Causes of mortality in 127 Belgian veal calves

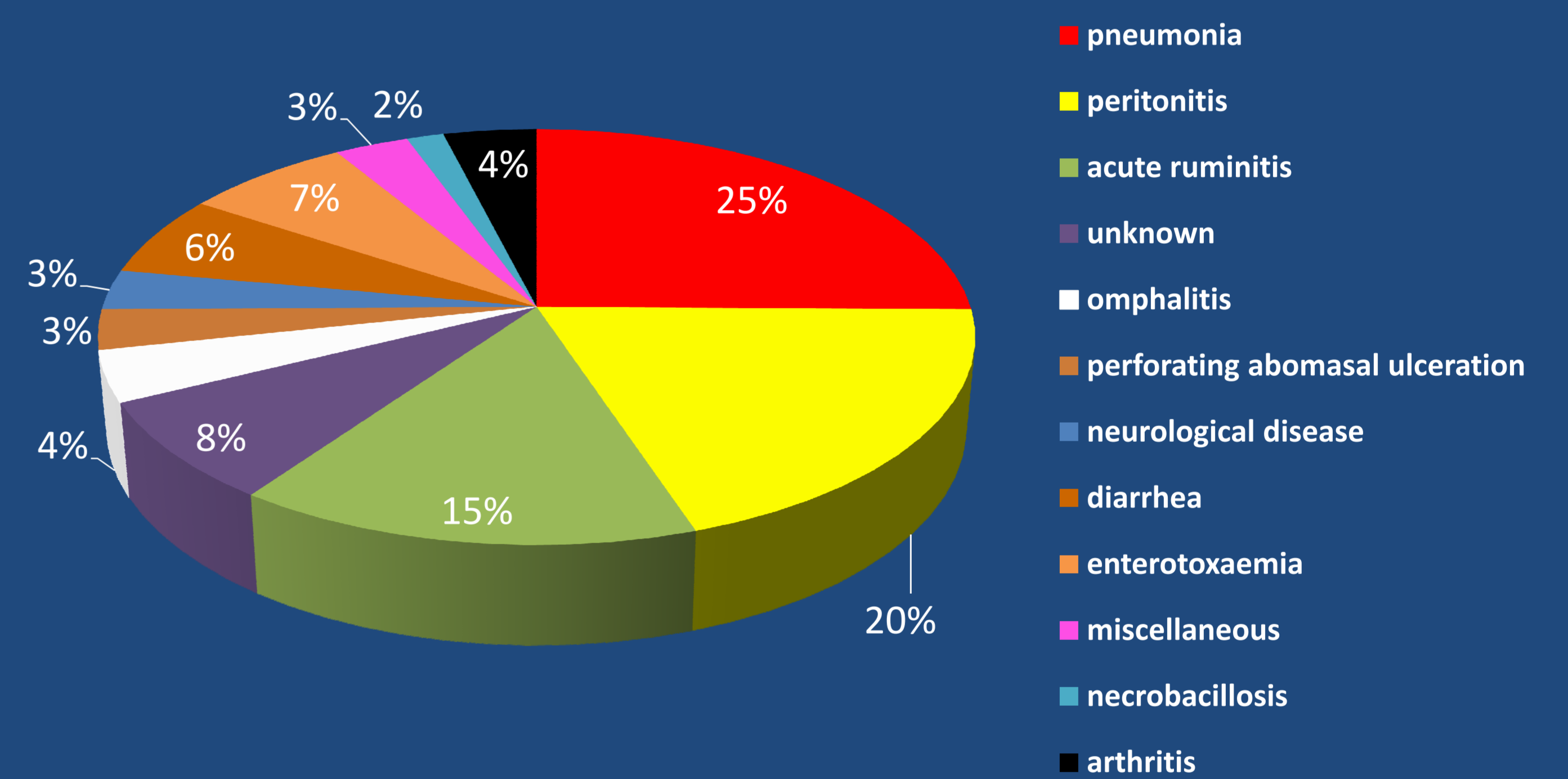


Figure 3: Age related morbidity