

Mohammad A. Jalal

Objective

I would like the opportunity to excel in a challenging and thriving working environment whether in academia or industry where I can implement knowledge acquired from my education and past working experience. I aspire to work in an institution or company that will help me expand my horizon, add to my personal skills, be a team player, and be a contributing member to my surrounding community

Education

1/2000-12/2003 (Ph.D.)

University of Nebraska–Lincoln, NE, USA

- Ph.D. in Animal Science with emphasis in Poultry Nutrition and minor in Statistics
- Research focused on re-evaluation of current existing mathematical models to predict energy intake of commercial strains of laying hens and the relation between energy requirements and bird cage space allowance
- Graduated with distinction

8/1997-12/1999 (MS)

University of Nebraska–Lincoln, NE, USA

- MS in Animal Science with emphasis in Poultry Nutrition
- Research focused on looking at effects of phytase enzyme supplementation and heat stress on egg production parameters and nutrient digestibility in laying hens

9/1988-1/1993 (BS)

University of Jordan, Amman, Jordan

- BS in Animal Production
Graduated top of graduating class

Professional Experience

2/2015-Present Associate Professor of Poultry Nutrition

University of Jordan, Amman, Jordan

- Two-way, 50% teaching and 50% research appointment
- Technical supervisor of university poultry facilities
- Teach both undergraduate and graduate level courses

**2/2014-1/2015 Research Associate at University of Alberta
(Sabbatical Leave)**

- Assist in ongoing research projects
- Part of the research team working with broiler breeder flock on precision feeding management system
- Provide supervision and support to graduate students
- Assist with funding proposals and presentations to industry and academia
- Jointly publish research manuscripts

**9/2005-1/2014 Associate Professor of Poultry Nutrition
University of Jordan, Amman, Jordan**

- Two-way, 50% teaching and 50% research appointment
- Technical supervisor of university poultry facilities
- Teach both undergraduate and graduate level courses

**10/2004-8/2005 Assistant Professor of Animal Nutrition
Jerash Private University, Jerash, Jordan**

- 100% teaching appointment
- Technical supervisor of university poultry facility
- Teaching courses in animal nutrition and poultry production

4/2004-9/2004

- Returned home to Jordan in April 2004 and was seeking job opportunities
- Accepted a vacant faculty position at Jerash in June 2004 as an assistant professor of animal nutritionist (commence in 10/04)
- Presented Ph.D. research at World's Poultry Congress (Istanbul, Turkey) and Poultry Science Meetings (St. Louis, Missouri), respectively, during the summer before starting new job

**1/2004-3/2004 Research Technician
Animal Science Dept., University of Nebraska-
Lincoln**

- Duties involved assisting in compiling research data and statistical analysis
- Helping with other research trials, and teaching undergraduate classes

**8/1998-12/2003 Graduate Assistant
Animal Science Dept., University of Nebraska-
Lincoln**

- Conducting graduate research
- Helping with data analysis and other research trials within poultry group
- Serving as a teaching assistant for undergraduate classes
- Visiting poultry producers on extension trips
- Attending and presenting research at nutrition seminars and annual poultry meetings

**6/1996-7/1997 Export Sales Representative
Veterinary and Agricultural Products Manufacturing
Company/ VAPCO**

- Involved in following up with company clients outside Jordan
- Oversee orders and prepare all necessary documents for shipment of company products

9/1994-5/1996

- Attended graduate courses in Animal Science at the University of Jordan

**2/1994-8/1994 Spare Parts Department
Sony Corporation, Amman, Jordan**

- Ordering spare parts and overseeing inventory

**6/1994-12/1993 Customer Sales Support
Karama Computer Sales Company**

- Loading software programmes for company clients
- Teaching basic computer skills like DOS and Windows

2/1993-6/1993 Dustour Sports Weekly

- Writing articles covering European soccer season (as a leisure activity)

**Research
Experience**

**Improvement of broiler breeder performance and fertility using
precision feeding system**

The broiler breeder precision feeding management system is designed to manage body weight by controlling feed intake of breeder flocks by providing the right amount of feed at the right time. The system which still in full commercial trial stage, is very innovative and is a fully computerized system that uses RFID (radio frequency identification) technology to identify each bird in a flock. RFID tags allow producers to monitor the individual performance and feeding behaviour and ensure all birds are receiving feed.

