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**Position** President, Dairy Science Park, 23-A, Industrial Estate,

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### **1. CAREER HISTORY**

National Consultant ITC-UN (1 Jul to 30 Nov 2022): This Consultant was enthusiastic about providing services for the transformation of the livestock sector from farming into an entrepreneurship base to generate decent employment and exportable foods and biotech products across the livestock breeding value chain (LBVC) under the Balochistan Livestock Breeding Policy 2022 and Action Plan. Presently, LBVC is provided services officially and mainly by the Director General Animal Health with a handsome current budget of Rs. 4.53 billion and a development budget of Rs. 1.63 billion. Looking at the SNE for 2022, it appears that the farmers are served by the regular staff stationed at civil veterinary hospitals and dispensaries, livestock farms, SPUs, dairy and poultry farms, etc. The department is protecting animal health and productivity to some extent, while the entrepreneurial aspect is totally lacking. Management of the LBVC by the Directorate General Animal Health may be supplemented with inputs from Public Service Organizations (PSOs) through an autonomous Livestock Technopark Quetta (LTQ), an Academia-Industry-Government Nexus, a Triple Helix Model of Good Governance with legislative, regulatory, financial, and administrative powers, to boost entrepreneurship development, regulating and facilitating all the Functional Units at PSOs. An endowment fund (EF) may replace the repeated funding to remove the financial burden on the government treasury. Nine PSOs would work in coordination to achieve the common goal of transforming the provincial livestock resources into prosperity for the people. These resources would be utilised for generating decent employment and quality products that are certified, traceable, and hygienic. Halal foods and biotech products for local and export markets would be produced through an interconnected network of entrepreneurial models covering livestock and poultry farming, dairy and meat factories, diagnostic, clinical, and consultancy centres, and marketing facilities.

National Consultant FAO: (20 Jun to 31 Aug 2019) Worked with Food and Agricultural Organization of the United Nations at Islamabad, Pakistan as National Consultant Livestock and Dairy Development. The mutually agreed TORs required development of an Action Plan with estimated budget for Livestock Sector Development and Transformation, based on KP Livestock Policy; covering regulatory issues, value chain development, private sector engagement and overall required capacity at provincial and district levels. The livestock and poultry farmers are facing unbearable financial burden and most of these valuable assets are on way to total collapse.

Ten public and private sector organizations are mandated for serving the Livestock Sector covering extension, research, fisheries, education, livestock markets, slaughter houses price regulation, food safety, trade and farmers welfare. However, lack of coordination and their apathy towards the farmers and processors, has left the burning issues unattended.

This Mission has tried its best to prepare KP Livestock Action Plan 2019 as a relief for the weaker stakeholders across the livestock value chain, in the public and private sectors, within a governance framework of Academia-Industry-Government-Society Nexus. An autonomous Livestock Technopark Peshawar (LTP) has been suggested to be established, initially as a Task Force through an executive order and later on through an Act of the Legislative Assembly/Ordinance of Governor; with full regulatory, administrative, financial and legislative powers to protect all the stakeholders of the livestock industry, and engage all relevant private and public sector organizations with shared authority and responsibility. At the end of the year 2021 LTP would be able to generate direct decent employment models to the tune of 18,000, each one earning about Rs. 50,000 per month and employing five more persons each. Hygienic, Halal and Organic food would be produced per annum valuing Rs. 5,098 billion. A fraction of 10% may be injected into Halal Meat Export Market Motivated young graduates in veterinary, engineering, medical, business and social sciences would be joining LTP for their career development and transformation of ideas into actions to serve the society. Quality conscious consumers would be having access to traceable food products in the towns. Public and private sector organizations would have access to sufficient operational funds for motivating their staff and serving people.

Research and Development: (7 Aug 1983 to 18 Jun 2005) After getting DVM degree from UVAS Lahore, joined Livestock Department, Government of Khyber Pakhtunkhwa Pakistan during 1983 as Veterinary Officer (Health) and worked on semen processing, farm management, feeding and health coverage. Worked at Civil Veterinary Hospital and provided therapeutic and immunization services to the incoming animals. Worked as Senior Research Officer on Herd Health Program and registered buffalo farms for applied research and extension services; analyzed the prevailing practices of feeding, health and reproductive management, introduced good practices and organized the farmers into Sarhad Dairy Farmers Association, facilitating them for availing services of various research, development, marketing and financial institutions. Completed master and doctoral degrees and published a report on mismanaged livestock sector, loosing an export potential of US\$ 20 billion at national level. The two successive Chief Ministers endorsed the Chief Minister Development Plan prepared by the author.

Academic excellence: (19 Jan 2005 to date) Joined the University of Agriculture, Peshawar as full professor and served as Dean for two tenures, got retirement on 19 March 2019 and rejoined as visiting professor (theriogenology). I have been working as HEC representative at PVMC and member of several professional bodies. Engaged in Teaching, Research and Industrial Linkage in animal health, reproduction, entrepreneurship and biorisk management; supervised PhD students 19, MPhil 84; subjects taught Reproductive Physiology; Livestock Industry; Stress Physiology; research projects completed 6; research publications in impact factor journals 53; books/chapters published 15, including a book on Reproductive Physiology published by Higher Education Commission of Pakistan.

Functionalized the UAP Univ Feed Mill under a lease arrangement through as private partner. Successfully introduced the feed at private dairy farmers in Peshawar and adjacent districts, competing with other feed manufacturers, based upon the best prices and quality. Initiated research on physiological base of animals' productivity and stress physiology/animals welfare and tailored the postgraduate studies and research and development projects into these priorities.

