



MSc. Defence

Use of multi-enzyme supplement to improve utilization of fibrous feed ingredients in broiler chickens and turkey

Juan Sanchez

Date: April 25th 2022 at 9:00am

The MSc Defence for Juan Sanchez has been scheduled for April 25th, 2022 at 9:00am. The defence will be held online via Teams: https://teams.microsoft.com/l/meetup-join/19%3ameeting_Yzc3NjlxMDAtYzQ1OS00ZGQ1LWJiNmUtMTZhY2Y1ZGU4NGYy%40thread.v2/0?context=%7b%22id%22%3a%22be62a12b-2cad-49a1-a5fa-85f4f3156a7d%22%2c%22oid%22%3a%22bd28915-dda5-478f-8ecb-a3682dcf0c3a%22%7d

The exam committee will consist of:

Examining Chair: Dr. Wendy Pearson

Advisor: Dr. Elijah Kiarie

Adv. Committee Member: Dr. Jim Atkinson

Additional Graduate Member: Dr. Lee-Anne Huber

Abstract:

Three experiments were conducted to evaluate the effects of adding fibrous ingredients to diets fed to broiler chickens or turkey poults with or without a multi-enzyme supplement (MES): 1) addition of 5 to 11% rice bran in corn-soybean diets fed to broiler chickens (Experiment 1), 2) addition of 10% corn distillers dried grains (**cDDGS**) or 10% wheat middlings (**WM**) to corn- or wheat soybean diets fed to broiler chickens, respectively (Experiment 2) and 3) addition of cDDGS or WM to corn- or wheat-soybean diets fed to turkey poults, respectively (Experiment 3). Feeding rice bran increased gizzard weight but reduced body growth resulting in lighter birds at the end of the trial. Inclusion of MES improved growth and energy utilization independent of rice bran. Broilers fed cDDGS had poor growth which was improved by MES. Broilers fed corn diets were heavier than those fed wheat diets. In contrast, turkey poults fed wheat diets were heavier than poults fed corn diets. Poults fed corn-based diets rich in fiber fed with MES had heavy gizzard. In conclusion, there were varied growth and physiological responses in broilers and turkey to suggesting the need for refining enzyme application for different poultry species.