

CURRICULUM VITAE
Prof. Dr. Naila Imtiaz

Mailing Address: Department of Poultry Science, Faculty of Animal Husbandry and veterinary Sciences, The University of Agriculture Peshawar, Pakistan.

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EDUCATIONAL QUALIFICATION

Certificate/Degree	Year	Division	Board/University
Ph.D (Poultry Science)	2009	Ist	The University of Agriculture Peshawar
M.Sc. (Hons) (Animal Husbandry)	2000	Ist	The University of Agriculture Peshawar
B.Sc. (Hons) (Animal Husbandry)	1997	Ist	The University of Agriculture Peshawar
F.Sc.	1992	Ist	Peshawar Board
S.S.C.	1990	Ist	Peshawar Board

AWARDS AND DISTINCTIONS

- Gold Medal B.Sc. (Hons)
- Presidential award Titled as “Izaz-e-Sabqat” for the year 1996
- Presidential award
- Ist position in Department and Faculty
- Ist position in B.Sc. (Hons) Part-I
- 3rd position in B.Sc. (Hons) Part-II
- 2nd position in B.Sc. (Hons) Part-III
- Ist position in B.Sc. (Hons) Part-IV

TRAININGS, WORKSHOPS AND SYMPOSIUMS ATTENDED

- International conference on “Climate Change Threats to Agriculture and Food Security. Organized by The University of Agriculture Peshawar.

- Workshop on Biorisk management” 19-21 April, 2017. Organized by IBCTR, USA.
- Workshop on “Bringing Innovations in food value chain for sustainable development in KP and FATA” 29 March, 2017. Organized by The University of Agriculture Peshawar.
- Conference on sustainable crop and animal production systems. 8-10 December, 2016. Organized by Pakistan Agricultural Scientists Forum and The University of Haripur, Haripur.
- 3rd International Workshop on Dairy Science Park organized by The University of Agriculture Peshawar from 16/11/2015-18/11/2015.
- 2nd International Workshop on Dairy Science Park organized by The University of Agriculture Peshawar from 18/11/2013-22/11/2013.
- International Workshop on Dairy Science Park organized by The University of Agriculture Peshawar from 21/11/2010-23/11/2010.
- International Symposium on International Linkages for Agriculture Development in Pakistan organized by The University of Agriculture Peshawar under HEC sponsored project from 20/12/2010-21/12/2010.
- Seminar on Feeding Management of Dairy Animals organized by The University of Agriculture Peshawar on 24/3/2005.
- Gender sensitization workshop organized by Sarhad Rural Support Program 21/06/2000 to 24/06/2000.
- Calf Rearing training organized by Directorate of Outreach, The University of Agriculture Peshawar from 23/05/2000 to 24/03/2000.
- Training course on “Environment and sustainable rural development” organized by National Center for Rural Development Islamabad from 20/07/1998 to 25/07/1998.
- Workshop on human excellence and organizational development, organized by Sarhad Rural Support Program from 25/10/1997 to 28/10/1997

EXPERIENCE

1. Working as Professor in the Department of Poultry Science, The University of Agriculture Peshawar since 04/03/2022
2. Worked as Chairperson, Department of Poultry Science, The University of Agriculture Peshawar 01/11/2016 to 15-02-2022.
3. Worked as Associate Professor in the Department of Poultry Science, The University of Agriculture Peshawar from 29/05/2012 to 03/03/2022.
4. Working as additional provost (female) since 05/08/2015
5. Worked as Assistant Professor in the Department of Poultry Science, The University of Agriculture Peshawar, since 29/12/2009 to 28/05/2012.

6. Worked as Senior Warden in Girls Hostel, The University of Agriculture Peshawar, since 22/08/2011 to 04/08/2015.
7. Working as Staff proctor since 28/07/2010
8. Worked as Lecturer in the Department of Poultry Sciences, The University of Agriculture Peshawar, since 01/09/2000 to 28/12/2009.
9. Worked as Warden in Girls Hostel, The University of Agriculture Peshawar, since 01/09/ 2000 to 21/08/ 2011.
10. Worked as Livestock officer with Sarhad rural Support Program (SRSP) Charsadda since April, 1998 till August, 2000

OUTREACH SERVICES

- Design and conduct training sessions on “Cultivation, conservation and ethnoveterinary use of Medicinal plants” organized by Pakistan Forest Institute.
- Design and conduct training sessions on “Potential segments for investment in poultry” organized by Pakistan Forest Institute.
- Design and conduct Quail farming trainings for the women communities of Sarhad Rural Support Program.
- Design and conduct 25 days Poultry Management training for trainees of Pakistan Job Project USAID/LASOONA in collaboration with LTC.
- Conduct sessions in layer farming training organized by Poultry Science department, Khyber Pakhtunkhwa Agricultural University Peshawar in collaboration with FLDAP.
- Design and conduct poultry extension worker training for the women communities of Sarhad Rural Support Program.
- Design and conduct layer production training for the women communities of UNDP Lachi.
- Design and conduct broiler production training for the women communities of Dir Area Support Project.
- Design and conduct quail farming training for the women communities of Sarhad Rural Support Program.
- Design and conduct poultry extension worker training for the women communities of CBRM.
- Conduct training sessions on broiler and layer production for trainees from Afghanistan.
- Design and conduct training course for Afghan Professionals and Faculty from different universities from Afghanistan.

