



D.K. DINESH D. JAYASENA

PROFESSOR

BSc in Agric. (UOP), MSc (UOP), PhD (South Korea)



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EVENTS/ UPDATES

AREAS OF EXPERTISE

- Meat Science and Technology

RESEARCH INTEREST

- Animal Product Processing Technology
- Study on Food Quality Traits of Indigenous Animals
- Flavour Chemistry
- Quality Control of Animal Products

MEMBERSHIPS

Committees

Professional Bodies

- Member of Poultry Science Association

PUBLICATIONS

Full papers

1. Wickramasuriya, S.S., Macelline, S.P., Kim, E., Cho, H.M., Shin, T.K., Yi, Y.J., Jayasena, D., Jung, J.H. and Heo, J.M. (2019). Physiological impact of layer chickens fed corn distiller's dried grains with solubles naturally contaminated with deoxynivalenol. *Asian-Australas. J. Anim. Sci.* (Accepted)
2. Srikanthithasan, K., Macelline, S.P., Wickramasuriya, S.S., Himali Tharangani, Li-Ang, Jayasena, D.D. and Heo, J.M. (2019). Effects of Adding Phytase from *Aspergillus niger* to a Low Phosphorus Diet on Growth Performance, Tibia Characteristics, Phosphorus Excretion, and Meat Quality of Broilers 35 days after hatching. *The J. Poult. Sci.* (Accepted)
3. Jin, S., **Jayasena, D.D.**, Jo, C. and Lee, J.H. (2017). The development history of Korean native chicken and their future use. *World's Poultry Sci. J.* 73: 163-174.
4. Nuwan, K.A.S., Wickramasuriya, S. S., **Jayasena, D.D.**, Tharangani, R.M.H., Song, Z., Yi, Y.-J., and Heo, J.M. (2016). Evaluation of the growth performance, meat quality and sensory attributes of the broiler fed a diet supplemented with curry leaves (*Murraya koenigii*). *Korean J. Poultry Sci.* 43(3): 169-176.

