

HAMED AHMADI, CV



Hamed Ahmadi, PhD.

Assistant Professor, Bioscience and Agriculture Modeling Research Unit, Department of Poultry Science, Faculty of Agriculture, Tarbiat Modares University, Tehran, Iran, 14115-336; Phone: +98 21 48292360; Email: hamed.ahmadi@modares.ac.ir

Biography:

Dr. Hamed Ahmadi Born in December 1980 in Yazd, Iran. Primary and High School (Iranshahr School), Yazd (1986-1998). He earned BSc in the field of Animal Science from the Ferdowsi University of Mashhad (1998-2003), MSc in the field of Animal Feed and Nutrition from the University of Guilan (2003-2006), and PhD of Poultry Science from Ferdowsi University of Mashhad (2007-2013). Visiting scholar through a Sabbatical leave, University of Hohenheim, Stuttgart, Germany, working on the Modeling and optimization the nutritional system (2011-2012). In January 2013 he was joint as an Assistant Professor for Bioscience and Agriculture Modeling to the Department of Poultry Science in the College of Agriculture at Tarbiat Modares University. His main responsibilities are to conduct research through the multidisciplinary projects on “Agriculture-Nutrition-Animal-Modeling-Data Science” and to teach and direct graduate students at MSc and PhD levels. In mid of 2014, he established a research unit entitled “Bioscience and Agriculture Modeling Research Unit” in the faculty of agriculture, since then he run the unit and data-lab as director. Hamed, holds memberships in the Poultry Science Association (PSA), World's Poultry Science Association (WPSA), and Iranian Society for Animal Science, also contributes in Editorial boards of several scientific journals. He was the Associate Editor for Poultry Science during a 7-year period starting from 2009.

Education: Level, Place, Major & Minor, Year

BSc., Ferdowsi University of Mashhad, Animal Science & Chicken Husbandry, 2004

MSc., University of Guilan, Poultry Nutrition & Computational Methods in Modeling, 2007

PhD., Ferdowsi University of Mashhad, Poultry Nutrition & Optimizing the Bio-system models, 2013

Visiting scholar, University of Hohenheim, Stuttgart, Germany, Modeling and optimization the nutritional system, 2011 and 2012.

Thesis & Dissertation

MSc thesis: Ahmadi, Hamed, 2006. Modeling the effects of Dietary nutrients on Performance of Broiler Chickens at the Herd Scale. MSc. thesis, Guilan University, Rasht, Iran. Supervisor: *Dr. Majid Mottaghitlab*.

PhD dissertation: Ahmadi, Hamed. 2013. Optimizing broiler chicken production using response surface methodology and artificial neural network models. Ph.D. Dissertation. Ferdowsi University of Mashhad, Mashhad, Iran. Supervisor: *Professor Abolghasem Golian*.

Research Interests

- Application of novel computational methods for data-mining in agriculture science field
- Modeling and Optimization of plant and farm animal growth from nutrients uptake
- Use of meta-analysis in agric-nutrition and management
- Modeling the growth of animal and prediction of nutritional value of the feed stuffs
- Optimization of farm-animal production model to reduce environmental pollution

AWARDS and HONORS

- Full PhD scholarship from Iranian Ministry of Science, Research and technology, 2007 (5 year)
- Granted research assistant scholarship in the Faculty of Agriculture, Tarbiat Modares University, 2009 (4 years)
- Granted University of Hohenheim assistantship for Sabbatical stay, 2012
- Granted tenure in the Department of Poultry Science, Tarbiat Modares University, 2013 (ongoing)
- Nojan Feed Mill Manufacture Scholarship, 2018

Professional Experience

- 2013-present – Assistant Professor, Department of Poultry Science, Faculty of Agriculture, Tarbiat Modares University, Tehran
- 2014-present – Director of Bioscience and Agriculture Modeling Research Unit, Faculty of Agriculture, Tarbiat Modares University, Tehran
- 2009-2013 – Research Assistant, Faculty of Agriculture, Tarbiat Modares University, Tehran
- 2017-present – Morgh Nojan (Nojan Poultry) Co. Research Director, Karaj, Iran

