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INTEGRATED GENOMICS, CELLULAR, DEVELOPEMNTAL AND BIOTECHNOLOGY LABORATORY (IGCDB) (DEPARTMENT OF ENTOMOLOGY, FACULTY OF AGRICULTURE, UNIVERSITY OF AGRICULTURE FAISALABD, PAKISTAN)

Name: Prof. Dr. Jam Nazeer Ahmad

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Domain: Science, Health Technology/Biotechnology

ACADEMIC PROFILE AND PROFESSIONAL EXPERIENCE:

Professor, under Higher Education Commission (HEC) Tenure Track System (TTS), Department of Entomology, University of Agriculture Faisalabad (UAF) Punjab (Pakistan) (www.uaf.edu.pk) (11-10-2024~today)

- Associate Professor, under Higher Education Commission (HEC) Tenure Track System (TTS), Department of Entomology, University of Agriculture Faisalabad (UAF) Punjab (Pakistan) (www.uaf.edu.pk) (31-08-2019~ 10-10-2024).
- Assistant Professor, under Higher Education Commission (HEC) Tenure Track System (TTS), Department of Entomology, University of Agriculture Faisalabad (UAF) Punjab (Pakistan) (www.uaf.edu.pk) (26-07-2012~31-08-2018).
- ▶ Ph.D. (Microbiology/Science Health and Technology/) (2008~2011) from Laboratory of Cellular and Molecular biology-UMR-BFP 1332 INRA-University of Bordeaux 1 and 2 (France).
- ➤ M.Phil. (Biology and Biotechnology) (2007~2008) from Laboratory Bigenèse Membranaire CNRS-UMR 5200- University of Victor Segalen Bordeaux 2 (France).
- M.Sc. (Hons.) (Agricultural Entomology). (2004-2006) from Department of Agri. Entomology, University of Agriculture Faisalabad (UAF) Punjab (Pakistan).
- ➤ B.Sc. (Hons.) (Agricultural Entomology). (2000-2004) from Department of Entomology, University of Agriculture Faisalabad (UAF) Punjab (Pakistan).

1. RESARCH INTERESTS:

Knowledge about insects is rapidly increasing and now it has a wide scope worldwide. The use of insects as well as insect-derived cells or molecules in medical, agricultural and industrial or other technological Applications focuses on the systematic transfer of solutions from nature to the technical world. It is essential to spread more knowledge and scientific research regarding Insect Science and its association with other domains of science particularly plant sciences. Keeping in view this importance and need of country, my main focus is on Molecular Plant-Host Resistance; Insecticides Resistance and Management; Molecular Detection, Identification and Characterization of entomopathogens (NPVs, fungi and bacteria), Pest insects, Beneficial insects (Predators, Parasitoids), Invasive Insect Species as well as Mites; Development and Production

of Bio- pesticides; Genes expression Regulations; Gene Silencing through RNAi; Epi-genetics; DNA methylation; Recombinant Protein Production, Purification and Expression; Isolation and characterization of Virulent/Resistant Genes/Proteins; Development of Genetically Modified Organisms (GMOs); Development of pest Resistant Crops; Integrated Management of Insects and Pathogens; Application of Insect Biotechnology /Microbiology in Agriculture, Human health and Industry; Microbial Production of Biologically Active Compounds and Application of Nanotechnology in Biology. For this purpose, a well-equipped laboratory (Integrated Genomics, Cellular, Developmental and Molecular Biotechnology) and Learning Research Centre (LRC) comprising green and glass houses has been established with national and international funds (Pak-Norway, HEC, PARB Grants); Modern beekeeping and safe honey production technology and, capacity building trainings for the enhancement of scientific skills has also been given to students, farmers and Government plant protection officers.

2. RESEARCH EQUIPMENT FACILITIES IN LABORATORY:

In Integrated Genomics, Cellular, Developmental and Biotechnology Laboratory (IGCDBL) nearly all kinds of research facilities related to molecular biology, biotechnology, microbiology, nanotechnology, entomology and plant sciences exist along with the established laboratory associated Learning Research Centre (LRC) for transgenic crops as well as bio pesticides development. There are also two Green houses and Glass one glass house including a room for indoor beekeeping technology with basic facilities. In the laboratory, there is also molecular insects, pathogens identification unit and DNA/RNA library.

3. RESEARCH SKILLS AND EXPERTIES:

Nearly all kinds of laboratory and field experiments; Installation and Implementation of Research Projects; All laboratory techniques required for Microbiology, Molecular Biology and Genetics Engineering including: Primer Designing, RNA, DNA extraction and Purification, Cloning and Sequencing, Real Time Polymerase Chain Reaction (RT-PCR), Semi-quantitative RT-PCR, Methylation Specific Restriction Enzymes PCR (MSRE-PCR), Nested PCR, Random Amplified Polymorphic DNA (RAPD), Restriction Fragment Length Polymorphisms (RFLP), Bisulphite and Azacitidine treatment and Sequencing, Southern Blotting, Western Blotting, Northern Blotting, Recombinant Protein Production, Purification and Characterization, Immuno-precipitation, Antibodies Production and Purification, Sodium Dodicyl Sulphate-Ployacrylamide Gel Electrophoresis (SDS-PAGE), Lipids-Proteins Based Vesicles Preparation and BIAcore; Isolation and Maintenance of Microorganisms with Pure Culture Techniques; Staining of Microorganisms, Estimation of Microbial Growth, Microscopic Studies using Light Microscope, Phase Contrast Microscope; Fluorescence Microscope, Transmission Electron Microscope, and Scanning Electron Microscope; Basic biochemical and physiological tests to identify bacteria, fungus and viruses; Phylogenetic analysis of different gene sequences with the help of BLAST in NCBI, BioEdit, Clustal X and MEGA 6/7 programs Bio-informatics tools required for sequence analysis of a gene and protein. RNA interference, CRISPRE-Case9 Techniques, Artificial Intelligence and machine learning tools.