PUBLICATIONS (NATIONAL & INTERNATIONAL)

1. Published Books:

Title of Book: *Berberis lycium* reduces serum cholesterol in broiler

Publisher: VDM Verlag Dr.Muller Aktiengesellschaft & Co. KG (2010)

2. Papers Published in Journals having Impact Factor

1. Kashmala,S., N. Chand, N.U. Khan, M. Saeed, R.U. Khan. 2023. Dietary organic zinc and probiotic alleviate induced *Eimeria tenella* infection in Japanese Quails. *Tropical Animal Health and Production*. 55: 37
2. M. Shah , N. Chand , R.U. Khan, M. Saeed, M. Ragni, S. Tarricone, V. Laudadio, C. Losacco and V. Tufarelli. 2022 Mitigating heat stress in broiler chickens using dietary onion (*Allium cepa*) and ginger (*Zingiber officinale*) supplementation. *S. Afr. J. Anim. Sci.* 52 (6): 811-818
3. Mahnoor Hasan, Naila Chand, Shabana Naz, RifatUllah Khan, Tugay Ayaşan, Vito Laudadio and Vincenzo Tufarelli. 2022. Mitigating heat stress in broilers by dietary dried tamarind (*Tamarindus indica* L.) pulp: Effect on growth and blood traits, oxidative status and immune response. *Livestock Sci.* 264. <https://doi.org/10.1016/j.livsci.2022.105075>
4. Rabia Ishaq, Naila Chand, Rifat Ullah Khan, Muhammad Saeed, Vito Laudadio & Vincenzo Tufarelli. 2022. Methanolic extract of neem (*Azadirachta indica*) leaves mitigates experimentally induced coccidiosis challenge in Japanese quails, *Journal of Applied Animal Research*, 50:1, 498-503, DOI: 10.1080/09712119.2022.2096037
5. Sajjad, K., N. Chand, A. Hafeez and N. Ahmad. 2022. Effect of Gum Arabic and *Bacillus subtilis* alone and in symbiotic form on Overall Performance, Visceral and Lymphoid Organs Along with Intestinal Histomorphology and Selected Pathogenic Bacteria of Broiler Chickens. *Pak. J. Zoology*. 1-8
6. Daud, K, N. Chand, M. Saeed, M.W. Tahir, A. Zeb and R.U. Khan. 2022. Effects of Silver Nitrate as Alternative to Antibiotics on Production Performance, Bacterial Count and Intestinal Histological Features of Broilers under *Escherichia coli* Challenge. *Pak. J. Zoology*. DOI: <https://dx.doi.org/10.17582/journal.pjz/20220223080217>
7. Shoaib, M. A. Hafeez, N. Chand and M. Tahir. 2022. Effect of Dietary Inclusion of Soybean Hull on Production Performance and Nutrient Digestibility During Peak Egg Production Period with Different Phases in Laying Hens. *Pak. J. Zoology*. DOI: <https://dx.doi.org/10.17582/journal.pjz/20220223080217>
8. Mashal, K., N. Chand, S. Naz and R.U. Khan.2022. Dietary tea tree (*Melaleuca alternifolia*) essential oil as alternative to antibiotics alleviates experimentally induced *Eimeria tenella* challenge in Japanese quails. *J. Anim. Phys. Anim. Nut.* doi: 10.1111/jpn.13719.
9. Israr, M. N. Chand, R.U. Khan. I.A. Alhidary, M.M. Abdelrahman, H.H. Al-baddani, V. Laudadio and V. Tufarrelli.2021. Dietary Grape (*Vitis vinifera*)

