UNIVERSITY of GUELPH

ONTARIO AGRICULTURAL COLLEGE

DEPARTMENT OF ANIMAL BIOSCIENCES

MSc. Defence

Investigating the effects of supplemental concentrated brewer's yeast on gut health and nutrient status in healthy adult dogs

Lindsey Rummell

Date: April 29th 2022 at 1:00pm

The MSc Defence for Lindsey Rummell has been scheduled for April 29th, 2022 at 1:00pm. The defence will be held online via Teams: https://teams.microsoft.com/l/meetup-join/19%3ameeting_MjA3MzQ1OGQtMWY5Yi00ODUzLTk1MDItNTAzMDVmZDc5ZjAy%40thread.v2/0?context=%7b%22Tid%22%3a%22be62a12b-2cad-49a1-a5fa-85f4f3156a7d%22%2c%22Oid%22%3a%22fbd28915-dda5-478f-8ecb-a3682dcf0c3a%22%7d

The exam committee will consist of:

Examining Chair: Dr. David Huyben

Advisor: Dr. Anna Kate Shoveller

Adv. Committee Member: Dr. Mike Steele

Additional Graduate Member: Dr. Elijah Kiarie

Abstract:

Yeast is a known immunomodulator utilized in animals to support gut health and improve digestibility. Its effects on the intestinal barrier and how it may impact nutrient absorption in dogs however is not well understood. This thesis sought to evaluate the effects of concentrated brewer's yeast on gut health and nutrient status of healthy adult dogs. After 10 weeks, yeast-supplemented dogs had lower gut permeability and inflammatory marker concentrations compared to baseline and in contrast to control dogs. Dogs receiving yeast had similar feed intakes, bodyweights, fecal scores and serum metabolite concentrations as control dogs. Fed and fasted serum amino acid concentrations did not differ between treatment and control. Interestingly, three dogs in the treatment group had elevated gut permeability that was ameliorated after supplementation. These results suggest that brewer's yeast may improve the intestinal barrier and reduce inflammation without impacting nutrient absorption and other factors associated with good health.