UNIVERSITY of GUELPH

ONTARIO AGRICULTURAL COLLEGE

DEPARTMENT OF ANIMAL BIOSCIENCES

MSc Defence

Growth performance and gut health in broiler chickens fed enzyme-treated or un-treated cranberry pomace in an *Eimeria* spp. challenge model

Aline Pereira

Date: July 6th 2023 at 9:00am

The MSc Defence for Aline Pereira has been scheduled for July 6th, 2023 at 9:00am. The defence will be held online via Teams and in room 141: https://teams.microsoft.com/l/meetup-join/19%3ameeting_Y2ZhNDE0YjItOWE4OS00YWJjLThlMzctMjJhN2RmNTQ5ZWRk%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. Gregoy Bedecarrats

Advisor: Dr. Elijah Kiarie

Advisory Committee Member: Dr. Moussa Diarra

Additional Committee Member: Dr. Lee-Anne Huber

Abstract:

This study aimed to investigate the effects of cranberry pomace (CBP) on the performance, mortality, and gut health of broiler chickens challenged with *Eimeria* spp when fed 0.5 or 1% untreated CBP (UTCBP) and enzyme-treated CBP (ETCBP). The results showed that the use of ETCBP resulted in higher mortality rates compared to UTCBP during the acute phase of coccidiosis. However, adding CBP did not prevent the reduction in body weight gain caused by coccidiosis. Nevertheless, it exhibited some beneficial effects in reducing intestinal gross and microscopic lesion scores. These findings suggested that CBP has the potential to be a dietary supplement for mitigating the effects of coccidiosis in broiler chickens. However, further research is needed to understand CBP mechanisms of action and the optimal processing for enhancing efficacy.