- seed powder and Zn-Gly chelate complex for mitigating heat stress in broiler chickens: growth parameters, malondialdehyde, paraoxonase-1, and antibody titer. *Agriculture*. 11(11), 1087
10. Chand, N., Ali, P., Alhidary, I.A., Abelrahman, M.M., Albadani, H., Khan, M.A., Seidavi, A., Laudadio, V., Tufarelli, V. and R.U. Khan. 2021. Protective Effect of grape (*Vitis vinifera*) seed powder and zinc-glycine complex on growth traits and gut health of broilers following *Eimeria tenella* challenge. *Antibiotics* 10: 186 doi
 11. K Akhtar, N Chand, S Khan, S Dai, RU Khan. 2020 . Supplementation of organic minerals and its effect on production performance and egg quality of laying hens. *J. Anim. Physiol. Nutr. Sci.* 1 (1): 12-16 (Impact Factor = 2.13)
 12. Ahmad, M., **Chand, N.**, R.U. Khan, Ahmad, N., Khattak, I. and Naz, S.2020. Dietary supplementation of milk thistle (*Silybum marianum*): growth performance, oxidative stress and immune response in natural summer stressed broilers. *Tropical Animal Health and Production*. 52:711-715
 13. **Chand, N.**, Zahirullah, R.U. Khan, Shah, M., Naz, S. And Tinelli, A. 2020. Zinc source modulates zootechnical characteristics, intestinal features, humoral response and paraoxonase (PON1) activity in broilers. *Tropical Animal Health and Production*. 52: 511-515
 14. Naz, S., Muazzam, S., Sagheer, A., Tanweer, A., Khan, N.A., Ali, Z., **Chand, N.** and R.U. Khan.2020. Captivity stress influences the DNA damage of *Pavo cristatus* under environmental condition of Faisalabad, Pakistan. *Environmental Science and Pollution Research*. 27:5636-5639 [
 15. Munib. A., N. Chand, R.U. Khan, N. Ahmad, K. Irfan and S. Naz. 2019. Dietary supplementation of milk thistle (*Silybum marinum*):growth performance, oxidative stress and immune response in natural summer stressed broilers. *Top. Anim. Health. Prod.* <https://doi.org/10.1007/s11250-019-02060-4>
 16. Zahirullah, N. Chand and R.U. Khan. 2019. Effect of inclusion of zinc-glycine chelate and zinc sulfate on weekly rhythm of live performance, immunity and lipid peroxidation in broilers. *Bio. Rhythm. Res.* <http://doi.org/10.1080/09291016.2019.1628405>.
 17. Abbas. M, N. Chand, R.U. Khan, N. Ahmad, U. Parvez and S. Naz. 2019. Public health risk of heavy metal residues in meat and edible organs of broilers in an intensive production system of a region in Pakistan. *Environ. Sci. Pollut. Res.*
 18. Fazal. W, N. Chand, R.U. Khan, N. Ahmad, U. Parvez, R. Zia and S. Naz. 2019. Dietary supplementation of Fenugreek (*Trigonella foenum graceum*) on the egg quality characteristics of Rhode Island Red spent layers. *Pak. J. Zol.* 51(5):1793-1797
 19. Safiullah, N. Chand, R.U. Khan, S. Naz, A. Muneeb and G. Sina. 2019. Effect of ginger (*Zingiber officinale Roscoe*) and organic selenium on growth dynamics, blood melanodialdehyde and paraoxonase in broilers exposed to heat stress. *J. Appl. Anim. Res.* 47(1):212-216
 20. N. Chand, Zahirullah, R.U. Khan, M. Shah, S. Naz and A. Tinelli. 2019. Zinc source modulates zootechnical characteristics, intestinal features, humoral response and paraoxonase (PON1). *Top. Anim. Health. Prod.*

21. Majid, A., **N. Chand**, R.U. Khan, S. Naz and S. Gul. 2019. Anticoccidial effect of garlic (*Allium sativum*) and ginger (*Zingiber officinale*) against experimentally induced coccidiosis in broiler chickens. *J. Appl. Anim. Res.* 47(1):79-84
22. **N. Chand**., Z. Rahman, R.U. Khan, S. Naz and I.A. Alhidary. 2018. Serum biochemical profile of two broiler strains supplemented with vitamin E, raw ginger (*Zingiber officinale*) and *L-carnitine* under high ambient temperature. *S. Afr. J. Anim. Sci.* 48(5):935-942
23. **N. Chand**., S. Naz, M. Irfan, R.U. Khan and Z. Rehman. 2018. Effect of Sea Buckthorn (*Hippophae rhamnoides* L.) seed supplementation on egg quality and cholesterol of Rhode Island Red X Fayumi laying hens. *Korean. J. Food Sci. Anim. Reso.* 38(3):468-475.
24. **N. Chand**., S. Naz, Z. Rahman and R.U. Khan. 2018. Blood biochemical profile of four fast-growing broiler strains under high ambient temperature. *Appl. Biol. Chem.* 61(3): 273-279.
25. Khan, M., **N. Chand**, S. Khan, R.U. Khan and A. Sultan. 2018. Utilizing the house fly (*Musca domestica*) larva as an alternative to soybean meal in broiler ration during the starter phase. *Brazilian. J. Poul. Sci.* 20(1): 9-14
26. Zia Ur Rehman, **N. Chand**, R.U. Khan, S. Khan and M.S. Qureshi. 2018. An assessment of the growth and profitability potential of meat-type broiler strains under high ambient temperature. *Pak. J. Zool.* 50(2): 429-435.
27. Sultan, A., A. Sahal, S. Khan, R.U. Khan, **N. Chand**, M. Tahir and S. Ahmad. 2018. Comparative effect of zinc oxide and silymarine on growth, nutrient utilization and haematological parameters of heat stressed broilers. *Pak. J. Zool.* 50(2):751-756
28. Sultan, A., K. Shahroom, S. Khan, **N. Chand**, M.S. Khan and H. Maris. 2018. Effect of organic acid blend on carcass yield, nutrient digestibility and tibia ash during starting phase of broiler chicks. *Pak. J. Zool.* 50(4):1483-1488
29. **N. Chand**., Shamsullah, Rafiullah, R.U. Khan, M. Mubashar, S. Naz, E. Rowghani and M. A. Khan. 2018. Mannanooligosacchiride (MOS) in broiler ration during starter phase: Growth performance and intestinal histomorphology. *Pak. J. Zool.* 51(1):173-176
30. Zia ur Rahman, **N. Chand** and R.U. Khan. 2017. The effect of vitamin E, L-carnitine and ginger on production traits, immune response and antioxidant status in two broiler strains exposed to chronic heat stress. *Environ. Sci. Pollut. Res.* 24(34): 26851-26857
31. **Chand**, N., S. Naz, H. Maris, R.U. Khan, S. Khan and M.S. Qureshi. 2017. Effect of betaine supplementation on the performance and immune response of heat stressed broilers. *Pak. J. Zool.* 49(5):1857-1862.
32. Ullah, R., S. Khan, A. Hafeez, **N. Chand**, A. Sultan and N. Ahmad. 2017. Silkworm meal as alternate protein ingredient in broiler finisher ration. *Pak. J. Zool.* 49(4):1463-1470.
33. Rahman, Z., **N. Chand**, S. Khan and R.U. Khan. 2017. Evaluating the immune response and antioxidant potential in four broiler strains under chronic high ambient temperature. *Pak. J. Zool.* 49(6):2087-2091.