References

Professor Abolghasem Golian, Department of Animal Sciences, Ferdowsi University of Mashhad, 91775-1163, Mashhad, Iran. Phone: +989155212687, Email: g_golian@yahoo.com

Professor Markus Rodehutschord, Institute of Animal Nutrition, University of Hohenheim, Stuttgart, Germany. Phone: 071145923520, E-mail: markus.rodehutschord@uni-hohenheim.de

Professor Farid Shariatmadari, Faculty of Agriculture, Tarbiat Modares University, Tehran, Iran. Phone: +989121884049, Email: shariatf@modares.ac.ir

List of publication: Selected Peer reviewed Publication

(Selected, English only, published at Q1-2 Journals according JCR, newest first)

No.	TITLE	YEYAR
1	<u>Modeling and Optimizing a New Culture Medium for In Vitro Rooting of G× N15 Prunus Rootstock using Artificial Neural Network-Genetic Algorithm</u> MM Arab, A Yadollahi, M Eftekhari, H Ahmadi, M Akbari, SS Khorami <i>Scientific reports</i> 8 (1), 9977	2018
2	<u>Development of an Artificial Neural Network as a Tool for Predicting the Targeted Phenolic Profile of Grapevine (Vitis Vinifera) Foliar Wastes</u> M Eftekhari, A Yadollahi, H Ahmadi, A Shojaeiyan, M Ayyari <i>Frontiers in Plant Science</i> 9, 837	2018
3	<u>Effects of Zinc Oxide Nanoparticles on Performance, Egg Quality, Tissue Zinc Content, Bone Parameters, and Antioxidative Status in Laying Hens</u> M Abedini, F Shariatmadari, MAK Torshizi, H Ahmadi <i>Biological trace element research</i> 184 (1), 259-267	2018
4	<u>Effects of zinc oxide nanoparticles on the egg quality, immune response, zinc retention, and blood parameters of laying hens in the late phase of production</u> M Abedini, F Shariatmadari, MA Karimi Torshizi, H Ahmadi <i>Journal of animal physiology and animal nutrition</i> 102 (3), 736-745	2018
5	<u>In ovo feeding of nutrients and its impact on post-hatching water and feed deprivation up to 48 hr, energy status and jejunal morphology of chicks using response surface models</u> M Ghanaatparast-Rashti, M Mottaghitalab, H Ahmadi <i>Journal of animal physiology and animal nutrition</i> 102 (2), e806-e817	2018
6	<u>In ovo feeding of beta-hydroxy beta-methylbutyrate and dextrin optimized growth performance of broiler for pre-placement holding time using the Box-Behnken</u> M Ghanaatparast-Rashti, M Mottaghitalab, H Ahmadi <i>Journal of animal physiology and animal nutrition</i>	2018
7	<u>A mathematical function for the description of nutrient-response curve.</u> H Ahmadi <i>PloS one</i> 12 (11), e0187292	2017
8	<u>Mathematical Modeling and Optimizing of in Vitro Hormonal Combination for G× N15 Vegetative Rootstock Proliferation Using Artificial Neural Network-Genetic Algorithm (ANN-GA)</u> MM Arab, A Yadollahi, H Ahmadi, M Eftekhari, M Maleki <i>Frontiers in plant science</i> 8, 1853	2017
9	<u>Effects of a dietary supplementation with zinc oxide nanoparticles, compared to zinc oxide and zinc methionine, on performance, egg quality, and zinc status of hens</u> M Abedini, F Shariatmadari, MAK Torshizi, H Ahmadi <i>Livestock Science</i> 203, 30-36	2017
10	<u>Application of Artificial Neural Network and Support Vector Machines in Predicting Metabolizable Energy in Compound Feeds for Pigs</u> H Ahmadi, M Rodehutsord <i>Frontiers in Nutrition</i> 4, 27	2017
11	<u>Effect of zinc concentration and source on performance, tissue mineral status, activity of superoxide dismutase enzyme and lipid peroxidation of meat in broiler chickens</u> SK Azad, F Shariatmadari, MAK Torshizi, H Ahmadi <i>Animal Production Science</i> 1-9.	2017