4. SCIENTIFIC RESEARCH PROJECTS:

A-PROJECTS COMPLETED:

1. Screening and management of indigenous date palm genetic resource against Fusarium wilt

- and red palm weevil and their conservation. (P. No. 802 PARB-CGS System; 38.87 million Rs. Status. Completed AS **Principal Investigator**).
- 2. Molecular Identification, Characterization and Management of Phytoplasma's Insect vectors and associated diseases of Punjab, Pakistan. (P. No. 20-4535 HEC-NRPU-R&D; 5.5 million Rs. Status. Completed AS Principal Investigator).
- **3.** Studying plant defence responses in oilseed rape (*Brassica napus*) for sustainable pest management. (P. No. 3004 ICP-NORWEGIAN GRANT-Phase II; 50 million Rs. Status. Completed AS Principal Investigator).
- 4. Comparative analysis of defense gene expression and their effect upon resistance induced by the application of plant activators against chewing and sucking insect pest in tomato. (P. No. PD-IPFP/HRD/H EC/2013/3008-HEC-START UP; 0.5 million Rs. Status. Completed AS Principal Investigator).
- **5.** Olfactory response and host-plan feeding preference of desert locust t common plants in Punjab province of Pakistan. (P. No. 20-GCF-290/RGM/RD/HEC-HEDP/2020; 64.8 million Rs. Status. Completed AS **CO- Principal Investigator**).
- **6.** Molecular defense response in Wheat (*Triticum aestivum*) for sustainable insect pest management. (P. No.6379/Punjab/NRPU/R& D/HEC-NRPU/2016; 5.82 million, Status. Completed AS **CO- Principal Investigator**).
- **7.** Entomopathogenic Baculovirus Biopesticide production by using insect cultures and their potential to control cotton bollworms. (P. No. No.20- 3209/NRPU/R&D/HEC/13/460; 6.13 million Rs. Status. Completed AS **CO- Principal Investigator**).
- **8.** Scheme for Establishment of Punjab Bio-energy Institute (PBI) at University of Agriculture, Faisalabad Pakistan Approved Budget in PC1 for the establishment of Insect Biofuel Production Laboratory in Entomology. (Government of Punjab; Total: 970.96 million ENT. Budget in PC1: (10.57 million Rs. status completed **AS member**).
- **9.** Management of Whitefly by Integrated Strategies and development of resistant Germplasm through Genetic Engineering. (P. No. PARB-889-PARB-CGS-System. 25 million Rs. Status. Completed AS **team scientist**).
- **10.** A comprehensive integrated scientific approach for the development of sustainable management strategies of Pink bollworm (*Pectinophora gossypiella*). (P. No. PARB-890-PARB-CGS-System. 33.8 million Rs. Status. Completed AS **team scientist**).
- **11.** Functional Toxicogenomics of the Insecticide Resistance in dusky cotton bug (*Oxycarenus hyalinipennis*) and Red cotton bug (*Oxycarenus koenigii*). (Islamic Development Bank P. No. 2019-176871. 6000 US \$. Status. Completed AS SUPERVISOR of Post Doc student Dr. Rabia Saeed).

B-PROJECTS UNDER GOING

- **1.** Study of Genetic Variation, Resistance Genes Expression, and Virus Base Control of Fall Armyworm, *Spodopter frugiperda* in Pakistan. (P. No. 20-16588 HEC-NRPU; 5.78 million Rs. Status. Under going AS **Principal Investigator**).
- 2. Spider mites (Acari: tetranychidae) diversit based morphological characteristics and DNA barcoding techniques from different agro ecological zones of Pakistan. (P. No. 20-LCF-324/RGM/R&I D/HEC/2021; 9.84 million Rs. Status. Undergoing AS CO- Principal Investigator).

5. RESEARCH PUBLICATIONS IMPACT FACTORS

- **1. Ahmad, J.N.**, Ahmed, R., Awais, M., Fareed, F., Muzammil, F., 2025. Comparative Lethal and Transgenerational effects of conventional, novel and Metarhizium anisopliae on the survival, immunity, and demographic parameters of *Rhynchophorus ferruginoeus* Oliver. CABI Agriculture and Bioscience. Accepted (IF 3.2)
- Saeed, R., Abbas, N., Akmal, M., Ahmad, J.N., 2025. Resistance development, cross-resistance, and inheritance patterns in clothianidin and triazophos resistant strains of Oxycarenus hyalinipennis,. Crop Protection, 193:107197, https://doi.org/10.1016/j.cropro.2025.107197. (IF 2.5)
- 3. Ahmad, F., Tanwir, S., Ahmad J.N., Kiran, A., Joya F.A., 2025. Benzothiadiazole maintain redox