Motivated the faculty members and students for winning research grants to respond to the local problems and explore business and industrial aspects of livestock and poultry production.

Academia-Government-Industry/International Linkages: (1 Jan 2011 to date) Dairy Science Park (Park/DSP) has been introduced as a sacred mission for welfare of people of the Region through generation of self-employment and hygienic/Halal food production. The Park has been registered as a Society with the Government of KP, Pakistan and accepted by the United Nations as #UNSDGAction9671. In line with the vision of the Higher Education Commission, the business incubation concepts were integrated into postgraduate research ongoing at the Faculty, shaping up the University – Industry linkages. A biennial series of international workshops was initiated and it continued during November, 2011, 2013 and 2015, 2017 and 2019, each by 450+delegates, with 100+ technical papers and industrial exhibition. The proceedings were published online/printed and in impact factor journals. The 1st workshop focused on post-flood revival of dairy industry, the 2nd on meat potential of the region, the 3rd on entrepreneurship development for the outgoing graduates, the 4th on biorisk management and the 5th on emerging trends and opportunities. The first three conference were held at Peshawar, the 4th at Selcuk University Konya, Turkey and the 5th at Quetta.

Emerging industries in milk and meat processing and marketing have been provided technical and Quality Control certification support to relieve legal threats from the District Administration, who focus on price capping of milk and meat rather than quality. Meat shops established on modern lines of hygiene produce quality beef; however, such facilities are raided by the government agencies on the basis of higher prices. DSP facilitates inspection of such facilities provide SOPs for quality standards and issue a certificate. Similar services are being extended to private slaughter houses and meat/milk processing centers and other emerging entrepreneurs. A road map has been prepared for developing a Hygienic/Halal meat export base. The plan is aimed at introducing good practices into livestock SMEs. The plan has been supported by the provincial Agriculture Minister, Special Assistants to Chief Minister KP on Law and Livestock. Sandia National Lab USA has been supporting DSP under a Biorisk Management Collaboration. Four consultative workshops have been held in Amsterdam, Dubai, Bangkok and Puket, Phuket, Colombo, Konya, Amman and Dubai-II, participated by 105 members of DSP for curriculum development and integration of biorisk management concept into the food value chain. A BRM package was developed for integration into Doctor of Veterinary Medicine degree in Pakistani Universities, under the supervision of Pakistan Veterinary Medical Council.

Charles Sturt University (CSU) Australia: (25 Dec 2010 to date) CSU was joined as Adjunct Professor during 2010 which will continue up to 2022. I outlined some of the key factors that impact on the reproductive efficiency of the Pakistani dairy buffaloes herd. It was found that under-nutrition and nutritional imbalance through feeding high protein-low energy diets suppress ovarian cyclicity. Interestingly ovarian activity is often negatively associated with insulin like growth factor 1 (IGF1) levels since this is associated with higher milk yields. Clearly nutrient partitioning is playing a role here particularly when cows and buffalo are underfed. Interestingly, mid-chain length fatty acids (C12-C14) are more prevalent in milk from crossbred (Sahiwal-Friesian crosses) than in purebred Sahiwal milk in which shorter chain saturated fatty acids prevail. I attended joint ISNH / ISRP International Conference-2014 at Canberra and present paper on productivity and fertility of crossbred cattle in the subtropical environment of Peshawar Pakistan. Pak-Australia Dairy Project was assisted and supervised students research at Peshawar, regarding reproductive biotechnology and women in development. Australian Farming System was studied; visits were made to the farms and clinics and farmers meetings were attended at Charles Sturt University, WaggaWagga, in collaboration with Prof Peter Wynn. The main problem identified was the difficulty of farmers in getting technical and marketing services;

summer stress faced by the animals; and scarcity of labors due to migration of the younger generations from rural to urban areas.

Policy development/reforms plan: (31 Dec 1998 to date) The Ex-Chief Minister KP, Mr Akram Khan Durrani approved the concept of the DSP as a development plan and recommended establishment of the University of Veterinary Innovations and Commercialization with up-gradation of the existing Faculty of AHVS, UAP establishment of additional facilities like slaughter houses, livestock markets and entrepreneurship models. The Higher Education Commission accepted the Park as a Center of Excellence. Senior Minister KP, Mr Inayatullah Khan has agreed on establishment of DSP Board, under an Act of the Provincial Assembly, comprising Quality Control Laboratory Complex, Business Incubation Center, Halal Research Center and an Endowment Fund. His proposal for establishment of Task Force for DSP was approved by the Chief Minister. The Chief Secretary KP has declared DSP as an innovative idea. The idea of Mardan TechnoPark and Quetta TechnoPark was accepted in a meeting of relevant authorities under chairmanship of Mr Arif Yousaf, Special Assistant to Chief Minister KP and Governor Balochistan. DSP IV – 2017 Konya endorsed the concept and Konya Teknokent offered cooperation through an MoU. KP Chamber of Commerce and Industries Peshawar was assisted in academia industry linkages and USAID was assisted as Member Focal Group RTAC in the project evaluation process.