5. Lakshani, P., **Jayasena, D.D.** and Jo, C. (2016). Comparison of Quality Traits of Breast Meat from Commercial Broilers and Spent Hens in Sri Lanka. *Korean J. Poultry Sci.* 43(2):55-61
6. Karunanayaka, D. S., **Jayasena, D. D.** and Jo, C. (2016). Prevalence of pale, soft, and exudative (PSE) condition in chicken meat used for commercial meat processing and its effect on roasted chicken breast. *J. Anim. Sci. Technol.* 58:27. DOI 10.1186/s40781-016-0110-8
7. Alahakoon, A. U., Jo, C. and **Jayasena, D. D.** (2016). An overview of meat industry in Sri Lanka: A comprehensive review. *Korean J. Food Sci. An.* 36(2):263-270.
8. Kim, H. J., Yong, H. I., Jayasena, D. D., Lee, H. J., Lee, H., and Jo, C. (2016). Microbial safety and physicochemical characteristics of electron beam irradiated whole egg powder. *Food Sci. Biotechnol.* 25(2):637-642.
9. **Jayasena, D. D.**, Kim, H. J., Yong, H. I., Park, S., Kim, K., Choe, W. and Jo, C. (2015). Flexible thin-layer dielectric barrier discharge plasma treatment of pork butt and beef loin: Effects on pathogen inactivation and meat quality attributes. *Food Microbiol.* 46: 51-57.
10. **Jayasena, D. D.**, Jung, S., Kim, S. H., Kim, H. J., Alahakoon, A. U., Lee, J. H. and Jo, C. (2015). Endogenous functional compounds in Korean native chicken meat are dependent on sex, thermal processing, and the meat cut. *J. Sci. Food Agric.* 95(4):771-776.
11. **Jayasena, D. D.**, Nam, K. C., Kim, J. J. and Jo, C. (2015). Association of carcass weight with quality and functional properties of beef from Hanwoo steers. *Anim. Prod. Sci.* 55:680-690.
12. **Jayasena, D. D.**, Jung, S., Bae, Y. S., Park, H. B., Lee, J. H. and Jo, C. (2015). Comparison of the amounts of endogenous bioactive compounds in raw and cooked meats from broilers and indigenous chickens. *J. Food Comp. Anal.* 37:20-24
13. **Jayasena, D. D.**, Jung, S., Park, H. B., Lee, J. H., Nam, K. C., Lee, K. H. and Jo, C. (2015). Taste-active Compound Levels in Korean Native Chicken Meat: The Effects of Bird Age and the Cooking Process. *Poultry Sci.* 1964-1972.
14. **Jayasena, D. D.**, Jung, S., Alahakoon, A. U., Kim, S. H., Nam, K. C., Lee, J. H. and Jo, C. (2015). Bioactive and taste-related compounds in defatted freeze-dried chicken soup made from two different chicken breeds obtained at retail. *J. Poult. Sci.* 52:156-165.
15. Alahakoon, A. U., **Jayasena, D. D.**, Ramachandra, S. and Jo, C. (2015). Alternatives to nitrite in processed meat: up to date. *Trends Food Sci. Tech.* 45:37-49.
16. Kim, H. J., **Jayasena, D. D.**, Yong, H. I., Alahakoon, A. U., Park S., Kim, K., Choe, W. and Jo, C. (2015). Effect of atmospheric pressure plasma jet on the foodborne pathogens attached to commercial food containers. *J. Food Sci. Technol.* 52(12): 8410-8415.
17. Alahakoon, A. U., **Jayasena, D. D.**, Jung, S., Kim, S. H., Kim, H. J. and Jo, C. (2015). Effects of electron beam irradiation and high pressure treatment combined with citrus peel extract on seasoned chicken breast meat. *J. Food Process. Pres.* 39: 2332-2339.
18. Lee, H. J., Jayasena, D. D., Kim, S. H., Kim, H. J., Heo, K. N., Song, J. E., and Jo, C. (2015). Comparison of bioactive compounds and quality traits of breast meat from Korean native ducks and commercial ducks. *Korean J. Food Sci. An.* 35 (1):114-120.
19. Kim, H. J., Alahakoon, A. U., **Jayasena, D. D.**, Khan, M. I., Nam, K. C., Jo, C. and Jung, S. (2015). Effects of electron beam irradiation and high-pressure treatment with citrus peel extract on the microbiological, chemical and sensory qualities of marinated chicken breast meat. *Korean J. Poultry Sci.* 42(3):215-221.
20. **Jayasena, D. D.**, Kim, S. H., Lee, H. J., Jung, S., Lee, J. H., Park, H. B. and Jo, C. (2014). Comparison of the amounts of taste-related compounds in raw and cooked meats from broilers and Korean native chickens. *Poultry Sci.* 93:3163-3170.
21. **Jayasena, D. D.**, Jung, S., Kim, H. J., Alahakoon, A. U. and Jo, C. (2014). Effect of sex on flavor-related and functional compounds in freeze-dried broth made from Korean native chicken. *Korean J. Food Sci. An.* 34(4): 448-456.

