



MSc. Defence

EVALUATION OF PROTEIN QUALITY METHODOLOGIES TO QUANTIFY THE AMINO ACID DIGESTIBILITY AND METABOLIC AVAILABILITY OF BLACK SOLDIER FLY LARVAE MEAL IN GROWING PIGS

Fiona Tansil

Date: November 30th 2021 at 10:00am

The MSc Defence for Fiona Tansil has been scheduled for November 30th, 2021 at 10:00am. The defence will be held online via Teams: https://teams.microsoft.com/l/meetup-join/19%3ameeting_NWE5Y2U2ZDQtODk3Mi00OTUxLTkzMTItMDQxZWQyMTA4MTgx%40thread.v2/0?context=%7b%22id%22%3a%22be62a12b-2cad-49a1-a5fa-85f4f3156a7d%22%2c%22oid%22%3a%22efd0fc96-c177-48e3-9e37-73ab2f64dde4%22%7d

The exam committee will consist of:

Examining Chair: Dr. Ming Fan

Advisor: Dr. Anna Kate Shoveller

Adv. Committee Member: Dr. Dan Columbus

Additional Graduate Member: Dr. Jim Atkinson

Abstract:

As food and animal protein demand increases, black soldier fly larvae (BSFL) meal has gained interest in the past couple of years for use in animal feed as an alternative protein ingredient. Black soldier fly larvae is an attractive protein source; however, it is important to evaluate its protein quality before incorporation in feed formulation. The global objectives of this thesis were to determine the standardized ileal digestibility (SID) coefficient of amino acid (AA) and metabolic availability (MA) of methionine using the indicator amino acid oxidation (IAAO) method from BSFL meal, and to compare the results from the two protein quality methodologies. The SID coefficient of indispensable AA in BSFL meal was found to be above 83%, while the MA of methionine was found to be 53.33% (APE). This finding further confirms that SID coefficient tends to overestimate AA bioavailability and that MA is a more accurate representation of bioavailability.