### PROFESSIONAL RECOGNITION

#### **Awards**

- Gold Medal 2013, Unity Human Well Wishers Council, Lahore.
- Excellence Award 2013, International Livestock, Dairy and Poultry Congress, Lahore.
- Research Productivity Award 2012. Pakistan Council for Science and Technology, Islamabad.
- Best University Teacher Award 2011 (Higher Education Commission of Pakistan)
- Millennium Lifetime Award 2009 (S Asia Publication)
- Star Award 2008 (for seniors) (S Asia Publication)
- Star Laureate 2008 (S Asia Publication)

### **Membership Of International Bodies**

- 1. Global Ambassador of Sustainability, Global Green Chamber of Commerce California
- 2. International Contact Person Pakistan, NESS-ISN Beijing
- 3. Adjunct Professor, CSU, NSW, Australia
- 4. Member Focal Group RTAC, USAID
- 5. Technical Expert DAAD Research Grant Scholarships, Germany.
- 6. Pak-Australia Dairy Project ASLP-Livestock Board Lahore (Expert in Dairy Reproduction).
- 7. American Dairy Science Association, USA
- 8. Society for Theriogenology, USA, Active Member, 2006
- 9. International Society of Zoological Sciences
- 10. International Society for Applied Life Sciences, Turkey
- 11. Relief International Pakistan, Focal Point for KP Universities
- 12. Chief Editor, Meat Science and Veterinary Public Health (MSVPH)
- 13. Council of Asian Scientific Editors, Korea
- 14. Member editorial board, Asian-Aust J AnimSci; Pak Vet J; J Agric Sci Tech A; Reviewer, J Dairy Sci USA; Canad J AnimSci; Pak J Zool; Indian J Dairy Sci; Tropical Anim Health Prod; J Food Sci Agric., J Immunoassay Immunochemistry. Indian J Anim Res, J Medicinal Plants Res, Turkish J Vet AnimSci, Livestock Sci; Small Ruminants Research; J Food Chem Toxic; J Cell AnimBiol; J Anim Physiol Anim Nutr

### Fellowship/Membership of Local Bodies

- 1. Chief Patron/Founder Dairy Science Park
- 2. Associate Member, KPCCI, Peshawar
- 3. Consultant Academia, KPLFWA, Peshawar
- 4. Chief Patron, GreenWend Energy Pvt Ltd/Sunsaviour Peshawar
- 5. Pak. Vet. Med. Council, Member executive committee/HEC representative
- 6. Pak. Soc. Animal Reprod. Lahore, Vice President
- 7. Member National Steering Committee, Nutritionist Assoc. Pak. Lahore
- 8. UAP, UA Faisalabad, SAU Tandojam, GU DI Khan., UVAS Lahore, Graduate/Postgrad Examiner, 1994 onwards
- 9. PARC/PSF/HEC/UAF, Project Reviewer, 2003 onwards
- 10. Member, Provincial Advisory Committee, Ministry of Science and Technology KP
- 11. GoKPK, Impact assessment study; Sarhad Dairy Farmers Association, Advisor
- 12. Public Service Commission, technical member
- 13. Livestock trainers and consultants, member BoD/Founder
- 14. Member, Industrial Advisory Group, NAVTEC, Prime Minister Secretariat, Islamabad.
- 15. Associate Editor of Sarhad Journal of Agriculture and Journal Anim Health Prod
- 16. Resident editor of the Veterinary News and Views
- 17. Member PCST Committee for Accreditation of Halal Certification Bodies

### **VISITS ABROAD**

- 1. <u>Thailand</u>, Bangkok, March 28 to May 6, 1994: Attended 10<sup>th</sup> International Training in Swamp Buffalo Reproduction at Chulalongkorn University. <u>Sponsor</u>: Royal Thai Government; Bangkok, 14-18 Nov, 2016, Led biorisk management workshop, sponsored by Sandia National Labs (SNL) USA; Phuket, 17-22 March, 2017; Led senior management workshop on biorisk management, sponsored by SNL.
- 2. *Italy*, October 15 to 28, 2007: Attended 8<sup>th</sup> World buffalo congress at Caserta. *Sponosr*: HEC
- 3. <u>Egypt:</u> i) 27 Feb 4 March., 2010; Attended 6<sup>th</sup>IntConf Egyptian Soc ExpBiol, Minoufiya University, Cairo. <u>Sponsor:</u> HEC; ii) 1 to 6 July, 2010, Attended Int Workshop On Industrial Biotechnology. Alexandria, Egypt. *Sponsor:* OECD, Paris, France.
- 4. <u>Saudi Arabia:</u> Feb and July, 2010. Sights seeing and performance of Umrah on way back from Egypt. Sept 30 to Nov 10, 2014 for performance of Hajj.
- 5. <u>Australia</u>; Nov 12-Dec 24, 2010. Visiting Professor Charles Sturt University, WaggaWagga; Sept 6-13, 2014, to attend *Joint ISNH / ISRP International Conference*, Canberra.
- 6. <u>Turkey:</u> Sept 6-16, 2012. Presented a paper and chaired session 2 of the International Conference on Applied Life Sciences at Konya. Discussed meat export from Khyber Pakhtunkhwa with the scientists at Selcuk University and industry people. <u>Sponsor</u> HEC; visited Konya along with 50+ delegates from Pakistan as Co Chair of Dairy Science Park 2017, Nov 1-5, 2017. Sponsor: SNL
- 7. <u>The Netherlands:</u> 15-18 March, 2015. Led Working Group on Biorisk Management of DSP to attend a meeting with US counterparts and Third Int <u>One Health Congress</u> sponsored by the United States Department of State's Biosecurity Engagement Program and Sandia Natl Labs.
- 8. *China*: 25-28 Aug 2015. Presented paper (Inam, et al) at 7th Int Symp Integ Zool, ISZS, Xi'an; May 27-30. Attended 2024 NESS Conference, Shennongjia
- 9. <u>Dubai</u>; May 21-25, 2016. Led DSP delegation to attend consultative workshop on Pakistan Biorisk Curriculum Dev (Sponsor: Sandia National Labs USA); 29 April-1 May 2019, PAK PVMC BRM Awareness Workshop for Pakistani Universities. Sponsor Sandia Labs USA.
- 10. Colombo, Sri Lanka; Sep 5-7, 2017. Led DSP delegation to attend consultative workshop on