- balance and promotes defense against *Sitobion avenae* in wheat by fine tuning antioxidant system secondary metabolism and osmolyte accumulation. Turk. J. Bot. doi. TJBOT-2023-00024R2. (IF 1.5)
- **4.** Malik, M, A., Ishita, A, Atle Bone, Gozde B, E, Tanwir, S. and **Ahmad, J, N**,. 2024. Defense Response Study in Oilseed Rape (Brassica napus L.) in Response to Beet Armyworm *Spodoptera exigua*. ISSN 1062-3590, Biology Bulletin. 51 (4) doi:10.1134/S1062359023606067. (IF 0.5)
- 5. Kanwal, B., Tanwir, S., Ahmad, Farooq and Ahmad, J. N., 2024. Jasmonic Acid and Salicylic Acid Improved resistance against Spodoptera frugiperda Infestation in Maize by modulating growth and regulating redox homeostasis. Scientific Report. 14. 16823. https://doi.org/10.1038/s41598-024-67151-1 (IF 4.5)
- 6. Sarfraz, N., Ahmad, J. N., Khan, W.A., Qamar, S.U., 2024. Molecular Identification and phylogenetic analysis of potato aphid Species (Hemiptera. Aphididae) in Punjab Pakistan. International Journal of Tropical Insect Science. https://doi.org/10.1007/s42690-024-01285-7 (IF 1.5)
- **7. Ahmad, J. N.**, Sharif, M. Z., Trebicki, P and Tanwir, S., 2023. First report of DNA barcoding, phylogenetic analysis and transmission study of *Medicago sativa* phytoplasma (16Sr-II-D) and associated insect vectors in Pakistan. Australasian Plant pathology. doi: 10.1007/s13313-023-00919-7 AUPP-D-22-00252R4. (IF 1.6)
- **8.** Jafir, M., Irfan, M., Zia-ur-Rehman, M., Hafeez, F., **Ahmad, J.N**., Sabirf, M.A., Zulfiqar, U., Iqbal, R., Zulfiqar, F., Moosa, A., 2023. The global trend of nanomaterial usage to control the important agricultural arthropod pests: A comprehensive review. Plant Stress, 10, 100208. https://doi.org/10.1016/j.stress.2023.100208. (IF 6.8)
- **9.** Hanif, A., Tanwir, S., **Ahmad, J.N**., Hameed, M. and Mustafa, G., 2023. Nepeta paulsenii Briq. inhibits hepatic toxicity in albino rats: Phytochemical analysis and chemical profiling. *Journal of King Saud University-Science*, *35*(3), p.102542. (IF 3.7)
- **10.** Hanif, A., Ibrahim, A.H., Ismail, S., Al-Rawi, S.S., **Ahmad, J.N**., Hameed, M., Mustufa, G. and Tanwir, S., 2023. Cytotoxicity against A549 Human Lung Cancer Cell Line via the Mitochondrial Membrane Potential and Nuclear Condensation Effects of Nepeta paulsenii Briq., a Perennial Herb. *Molecules*, *28*(6), p.2812. (IF 4.6)
- **11.** Manzoor, M., Yang, Lei., Wu, S., El-Shafie H., Ahmad, Haider, M.S., and **Ahmad, J.N.**, 2022. Feeding prefence of *Rhynchophorus ferrugineus* (Oliver) (Coleoptera: Curculionidae) on different date palm cultivars and host biochemical responses to its infestation. Bulletin of Entomological Research. **112**(4), 494-501. (IF 1.4)
- **12.** Aslam, Z.U.B.A.I.R., Ahmad, A., Bashir, S.A.F.D.A.R., Hussain, S., BELLITÜRK, K., **Ahmad, J.N.**, Ullah, E., Tanvir, S. and Abbas, T., 2022. Effect of integrated nutrient management practices on physiological, morphological and yield parameters of chilli (capsicum annum L.). *Pak. J. Bot*, *54*(6), pp.2143-2150. (IF 0.98)
- **13.** Saeed, R., Mahmood, Z., Shah, S.I.A., Jaleel, W., **Ahmad, J.N.**, Malik, T.H., Jan, M.T., Ghramh, H.A., Ahmad, Z. and Khan, K.A., 2022. Using two-sex life table tools to compare the population parameters of *Oxycarenus hyalinipennis* costa (Lygaeidae: Hemiptera) when fed on Bt and non-Bt cotton seeds. *Journal of King Saud University-Science*, *34*(5), p.102073. (IF 3.7)
- **14.** Ahmad, M.A., Ahmad, S.J.N., Shah, A.N., **Ahmad, J.N**., Ahmed, S., Al-Qahtani, W.H., AbdElgawad, H. and Shah, A.A., 2022. Study of genetic modifications of flower development and methylation status in phytoplasma infected Brassica (Brassica rapa L.). *Molecular Biology Reports*, *49*(12), pp.11359-11369. (IF 2.8)
- **15. Ahmad, J.N.**, Ahmad, S.J.N., Jafir, M., Manzoor, M., Malik, M.A. and Tariq, M., 2022. Management of American bollworm (*Helicoverpa armigera*) using native isolated *Spodotera litura* associated nucleopolyhedroviruses (SlitNPV). *JAPS: Journal of Animal & Plant Sciences*, 32(4). (IF 0.89)
- **16.** Qamar, S.U.R., Tanwir, S., Khan, W.A., Altaf, J. and **Ahmad, J.N**., 2021. Biosynthesis of silver nanoparticles using Ocimum tenuiflorum extract and its efficacy assessment against *Helicoverpa armigera*. *International Journal of Pest Management*, pp.1-9. (IF 1.3)
- **17.** Qamar, S.U.R. and **Ahmad, J.N.**, 2021. Nanoparticles: Mechanism of biosynthesis using plant extracts, bacteria, fungi, and their applications. *Journal of Molecular Liquids*, 334, p.116040. (IF 5.3)
- **18.** Jafir, M., **Ahmad, J.N.,** Arif, M.J., Ali, S. and Ahmad, S.J.N., 2021. Characterization of *Ocimum basilicum* synthesized silver nanoparticles and its relative toxicity to some insecticides against tobacco cutworm, Spodoptera litura Fab. (Lepidoptera; Noctuidae). *Ecotoxicology and*