**Utilization of a Multienzyme Product on Performance, Carcass
Yield, and Meat Quality Attributes in Broilers Fed Corn-Soybean
Diets**

This research was conducted at the University of Jordan farms assessed the use of a multienzyme commercial product (Tomoko®) on performance and meat quality in broilers. The enzyme cocktail was supplemented at three dietary levels in contrast to a control diet (regular corn-soybean diet). Production performance, carcass quality, and meat quality and chemical analysis were all measured. A poster presentation of the trial was given at the 17th European Symposium on Poultry Nutrition in Edinburgh, Scotland in August 2011. Enzyme was provided by a local feed company, and research was funded by the deanship of scientific research at the University of Jordan.

Economics of Exogenous Enzyme Supplementation in Corn-Soybean Diets Used in Jordan in Broiler Farms

This research was conducted as a field trial on commercial farm to evaluate the economics of supplementing a commercial product Hemicell[®] (β -mannanase) enzyme in poultry diets and its effect on performance of broilers. Enzyme used in this trial was provided by the manufacturer, and birds and feed were provided by a local broiler producer where the trial was conducted.

Feed Restriction of Broiler Chickens in Jordan

This research was conducted at poultry farms of the University of Jordan to investigate the effects of qualitative and quantitative feed restriction programs on broiler performance. The study looked on how to utilize diet dilution (using wheat bran) and/or physical feed restriction during starter period to produce leaner broiler chickens. This project was fully funded by the deanship of scientific research at the University of Jordan.

Strain Response to Avizyme Supplementation with Various Energy Levels

This study was conducted to evaluate the response of four strains of laying hens to diets varying in ME with and without Avizyme 1500[®] (AVI) supplementation. The results showed that low ME level fed to laying hens was too high to evoke an enzyme response to improve energy utilization by birds. This is important because in order to obtain an economic benefit, producers would need to know the proper ME level to feed with the supplemental enzymes. This study conducted at the University of Nebraska-Lincoln poultry facilities and funded by DANISCO Animal Feeds.

Effect of Bird Cage Space and Dietary ME Level on Performance of Laying Hens

A study was conducted to assess the effects of varying cage spaces on a commercial laying hen strain aged 20 weeks fed differing levels of dietary metabolizable energy (ME) for 15 weeks. It was evident that decreasing number of birds per pen and increasing cage space per bird had a positive overall effect on performance. Cage space significantly affected production parameters such as feed intake, ME intake, egg production, and egg mass. However, there was no interaction effect of ME levels on production parameters at varying cage space except for body weight change. This study was conducted at the University of Nebraska-Lincoln poultry facilities and funded through grant money acquired through Midwest Poultry Federation research grants.

Effect of Different Sources of Phytase on Production Parameters in Laying Hens

Laying hens were fed with varying levels of nonphytate phosphorus supplemented with two different sources of commercial phytase enzyme in 3 x 3 factorial arrangement. The main objective of this study was to contrast the effect of two phytase levels on egg production parameters. The results of the study indicated that poultry producers should not have less than 0.15% nonphytate phosphorus without phytase.

supplementation. It was also concluded that laying hens can be fed as low as 0.12% nonphytate phosphorus with phytase in order to observe response to supplemental phytase. This research was conducted at the University of Nebraska-Lincoln poultry facilities and funded by Finn Feeds International Company.