- Pakistan Biorisk Curriculum Development with Sandia National Laboratories USA (sponsor).
- 11. *Mashad*, Iran; 7-8 Dec 2017. Attended Science Tech +; presented paper; participated in Entrepreneurship Show at Firdosi University.
- 12. <u>Amman and Irbid, Jordan;</u> April 29-May 1, 2018. BRM Meeting on the use of research methods and role of biotechnology; Sponsor SNL USA.

### **INDUSTRIALIZATION OF RESEARCH**

Business incubation concepts were introduced into postgraduate research at UAP and research studies were launched like maggot meal, silk worm meal, meal worm, omega-3 enriched eggs, iron and zinc enriched eggs, quality control through drug-residues, aflatoxin levels, antibiotic resistance, herbal probiotics as growth promoters, improvement meat quality through dietary antioxidants supplementations, stress management through antioxidants, semen evaluation, breeding through artificial insemination, introduction and evaluation of rabbits for meat production. Establishment of Peshawar Meat Factory was facilitated through Dairy Science Park as a model entrepreneur in the DSP Region.

### CONFERENCE/WORKSHOPS/MEETINGS ATTENDED/PAPERS CONTRIBUTED

# **International 2012 and onwards**

- 1. Qureshi, MS, 2012. Dietary manipulations for enhancing cardio-protective fatty acids in the milk of dairy cows. 1st Biotechnology World Congress, Dubai, UAE. Feb 14-15. Accepted.
- 2. Qureshi, M.S., S. Khan, N.A. Khan and K.B. Marwat, 2012. "Dairy Goat a potential candidate of the Dairy Science Park Peshawar, Pakistan" 1st Asia Dairy Goat Conference, Kuala Lumpur, 9-12 April, Universiti Putra Malaysia.
- **3.** Attended regional consultative meeting on assessment of diversity of veterinary services (public and private sector) in SAARC countries at PARC Islamabad from 17 to 18 July, 2012.
- Qureshi MS, M Inam, S Khan, P Chenoweth, A Sultan and N Imtiaz, 2012. Effect of Vitamin C and Electrolytes Supplementation on Exotic and Local Poultry Semen Quality Under Thermal Stress in Pakistan. 8th Biennial Conference of the Association for Applied Animal Andrology, 2012 - Vancouver, Canada.
- 5. Qureshi MS, TA Azeemi, 2012. Dietary manipulations for enhancing cardio-protective fatty acids in the milk of dairy cows. <u>International Conference on Applied Life Sciences</u>. September, 10-12, Konya, Turkey.
- 6. Khan, S., N.A. Khan, G. Habib, M.S. Qureshi & A. Sultan, 2012. Assessment of *Grewiaoppositifolia* Leaves as Crude Protein Supplement to Low Quality Diets of Goats. Proceedings of the 1st Asia Dairy Goat Conference, Kuala Lumpur, Malaysia, 9–12 April 91-92.
- 7. Qureshi, M.S., S. Khan, N.A. Khan & K.B. Marwat, 2012. Dairy Goat a Potential Candidate of the DairySciencePark, Peshawar, Pakistan. <u>Proceedings of the 1st Asia Dairy Goat Conference</u>, Kuala Lumpur, Malaysia, 9–12 April. 201-203.
- 8. Khan S, A Sultan, N Chand, M Mushtaq, Rafiullah and MS Qureshi, 2012. Garlic (Allium sativum) Modulated Serum Cholesterol Level and Improved Immune Status and Carcass Quality of Meat Type Birds. *Proc. The 15th AAAP AnimSci Cong*, 26-30 Nov, ThammasatUniversity, Rangsit Campus, Thailand. 1042-1046.
- 9. Qureshi MS, K Khan, A Rahman, 2013. Detection of antibiotics residues in beef produced at Peshawar, Pakistan. *The 10<sup>th</sup>World Buffalo Congress*, Thailand.
- 10. Qureshi MS, 2013. <u>Utilization of local livestock species for food production in the northern Pakistan.</u>5<sup>th</sup> *International Congress of Integrative Zoology*. Beijing, China. 25-28 June.
- 11. Qureshi MS, Qureshi IU, 2013. Scope for biological sensing technologies in meat production and export in northern Pakistan. 1st International Conference on Sensing for Industry, Control, Communication & Security Technologies. June 24-26. University of Karachi.