34. Rahman, S., S. Khan, **N. Chand**, U. Sadique and R.U. Khan. 2017. In vivo effects of *Allium cepa* L. on the selected gut microflora and intestinal histomorphology in broiler. *Acta Histochemica* 119(5):446-450.
35. Hussain, I., S. Khan, A. Sultan, **N. Chand**, R. Khan, W. Alam and N. Ahmad. 2017. Meal worm (*Tenebrio molitor*) as potential alternative source of protein supplementation in broiler. *Int. J. Biosci.* <http://www.innspub.net> 10(4): 255-262
36. Din, R., S. Khan, **N. Imtiaz**, S. Alam, S. Ahmad, H. Khan, M. Rabbani, J. Muhammad, Z. Iqbal and S. Ali. 2017. Study on quality and efficacy of commercial tylosin and doxycycline products against local isolates of mycoplasma in broilers. *Pak. J. Pharm. Sci.* 30(2):541-549
37. **N. Chand**, F. Hassan., R.U.Khan, M.S. Qureshi, Ibrahim Abdullah Alhidary and A.M. Abudabos. 2016. Antiparasitic effect of Mananoligosaccharide against experimentally induced coccidiosis in broilers. *Environ. Sci. Pollut. Res.* 23:14414-14421
38. Tauseef, R., **N. Chand**, R.U. Khan, M.S. Shahid and A.M. Abudabos. 2016. Improving the fatty acid profile in egg yolk through the use of hemp seed (*Cannabis sativa*), ginger (*Zingiber officinale*), and turmeric (*Curcuma longa*) in the diet of Hy-Line White Leghorns. *Arch. Anim. Breed.* 59:183-190.
39. R.U. Khan., **N. Chand** and A. Akbar. 2016. Effect of Organic Acids on the Performance of Japanese Quails. *Pak. J. Zool.* 48(6):1799-1803
40. **N. Chand**, M. Sher, R.U. Khan, I.A. Alhidary and Z. Rehman. 2016. Ameliorative effect of synthetic γ -aminobutyric acid (GABA) on performance traits, antioxidant status and immune response in broiler exposed to cyclic heat stress. *Environ. Sci. Pollut. Res.* 23:23930-23935.
41. S. Naz., M. Idris, M.A. Khalique, Z. Rehman, I.A. Alhidary, M.M. Abdelrahman, R.U. Khan, **N. Chand**, U. Farooq and S. Ahmad. 2016. The activity and use of zinc in poultry diets. 2016. *World. Poult. Sci. J.* 72:159-169
42. S. Shahid., **N. Chand**, R. U. Khan, S. M. Suhail, and N. A. Khan. 2015. Alternations in Cholesterol and Fatty Acids Composition in Egg Yolk of Rhode Island Red x Fyoumi Hens Fed with Hemp Seeds (*Cannabis sativa* L.). *J. Chem.* 4:1-6 Article ID 362936, doi:10.1155/2015/362936
43. **N. Chand.**, Ihsanuddin and R.U. Khan. 2014. Replacement of soybean meal with yeast single cell protein in broiler ration: The effect on performance traits. *Pak. J. Zool.* 46(6):1753-1758.
44. A. J. Tanweer., **N. Chand.**, U. Saddiq and C.A. Bailey. 2014. Antiparasitic effect of wild rue (*Peganum harmala* L.) against experimentally induced coccidiosis in broiler chicks. *Parasito. Res.* 113(8):2951-2960
45. **N. Chand.**, S. Naz, A. Khan, S. Khan and R.U. Khan. 2014. Performance traits and immune response of broiler chicks treated with zinc and ascorbic acid supplementation during cyclic heat stress. *Int. J. Biometeorol.* 58(10):2153-2157

