



**ONTARIO
AGRICULTURAL COLLEGE**

DEPARTMENT OF ANIMAL BIOSCIENCES

MSc. Defence

Effects of dietary camelina, flaxseed, and canola oil supplementation on inflammatory and oxidative markers, transepidermal water loss, and skin and coat health parameters in healthy adult dogs and horses

Taylor Richards

Date: November 10th 2022 at 2:00pm

The MSc Defence for Taylor Richards has been scheduled for November 10th, 2022 at 2:00pm. The defence will be held online via Teams and in 141: https://teams.microsoft.com/l/meetup-join/19%3ameeting_NGY0NWEwNTgtZWRhMy00ODU5LWFmN2MtMzBIMmNhM2RjZTdj%40thread.v2/0?context=%7b%22Tid%22%3a%22be62a12b-2cad-49a1-a5fa-85f4f3156a7d%22%2c%22Oid%22%3a%22fd28915-dda5-478f-8ecb-a3682dcf0c3a%22%7d

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The exam committee will consist of:

Examining Chair: Dr. Katie Wood

Advisor: Dr. Anna Kate Shoveller

Adv. Committee Member: Dr. Caitlin Grant (OVC)

Additional Graduate Member: Dr. Bill Betger (HHNS)

Abstract:

Camelina oil provides a rich source of omega-3 fatty acids, which are commonly used to support skin and coat health claims in canine and equine diets. Hence, the focus of this thesis is to investigate the effects of dietary camelina oil on skin and coat health outcomes in dogs and horses, in comparison to flaxseed and canola oil. No differences in inflammatory and oxidative marker concentrations, transepidermal water loss, or skin and coat health scores, were observed in animals fed camelina oil vs. flaxseed or canola oil. These findings suggest that in terms of the skin and coat health outcomes assessed, camelina oil is comparable to flaxseed and canola oil, which are currently used to increase omega-3 inclusion in canine and equine diets. Therefore, this ingredient has the potential to provide an alternative oil source of omega-3 fatty acids for dogs and horses, while supporting skin and coat health claims.