- 12. Qureshi MS, et al, 2014. Int Livestock, Dairy Poultry Cong. PVMA, Aiwan-i-Iqbal, Lahore.
- 13. Tanweer AJ, N. Chand, U Saddique, CA Bailey, S KHAN, MS Qureshi and A Sultan, 2014. *Fourth Mediterranean Poultry Summit of the WPSA*, Beirut, Lebanon. 2-5 Sept.
- 14. Khan I, et al, 2014. Proc. *Joint ISNH /ISRP IntConf/* 30<sup>th</sup> Biennial ConfAustSocAnim Prod. Vol 30, pp.97. Canberra, Australia. 8-12 Sept.
- 15. Qureshi MS, 2015. Recent advances in Nutrition- Reproduction Interactions in Dairy Animals. <a href="IntSymp Dairy AnimReprod">IntSymp Dairy AnimReprod</a>. March 30-31, UVASLahore.
- 16. Wahab A, H Khan, MS Qureshi, M Younas and S Khan, 2015. <u>IntSymp Dairy AnimReprod</u>. March 30-31, UVASLahore. Pp 100.
- 17. H Khan, A Wahab, MS Qureshi, S Ahmad, M Younas and S Khan, 2015. <u>IntSymp Dairy AnimReprod</u>. March 30-31, UVASLahore. Pp 86.
- 18. Khan IM, et al, 2015.IntSymp Dairy AnimReprod.March 30-31, UVASLahore.
- 19. Khan A, et al, 2015. IntSymp Dairy AnimReprod. March 30-31, UVASLahore.
- 20. Khan I, Qureshi MS et al, 2015.IntSymp Dairy AnimReprod. March 30-31, UVASLahore.
- 21. Khan I, Qureshi MS et al, 2015.IntSymp Dairy AnimReprod. March 30-31, UVAS Lahore.
- 22. Ghaffar A, MS Qureshi et al., 2015. IntSymp Dairy AnimReprod. March 30-31, UVAS Lahore.
- 23. Khan H, Qureshi MS et al, 2015. IntSymp Dairy AnimReprod. March 30-31, UVASLahore.
- 24. Qureshi MS, 2015. 8th Asian Buffalo Congress. Istanbul, Turkey, 21-25 April.
- 25. Khan A, et al, 2015. 8th Asian Buffalo Cong. Istanbul, Turkey, 21-25 April.
- 26. Qureshi MS, 2015. Int Livestock Dairy Poultry Cong. Feb 27-28. Lahore, Pakistan.
- 27. Qureshi MS, 2015. Led Working Group on Biorisk Management of the Dairy Science Park to attend a meeting with US counterparts and the <u>Third int One Health Cong</u>, 15-18 March, Netherlands.
- 28. Inam M, et al, 2015. 7th IntSympIntegZool, 25-28 Aug 2015. ISZS, Xi'an, China.
- 29. Khan I and MS Qureshi, 2016. Crossbred cows respond differently from Holstein Frisian and *BosIndicus* to heat stress under various Accepted for oral presentation, ID FO0100; TASP 2016 conference in Bangkok, Thailand. July 26-29.
- 30. Shah K, US Khattak, MS Qureshi, 2016. Comparative efficacy of commercially available antimicrobials against local isolates of Mycoplasma mycoides sub specie Capri.
- 31. Shah MK, et al. 21<sup>st</sup>Int Org Mycoplasmology Congress. Queensland University of Technology, Queensland, Australia. 3 7th July (The paper won an award of US\$ 1000).
- 32. Qureshi MS, 2016. Led Dairy Science Park Delegation and presented paper in Consultative workshop of DSP team with Sandia National Laboratories USA for Pakistan Biorisk Curriculum Development. Dubai; May 21-25, 2016.
- 33. Basit A, A Rahman, S Ahmad, MS Qureshi, SM Suhail, HU Din, 2016. Annual International Conference on Advances in Veterinary Science Research (VETSCI). Singapore. 26-27 Sep.
- 34. Khan, NA Khan, N Ahmad, MS Qureshi, 2017. Screening of traditional and novel spring maize cultivars for silage production. Int Livestock Nutrition Summit, Feb 21-22, 2017. UVAS Lahore.
- 35. Nasrullah PR, MA Kakar, Azizullah, MS Qureshiand M Direk, 2017. CRIMEAN CONGO HEMORRHAGIC ...... 4<sup>th</sup>IntConfIndustExhibDairy Sci Park, Konya, Turkey, Nov 1-5.
- 36. Qureshi SS, IH Qureshi, S Khan and MS Qureshi, 2017. DAIRY SCIENCE PARK–EMPLOYMENT ...... 4<sup>th</sup>IntConfIndustExhibDairy Sci Park, Konya, Turkey, Nov 1-5.
- 37. Chand N, F Wahab, MS Qureshi and RU Khan, 2017.EFFECT OF FENUGREEK SEED SUPPLEMENTATION... 4<sup>th</sup>IntConfIndustExhibDairy Sci Park, Konya, Turkey, Nov 1-5.
- 38. Qureshi SN, R Ali, SS Qureshi, M Ahmed, IU Qureshi, 2017. DETERMINANTS OF LABOR FORCE ... 4<sup>th</sup>IntConfIndustExhibDairy Sci Park, Konya, Turkey, Nov 1-5.
- 39. Khan MH, SM Suhail, MS Qureshi, HU Din I Ahmed, I Ahmed and K Khan, 2017. EFFECT OF YEAST CULTURE ... 4<sup>th</sup>IntConfIndustExhibDairy Sci Park, Konya, Turkey, Nov 1-5.
- 40. Khan K, SM Suhail, R Khan, S Khan, MS Qureshi, and I Ahmad, 2017.STUDY ON GROWTH ... 4<sup>th</sup>IntConfIndustExhibDairy Sci Park, Konya, Turkey, Nov 1-5.
- 41. Ali N, ZU Din, M Sajid, S Khan, MS Qureshi, S Ullah, M Nabi, W Ali, 2017. CURRENT QUINOLONES SHOW... 4<sup>th</sup>IntConfIndustExhibDairy Sci Park, Konya, Turkey, Nov 1-5.