46. **N. Chand.**, S. Naz, Z. Shah, S. Khan, A.A. Shah and R.U. Khan. 2014. Growth performance and immune status of broilers fed graded levels of *Albizia lebbek* seeds. Pak. J. Zool. 46(2):574-577.
47. Jabar, A. T., **N. Chand** ., S. Khan, A. Sultan, M. S. Qureshi, A. Akhtar, M. Inam and Rafiullah. 2013. Association of *Peganum harmala* L. Supplementation with lipid profile and its economic benefit in broiler production. Pak. Vet. J. 33(3):313-316.
48. Din Muhammad, **N. Chand**, S. Khan, A. Sultan, M. Mushtaq and Rafeeullah. 2012. Hepatoprotective role of milk thistle (*Silybum marianum*) in meat type chicken fed aflatoxin B1 contaminated feed. Pak. Vet. J. 32(3): 443-446.
49. Mushtaq. M., F.R. Durrani., **N. Imtiaz.**, U. Sadique., A. Hafeez., S. Akhtar and S. Ahmad. 2012. Effect of administration of *Withania somnifera* on some hematological and immunological profile of broiler chicks. Pak. Vet. J. 32(1):70-72
50. Fazal Raziq, S. Khan, **N. Chand**, M. Mushtaq, Rafeeullah, S.M. Sohail and A. Zeb. 2012. Effect of water based infusion of *Aloe barbedensis*, *Pimpinella anisum*, *Berberis lyceum*, *Trigonella foenum graecum* and *Allium sativum* on the performance of broiler chicks. Pak. Vet. J. 32(4): 593-596.
51. **N. Chand.**, Din Muhammad, F. R. Durrani, M.S. Qureshi and S.S. Ullah. 2011. Protective effect of milk thistle (*Silybum marianum*) against aflatoxin B1 in broiler chicks. Asian-Asut. J. Anim. Sci. 24(7):1011-
52. **N. Chand.**, F.R. Durrani, S. Ahamd and K. Amanullah. 2011. Immunomodulatory and hepatoprotective role of feed added *Berberis lycium* in Broiler Chicks. J. Sci. Food. Agric. 91(10):1737-1745
53. Saadia Subhan Qureshi, M. Jamal, M. S. Qureshi, M. Rauf, B.H. Syed M. Zulfiqar and **N. Chand**. 2012. A review of halal food with special reference to meat and its trade potential. J. Anim. Plant. Sci., 21(Sup 1): 948-952
54. A. J. Tanweer., **N. Chand.**, S. Khan., M.S. Qureshi., A. Akhtar and M. Niamatullah. 2012. Impact of methanolic extract of *Peganum harmala* on weight gain, feed conversion ratio and gross return of broiler chicks. J. Anim. Plant. Sci. 22(2):264-267.
55. Rifat Ullah Khan., F.R Durrani., **N. Chand** and Haseeb Anwar. 2010. Influence of feed supplementation with *Cannabis sativa* on Quality of broiler carcass. Pak. Vet. J. 30(1):34-38
56. **N. Chand.**, F.R. Durrani., M.S. Qureshi and Z. Durrani. 2007. Role of *Berberis lycium* in reducing serum cholesterol in broilers. Asian-Aust. J. Anim. Sci. 20(4): 563-568. **[Impact Factor = 0.579]**
57. M. Farooq., Zahir ud Din., F.R. Durrani., M.A. Mian., **N. Chand** and J. Ahamd. 2002. Prevalent diseases and overall mortality in broilers. Pak. Vet. J. 22(3): 111-115

3. Papers Published in X-Category HEC Recognized Journals

- 1 Sajjad, K., N. Chand, A. HAfeeZ and N. Ahmad. 2022. Effect of Gum Arabic on Overall Growth Performance, Visceral and Lymphoid Organs Along with Intestinal Histomorphology and Selected Pathogenic Bacteria of Broiler Chickens. *J. Anim. Health Prod.* 10(1):73-80
- 2 Alam M, Chand N, Khan S, Suhail SM (2021). Growth performance, proximate composition and immune competence of naked neck, Rhode Island Red and their F1 crossbred chickens in a tropical climate. *J. Anim. Health Prod.* 9(3): 303-311.
- 3 J Nasir, N Chand, S Khan, A Abudabos, RU Khan. 2020. Consumption of flaxseed enhances poly unsaturated fatty acids in broiler meat. *J. Anim. Physiol. Nutr.* 1: 1-6
- 4 Naseer, A. S. Khan, N. Chand and N.A. Khan. 2019. Hemato-biochemical profile carcass and meat quality traits of Naked Neck Rhode Island Red (RIR) and Black Astralorpe (BAL) chicken. *Int. J. Biosci.* 14(5):225-234
- 5 A.J. Tanweer., **N. Chand**, S. Khan, M.S. Qureshi, U. Saddique, A.U. Rehman, A. Sultan, M. Arshad, A. Akhtar and S. Jan. 2014. Association of *Peganum harmala* L. Supplementation with immunity against ND, IB and IBD in broiler chicks. *Pak.J.Sci.* 66(1):88-94
- 6 S. Khan, **A. Sultan**, N. Chand, Rafiullah, M. S. Qureshi, A. J. Tanweer 2014. Garlic (*allium sativum*) modulated serum cholesterol level, improved immune status and carcass yield of broilers. *Pak. J. Sci.* 66 (2) 171-174
- 7 Rehman, Z.U., S. Khan, **N. Chand**, K. Khan, R. Khan, M. Arshad, A. Akhtar and A. J. Tanweer. 2013. Association of water based infusion of *Allium sativum* and *Withania somnifera* with serum lipid profile of broiler chicks. *Sarhad. J. Agric.* 29(2):249-254.
- 8 Khan, Sarzamin. A. Sultan, m. Aaqil, **Naila Imtiaz**, M. Mobashar, K. Hamayun, M. Saleem, M. Inam and Rafiullah. 2013. Lower ileal microflora and growth performance of broilers supplemented with organic acid blend (Aciflex®) during starter phase. *Greener Journal of Agricultural Sciences.* 3 (12): 794-800.
- 9 Umar, A., S. Khan, R. Ullah, **N. Chand**, Z.A. Shah, A. Akhtar and A.J. Tanweer. 2013. Effect of male to female ration and vitamin E selenium on fertility, hatchability and hatched chick weight of quail breeders. *Sarhad J. Agric.* 29(3):441-447.
- 10 Khushdil, M., **N. Chand**, S. Khan, M.S. Qureshi and A. J. Tanweer. 2012. Comparative effect of different schedules of administration of medicinal plants (*allium sativum*, *berberis lycium*, *eclipta alba* and *mangifera indica*) infusion on the immunity and overall Performance of broiler chicks. *Sarhad J. Agric.* 28(2):319-326
11. Abdul Manan., **N. Chand.**, S. Khan., M.S. Qureshi and Altaf-Ur-Rehman. 2012. Effect of periodic supplementation of herbal infusion on the liverfunction and lipid profile of broiler chicks. *Sarhad. J. Agric.* 28(1): 75-82