- Environmental Safety, 218, p.112278. (IF 6.5)
- **19.** Aslam, M., Tanwir, S., Akhtar, Z.R. and **Ahmad, J.N**., 2021. First Report of 16SrII-D Phyllody Phytoplasma and associated insect vectors infecting Multiflower Inbred lines of Sunflower (Helianthus annuus L.) in Faisalabad, Pakistan. *Pakistan Journal of Agricultural Sciences*, *58*(3). (IF 0.95)
- **20.** Ahmad, S.J.N., Ahmad, W., Majeed, D., Sufian, M., Sharif, M.Z., Ali, A., Ahuja, I., Bones, A.M. and **Ahmad, J.N.**, 2021.Infestation, Genetic variation Analysis and Biology Study of Biocontrol agent Isturgia disputaria (GUENEES) on Acacia Nilotica in Pakistan. *JAPS: Journal of Animal & Plant Sciences*, 31(6). (IF 0.85)
- **21. Ahmad, J.N.**, Majeed, D., Arshad, M., Malik, M.A., Ali, A., Nadeem, S. and Ahmad, S.J.N., 2021. Effect of Methyl Jasmonate on Bt cotton (Gossipium hirsutam. L) Gene expression and mortality of Pink bollworm (Pectinophora gossypiella). *Journal of Animal & Plant Sciences*, *31*(6). (IF 0.85)
- **22.** Ahuja, I., Kissen, R., Hoang, L., Sporsheim, B., Halle, K.K., Wolff, S.A., Ahmad, S.J.N., **Ahmad, J.N.** and Bones, A.M., 2021. The Imaging of Guard Cells of thioglucosidase (tgg) Mutants of Arabidopsis Further Links Plant Chemical Defence Systems with Physical Defence Barriers. *Cells*, 10(2), p.227. (IF 5.5)
- **23.** Ahmad, S.J.N., Majeed, D., Ali, A., Sufian, M., Aslam, Z., Manzoor, M. and **Ahmad, J.N.**, 2021. Effect of Natural High Temperature and Flooding Conditions on Cry1Ac gene expression in different transgenic Bt cotton (Gossypium hirsutum L.) Cultivars. *Pak. J. Bot*, *53*(1), pp.127-134. (IF 0.98)
- **24.** Aslam, Z., Bashir, S., Shahzad, M., **Ahmad, J.N**., Bashir, S., Ahmad, A., Ahmad, N., Tillah, R., Husain, A., Alotaibi, S.S. and El-Shehawi, A.M., 2021. Comparative Efficacy of Zinc Sources for Zinc-Biofortification of Mung Bean (Vigna radiata L.). *Fresenius Environmental Bulletin*, *30*(8), pp.9903-9912. (IF 0.58)
- **25. Ahmad, J.N.**, Ahmad, S.J., Malik, M.A., Abid, A., Ali, M., Ahmad, E., Tahir, M. and Ashraf, M., 2020. Molecular Evidence for the Association of Swarm Forming Desert Locust, Schistocerca gregaria gregaria (Forskål) in Pakistan with Highly Prevalent Subspecies in Sahara Desert of Africa. *Pakistan Journal of Zoology*, *52*(6), p.2233. (IF 0.85)
- **26.** Ali, Y., Khan, M.A., Hussain, M., Sabir, W., Atiq, M., Aatif, H.M., Ahmad, S., Ijaz, M. and **Ahmad, J.N.**, 2020. Virulence analysis of leaf and stripe rust populations in Pakistan through avirulence to virulence formula. *Archives of Phytopathology and Plant Protection*, *53*(17-18), pp.844-855. (IF 1.57)
- **27.** Yaseen, S., Tanwir, S., **Ahmad, J.N**., Hussain, M. and Aslam, Z., 2020. Evaluation of morphological and physio-chemical changes in phytoplasma infected Brassica napus. *JAPS: Journal of Animal & Plant Sciences*, *30*(6). (IF 0.85)
- **28.** Manzoor, M., **Ahmad, J.N.**, Giblin-Davis, R.M., Javed, N. and Haider, M.S., 2020. Effects of entomopathogenic nematodes and/or fungus on the red palm weevil, Rhynchophorus ferrugineus (Curculionidae: Coleoptera). *Nematology*, *22*(10), pp.1193-1207. (IF 2.5)
- **29.** Malik, S.T., **Ahmad, J.N.**, Sharif, M.Z., Trebicki, P., Tahir, M. and Bertaccini, A., 2020. Molecular detection and characterisation of phytoplasma in trigonella foenum-graecum and identification of potential insect vectors in Punjab, Pakistan. *Pak. J. Bot*, *52*(5), pp.1605-1613. (IF 0.95)
- **30.** Ayyub, M.B., Nawaz, A., Gogi, M.D., Arif, M.J., Amrao, L. and **Ahmad, J.N.**, 2020. Comparative toxicity assessment of nuclear polyhedrosis virus and spinosad against Spodoptera litura (Fabricious) in semi field conditions. *Pakistan Journal of Agricultural Sciences*, *57*(2). (IF 0.85)
- **31.** Nazir, M.S., Malik, T.A., Shakeel, A. and **Ahmad, J.N**., 2020. Genetics of okra leaf and agronomic traits in upland cotton. *Pakistan Journal of Agricultural Sciences*, *57*(1). (IF 1.2)
- **32.** Manzoor, M., **Ahmad, J.N.**, Ahmad, S.J., Naqvi, S.A., Rasheed, R. and Haider, M.S., 2020. Population dynamics, abundance and infestation of the red palm weevil, Rhynchophorus ferrugineus (Olivier) in different geographical regions of date palm in Pakistan. *Pakistan Journal of Agricultural Sciences*, *57*(2). (IF 0.85)
- **33.** Ahmad, J.N., Mushtaq, R., Ahmad, S.J.N., Malik, M.A., Manzoor, M., Tahir, M., Aslam, Z., Maqsood, S., Ahuja, I. and Bones, A.M., 2020. Sub-lethal dose Reponses of native polyhydroviruses and spinosad for economical and sustainable management of *Spodoptera litura* in Pakistan. *Pakistan Journal of Zoology*, *52*(3), pp.989-999. (IF 0.85)
- **34.** Ahmad, J.N., Manzoor, M., Aslam, Z. and Ahmad, S.J.N., 2020. Molecular Study on Field Evolved Resistance of Red Palm Weevil (Rhynchophorus ferruginous) and its Management through RNAi. *Pakistan Journal of Zoology*, *52*(2), p.477. (IF 0.85)
- 35. Malik, M.A., Ahmad, S.J.N., Arif, M.J. and Ahmad, J.N., 2020. Management of diamond back moth