22. **Jayasena, D. D.**, Jung, S., Bae, Y. S., Kim, S. H., Lee, S. K., Lee, J. H. and Jo, C. (2014). Changes in endogenous bioactive compounds of Korean native chicken meat at different ages and during cooking. *Poultry Sci.* 93: 1842-1849.
23. **Jayasena, D. D.** and Jo, C. (2014). Potential application of essential oils as natural antioxidants in meat and meat products: A review. *Food Rev. Int.* 30: 71-90.
24. Kim, S. H., **Jayasena, D. D.**, Kim, H. J., Jo, C. and Jung, S. (2014). Effect of adding Lactobacillus-fermented solution on characteristics of chicken breast meat. *Korean J. Poultry Sci.* 41(2):127-133.
25. Alahakoon, A. U., **Jayasena, D. D.**, Yong, H. I., Bae, Y. S., Lee, S. K., Kang, H. J. and Jo, C. (2014). Effects of different natural antimicrobial agents on marinated chicken breast during storage at different temperatures. *Korean J. Food Nutr.* 27(2):164-174.
26. Alahakoon, A. U., **Jayasena, D. D.**, Jung, S., Kim, H. J., Kim, S. H. and Jo, C. (2014). Antimicrobial effect of calcium chloride alone and combined with lactic acid injected into chicken breast meat. *Korean J. Food Sci. An.* 34(2): 221-229.
27. Alwis, U. S., Mudannayake, D. C., **Jayasena, D. D.** and Ubeyarathna, K. J. H. (2014). Evaluation of Salmonella cross contamination at retail chicken meat outlets in Kandy, Sri Lanka. *CNU J. Agric. Sci.* 41(1): 35-40.
28. **Jayasena, D. D.** and Jo, C. (2013). Essential oils as potential antimicrobial agents in meats and meat products: A review. *Trends Food Sci. Tech.* 34(2): 96-108.
29. **Jayasena, D. D.**, Ahn, D. U., Nam, K. C. and Jo, C. (2013). Factors affecting cooked chicken meat flavour: A review. *World's Poultry Sci. J.* 69(3): 515-526.
30. **Jayasena, D. D.**, Jung, S., Kim, H. J., Bae, Y. S., Yong, H. I., Lee, J. H., Kim, J. G. and Jo, C. (2013). Comparison of quality traits of meat from Korean native chickens and broilers used in two different traditional Korean cuisines. *Asian-Australas. J. Anim. Sci.* 26(7): 1038-1046.
31. **Jayasena, D. D.**, Ahn, D. U., Nam, K. C. and Jo, C. (2013). Flavour chemistry of chicken meat: A review. *Asian-Australas. J. Anim. Sci.* 26(5): 732-742.
32. Jung, S., Bae, Y. S., Kim, H. J., **Jayasena, D. D.**, Lee, J. H., Park, H. B., Heo, K. N. and Jo, C. (2013). Carnosine, anserine, creatine, and inosine 5'-monophosphate content in breast and thigh meats from five lines of Korean native chicken. *Poultry Sci.* 92: 3275-3282.
33. Jayawickrama, D. R., Weerasinghe, P. B., **Jayasena, D. D.** and Mudannayake, D. C. (2013). Effects of supplementation of Urea Molasses Multinutrient Block (UMMB) on the performance of dairy cows fed with good quality forage based diets with rice straw as night feeding. *CNU J. Agric. Sci.* 40(2): 123-129.
34. Alahakoon, A. U., Bae, Y. S., Kim, H. J., Jung, S., **Jayasena, D. D.**, Yong, H. I., Kim, S. H. and Jo, C. (2013). The effect of citrus and onion peel extracts, calcium lactate, and phosvitin on microbial quality of seasoned chicken breast meat. *CNU J. Agric. Sci.* 40(2): 131-137.
35. Jo, C., **Jayasena, D. D.**, Lim, D. G., Lee, K. H., Kim, J. J., Cha, J. S. and Nam, K. C. (2013). Effect of intramuscular fat content on the meat quality and antioxidative dipeptides of Hanwoo beef. *Korean J. Food Nutr.* 26(1): 117-124
36. Yong, H. I., Kim, H. J., Jung, S., **Jayasena, D. D.**, Bae, Y. S., Lee, S. K. and Jo, C. (2013). Effect of dietary supplementation of wild grape on the antioxidative potential of the breast and leg meat of broilers. *Korean J. Food Sci. An.* 33 (1): 83-88.
37. Kang, M., Kim, H. J., **Jayasena, D. D.**, Bae, Y. S., Yong, H. I., Lee, M. and Jo, C. (2012). Effects of Combined Treatments of Electron-beam Irradiation and addition of Leek (*Allium tuberosum*) Extract on Reduction of Pathogens in Pork Jerky. *Foodborne Pathogens and Diseases.* 9(12):1083-1087.
38. Liu, X. D., **Jayasena, D. D.**, Jung, Y., Jung, S., Kang, B. S., Heo, K. N., Lee, J. H. and Jo, C. (2012). Differential proteome analysis of breast and thigh muscles between Korean native chickens and commercial broilers. *Asian-Aust. J. Anim. Sci.* 25(6). 895-902.