12. Rehman, Z.U., S. Khan, **N. Chand**, A. J. Tanweer, A. Sultan, A. Akhtar and A. M. Tauqeer. 2012. Effect of water based mixture infusion of *Allium sativum* and *Withania somnifera* on performance of broiler chicks. Pak.J.Sci.64 (3):180-183
13. Yasar Javed., S. Khan., **N. Chand.**, M. Mushtaq., A. Sultan and Rafeeullah. 2012. Comparative efficacy of different schedules of administration of medicinal plants mixed infusion on hematology of broiler chicks. Sarhad.J.Agric. 28(2):327-331
14. Tanweer,A.J. **N. Chand**, S. Khan, M. S. Qureshi, U. Sadique, A. Akhtar, M. Shakir, A.Sultan, M. Arshad and Alamzeb. 2012. Association of *peganum harmala* l. Supplementation with liver Function test of broiler chicks. Pak. J. Sci. 64(1):75-79.
15. Khan, S., M.S. Qureshi, **N. Chand**, A. Sultan, Rafullah, I. Khan, Ihsanullah, A.J. Tanweer S.M.Sohail M. Hussain, A. Akhtar and D. Khan. 2012. Effect of breeding method on calf sex and postpartum reproductive performance of cattle and buffaloes. Sarhad J. Agric. 28(3):469-476
16. Altafur Rahman ., S. Khan., D. Khan., **N. Chand.**, M. Hussain., S.ohail Ahmad., Sahed Mohamamd Sohail., Mohsin Ali., Nazir Ahmad., Ishtiaq., Ikram ul Haq and Ijaz Ahmad. .2009. Probiotics as an immune enhancer in broilers. Sarhad. J. Agric. 25 (3):457-461
17. Abdul Hafeez., S.M.Suhail., F.R. Durrani,. Dawood Jan., I. Ahmad, **N. Chand** and Altafur Rehman. 2009. Effect of different types of locally available litter materials on the performance of broiler chicks. Sarhad. J. Agric. 25 (4):581- 586
18. F.R. Durrani., Abidullah., **N. Chand.**, Z.Durrani and S. Akhtar. 2008. Hematological, biochemical, immunomodulatory and growth promoting effect of feed added wild mint (*Mentha longifolia*) in broiler chicks. Sarhad. J. Agric. 24(4) 661-664
19. F.R. Durrani., **N. Chand.**, M. Jan., A. Sultan., Z.Durrani and S. Akhtar. 2008. Immunomodulatory and growth promoting effects of neem leaves infusion in broiler chicks. Sarhad. J. Agric. 24(4): 655-659
20. F.R. Durrani., Sana Ullah, **N.Chand.**, Z.Durrani and S. Akhtar. 2008. Using Aqueous Extract of Aloe Gel as Anticoccidial and Immunostimulant agent in Broiler production. Sarhad. J. Agric. 24 (4): 665-669.
21. Altafur Rahman., I. Ahmad, **N. Chand.**, M. Ali., A. Rahman and N. Ahmad. 2007. Economic importance of probiotic in broiler rations; A case study of district Mansehra, NWFP, 2006- 2007. Sarhad. J. Agric. 23(2):485-488
22. M. Farooq., A. Khurshed., F.R. Durrani., K.Sarbiland and **N. Chand**. 2003. Egg trait of Japanese Quails. Sarhad. J. Agric. 19(3): 317-321
23. K. Javed., M. Farooq., M.A. Mian., F.R.Durrani and **N. Chand**. 2002. Mortality in backyard chicken reared by women. Sarhad. J. Agric. 18(1): 1-5
24. M. Farooq., K. Aneela., F.R. Durrani., A.K. Muqarrab., **N. Chand** and A. Khurshed. 2001. Egg, and shell weight, hatching and production performance of Japanese broiler Quails. Sarhad. J. Agric. 17(3): 289 -293

