UNIVERSITY of GUELPH

ONTARIO AGRICULTURAL COLLEGE

DEPARTMENT OF ANIMAL BIOSCIENCES

MSc. Defence

IMPACT OF TWO NOVEL TRAILER DESIGNS ON TRAILER MICROCLIMATE, ANIMAL WELFARE, AND MEAT QUALITY DURING SHORT DISTANCE TRANSPORTATION OF PIGS TO SLAUGHTER UNDER CANADIAN SUMMER AND WINTER CONDITIONS.

Kyle Moak

Date: May 18th, 2021 at 2:00pm

The MSc Defence for Kyle Moak has been scheduled for Tuesday May 18th, 2021 at 2:00pm. The defence will be held online via Teams: https://teams.microsoft.com/l/meetup-join/19%3ameeting_YzNhNGE4ZTMtMWZhYi00ZWJiLTgyMjItMzQ4ODk5NTUyMjRh%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: Alexandra Harlander

Advisor: Renee Bergeron

Adv. Committee Member: Ben Bohrer

Additional Member: Derek Haley

Abstract:

The welfare of pigs during transport depends on many factors, but trailer design plays a key role in transport-related stress. Pot-belly trailers are commonly used for swine transportation in Canada but are criticized because of steep internal ramps causing difficulties during loading/unloading, and poor internal microclimate conditions. This results in a greater proportion of dead-on-arrivals and fatigued pigs compared to trailers using flat-deck designs. The objective of this study was to compare a standard pot-belly trailer to two novel trailer designs, both featuring fan-assisted ventilation and water misting (MPB and AFD) and one featuring flat-decks (AFD). Only a few modest differences were observed between pigs transported with different trailers, suggesting that loading pigs using a trailer with a flat deck design compared to trailers with standard ramp designs did not reduce loading stress, and trailers featuring fan-assisted ventilation and water misting did not effectively cool pigs during summer transits.