

# Amin Omar Hendawy

Lecturer of Animal Production | Animal Nutrition & Physiology Researcher

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## PROFESSIONAL SUMMARY

Animal scientist with a Ph.D. from Tokyo University of Agriculture and Technology and postdoctoral research experience at Tohoku University, Japan. Specializes in ruminant nutrition, immune response, and rumen fermentation, with a strong record of peer-reviewed publications in dairy cattle physiology and functional feed additives. Combines eight years of university teaching with hands-on laboratory experience in molecular and cellular techniques (qPCR, ELISA, PBMC/BMEC culture).

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## EDUCATION & QUALIFICATIONS

- **Ph.D. in Biological Production Science (Animal Science)** — Tokyo University of Agriculture and Technology, Japan, 2020 (GPA: A-)  
*Thesis: Effects of 5-aminolevulinic acid supplementation on immune response, rumen fermentation, and milk production in dairy cows.*
- **M.Sc. in Agricultural Sciences (Animal Production)** — Faculty of Agriculture, Damanhour University, Egypt, 2014 (GPA: B+)  
*Thesis: Effect of supplementation of black seeds and ginger on some physiological traits of sheep.*
- **B.Sc. in Agricultural Sciences (Animal and Poultry Production)** — Alexandria University, Damanhour Branch, Egypt, 2008 — Excellent with Honors

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## RESEARCH TRAINING

- Postdoctoral training, Laboratory of Animal Nutrition, Graduate School of Agricultural Science, Tohoku University, Japan — bovine mammary epithelial cell (BMEC) culture, treatment, and LPS challenge assays.
- Doctoral training, Department of Biological Production, Tokyo University of Agriculture and Technology, Japan — PBMC isolation, RNA/DNA extraction, qPCR, and ELISA techniques.
- Faculty of Leadership Development Center — effective teaching, critical thinking, research methodology, and research ethics.
- Farm animal management training, Al Behera Department of Agriculture, Ministry of Agriculture (Aug–Sep 2014).

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## WORK EXPERIENCE

### May 2026 – Present Lecturer

Department of Animal and Poultry Production, Faculty of Agriculture, Damanhour University, Egypt

### Nov 2025 – Apr 2026 Visiting Associate Professor

Laboratory of Animal Nutrition, Graduate School of Agricultural Science, Tohoku University, Japan

### Sep 2022 – Oct 2025 Lecturer

Department of Animal and Poultry Production, Faculty of Agriculture, Damanhour University, Egypt

### Nov 2014 – Aug 2022 Assistant Lecturer

Department of Animal and Poultry Production, Faculty of Agriculture, Damanhour University, Egypt

### Apr 2009 – Oct 2014 Demonstrator

Department of Animal and Poultry Production, Faculty of Agriculture, Damanhour University, Egypt

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## SELECTED PUBLICATIONS

(Full list available on request — see note at end of this section)

1. Hendawy, A.O.; Higashiura-Hagiwara, Y.; Sugimura, S.; Taniguchi, S.; Sato, K. Effects of 5-aminolevulinic acid on ruminal fermentation and microbial community in dairy cows: An integrated in vivo and in vitro study. *Journal of Dairy Science*, 2026 (Submitted).
2. Hendawy, A.O.; Sugimura, S.; Taniguchi, S.; Sato, K. 5-Aminolevulinic acid improves immune response in dairy cows in vivo and in vitro. *Animal Science Journal*, 2026, 97(1): e70222. doi.org/10.1111/asj.70222
3. Hassan, A.A. et al. (incl. Hendawy, A.O.) Effects of aqueous Ocimum basilicum extract on feed intake, antioxidant status, immune response, ruminal fermentation, and growth performance of suckling calves. *Animal Feed Science and Technology*, 2026, 343: 116891.
4. Elfadadny, A. et al. (incl. Hendawy, A.O.) Antimicrobial resistance of Pseudomonas aeruginosa: navigating clinical impacts, current resistance trends, and innovations in breaking therapies. *Frontiers in Microbiology*, 2024, 15:1374466.
5. Islam, M.A.; Ikeguchi, A.; Naide, T.; Hendawy, A.O. Relationships of vapour pressure deficit on aerosol particles and airborne bacteria in dairy barns. *Biosystems Engineering*, 2023, 229, 137–153.
6. Hendawy, A.O.; Sugimura, S.; Sato, K.; et al. Effects of Selenium Supplementation on Rumen Microbiota, Rumen Fermentation, and Apparent Nutrient Digestibility of Ruminant Animals: A Review. *Fermentation*, 2022, 8, 4.
7. Hendawy, A.O.; Khattab, M.S.; Sugimura, S.; Sato, K. Effects of 5-Aminolevulinic Acid as a Supplement on Animal Performance, Iron Status, and Immune Response in Farm Animals: A Review. *Animals*, 2020, 10, 1352.
8. Hendawy, A.O.; Shirai, M.; Takeya, H.; Sugimura, S.; Miyanari, S.; Taniguchi, S.; Sato, K. Effects of 5-aminolevulinic acid supplementation on milk production, iron status, and immune response of dairy cows. *Journal of Dairy Science*, 2019, 102, 11009–11015.
9. Mansour, M.M.; Hendawy, A.O.; Zeitoun, M.M. Effect of mastitis on luteal function and pregnancy rates in buffaloes. *Theriogenology*, 2016, 86, 1189–1194.

*Complete list of 30+ peer-reviewed publications, book chapters, and conference presentations available on request or via Google Scholar / ORCID.*

## BOOK CHAPTERS

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- Propolis, a natural feed additive, for animal health and production in ruminants. In: *Encyclopedia of Livestock Medicine for Large Animal and Poultry Production*, Springer, Cham. (Accepted, 2026)
- Metagenomics of Rumen Microbiota in Livestock: Implications for Nutrition, Health, and Productivity. In: *Metagenomics in Biotechnology*, Academic Press/Elsevier. (Under review)
- Metabolic and Oxidative Challenges During Pregnancy and Lactation in Ruminants. In: *Encyclopedia of Livestock Medicine for Large Animal and Poultry Production*, Springer, Cham. (Under review)

## CONFERENCE PRESENTATIONS

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- The effects of 5-aminolevulinic acid supplementation on rumen fermentation and performance of dairy cows — 124th Annual Meeting of the Japan Society of Animal Science, University of Tokyo.
- Evaluation of the effect of 5-aminolevulinic acid on iron status of plasma and milk in dairy cows — International Symposium on Biological Material Science for Agriculture and Engineering, TUAT.
- 15th Scientific Conference of the Egyptian Society of Animal Production (ESAP), Faculty of Agriculture, Fayoum University, April 2011.

## LANGUAGES & SKILLS

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- Arabic — native, fluent (written and spoken)
- English — fluent; IELTS Academic, British Council, score 6 (2015)
- Computer skills — ICDL certified (2010); proficient in SPSS and RevMan for statistical and data management