

MSc Defence

THE STANDARDIZED ILEAL DIGESTIBLE LYSINE-TO-NET ENERGY RATIO IN
THE DIETS OF SOWS TO OPTIMIZE MILK NITROGEN RETENTION IS DYNAM-
IC DURING LACTATION
Madelaine Watzeck

Date: November 30th 2023 at 2:00pm

The MSc Defence for Madelaine Watzeck has been scheduled for November 30th, 2023 at 2:00pm. The defence will be held online via Teams and in room 141: https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZGNjZGE0YWUtMzY2Zi00MjZiLTg2YmMtZmQxY2I0MmY5NzY0%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. Dom Bureau

Advisor: Dr. Lee-Anne Huber

Advisory Committee Member: Dr. John Cant

Additional Committee Member: Dr. Katie Wood

Abstract:

Lactation is a metabolically demanding phase in a sow's life that results in a significant increase in nutrient requirements. However, sows are unable to meet their nutrient requirements through voluntary feed intake alone, resulting in the mobilization of energy and protein from body reserves to meet milk production needs. The objective was to determine the dietary standardized ileal digestible (SID) Lysine-to-net energy (NE) ratio that optimized sow milk nitrogen output in each week of lactation. The SID Lysine-to-NE ratio necessary for optimizing milk nitrogen output is dynamic throughout lactation. Therefore, it is possible to create a blended two-diet feeding program where 4.28, 4.42 and 4.67 g SID Lys/Mcal NE is fed during weeks one, two, and three of lactation, respectively. These optimal weekly ratios can be used to create a phase feeding program, which could lead to improved piglet average daily gain and body weights at weaning.