Publications

- **M. A. R. Jalal**, H. A. Zakaria, F. M. Hayajneh, and G. M. Mehyar. 2023. Performance, carcass characteristics, and meat quality of broiler chickens fed β -mannanase and two levels of energy. *Trop. Anim. Sci. J.* 46:190-200.
- F. M. F. Hayajneh, **M. Jalal**, H. Zakaria, A. Abdelqader, and M. Abuajamieh. 2018. Anticoccidial effect of apple cider vinegar on broiler chicken an organic extract treatment to measure anti-oxidant effect. *Pol. J. Vet. Sci.* 21:361-369.
- H. A. Zakaria, **M. Jalal**, H. Al-Titi, and A. Soud. 2017. Effect of sources and levels of zinc on the performance, carcass traits, and blood parameters of broilers. *Braz. J. Poultry Sci.* 19:519-526.
- M. J. Zuidhof, D. E. Holm, R. A. Renema, **M. A. Jalal**, and F. E. Robinson. 2015. Effects of broiler breeder management on pullet body weight and carcass uniformity. *Poult. Sci.* 94:1389-1397.
- E. S. McLeod, **M. A. Jalal**, and M. J. Zuidof. 2014. Modeling ovarian follicle growth in commercial and heritage Single Comb White Leghorn hens. *Poult. Sci.* 93:2932-2940.
- T. M. A. Taha, H. Zakaria, **M. Jalal**, and S. Bauwens. 2014. Effect of the commercial product Lumance™, a combination of esterified organic acids and plant extracts, on the productive performance of broiler chickens. *J. Appl. Anim. Nutr.* 2 (e14):1-8.
- **M. A. Jalal**, and H. A. Zakaria. 2012. The Effect of Quantitative Feed Restriction during the Starter Period on Compensatory Growth and Carcass Characteristics of Broiler Chickens. *Pakistan J. Nutr.* 11:719-724.
- H. A. Zakaria, **M. A. Jalal**, and M. A. Abu Ishmais. 2010. The Influence of Supplemental Multi-enzyme Feed Additive on the Performance, Carcass Characteristics and Meat Quality Traits of Broiler Chickens. *Int. J. Poult. Sci.* 9:126-133.
- H. A. Zakaria, **M. A. Jalal**, A. S. Jabarin. 2008. Effect of Exogenous Enzymes on the Growing Performance of Broiler Chickens Fed Regular Corn/soybean-based Diets and the Economics of Enzyme Supplementation. *Pakistan J. Nutr.* 7:534-539.
- **M. A. Jalal**, S. E. Scheideler, and E. M. Pierson. 2007. Strain Response of Laying Hens to Varying Dietary Energy Levels With and Without Avizyme Supplementation. *J. Appl. Poult. Res.* 16:289-295.
- **M. A. Jalal**, S. E. Scheideler, and D. Marx. 2006. Effect of Bird Cage Space and Dietary Metabolizable Energy Level on Production Parameters in Laying Hens. *Poult. Sci.* 85:306-311.
- **M. A. Jalal**, S. E. Scheideler, and D. Marx. 2004. Evaluation of Prediction Equations and Modeling Metabolizable Energy Intake for Commercial Strains of Laying Hens. *Poult. Sci.* Vol. 83, Suppl. 1.
- **M. A. Jalal**, S. E. Scheideler, and D. Marx. 2003. Effect of Cage Density and Dietary Metabolizable Energy Level on Production Parameters of Laying Hens. *Southeastern Poultry Science Proceedings.*