4. Papers Published in other National and International Journals

1. Sajid ur Rehman, F.R Durrani, N. Chand, R. Ullah Khan and F. Rehman. 2011. Comparative efficacy of different schedules of administration of medicinal plants infusion on hematology and serum biochemistry of broiler chicks. *Res Opin Anim Vet Sci.* 1(1):8-14.
2. Rifat Ullah Khan., F. R.Durrani., **N. Chand.**, H. Anwa., S. Naz., F. A. Farooqi and M. N. Manzoor. 2009. Effect of *Cannabis sativa* fortified feed on muscle growth and visceral organs in broiler chicks. *Int. J. Bio. Biotech.* 6 (3): 179-182
3. F.R Durrani., **N. Chand.**, K. Zaka., A. Sultan., F.M. Khattak and Z. Durrani. 2007. Effect of different levels of feed added black seed (*Nigella sativa* L) on the performance of broiler chicks. *Pak. J. Bio. Sci.* 10. (22): 4164 -4167
4. F.R. Durrani., A. Sultan., Sajjad Ahmad., **N. Chand.**, F.M.Khattak and Z. Durrani. 2007. Efficacy of aniseed extract as immune stimulant and growth promoter in broiler chick. *Pak. J. Bio. Sci.* 10. (20): 3718-3721
5. F.R. Durrani., A.Sultan., Muhammad Latif Marri., **N. Chand** and Z. Durrani. 2007. Effect of Wild Mint (*Mentha Longifolia*) Infusion on the over all Performance of Broiler Chicks. *Pak. J.Biol. Sci.*, 10(7): 1130-1133. *Pak. J. Bio. Sci.*10. (7): 1130-1133
6. Asad Sultan., F.R. Durrani., S.M. Suhail., M. Ismail., Z. Durrani and **N. Chand.** 2006. Comparative effect of yogurt as probiotic on the performance of broiler chicks. *Pak. J. Bio. Sci.*9. (1): 88-92
7. F.R. Durrani., M. Ismail., Asad Sultan., S.M. Suhail., **N. Chand** and Z. Durrani. 2006. Effect of different levels of feed added turmeric (*Curcuma longa*) on the performance of broiler chicks. *J. Agric. Bio. Sci.* 1.(2): 9-11
8. **Chand. N.**, F.R. Durrani., M.A. Mian and Z. Durrani. 2005. Effect of different levels of feed added *Berberis lycium* on the performance of broiler chicks. *Int. J. Bio. Biotech.* 2(4): 971-974
9. F.R. Durrani., **N.Chand**, M. Farooq, R. Ali and Z. Durrani. 2005. Effect of feeding different combinations of sunflower meal and cotton seed meal on the performance of broiler chicks. *Int. J. Bio. Biotech.* 2(2): 445-448
10. M. Farooq., F.R. Durrani., N. Imran., Z.Durrani and **N. Chand.** 2003. Prevalence and economic losses due to infectious Bursal disease in broilers in Mirpur and Kotli District of Kashmir. *Int. J. Poult. Sci.* 2(4): 267-270
11. Khurshid.A., M. Farooq., F.R. Durrani., K. Sarbiland and **N. Chand.** 2003. Predicting egg weight, shell weight, shell Thickness and Hatching weight of Japanese Quails using various egg traits as Regresses. 2003. *Int. J. Poult. Sci.* 2(2): 164-167
12. Murad Ali., M. Farooq., F.R. Durrani., **N. Chand.**, K. Sarbiland and A. Riaz. 2003. Egg production performance and Predication of Standard Limits for Traits of Economic Importance in Broiler Breeders. *Int. J. Poul. Sci.* 2 (4): 275-279
13. M. Farooq., K Javed., F.R. Durrani., K. Irfanullah and **N.Chand.** 2003. Hatching performance of Backyard hens in Peshawar, Paksitan. *Livestock. Res. Rural Dev.* 15 (9): 77-83
14. M. Farooq., N. Gul., **N. Chand.**, F.R. Durrani. A. Khurshid., J. Ahmad., A. Asghar and Zahir –ud-Din. 2002. Production performance of backhyar chicken

- under the care of women in in Charsadda, Pakistan. *Int. J. Poul. Sci.* 14 (1): 27-34
15. Gul. N., M.Farooq., F.R. Durrani., M.A. Mian., **N.Chand** and J. Ahmad. 2002. Egg Traits and Hatching performance of Non-Descript Desi Chicken, produced under backyard conditions. *J. Anim. Vet. Adv.* 1(2): 58-60
 16. Farooq, M., A. Khurshed., F.R. Durrani., **N. Chand.**, N.Gul., J.Ahmad., and A. Asghar. 2002. Woman contribution to household economy through backyard chicken in Charsadda, Pakistan. *J. Anim. Vet. Adv.* 1(2):55-57
 17. C. Naila., M. Frooq., F.R. Durrani., A. Asghar and Pervez. Prevalence and economic ramification of Newcastle Diseases in Backyard Chicken in Charsadda. 2001. Online. *J. Bio. Sci.* 1(5): 421-424
 18. Farroq, M., F.R. Durrani., M. Aleem., **N. Chand.**, and A.K. Muqarrab. 2001. Egg traits and hatching performance of Desi, Fayumi and Rhode Island Red Chicken. *Pak. J. Bio. Sci.* 4(7): 909-911
 19. Zahir-du-Din., M. Farooq., F.R. Durrani., **N. Chand** and J. Ahmad. 2001. Status of Broilers produced in Swat, Pakistan. *Livestock. Res. Rural. Dev.* (13) 3:43-49
 20. Farooq M., F.R. Durrani., **N. Chand.**, M. Usman., A. Asghar and A. Khurshid. 2000. Egg characteristics of Desi and Fayoumi Birds Maintanined Under Variable Management Conditions. *J. Anim. Health. Prod.* 20 (1-2): 15-18
 21. Farooq M., M. Syed., A.K. Zahid., A.K. Muqarrab., A.Asghar and **N. Chand.** 2000. Comparative Wool Characteristics, Lambing Frequency and Mortility in Local and RAMBOUILLET x Local sheep in Swat. *J. Anim. Health. Prod.* 20 (1-2) 25-27
 22. M.A. Main., F.R. Durrani., **N. Chand** and B. Fazila. 1996. Influence of Dietary fat sources on growth and carcass fat. *J. Anim. Health. Prod.* 16 (1): 134-138
 23. Chand. N., F.R. Durrani., M.N. Siddiqi. A. K. Muqarrab and J. Ahmad. 1996. Effect of Sun Treated Rtion on Brriler performance. *J. Anim. Health. Prod.* 16 (1): 113-115