- 42. Kakar MA, S Durrani, SA Baloch, Azizullah, MS Qureshi, PR Nasrullahand M Direk, 2017. BALOCHISTAN ... 4<sup>th</sup>IntConfIndustExhibDairy Sci Park, Konya, Turkey, Nov 1-5.
- 43. Kakar MA, S Durrani, SA Baloch, Azizullah, MS Qureshi, PR Nasrullahand M Direk, 2017. ROLE OF BIOTECHN ... 4<sup>th</sup>IntConfIndustExhibDairy Sci Park, Konya, Turkey, Nov 1-5.
- 44. Durrani S, SA Baloch, PR Nasrullahı, MA Kakar, Azizullah, MS Qureshi, M Direk, 2017. ROLE OF WOMEN IN ... 4<sup>th</sup>IntConfIndustExhibDairy Sci Park, Konya, Turkey, Nov 1-5.
- 45. Khan N, NA Khan, N Ahmad, MS Qureshi, MNM Ibrahim, 2017. EFFECT OF SPRING MAIZE GENOTYPES ... 4<sup>th</sup>IntConfIndustExhibDairy Sci Park, Konya, Turkey, Nov 1-5.
- 46. Khan N, NA Khan, N Ahmad, MS Qureshi and MNM Ibrahim, 2017. SCREENING OF TRADITIONAL AND... 4<sup>th</sup>IntConfIndustExhibDairy Sci Park, Konya, Turkey, Nov 1-5.
- 47. Sahibzada S, MS Qureshi, 2017. ANTIMICROBIAL RESISTANCE IN THE FOOD CHAIN IN DEVELOPING... 4<sup>th</sup>IntConfIndustExhibDairy Sci Park, Konya, Turkey, Nov 1-5.
- 48. Qureshi MS, M Direk, IUH Qureshi, SN Badshah, A Yousaf, DAIRY SCIENCE PARK, CONNECTING ... 4<sup>th</sup>IntConfIndustExhibDairy Sci Park, Konya, Turkey, Nov 1-5.

### Conferences/workshop/organized\_http://dairysciencepark.org.pk/

- International Workshop on Diary Science Park (Nov 21-23, 2011)
- Second International Workshop on Dairy Science Park, Nov 18-20, 2013
- Third International Workshop on Dairy Science Park, Nov 16-18, 2015
- Fourth International Workshop on Dairy Science Park(Turkey), Nov 1-5, 2017
- Fifth International Workshop on Dairy Science Park (Quetta), Nov 19-21, 2019
- Sixth International Workshop on Dairy Science Park (Bahawalpur), Mar 20-21, 2022

### RESEARCH SCHOLARS SUPERVISED:

### PhD, Major supervisor (completed)

- 1. Sohail, SM, 2007. Genetic and phenotypic evaluation of dairy buffaloes for performance traits.
- 2. Mushtaq, Anila, 2009. Effect of physiological states on milk composition in dairy animals under subtropical conditions.
- 3. Ikramullah Khan, 2014. Evaluation of different stress indicators associated with reproductive cyclicity of crossbred dairy cows.
- 4. Ihsanullah, 2016. Effect of stress on reproductive physiology of crossbred cattle under sub-tropical conditions of northern Pakistan. AUP (Major Supervisor).
- 5. ShakirUllah, 2016. Association of oxidative stress with GnRH concentrations in crossbred dairy cows. (Major Supervisor).
- 6. Saqib, MN, 2020. Stress Factors Affecting Sustainable Dairy Farming And Improvement Strategies For District Peshawar.

### PhD, Member supervisory committee (completed)

- 1. Khan, Sarzamin, 2007. Lactation Reproduction Interaction in dairy buffaloes. AU Peshawar.
- 2. Chand, Nyla, 2008. Effect of *Berberislycium* on the performance, serum lipid profile, immunity and liver function in broiler chicks. AU Peshawar.
- 3. Tanveer, AJ, 2011. Effect of administration of different levels of methanolic extract of Peganum harmala on hematology, immunity and serum biochemistry of broiler chicks.
- 4. Sultan, Shoaib, 2016. Dietary supplementation of protected fats and Vitamin E to improve semen quality in Beetal bucks.
- 5. Muhammad Abubakar, 2017. Epydynamics and molecular characterization of peste des ruminants virus. PARC Institute of Advances Studies in Agriculture, UAP.
- 6. Saima Dil, 2018. PARC Institute of Advances Studies in Agriculture, UAP.
- 7. Muhamamd Inam. Stress productivity interaction in broilers.

- 8. Kamran Khan. Meat production potential of rabbits.
- 9. Khan, Nadar. Optimizing the nutritional value of maize silage in relation to milk production and quality of dairy cows.
- 10. Khan, M Tahir. Evaluation of fungal treated roughages for beef production in the subtropical conditions of KP.
- 11. Asadullah. Studies on epidemiology, and molecular characterization of mycobacterium in large ruminants in central zone of KP.
- 12. Khalil, Zia ur Rahman. Postpartum reproductive cyclicity and serum biochemical profiles of Achai cattle under farming practices in Northern Pakistan.
- 13. Lal, Chaman (Late). PIASA, NARC, Islambabad, Major SMH Andrabi.