12	<u>Effect of in-ovo feeding of beta-hydroxy beta-methylbutyrate and dextrin and posthatching water and feed deprivation on body glycogen resources and jejunal morphology of ...</u> M Ghanaatparast-Rashti, M Mottaghitalab, H Ahmadi <i>Iranian Journal of Animal Science</i> 48 (2), 273-286	2017
13	<u>Artificial neural network genetic algorithm as powerful tool to predict and optimize in vitro proliferation mineral medium for G× N15 rootstock</u> MM Arab, A Yadollahi, A Shojaeiyan, H Ahmadi <i>Frontiers in plant science</i> 7, 1526	2016
14	<u>Predicting in vitro culture medium macro-nutrients composition for pear rootstocks using regression analysis and neural network models</u> S Jamshidi, A Yadollahi, H Ahmadi, MM Arab, M Eftekhari <i>Frontiers in plant science</i> 7, 274	2016
15	<u>Meta-analysis of the influence of dietary glycine and serine, with consideration of methionine and cysteine, on growth and feed conversion of broilers</u> W Siegert, H Ahmadi, M Rodehutschord <i>Poultry science</i> 94 (8), 1853-1863	2015
16	<u>A quantitative study of the interactive effects of glycine and serine with threonine and choline on growth performance in broilers</u> W Siegert, H Ahmadi, A Helmbrecht, M Rodehutschord <i>Poultry science</i> 94 (7), 1557-1568	2015
17	<u>Prediction of digestible amino acid and true metabolizable energy contents of sorghum grain from total essential amino acids</u> M Sedghi, MR Ebadi, A Golian, H Ahmadi <i>The Journal of Agricultural Science</i> 151 (5), 693-700	2013
18	<u>Comparison of responses to dietary protein and lysine in broiler chicks reared before and after 2000 via neural network models</u> A Faridi, A Golian, H Ahmadi <i>The Journal of Agricultural Science</i> 150 (6), 775-786	2012
19	<u>A neural network model to describe weight gain of sheep from genes polymorphism, birth weight and birth type</u> M Tahmoorespur, H Ahmadi <i>Livestock Science</i> 148 (3), 221-226	2012
20	<u>A meta-analysis of responses to dietary nonphytate phosphorus and phytase in laying hens</u> H Ahmadi, M Rodehutschord <i>Poultry science</i> 91 (8), 2072-2078	2012
21	<u>Relationship between color and tannin content in sorghum grain: application of image analysis and artificial neural network</u> M Sedghi, A Golian, P Soleimani-Roodi, A Ahmadi, M Aami-Azghadi <i>Revista Brasileira de Ciência Avícola</i> 14 (1), 57-62	2012
22	<u>Sensitivity analysis of an early egg production predictive model in broiler breeders based on dietary nutrient intake</u> A Faridi, M Mottaghitalab, H Ahmadi <i>The Journal of Agricultural Science</i> 150 (1), 87-93	2012
23	<u>Prediction of the true digestible amino acid contents from the chemical composition of sorghum grain for poultry</u> MR Ebadi, M Sedghi, A Golian, H Ahmadi <i>Poultry science</i> 90 (10), 2397-2401	2011