39. **Jayasena, D. D.**, Cyril, H. W. and Jo, C. (2012). Evaluation of Egg Quality Traits in the Wholesale Market in Sri Lanka during the Storage Period. *J. Anim. Sci. Technol.* 54(3). 209-217.
40. **Jayasena D. K. D. D.**, Abeyrathne E. D. N. S. and Cyril H. W. (2009). Development of a pork based white sausage. *Sri Lanka J. Anim. Sci.* 5(1).
41. Abeyrathne E. D. N. S., **Jayasena D. K. D. D.** and Silva K. F. S. T. (2009). Development of fruit yoghurt by incorporation pineapple (*Ananascomosus*) preserved in sugar syrup with preservatives and oven dried under vacuum. *Sri Lanka J. Anim. Sci.* 5(1).

Books/ Book chapters

1. **Jayasena, D. D.** and Jo, C. (2016). Enhancing the flavour of poultry meat. In: Achieving sustainable production of poultry meat. Volume 1: Safety, quality and sustainability. (Ed) Steven Ricke. Burleigh Dodds Science Publishing Limited. DOI:10.19103/AS.2016.0010.16
2. **Jayasena, D. D.**, Kim, H. J. and Jo, C. (2015). Dielectric barrier discharge: Effects on meat. In: Encyclopedia of Plasma Technology. 1st ed. Taylor and Francis. DOI: 10.1081/E-EPLT-120053642.
3. Kim, H. J., **Jayasena, D. D.**, Yong, H. I. and Jo, C. (2015). Quality of cold plasma treated foods of animal origin. In: Cold Plasma in Food and Agriculture: Fundamentals and Applications. (Eds) N. N. Misra, O.K. Schluter and P. J. Cullen. pp. 273-291.

Abstracts (recent)

1. Ranasinghe, M.K. and Jayasena, D.D. (2019). A study on Sensory attributes of meat from three Sri Lankan indigenous chicken strains reared under semi-intensive system. Annual Congress of Poultry Science Association.
2. Ranasinghe, R.H.A.K.N., and **Jayasena, D.K.D.D.** (2016). Evaluation of the quality traits of pork from cross bred local pigs under free range and semi intensive systems. Proceedings of the 6th Research Symposium of Uva Wellassa University. pp. 52.
3. Iromi, S.T.T. and **Jayasena, D.K.D.D.** (2016). Comparison of meat quality traits of scalded and non-scalded broiler chicken meat. Proceedings of the 6th Research Symposium of Uva Wellassa University. pp. 20.
4. Senarathne, O.D., Rajapaksha, R.B.G.S.K., Silva, G.L.L.P., and **Jayasena, D.K.D.D.** (2016). Comparison of quality characteristics of breast meat between Sri Lankan indigenous chickens and commercial broilers at retail. Proceedings of the 6th Research Symposium of Uva Wellassa University. pp. 38.
5. *Manjula, P., Park, H.-B., Seo, D., Jin, S., Choi, N., Jung, S., Jayasena, D. D., Heo, K.-N., Jo, C. and Lee, J. H.* (2015). Effects of sex and line on volatile flavor compound contents in Korean native chicken breast meat. Abstract. Proceedings of the 32nd Annual Congress of Korean Society of Poultry Science. pp. 95-97

ADMINISTRATIVE RESPONSIBILITIES

Duration		Capacity	Institute
From	To		
2019	To de	Director/SDC	Uva Wellassa University
2015	2017	Head/Dept. of Animal Science	Uva Wellassa University
2016	2018	Director/UWU International Collaboration Center	Uva Wellassa University