4. INTERNATIONAL PROCEEDINGS

1. Naila Chand, Muslim Ghaffar khan and Rifat Ullah Khan. 2018. Short Chain Fatty Acids Improve Digestibility and Growth Performance of Broilers. June 26-29th Hangzhou, Zhejiang Province, China. The 4th International conference on Agricultural and Biological Sciences (ABS 2018), China.
2. Sultan, A., S. Khan, Suleman and N. Chand. 2018. Phosphorus excretion in poultry wastes and its mitigation using an *E. Coli* derived phytase enzyme: a step to protect environment. Climate change impacts on agriculture and food supply (AC³ AF-3018). University of Swabi.
3. Sultan, A. S. Ahmad, S. Khan, N. Chand, M.S. Qureshi. 2016. Silymarin excelled zinc oxide in improving nutrient retention and apparent metabolisable energy of broilers at day-21. VIII International Scientific Agriculture Symposium Jahorina. 05-08 October, 2016.
4. S. Shahid, N. Chand and R.U. Khan. Hemp seed (*Cannabis sativa* L.): Influence on Cholesterol and fatty acid composition in egg yolk. 2015. XXII European

- Symposium on the Quality of Poultry Meat and XVI European Symposium on the Quality of Eggs and Egg Products, 2015, France
5. Hussain, I., S. Khan, A. Sultan, N. Chand and Rafiullah. 2015. Meal worm (*Tenebrio molitor*) as potential alternative source of protein supplementation in broiler. International seminar on poultry diseases. 14-15 December, 2015, Department of Pathology, University of Faisalabad.
 6. Sultan, A. S. Khan, M.S. Qureshi and N. Chand. 2015. Increasing in vivo isolation of phosphorus from myo-iso-hexa phosphoric acid (IP6) of sorghum using phytase enzyme. International seminar on poultry diseases. 14-15 December, Department of Pathology, University of Faisalabad.
 7. N. Chand, T. Raza, and M.S. Qureshi. 2015. Reducing lipid oxidation in omega-3 enriched eggs with natural antioxidants during storage. 3rd International Workshop on Dairy Science Park, 2015, Pakitan.
 8. Midrar, U., N. Chand and A. Zeb. 2015. Comparative study of irradiated and control feed in broilers. 3rd International Workshop on Dairy Science Park, 2015, Pakitan.
 9. Alam, M., N. Chand, A. Akbar, M.S. Qureshi and R.U. Khan. 2015. Effect of organic acids on the performance of japanese quails. 3rd International Workshop on Dairy Science Park, 2015, Pakitan.
 10. Hina, A., N. Chand, M.S. Qureshi and S. Khan. 2015. Effect of aflatoxin b1 on serum biochemistry, hematology and liver histopathology of japanese quails. 3rd International Workshop on Dairy Science Park, 2015, Pakitan.
 11. Sajjad, K., S. Khan and N. Chand. 2015. Evaluation of selected commercial brands of amprolium and toltrazuril through HPLC and their comparative in-vivo assessment in broiler chickens. 3rd International Workshop on Dairy Science Park, 2015, Pakitan.
 12. A.J. Tanweer, N. Chand, U. Saddique, C.A. Balley, S. Khan, M.S. Qureshi and A. Sultan. 2014. Wild rue (*Peganum harmala* L) extract controls coccidiosis in broiler chicks. IV Mediterranean Poultry Summit. 2-5 September, 2014, Beirut.
 13. S. Khan, A. Khan, N. Chand, A. Sultan and Rafiullah. 2012. Supplementation of zinc and vitamin C in heat stressed broilers” in 3rd Mediterranean Summit of WPSA and 6th International Conference. 26-29 March 2012, Alexandria – Egypt.
 14. Khan. S., A Sultan, N. Chand, M. Mushtaq, Rafiullah and M.S. Qureshi. 2012. Garlic (*allium sativum*) Modulated serum cholesterol level and improved immune status and carcass quality of meat type birds. 26-30 November, 2012. Thammasat University, Rangsit Campus, Thailand
 15. R.U. Khan., F.R. Durrani, N. Chand, S.M. Sohail, Z. Rehman and Effect of feed added *Cannabis sativa* on growth performance of broiler chicks” in 5th International Conference 10-13 March 2009, Taba – Egypt.

SUPERVISION EXPERIENCE

I. Ph.D STUDENTS SUPERVISED

- No. of Ph.D students supervised as major supervisor = 08
- No. of Ph.D students supervised as co-supervisor = 01

II. M.PHIL STUDENTS SUPERVISED

- No. of M.Sc (Hons.) students supervised as major supervisor = 45
- No. of M.Sc (Hons.) students supervised as Co- supervisor = 25

TEACHING

Subjects Taught During Last 03 Years

S. No.	Title of course	Discipline
01	Egg Quality Current Problems & Recent Advances	Ph.D
02	Hatchery operation and Management	M.Sc (Hons)
03	Production of Table Poultry	Ph.D
04	Layer production	M.Sc (Hons)

PROJECTS

S. No	Name Project	Amount (M. Rs)	Funding Agency	Status
01	Modification of egg cholesterol contents through plants	1.5	PSF As PI	Completed
02	Exploring the potential of phytogetic growth promoters in broiler	0.5	HEC As Co-PI	Completed