in 2458 veal calves

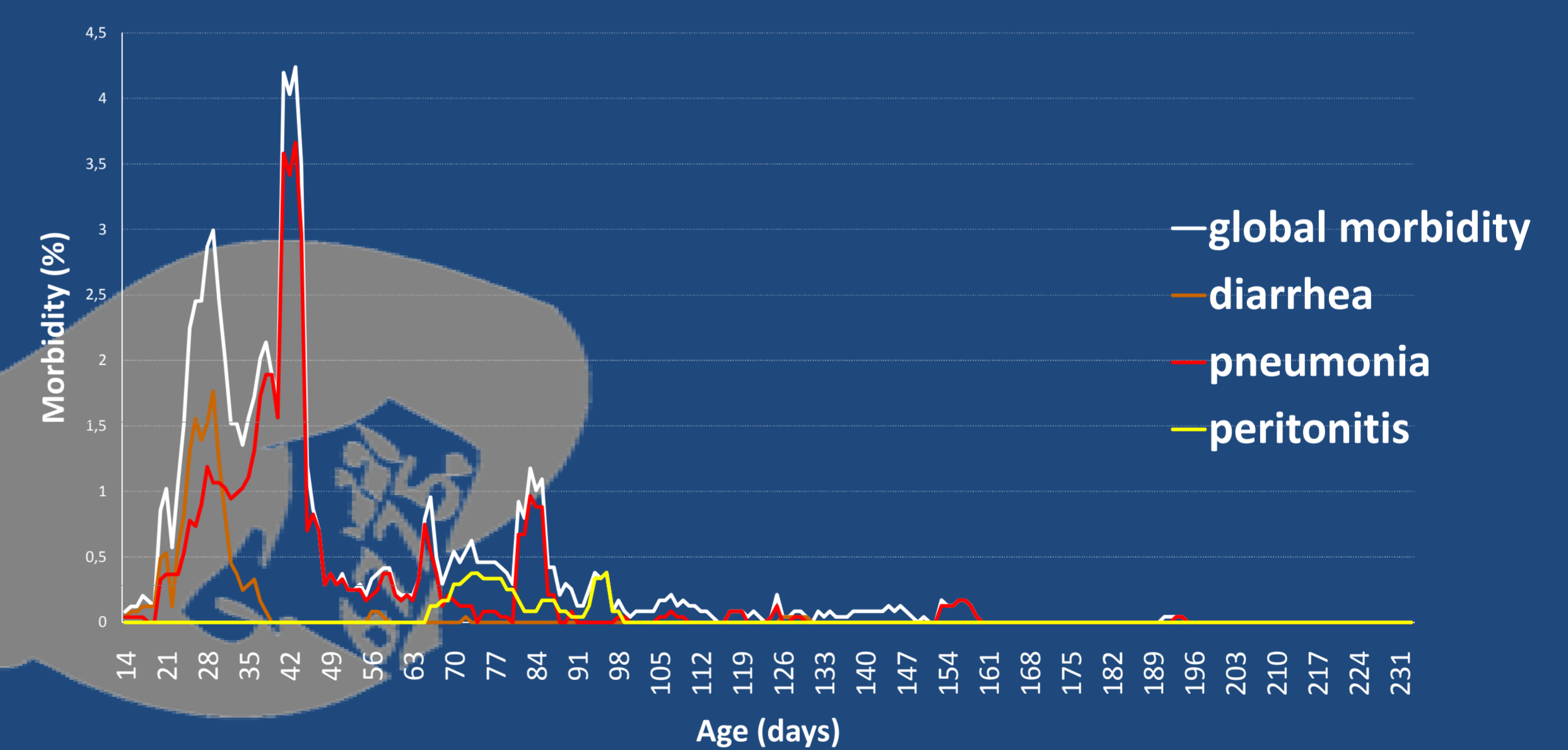


Figure 4: Causes of morbidity (%) in 2458 veal calves