AWARDS AND SCHOLARSHIPS

1. CVCD Award for the Most Outstanding Young Researcher in Biological Sciences including Agriculture and Allied Sciences
2. President's Awards for Scientific Publication-2015
3. President's Awards for Scientific Publication-2014
4. President's Awards for Scientific Publication-2013
5. Vice Chancellor's Award for Most Outstanding Young Researcher (2014, 2015, 2016)
6. UWU Research Award for Researcher having the highest citations (2014, 2015, 2016, 2017)
7. Outstanding presentation award at 46th Conference of Korean Society for Food Science of Animal Resources, Seoul, South Korea on 23rd May 2014.
8. Best outstanding presentation award at Annual Congress of Korean Society of Animal Science and Technology (KSAST), Jeju, South Korea on 27th-28th June 2013.
9. Oral presentation winner at 45th Conference of Korean Society for Food Science of Animal Resources, Seoul, South Korea on 23rd-24th May 2013.
10. Scholarship award for the outstanding academic performances and good demeanors awarded by Woojung Education and Culture Foundation, Seoul, Korea for five consecutive times (February 2012, August 2012, February 2013, August 2013 and February 2014).
11. PROF. R.R. APPADURAI MEMORIAL PRIZE FOR AGRICULTURE AWARDED AT THE GENERAL CONVOCATION-2005, UNIVERSITY OF PERADENIYA, SRI LANKA.
12. PROF. R.R. APPADURAI MEMORIAL AWARD FOR THE BEST PERFORMANCE IN ANIMAL SCIENCE AWARDED AT THE 14TH ANNUAL STUDENTS' RESEARCH SESSION, DEPT. OF ANIMAL SCIENCE, UNIVERSITY OF PERADENIYA, SRI LANKA IN 2005.
13. Third best presentation award at the 14th annual students' research session, Dept. of Animal Science, University of Peradeniya, Sri Lanka in 2005.

CAREER HISTORY

Duration		Capacity	Institute
From	To		
Jan 2017	To date	Professor	Uva Wellassa University of Sri Lanka
Aug 2014	Jan 2017	Senior Lecturer (Gr II)	Uva Wellassa University of Sri Lanka
May 2007	Aug 2014	Lecturer	Uva Wellassa University of Sri Lanka
Feb 2007	May 2007	Temporary Demonstrator	Uva Wellassa University of Sri Lanka
Aug 2006	Feb 2007	Temporary Demonstrator	Department of Livestock and Avian Sciences, Wayamba University of Sri Lanka
Nov 2005	April 2006	Research Assistant	Department of Agricultural Economics, Faculty of Agriculture, University of Peradeniya
May 2005	Oct 2005	Temporary Lecturer	Department of Animal Science, Faculty of Agriculture, University of Peradeniya

TEACHING

Uva Wellassa University

- Since 2007

University of Jaffna

- Visiting Lectures (2017 and 2018)

RESOURCE PERSON

1. Member of the Programme Reviewer Panel-UGC (2018 to date)
2. Member of the Reviewer Panel for Proposal Evaluation-AHEAD Project (2018)
3. Reviewer of Technology Grant Application-2016 for National Science Foundation (NSF)
4. Editorial Board Member of Asian-Australasian Journal of Animal Science
5. Editorial Board Member of Korean Journal of Agricultural Science
6. Section Editor of Korean Journal of Poultry Science.
7. Reviewer of the following International Journals.
 - Food Chemistry
 - LWT-Food Science and Technology
 - Poultry Science
 - Journal of Food Processing and Preservation
 - Journal of the Science of Food and Agriculture
 - Asian-Australasian Journal of Animal Science
 - Korean Journal for Food Science of Animal Resources
 - Journal of Food Science and Engineering
 - BMC Research Notes

8. Resource Person in the stakeholder meeting for introduction of new degree program on “Food Science and Technology” by Wayamba University of Sri Lanka on 19th February 2016.
9. Resource person to the workshop on Curriculum Development of BSc in Agricultural Engineering Technology Degree, Uva Wellassa University
10. Resource person to the workshop on Curriculum Revision of BSc in Export Agriculture Degree, Uva Wellassa University
11. Resource person to the workshop on Curriculum Development of External Degree Program in Agricultural Sciences, Uva Wellassa University
12. Member of the Curriculum Revision Committee for Bachelor of Animal Science Degree, Uva Wellassa University
13. Chairperson, “Aqua 2015”-Fisheries and Aquaculture Forum, Uva Wellassa University on 11th December 2015
14. External Examiner for thesis defence examination and seminar at PGIA, University of Peradeniya