- **M. A. Jalal**, S. E. Scheideler, 2002. Evaluation of Metabolizable Energy Intake Prediction Equations under Thermoneutral and Heat Stress Conditions for Laying Hen Strains fed Varying Levels of metabolizable Energy. Poult. Sci. Vol. 81, Suppl. 1.
- **M. A. Jalal**, and S. E. Scheideler, 2001. Effect of Supplementation of Two Different Sources of Phytase on Egg Production Parameters in Laying Hens and Nutrient Digestibility. Poult. Sci. 80:1463-1471.
- **M. A. Jalal**, S. E. Scheideler, and E. Pierson. 2001. Strain Response of Laying Hens to Varying Energy with and without Enzyme Supplementation, Southeastern Poultry Science Proceedings.
- **M. A. Jalal**, S. E. Scheideler, and E. Pierson. 2000. The Effect of Phytase Supplementation on the Performance of Two Strains of Laying Hens under Heat Stress. Poult. Sci. Vol. 79, Suppl. 1.
- **M. A. Jalal**, S. E. Scheideler, and C. Wyatt. 1999. The Effect of Phytase Supplementation on Egg Production Parameters and Amino Acid Digestibilities in Laying Hens. Poult. Sci. Vol. 78, Suppl. 1.
- **M. A. Jalal**, 1998. Phytase Supplementation in Layer Diets and its Environmental Implications, Nebraska Poultry Report.
- **M. A. Jalal**, 1992. BSE (Mad Cow Disease), Association of Agricultural Engineers Periodical, Amman, Jordan.

Courses Taught

- Introductory Animal Science
- Poultry Production
- Poultry Farm Management
- Broiler Breeder Production
- Poultry Nutrition
- Senior Level Seminar
- Advanced Poultry Nutrition (Graduate Level)

Professional Memberships

- Member of Poultry Science Association
- Member of WPSA-UK Branch
- Associate editor for the nutrition section of Journal of Poultry Science (2004-2011)
- Associate editor for the Jordan Journal of Agricultural Sciences (since 2005)

Awards received

- John Hallman Memorial Award (2003): This award is presented to annually to a graduate student in recognition of ones excellence as graduate teaching assistant in the Animal Science Department. In 2003, was the first time that the award recipient was an international student and not an American citizen.
- Maurice Stein Fellowship Award (2003): This award is presented by the Poultry Science Association to a graduate student with outstanding academic credentials and whose research has contributed to the advancement of the egg laying industry in the US.

- Mussehl Graduate Animal Science Scholarship (2003): Award presented annually by the Animal Science Department to outstanding graduate students conducting research in Poultry Science.
- Wideman Trust Distinguished Graduate Student Award (2002): An annual fellowship award presented by the Collage of Agriculture and Natural Resources at the University of Nebraska-Lincoln to graduate students within the collage. Four recipients are selected each year among graduate students who are nominated for the award by their respective departments based on their academic and research excellence.
- Mussehl Graduate Fellowship (2002): An award presented by the Nebraska Poultry Industries at their annual meeting to graduate students whose research has helped thrive the poultry industry in the state of Nebraska.
- Hubbard Feeds Inc., Animal Science Society, Graduate Student Award (2001): Hubbard Feeds awards each year prize money to outstanding three graduate students conducting research in ruminant and monogastric nutrition. The accolades are usually presented at the annual meetings of the American Society of Animal Science.
- Certificate of Excellence for Poster Presentation in Nutrition Section at the annual Poultry Science Association Meetings, Springdale, Arkansas (1999): Each year at the annual Poultry Science, certificates of excellence are awarded to graduate student with outstanding oral and/or poster presentations in various poultry research disciplines (Nutrition, Physiology, Pathology, Poultry Products and Processing, Education and Extension, and Behavior and Welfare).

Languages

Fluent in both spoken and written Arabic and English and a basic knowledge of French

Travels

Canada, Egypt, France, Cyprus, Germany, Ireland, Italy, Jordan, Lebanon, Malaysia, Malta, Netherlands, Syria, Turkey, United Arab Emirates, United Kingdom, and United States of America

Community Activities

- Vice President of Animal Science Graduate Students Association at University of Nebraska-Lincoln during the academic year 2001-2002
- Founding member of the National Orthodox School Alumni Association in Amman
- Member of Poultry Science Association
- Member of World's Poultry Science Association/UK Branch
- Member of the Jordan Environment Society