MSc (Hons) Major supervisor (Completed): 23

MSc (Hons), Co-supervisor (Completed) 61

MSc Hons ongoing, Member Supervisory Committee: 21

## 9. RESEARCH PROJECTS - Completed

- 1. *Principal Investigator*, Improvement of Artificial Insemination Technology in Dairy Buffaloes in NWFP Cost 0.3 million, ARF-Pak. Agric. Res. Council, Islamabad. (2001-2004)
- 2. *Principal Investigator*, Genetic Improvement of Dairy Goats in NWFP. Cost 0.2 million, CDYST-Pak. Sci. Foundation Islamabad (2004-2006).
- 3. *Project Component Supervisor*, Livestock Component, STRC Project. Cost Rs.167 million. Higher Education Commission of Pakistan, Islamabad.
- 4. *Project In charge*, Research and developments for improvement in hides and skins in NWFP (1994 to 1998).
- 5. *Principal Investigator*, Effects of season and extenders on goats's semen integrity and fertility. Cost 1.1 million, Pak. Sci. Foundation Islamabad (2007-2009).
- 6. *Co-Principal Investigator*, Reproductive characteristics of beetal male goats as influenced by the dietary supplementation of alphatocopherol. HEC Research Grant to DrRifatullah Khan, Assistant Professor. Rs.0.50, 2013-14.

### **10. RESEARCH PUBLICATIONS**

ISI Web of Knowledge, <u>Publons /Clarivate</u> (733: Sum of Times Cited; 14: H-Index; 63: Publications in Web of Science; Researcher ID: C-7212-2008; <u>ORCID ID</u>; <u>Loop Profile</u>; <u>Scopus/Mendeley ID</u>; CSU Australia <u>Profile</u>; ResearchGate: <u>Profile</u>; Google Scholar: <u>Profile</u>; <u>DSP Page</u>

# A. Impact Factor Journals, 2013 and onward

- 1. Tomovska J, S Presilski, SPN Gjorgievski, N Tomovska, MS Qureshi and NP Bozinovska, 2013. Development of a spectrophotometric method for monitoring angiotensin-converting enzyme in dairy products. *Pak Vet J*, 34 (1): 14-18.
- 2. Qureshi MS, D Khan, A Mushtaq, SS Afridi, 2013. Effect of extenders, post-dilution intervals and seasons on semen quality in dairy goats. *Turkish J Vet Anim Sci.* 37: 147-152. DOI: 10.3906/vet-1110-24.
- 3. KhanMT, NA Khan, M Bezabih, MS Qureshi and A Rahman, 2013. The nutritional value of peanut hay (Arachishypogaea L.) as an alternate forage source for sheep. *Trop Anim Health Prod.* 45:849–853, DOI 10.1007/s11250-012-0297-8.
- 4. Tanweer AJ, N Chand, S Khan, A Sultan, MS Qureshi, A Akhtar, M Inam and Rafiullah, 2013. Association of *Peganumharmala L*. Supplementation with lipid Profile and its Economic Benefit in Broiler Production. *Pak Vet J*, 33(3): 313-316.

- 5. Ali T, A Rahman, MS Qureshi, MT Hussain, MS Khan, S Uddin, M Iqbal and B Han, 2014. Effect of management practices and animal age on incidence of mastitis in Nili Ravi buffaloes. *Trop Anim Health Prod*, 46(7):1279-85. Doi: 10.1007/s11250-014-0641-2.
- 6. Rahman HU, MS Qureshi, R Khan, 2014. <u>Influence of dietary zinc on semen traits and seminal plasma antioxidant enzymes and trace minerals of Beetal bucks</u>. *Reproduction in Domestic Animals*, 49 (6), 1004–1007; doi: 10.1111/rda.12422.
- Rahman A, MY Khan, OSadiq, MS Qureshi, Nr Ahmed, N Shaheen, S Uddin, T Ali. <u>Washing Of Animal Body Coat Effects On Salmonella Load On Hide And In Postslaughter Carcasses</u>. Sylwan, 159(3): 400-415.
- 8. Qureshi MS, A Mushtaq, S Jan and IU Rahman, 2015. <u>Effect of Age and Lactation on Milk Fatty Acid Profile in Dairy Buffaloes</u>. *Buffalo Bulletin*, 34 (3): 275-283.
- 9. Majid A, MS Qureshi and R Khan, 2015. "In vivo adverse effects of high dose of alpha-tocopherol on the semen quality of male bucks". *Journal of Animal Physiology and Animal Nutrition*, 99 (5): 841–846. DOI: 10.1111/jpn.12284.
- 10. Wahab A, H Khan, S Ahmad, MS Qureshi, Y Muhammad, S Khan, U Sadique and MK Shah, 2016. <u>Biochemical Profile of Local Rabbits (Oryctolaguscuniculus) During Successful Pregnancy Under Backyard Production System</u>. *Pakistan J. Zool*, 48 (3):625-630.
- 11. Chand N, H Faheem, RU Khan, MS Qureshi, IA Alhidary and AM Abudabos, 2016. <u>Anticoccidial effect of mananoligosacharide against experimentally induced coccidiosis in broiler.</u>EnvSci Pollution Res, 23 (14): 14414–14421. DOI: 10.1007/s11356-016-6600-x.
- 12. Khan I, MS Qureshi, S Akhtar, I Ali and Ghufranullah, 2016. <u>Fertility Improvement in Cross-Bred Dairy Cows Through Supplementation of Vitamin E as Antioxidant. Pakistan</u>*Pak J. Zool.*, 48(4): 923-930.
- 13. Khan I, MS Qureshi, S Ahmad, S Akhtar, H Khan and Ghufranullah, 2016. <u>Effect of Lactation and Breed on Reproductive Cyclicity Under Various States of Oxidative Stress in Dairy Cattle Breeds. Pak J. Zool.</u>, 48(5): 1431-1441.
- 14. Qureshi MU, MS Qureshi, R Khan, A Rahman, SM Sohailb, A Ijaz, I Ahmad, S Ahmad, M Shoaib and A Basit, 2016. Relationship of blood metabolites with reproductive cyclicity in dairy cows. *Indian J Anim Res.* 50(3): 338-348.
- **15.** Rehman H, IA Alhidary, RU Khan, MS Qureshi, U Sadique, H Khan, and SH Yaqoob, 2016. Relationship of Age, Breed and Libido with Semen Traits of Cattle Bulls. *Pak J. Zool.*, 48 (6), 1793-1798.
- 16. Ihsanullah, MS Qureshi, SM Suhail, S Akhtar, RU Khan, 2017. Postpartum endocrine activities, metabolic attributes and milk yield are influenced by thermal stress in crossbred dairy cows. Int J Biometeorol, 61: 1561-69; DOI 10.1007/s00484-017-1335-z.
- 17. Khan S, Qureshi MS and RU Khan, 2017. <u>The Effect of vitamin E and Selenium on physiological, hormonal and antioxidant status of Damani and Balkhi sheep submitted to heat stress</u>. Applied Biological Chemistry, 60 (6): 585-590.
- 18. Chand N, S Naz, H Maris, RU Khan, S Khan and MS Qureshi, 2017. Effect of Betaine Supplementation on the Performance and Immune Response of Heat Stressed Broilers. Pak J Zool, 49(5): 1857-1862.