- (Plutella xylostella) using indigenous isolated Granulovirus and Azadirachta indica. *Pakistan J. Zool, 52*(2), pp.573-583. (IF 0.85)
- **36.** Ahmad, J.N., Sharif, T., Ahmad, S.J., Maqsood, S. and Zafar, F., 2019. Molecular identification and characterization of fruit flies of genus Bactrocera (Diptera: Tephritidae) in Pakistan. *Pakistan Journal of Zoology*, *51*(6), p.2275. (IF 0.85)
- **37.** Malik, M.A., Ahmad, S.J.N., **Ahmad, J.N.**, Abbasi, A., Sufyan, M. and Arif, M.J., 2019. Efficacy of Bacillus thuringiensis and Beauveria bassiana against red palm weevil Rhynchophorus ferrugineus Olivier (Coleoptera: Curculionidae). *African Entomology*, *27*(2), pp.386-394. (IF 1.5)
- **38.** Ahmad, S., Cheema, H.M.N., Khan, A.A., Khan, R.S.A. and **Ahmad, J.N.**, 2019. Resistance status of Helicoverpa armigera against Bt cotton in Pakistan. *Transgenic Research*, *28*, pp.199-212. (IF 2.5)
- **39.** Nazir, M.S., Malik, T.A., Shakeel, A. and **Ahmad, J.N.**, 2019. Potential resistance of Okra leaf Bt., cotton against insect pests. *Appl Ecol and Environ Res*, 17(3), pp.5465-5469. (IF 2.5)
- **40.** Sharif, M.Z., Ahmad, S.J.N., Tahir, M., Ziaf, K., Zhang, S.H. and **Ahmad, J.N**., 2019. Molecular identification and characterization of phytoplasmas associated with carrot, cabbage and onion crops and their insect vectors in Punjab, Pakistan. *Pakistan Journal of Agricultural Sciences*, *56*(2). (IF 0.95)
- **41.** Ali, Y., Khan, M.A., Hussain, M., Atiq, M. and **Ahmad, J.N.**, 2019. An assessment of the genetic diversity in selected wheat lines using molecular markers and PCA based cluster analysis. *Applied Ecology and Environmental Research*, *17*(1), pp.931-950. (IF 1.5)
- **42.** Ahmad, J.N., Jafir, M., Wajid, M.J., Maqsood, S. and Ahmad, S.J., 2018. Molecular identification and sequence analysis of dusky cotton bug, Oxycarenus hyalinipennis (Hemiptera: Lygaiedae) infesting cotton field in Pakistan. *Pak. J. Zool*, *51*, pp.1-4. (IF 0.85)
- **43.** Ahmad, S.J.N., Farid, N. and **Ahmad, J.N**., 2019. Metabolic and physiological changes induced in *Sesamum indicum* infected by phytoplasmas. *Phytopathogenic Mollicutes*, *9*(1), pp.137-138. (IF 0.25)
- **44. Ahmad, J.N.**, Sharif, M.Z., Ahmad, S.J.N., Tahir, M. and Bertaccini, A., 2019. Molecular identification and characterization of phytoplasmas in insect vectors of chickpea phyllody disease in Punjab, Pakistan. *Phytopathogenic Mollicutes*, *9*(1), pp.105-106. (IF 0.25)
- **45.** Ali, Y., Khan, M.A., Hussain, M., Atiq, M. and **Ahmad, J.N.**, 2019. Achieving near immunity durable-type resistance against rusts in advance wheat lines by combining race non-specific resistance genes. *Internal Journal of Agriculture and Biology*, *21*, pp.251-258. (IF 0.95)
- **46.** Ahmed, F., Ghafar, A., **Ahmad, J. N.**, Nazeer, A. S.J., Khalid, M.J., Saleem, T., Shahzad, S., Fahad, M., and Jaffir, M. 2019. Effect of synthetic urea on the population dynamics of sucking insect pests of cotton. Open access journal of agriculture research. ISSN: 2474-8846.
- **47.** Javed, M.W., **Ahmad, J. N.**, Shahzad, M.K., Hussain, M., Ahmad, S. J. N., Ashraf, M., Imran, M., Mushtaq, N., Hafeez, A., Aslam, A., and Jafir, M., 2018. Dynamicity of Plant Insect Interaction Defense communication and Key Prospects. *Journal of Agriculture Research*. 3(7): 000188. (IF 0.25)
- **48.** Ahmad, J.N., Mushtaq, R., Ahmad, S.J.N., Maqsood, S., Ahuja, I. and Bones, A.M., 2018. Molecular identification and pathological characteristics of NPV isolated from Spodoptera litura (Fabricius) in Pakistan. *Pak J Zool*, *50*(6), pp.2229-2237. (IF 0.85)
- **49.** Javed, M.W., Naveed, A., Hussain, D., **Ahmad, J.N**. and Saleem, M., 2018. First Record, Prevalent Hosts, Biological and Managing Attributes of False Chinch Bug (Hemiptera: Lygaeidae) Injuring Helianthus annuus, Brassica and Chenopodium from Punjab, Pakistan. *Entomol Ornithol Herpetol*, 7(208), pp.2161-0983. (IF 2.15)
- **50.** Mujahid, M., **Ahmad, J.N.**, Arif, M.J., Nazir, J. and Giblin-Davis, R.M., 2018. Molecular identification and phylogenetic analysis of distinct geographical populations of Rhynchophorus ferrugineus (Olivier) (Coleoptera: Curculionidae) in Pakistan. *International Journal of Agriculture and Biology*, *20*(9), pp.1997-2004. (IF 0.95)
- **51.** Naeem, M., Aslam, Z., Khaliq, A., **Ahmed, J.N.**, Nawaz, A. and Hussain, M., 2018. Plant growth promoting rhizobacteria reduce aphid population and enhance the productivity of bread wheat. *Brazilian journal of microbiology*, *49*, pp.9-14. (IF 2.15)
- **52.** Jafir, M., Shehzad, M., Abbas, Q., **Ahmad, J.N.**, Ali, Y., Aftab, M. and Javed, M.W., 2018. Germplasm screening of brinjal (Solanum melongena L.) cultivars for resistance to sucking insect pests. *J. Entomol. Zool. Stud*, *6*, pp.1134-1137. (IF X Cat)
- **53. Ahmad, J.N.**, Ahmad, S.J., Aslam, M., Ahmad, M.A., Contaldo, N., Paltrinieri, S. and Bertaccini, A., 2017. Molecular and biologic characterization of a phytoplasma associated with Brassica campestris phyllody disease in Punjab province, Pakistan. *European Journal of Plant*

- Pathology, 149, pp.117-125. (IF 2.25)
- **54.** Ihsan, M.Z., Ahmad, S.J., Shah, Z.H., Rehman, H.M., Aslam, Z., Ahuja, I., Bones, A.M. and **Ahmad, J.N.**, 2017. Gene mining for proline based signaling proteins in cell wall of Arabidopsis thaliana. *Frontiers in plant science*, *8*, p.233. doi: 10.3389/fpls.2017.00233. (IF 5.5)
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6. NATIONAL AND INTERNATIONAL SCIENTIFIC CONFERENCES:

- 1. Jam Nazeer Ahmad, Samina J. N. Ahmad*, Dilawar Majeed, Muhamamd Zahid Sharif, Ishita Ahuja, and Atle M. Bones. First Report of DNA Barcoding and Phylogenetic Analysis of a Potential Biological Control agent, African Moth (*Isturgia disputaria Guenees*) and its Biological Features on Acacia nilotica subsp. Indica has been accepted to XXVI International Congress of Entomology, in Helsinki, Finland (ICE 2022) as a (Quick Oral presentation).
- 2. Jam Nazeer Ahmad*, Samina Jam Nazeer Ahmad, Rashid Mushtaq, Mubashar Ahmad Malik, Ishita Ahuja, and Atle M Bones. Enhanced Efficacy of Sub-lethal Dose response of native

- polyhedroviruses and spinosad for economical and sustainable management of *Spodoptera litura* in Pakistan has been accepted to XXVI International Congress of Entomology going to be held on 18-23 July 2022, in Helsinki, Finland (ICE2022) as **(Oral presentation)**
- 3. Jam Nazeer Ahmad, Mujahid Manzoor and Samina Tanwir Malik, Insecticide Resistance management in Red Palm Weevil (Rhynchophorus ferruginous) management through RNAi has been accepted to XXVI International Congress of Entomology going to be held on 18-23 July 2022, in Helsinki, Finland (ICE2022) as (Oral presentation).
- 4. Jam Nazeer Ahmad*, Dilawar Majeed and Samina J. N. Ahmad. RNA INTERFERENCE OF PgCadh GENE IN PINK BOLLWORM (Pectinophora gossypiella) ENHANCED ITS MORTALITY AND SUPPRESSED RESISTANCE EVOLUTION AGAINST Cry1Ac has been accepted to XXVI International Congress of Entomology going to be held on 18-23 July 2022., in Helsinki, Finland (ICE 2022) (Poster presentation)
- 5. Samina Jam Nazeer Ahmad1, Naila Farid and Jam Nazeer Ahmad. 2019. Metabolic and physiological changes induced in Sesamum indicum infected by phytoplasmas. Phytopathogenic Mollicutes in IPWG conference held in Valencia, Spain (Sept 8-12, 2019). (Oral presentation).
- **6. Jam Nazeer Ahmad*** Muhammad Zahid Sharif1, Samina Jam Nazeer Ahmad1,2, Muhammad Tahir2 and Assunta Bertaccini. Molecular Identification and Characterization of Phytoplasma and its Insect Vectors Associated with Chickpea in Punjab, Pakistan. Phytopathogenic Mollicutes, in IPWG conference held in Valencia, Spain (Sept 8-12, 2019). **(Oral presentation)**
- 7. Samina J.N. Ahmad1,2, Samia Yasin1, and Jam Nazeer Ahmad1,2*. Molecular Study of abnormal flower development in 16Sr-IX group phytoplasma infected Brassica compestris" has been accepted as an oral presentation based upon peer-review by the scientific committee, at the 1st International Molecular Plant Protection Congress", held April 10-13, 2019, at Çukurova University, Adana, Turkey. (Oral presentation)
- **8. JAM NAZEER AHMAD*1**, MUHAMMAD JAFIR1, TNWIR AHMAD MALIK3, AND SAMINA JAMNAZEER AHMAD2. Expression of Cry1Ac in BT Cotton (Gossypium hirsutum L.) in relation to resistance management in American bollworm (Helicoverpa armigera)." has been accepted as an oral presentation based upon peer-review by the scientific committee, at the 1st International Molecular Plant Protection Congress", held April 10-13, 2019, at Çukurova University, Adana, Turkey. (Oral presentation)
- 9. Jam Nazeer Ahmad* Muhammad Zahid Sharif1 and Samina Jam Nazeer Ahmad1. First Report of Molecular Identification and Characterization of Phytoplasma and its Insect Vectors Associated with Chickpea in Punjab, Pakistan. 3rd Agriculture and Climate Change 24-26 March 2019 | Novotel Budapest City & Budapest Congress Center, Budapest, Hungary. (Oral presentation)
- 10. Jam Nazeer Ahmad*, Mujahid Manzoor1, Samina jam Nazeer Ahmad1, 2 and Robin Michael Giblin Davis3. Molecular and Enzymatic Study on Field evolved Resistance of Red Palm Weevil (RPW) (Rhynchophorus ferruginous) and its management through RNAi in Pakistan. XXX. International Horticultural Congress (IHC2018), In International Symposium on Applied Functional Molecular Biology (S3) held on August 12-16, 2018 in Istanbul, Turkey. (Oral presentation)
- 11. Samina J.N. Ahmad1,2, Samia Yasin2, Muhammad Tahir2, Ijaz Ahmad2 and Jam Nazeer Ahmad1,2*Interference with developmental and pathogenesis related genes expression in 16Sr-IX associated phytoplasma infected *Brassica compestris*" XXX. International Horticultural Congress (IHC2018) for International Symposium on Applied Functional Molecular Biology (S3)
- 12. Samina J.N. Ahmad, Samia Yasin2, Muhammad Tahir2, Ijaz Ahmad2 and Jam Nazeer Ahmad*. 2018. Study on mechanism of abnormal flower development and susceptibility in phyllody phytoplasma infected Brassica. 22nd Congress of the International Organization for Mycoplasmology (IOM), held in Portsmouth, NH July 8-13 2018 USA. http://www.iomonline.org/node/20. (Oral presentation)
- **13.** Javed MW, **Ahmad JN**, Ahmad SJN, Hussain M, Hussain D. 2018. Inscribing new genes and biochemical defense whiteflies modulatory signaling pathways in emerging modal plant tomato Lycopersicon esculentum Mill. International Conference on plant Sciences 15-17 November, Paris, France.
- **14. Jam Nazeer Ahmad**, Robert L Harrison, Muhammad Jafir, Ishita Ahuja, Atle Bones and Samina Jam Nazeer Ahmad. Molecular Identification, characterization and implementation of Spodoptera litura associated NPV for the management of Major Lepidopterist insect pests of Major crop in Pakistan. Golden Jubilee Conference of the Society for Invertebrate Pathology held in UC San Diego, California, USA (AU G U S T 13 17, 2017) (Oral presentation).

