

## Bio Data of Dr. A.R. Sen

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**Date of Birth:** 18<sup>th</sup> February, 1968

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### Academic Record

Examination/Degree	Class/ Division	Year	Subject with major field of specialization	Name of the University/Institute
Bachelor's Degree (B.V.Sc & A.H).	I	1991	All concerned Veterinary & Animal Husbandry subjects	Bidhan Chandra Krishi Viswa vidyalaya
Masters Degree (M.V.Sc)	I	1993	Livestock Products Technology (Meat science & Technology)	Indian Veterinary Research Institute
Doctorate (Ph.D.)	I	1996	Livestock Products Technology (Meat science & Technology)	Indian Veterinary Research Institute

### Award/Recognition

1. University Merit Scholarship
2. ICAR Junior Research Fellowship
3. ICAR Senior Research Fellowship
4. CSIR Senior Research Fellowship
5. Gits Award by All India Food Preservers' Association, New Delhi, India.
6. DBT overseas Award, Department of Biotechnology, Govt. of India

7. Fellow, Indian Meat Science Association
8. Fellow, National Academy of Veterinary Sciences

**Society membership:**

1. Association of Food Scientists & Technologists
2. Indian Science Congress Association
3. Animal Nutrition association
4. Indian society of Animal production and management
5. Indian society of sheep and goat production and utilization
6. India Meat Science Association
7. Association for the promotion of DNA fingerprinting and other DNA technologies
8. National Academy of Biological Sciences

**Additional Training in India/Abroad:**

1. Foundation course in Agricultural Research Management, NAARM, Hyderabad, India.
2. Short term course on “Production of meat animals under various stress conditions” IVRI, Izatnagar, Bareilly, U.P., India.
3. Training on “Quality management of abattoir and meat plant including HACCP, College of Veterinary Science, Mannuthy, Trichur, Kerala, India.
4. Training on “Implications on animal genomes on meat quality” at Danish Institute of Agricultural Sciences, Foulum, Denmark.

**Research Interest**

- Pre and post harvest critical factors affecting meat quality, retail shelf life and methods of increasing colour/quality stability
- Use of non meat ingredients/additives to enhance meat product quality, palatability, shelf life and safety and development of new healthier meat and meat products
- Potential of nano particles for their uses in preservation, processing and packaging for healthier, shelf stable and safer muscle food products

- Climate change mitigation strategies for meat animal and wholesome meat production

## Publications

**Books authored: 3**

**Book Chapters: 8**

**Research Papers (National and International Journal): 81**

**Review and Technical articles: 42**

**Patents: Three**

**Invited lecture: 29**

**Presented in Seminar/ Symposium: 98**

## Selected Publications

1. **Sen, A.R.** and Sharma, N. (1999). Effect of freeze-thaw cycles during storage on quality of meat and liver of buffalo. *Journal of Food Science and Technology*. 36(1):28-31.
2. **Sen, A.R.**, Gulyani, R. and Singh, R.N. (2000). Carcass and meat characteristics of three genetic groups of rabbits. *Journal of Food Science and Technology* 37(5):549-550.
3. **Sen, A.R.** and Karim, S.A. (2003). Effect of meat particle size on quality attributes of restructured mutton steaks. *Journal of Food Science and Technology*. 40(4):423-425.
4. **Sen, A.R.** and Karim, S.A. (2003). Storage stability of rabbit pickle at room temperature. *Journal of Food Science and Technology*. 40(2): 197-200.
5. **Sen, A.R.**, Santra, A. and Karim, S.A. (2004). Carcass yield, composition and meat quality attributes of sheep and goat under semi arid conditions. *Meat Science*. 66: 757-763.
6. **Sen, A.R.**, Muthukumar, M., Naveena, B.M. and Babji, Y. (2004). Colour changes in broiler and sheep muscles during frozen storage. *Journal of Food Science and Technology*. 41(6):678-680.
7. **Sen, A.R.** and Sharma, N. (2004). Effect of freezing and thawing on histology and ultrastructure of buffalo muscle. *Asian-Australasian Journal of Animal Sciences*. 17(9):1291-1295.
8. **Sen, A.R.** and Sharma, N. (2005). An enzymic method for differentiating frozen and thawed fresh goat meat. *Journal of Food Science and Technology*. 42(5): 392-395.
9. **Sen, A.R.**, Naveena, B.M., Muthukumar, M., Babji, Y and Murthy, T.R.K. (2005). Effect of chilling, polyphosphates and bi carbonates on quality characteristics of broiler breast meat. *British Poultry Science*. 46(4): 451-456.
10. **Sen, A.R.**, Santra, A. and Karim, S.A. (2006). Effect of dietary sodium bicarbonate supplementation on carcass and meat quality of high concentrate fed lambs. *Small Ruminant Research* 65: 122-127.
11. Naveena, B.M., **Sen, A.R.**, Muthukumar, M., Vaithyanathan, S. and babji, Y. (2006). The effect of lactates on the quality of microwave cooked chicken patties during storage. *Journal Of Food Science*, 71(9):S603-S608.