24	<u>Response surface and neural network models for performance of broiler chicks fed diets varying in digestible protein and critical amino acids from 11 to 17 days of age</u> H Ahmadi, A Golian <i>Poultry science</i> 90 (9), 2085-2096	2011
25	<u>Estimation and modeling true metabolizable energy of sorghum grain for poultry</u> M Sedghi, MR Ebadi, A Golian, H Ahmadi <i>Poultry science</i> 90 (5), 1138-1143	2011
26	<u>Predicting carcass energy content and composition in broilers using the group method of data handling-type neural networks</u> A Faridi, M Mottaghitalab, H Darmani-Kuhi, J France, H Ahmadi <i>The Journal of Agricultural Science</i> 149 (2), 249-254	2011
27	<u>The integration of broiler chicken threonine responses data into neural network models</u> H Ahmadi, A Golian <i>Poultry science</i> 89 (11), 2535-2541	2010
28	<u>Predicting caloric and feed efficiency in turkeys using the group method of data handling-type neural networks</u> M Mottaghitalab, A Faridi, H Darmani-Kuhi, J France, H Ahmadi <i>Poultry science</i> 89 (6), 1325-1331	2010
29	<u>Effect of dietary supplementation of licorice extract and a prebiotic on performance and blood metabolites of broilers</u> M Sedghi, A Golian, H Kermanshahi, H Ahmadi <i>South African Journal of Animal Science</i> 40 (4)	2010
30	<u>Growth analysis of chickens fed diets varying in the percentage of metabolizable energy provided by protein, fat, and carbohydrate through artificial neural network</u> H Ahmadi, A Golian <i>Poultry science</i> 89 (1), 173-179	2010
31	<u>Prediction model for true metabolizable energy of feather meal and poultry offal meal using group method of data handling-type neural network</u> H Ahmadi, A Golian, M Mottaghitalab, N Nariman-Zadeh <i>Poultry science</i> 87 (9), 1909-1912	2008
32	<u>Non-linear hyperbolic growth models for describing growth curve in classical strain of broiler chicken</u> H Ahmadi, A Golian <i>Research Journal of Biological Sciences</i> 3 (11), 1300-1304	2008
33	<u>Neural network model for egg production curve</u> H Ahmadi, A Golian <i>Journal of Animal and Veterinary Advances</i> 7 (9), 1168-1170	2008
34	<u>Predicting performance of broiler chickens from dietary nutrients using group method of data handling-type neural networks</u> H Ahmadi, M Mottaghitalab, N Nariman-Zadeh, A Golian <i>British poultry science</i> 49 (3), 315-320	2008
35	<u>Group method of data handling-type neural network prediction of broiler performance based on dietary metabolizable energy, methionine, and lysine</u> H Ahmadi, M Mottaghitalab, N Nariman-Zadeh <i>The Journal of Applied Poultry Research</i> 16 (4), 494-501	2007
36	<u>Hyperbolic models as a new powerful tool to describe broiler growth kinetics</u> H Ahmadi, M Mottaghitalab <i>Poultry science</i> 86 (11), 2461-2465	2007

Contributions to scientific meetings (7 selected, main or speaker author, English only, newer first)

- Ahmadi, H. and Rodehutsord, M. 2016. Mathematical description of digestible threonine-response curve in laying hens: A meta-analysis. *Proc. Soc. Nutr. Physiol.* 25, 27
- Ahmadi, H. and Rodehutsord, M. 2014. On the use of “T model” as an approach to evaluate a nutritional dose-response experiment. *Proc. Soc. Nutr. Physiol.* 23, 138
- Ahmadi, H., and A. Golian. 2011. Optimization of broiler performance fed diets varying in digestible protein and amino acids using response surface model. 100th PSA Annual Meeting. St. Louis, Missouri, USA.
- Ahmadi H. and A. Golian. 2010. Response surface model for broiler chickens performance fed diets varying in digestible protein and amino acids. PSA-AMPA-CSAS-ASAS Joint Annual Meeting. USA.
- Tahmoorespur. M., H. Ahmadi. 2010. A neural network model to describe weight gain of sheep from genes polymorphism, birth weight and birth type. 3rd International Conference on Sustainable Animal Agriculture for Developing Countries, 2011-08-23.
- Ahmadi H. and Abolghasem Golian. 2009. Modelling and optimising early performance for broiler chicks. BSAS Annual Conference. Southport, UK
- Ahmadi H., A. Golian and A. Jamali. 2009. Estimation of amino acid levels in soybean meal from chemical composition: Evolved polynomial neural networks approach. *Modelling Nutrient Digestion and Utilization in Farm Animals*. Paris, French. Page 17