- **15. Jam Nazeer Ahmad**, Mujahid Manzoor, Samina Tanwir Ahmad , Muhammad Jafir, Ishita Ahuja, Atle M Bones , Samar Abbas Naqvi and Iqrar Ahmad Khan. Molecular detection, characterization and biological evaluation of Red Palm Weevil (Rhinchophorus ferrugineus) associated fungal entomopathogen (Metarhizium anisopliae) from Pakistan held in San Diego, California, USA (AU G U S T 13 17 , 2017) **(Oral presentation)**
- **16. Jam Nazeer Ahmad**, Samina Jam Nazeer Ahmad, Muhammad Aslam, Mubasher Ahmad Malik and Rizwan Ahmad. Application of phytohormone based induced resistance and biological control agents reduce the population of aphids on Brassica napus L" at the XXV International Congress of Entomology (ICE 2016) held in Florida USA (25-30th Sep. 2016). **(Oral presentation)**
- 17. Samina Jam Nazeer Ahmad, Jam Nazeer Ahmad, Mujahid Manzoor, Mubasher Ahmad Malik, Muhammad Aslam. Parthenium Weed (Parthenium hysterophorus.L) associated phyllody Phytoplasma and insect vectors: A big Threat for Major Agricultural crops. at the XXV International Congress of Entomology (ICE 2016) held in Florida USA (25-30th Sep, 2016) (Oral presentation)
- **18.** Samina Jam Nazeer Ahmad, Muhammad Ijaz, Muhammad Aslam, Mubashir Ahmad Malik and Jam Nazeer Ahmad. "Differential regulation of Developmental genes expression and Methylation status of phytoplasma and insect infested Brassica napus L. Accepted for oral presentation at the "CSA-CSHS Joint Conference" held in Montreal, Canada (24-26th July, 2016) (Oral presentation)
- **19. Jam Nazeer Ahmad**, Mubasher Ahmad Malik, Rashid Mushtaq, Muhammad Aslam, Ishita Ahuja, Atle Bones and Samina Jam Nazeer Ahmad. Management of three geographical distinct populations of army worm (Spodoptera litura F.) pest through microbial insecticides-Nucleopolyhedroviruses and spinosad. Accepted for oral presentation at the "CSA-CSHS Joint Conference" held in Montreal, Canada (24-26th July, 2016) **(Oral presentation)**
- **20. Jam Nazeer Ahmad**, Muhammad Aslam, Sajid Sharif, Samina Jam Nazeer Ahmad, Mubasher Ahmad Malik, Ishita Ahuja, and Atle Bones. Evaluation of Phytohormone Induced Resistance in relation to the application of a parasitoid, D. rapae against cabbage aphid on oil seed rape (Brassica napus L.). Accepted for oral presentation at the "CSA-CSHS Joint Conference" held in Montreal, Canada (24-26th July, 2016) **(Oral presentation)**
- **21.** Samina Jam Nazeer Ahmad, Jam Nazeer Ahmad, Romana Iqbal, Muhammad Aijaz Ahmad, Muhammad Aslam, Rizwan Ahmad and Zubair Aslam. Molecular and histological detection of Phytoplasma in Brassica campestris plants in Punjab Pakistan. In "CSA-CSHS Joint Conference" held at Montreal, Canada (24-26th July, 2016)
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- 23. Jam Nazeer Ahmad, Samina Jam Nazeer Ahmad Mujahid Manzoor, Mubasher Ahmad Malik, Muhammad Irfan, Muhammad Jalal Arif and Iqrar Ahmad Khan: The Early Detection of Red Palm Weevil (RPW) in infested Date Palm Trees: A New Molecular and Proteomic Based approach for its detection and control. Abstract book: XVIII. International Plant Protection Congress, BERLIN. 14–18 August 2015.pp 159
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- **26.** Samina Tanwir and **Jam Nazeer Ahmad**. 2015. Sustainable insect pest management of wheat by studying the molecular defence pathway induced by application of plant activators and vitamins such as ascorbic acid. Accepted for International Conference on Agriculture and Climate Change Adapting Crops to Increased Uncertainty to be held at Amsterdam, the Netherlands (15-17th February, 2015)