12. Naveena, B.M., **Sen, A.R.**, Kingsly, A., Singh, R.P. and Kondaiah, N.(2008). Antioxidant activity of pomegranate rind powder extract in cooked chicken patties. **International Journal of Food Science & Technology**. 43:1807-1812.
13. Naveena, B.M., **Sen,A.R.**, Vaithiyanathan,S., Babji, Y. and Kondaiah,N. (2008). Comparative efficacy of pomegranate juice, pomegranate rind powder extract and BHT as antioxidants in cooked chicken patties. **Meat Science** 80:1304-1308.
14. **Sen, A.R.**, Naveena, B.M. and Muthukumar, M. (2009). Effect of wheat fibre on physico-chemical, sensory properties and storage stability of low fat mutton nuggets. **Fleischwirtschaft International**. 5:71-74.
15. Reddy, G.V.B., **Sen, A.R.**, Nair, P.N., Reddy, K.S., Reddy, K.K. and Kondaiah, N. (2013). Effects of grape seed extract on the oxidative and microbial stability of restructured mutton slices. **Meat Science**. 95:288-294.
16. Naveena, B.M., Vaithiyanathan, S., Muthukumar, M., **Sen, A.R.**, P.Praveen Kumar, Y., Kiran, M., Shaju, V.A. and Ramesh Chandran, K. (2013). Relationship between the solubility, dosage and antioxidant capacity of carnosic acid in raw and cooked ground buffalo meat patties and chicken patties. **Meat Science**. 95: 195-202.
17. Naveena, B.M., Muthukumar, M., **Sen, A.R.**, Praveen Kumar, Y. and Kiran, M. (2014). Use of cinnamaldehyde as natural antioxidant in ground spent hen meat. **Journal of Food Processing and Preservation** DOI: 10.1111/jfpp.12163.
18. **Sen, A.R.**, Muthukumar, M., Naveena, B.M. Prince Devadason, I. and Reddy, G.V.B. (2014). Quality characteristics of emulsion based cooked chicken slices containing different extenders. **Fleischwirtschaft International**. 29:65-70.
19. **Sen, A.R.**, Naveena, B.M., Muthukumar, M. and Vaithiyanathan, S. (2014). Colour, myoglobin denaturation and storage stability of raw and cooked mutton chops at different end point cooking temperature. **Journal of Food Science and Technology**. 51:970-975.
20. Naga Raja Kumari, K., Ravinder Reddy, V., Preetham, V.C., Kumar, D.S., **Sen, A.R.** and Rama Rao, S.V. (2016). Effect of supplementation of crystalline lysine on the performance of WL layers in tropics during summer. **Tropical Animal Health and Production**. DOI 10.1007/s11250-016-1003-z. 48:705-710.