- 19. Khan MZ, T Usman, U Sadique, MS Qureshi, MF Hassan, M Shahid and A Khan, 2017. Molecular Characterization of *Brucella abortus* and *Brucella melitensis* in Cattle and Humans at the North West of Pakistan. Pak Vet J, 37(3): 360-363.
- 20. Rehman ZU, N Chand, RU Khan, S Khan and MS Qureshi, 2018., <u>An assessment of the Growth and Profitability Potential of Meat-Type Broiler Strains under High Ambient</u> Temperature. Pakistan J. Zool., 50(2), 429-435.
- 21. Saqib MN, MS Qureshi, RU Khan, 2018. <u>Changes in postpartum metabolites and resumption of ovarian cyclicity in primiparous and multiparous dairy cows</u>. Applied Biological Chemistry. Applied Biol Chem, 61 (1): 107–111.
- 22. Khan IM, RU Khan, MS Qureshi, T Usman, A Khan, Z Ullah and H Rehman, 2018. Cross Breeding Promotes Deterioration of Semen Quality in Cattle Bulls. Pakistan J. Zool. 50 (1): 97-103.
- 23. Abubakar M, AB Zahur, K Naeem, MA Khan and MS Qureshi, 2018. <u>Field and Molecular Epidemiology of Peste des Petits Ruminants in Pakistan</u>. Pakistan J. Zool., 50 (2): 559-566.
- 24. Ullah A, US Khattak, S Ayaz, MS Qureshi, I Khan, IU Jan, I Khattak, R Taj, S Nigar, NU Khan, MA Khan and ML Sohail, 2019. Bovine Tuberculosis (bTB): Prevalence and Associated Risk Factors in Large Ruminants in the Central Zone of Khyber Pakhtunkhwa, Pakistan. Pak J Zool, 51(1), 127-133.
- 25. Shah M, MS Qureshi, RU Khan, M Mobashar, MA Khalique, I Khattak, ..., 2019. <u>Semen Quality of Bulls as Influenced by Breed, Body Condition Score and Ascorbic Acid under Heat Stress.</u> Pakistan Journal of Zoology 51 (5): 1699-1703.
- 26. Ihsanullah, MS Qureshi, S Akhtar and SM Suhail, 2020. <u>Seasonal Stress Affects Reproductive and Lactation Traits in Dairy Cattle with Various Levels of Exotic Blood and Parities under Subtropical Condition</u>. Pakistan Journal of Zoology, 52 (1): 1-424.
- 27. Khan A, Khan RU, Qureshi MS, Mobashar M, Gohar A, Ahmad S, Khan K, Khan H and Naz S, 2020. Effects of Different Equilibration Times on Post-Thaw Cryopreserved Semen Quality of Cattle and Buffalo Bulls. Pakistan Journal of Zoology, 53: 613-618.
- 28. Saqib MN, MS Qureshi, SM Suhail, RU Khan, G Bozzo, E Ceci, V Laudadio, V Tufarelli, 2022. <u>Association among metabolic status, oxidative stress, milk yield, body condition score and reproductive cyclicity in dairy buffaloes</u>. Reprod Domest Anim. doi: 10.1111/rda.14086. Online ahead of print.
- 29. Ullah A, R Khan, SM Suhail, I Ahmad, FA Khan, MS Qureshi, NA Khan, AA Akkari & DAEM Ahmed, 2022. <u>Bioinformatics analysis and the association of polymorphisms</u> within the caprine GDF9 gene promoter with economically useful traits in Damani goats, Animal Biotechnology, DOI: 10.1080/10495398.2022.2154676

Web of Science/Publons/Clarivate listed: 68

Books published: 20
Book Chapters: 3