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- **29. Jam Nazeer Ahmad**, C. Garcion, E. Teyssier, M. Hernould, P. Gallusci, P. Pracros, J. Renaudin and S. Eveillard. 2013. Studying the Epi-Genetic mechanism in tomato plants infected by two different isolates of stolbur Phytoplasma. 44th Annual Meeting of the Environmental Mutagenesis and Genomics Society. Monterey, California, USA. September 21–25, 2013.
- **30.** Samina Jam Nazeer Ahmad, **Jam Nazeer Ahmad**, 1Muhammad Aslam1, Mubasher Ahmad Malik1,2, Ishita Ahuja3, and Atle Bones3. Methyl Jasmonate Induced Resistance in relation to the application of a parasitoid, D. rapae against cabbage aphid in oil seed rape (Brassica napus L.) Participated in International Horticulture Conference" held at Institute of Agricultural Sciences, University of The Punjab, Lahore (Feb 26-28, 2020) (Oral presentation)
- **31. JAM NAZEER AHMAD**, HAJRA GHULAM GHAUS2, AYESHA SATTAR2, ANNAM SHAHZADI2, SAMINA JAM NAZEER AHMAD1, 3, AND FAISAL HAFEEZ4. DNA barcoding, phylogenetic analysis and biological control of yellow peach moth, Conogethes punctiferalis (guenee) (Lepidoptera: Crambidae) infesting Guava in Punjab, Pakistan; Participated in International Horticulture Conference" held at Institute of Agricultural Sciences, University of The Punjab, Lahore (Feb 26-28, 2020) (Oral presentation)
- **32.** Ayesha Zulfiqar, Anam Shahzadi, Hajra, Tahir Raza, **Jam Nazeer Ahmad**, S. Jam Nazeer Ahmad and Kiran Maqsood. Biogenic silver nanoparticles mediated stress on developmental period and gut physiology of pink boll worm () an ecofriendly approach of pest management; Participated in International Horticulture Conference" held at Institute of Agricultural Sciences, University of The Punjab, Lahore (Feb 26-28, 2020) **(Oral presentation)**
- **33. Jam Nazeer Ahmad**, Mujahid Manzoor1,2 and Samina Tanwir Malik1,2,. Molecular and Proteomic study for the identification of insecticide resistance gene and Management of Red Palm Weevil (R. ferruginous) in Pakistan Participated in International Horticulture Conference" held at Institute of Agricultural Sciences, University of The Punjab, Lahore (Feb 26-28, 2020) (**Oral presentation**)
- **34. Jam Nazeer Ahmad***, Rashid Mushtaq1, Muhammaf Jafir1, Samina Jam Nazeer Ahmad1, 2* and Mubasher Ahmad Malik1. Isolation, Identification and implementation of NucleoPolyhydroviruses to control major vegetable pest Spodoptera litura and insecticide resistance in Pakistan. Participated in International Horticulture Conference" held at Institute of Agricultural Sciences, University of The Punjab, Lahore (Feb 26-28, 2020) **(Oral presentation)**
- **35.** Muhammad Jafir, **Jam Nazeer Ahmad**, Fiaz Ahmad, Muhammad Ali, Samina Jam Nazeer Ahmad, Shahzeb Shahzad, Muhammad Fahad, Ayesha Ghafar, Muhammad Wasim, Ayesha Zulfiqar, Hajra. Efficacy of Botanical Encapsulated silver nanoparticles for the management of Bird Chery Oat aphid (Rhopalosiphum padi) Participated in 2nd International Conference of Applied Zoology "held at GC University Faisalabad (December 19-20, 2019) **(Oral presentation)**
- **36.** Safi-ur- Rehman Qamar, Waqar Ali Khan, and **Jam Nazeer Ahmad**. Green Synthesis of silver Nano particles using Osimum tenuiflorum (Niazbo) and its toxicity assessment against H. armigera. Participated in 2nd International Conference of Applied Zoology "held at GC University Faisalabad (December 19-20, 2019) **(Oral presentation)**
- **37. Jam Nazeer Ahmad***, Dilawar Majeed1, and Samina Jam Nazeer Ahmad. Knockdown Effect of PGCADH gene in Pink bollworm (Pectinophora gossypiella and its association of resistance suppression against Cry1ac in Pakistan in the "International Entomological Congress held at the University of Agriculture Faisalabad (April 8-10, 2019)
- **38.** Samina Jam Nazeer Ahmad and **Jam Nazeer Ahmad**. Responses of transgenic MINELESS and wild type Oil seed rape (Brassica napus L.) to drought stress in "the 2nd International Conference on Water saving and Plant protection strategies: Constraints and implications for sustainable Agriculture" held at the GC University Faisalabad (March 26-28, 2019)
- **39.** Mubashar Ahmad Malik, **Jam Nazeer Ahmad***, Muhammad Jalal Arif and Samina J.N. Ahmad1,2* Synergistic Effect of Plutella xylostella Granulovirus and Azadirachta indica on Diamondback Moth. Organized by Institute of Soil and Environmental Sciences, UAF on Innovations in Agriculture: Nourishing Pakistan in Changing Climate in collaboration with Pakistan Agricultural Scientist forum (PAS Forum) at UAF, Faisalabad on February 13-15, 2019.

- **40. Jam Nazeer Ahmad***1, M. Zeeshan Sarwar1, Tanwir Ahmad Malik3, and Samina Jam Nazeer Ahmad2. Molecular Identification and Phylogenetic relationships of cotton whitefly associated with clcv virus from cotton fields of Punjab, Pakistan. Organized by Institute of Soil and Environmental Sciences, UAF on Innovations in Agriculture: Nourishing Pakistan in Changing Climate in collaboration with Pakistan Agricultural Scientist forum (PAS Forum) at UAF, Faisalabad on February 13-15, 2019
- **41. JAM NAZEER AHMAD*1**, MUHAMMAD JAFIR1, TNWIR AHMAD MALIK3, AND SAMINA JAM NAZEER AHMAD. Evaluation of Cry1Ac Expression in Commercial BT Cotton (Gossypium hirsutum L.) for the Management of American bollworm (Helicoverpa armigera) in Pakistan. Organized by Institute of Soil and Environmental Sciences, UAF on Innovations in Agriculture: Nourishing Pakistan in Changing Climate in collaboration with Pakistan Agricultural Scientist forum (PAS Forum) at UAF, Faisalabad on February 13-15, 2019
- **42.** Muhammad Aslam, Samina Jam Nazeer Ahmad1,2, and **Jam Nazeer Ahmad***. First report of detection, characterization and transmission study of 16Sr-II-D Sunflower Phyllody Phytoplasma and Insect Vectors in Punjab Province, Pakistan. Organized by Institute of Soil and Environmental Sciences, UAF on Innovations in Agriculture: Nourishing Pakistan in Changing Climate in collaboration with Pakistan Agricultural Scientist forum (PAS Forum) at UAF, Faisalabad on February 13-15, 2019
- **43.** Samia Yasin1, Samina J.N. Ahmad and **Jam Nazeer Ahmad**. Pathogenesis and flower developmental related genes expression in 16Sr-IX group phytoplasma infected Brassica compestris. Organized by Institute of Soil and Environmental Sciences, UAF on Innovations in Agriculture: Nourishing Pakistan in Changing Climate in collaboration with Pakistan Agricultural Scientist forum (PAS Forum) at UAF, Faisalabad on February 13-15, 2019.
- **44. Jam Nazeer Ahmad***, Muhammad Tariq1, Mubashar Ahmad Malik1, and Samina J.N. Ahmad1. Management of American bollworm (*Helicoverpa armigera*) using Native isolated SlitNPV Nucloepolyhydroviruses. Organized by Institute of Soil and Environmental Sciences, UAF on Innovations in Agriculture: Nourishing Pakistan in Changing Climate in collaboration with Pakistan Agricultural Scientist forum (PAS Forum) at UAF, Faisalabad on February 13-15, 2019
- **45.** Muhammad Amjad, Hafiz Masooma Naseer Cheema, **Jam Nazeer Ahmad**, Kashif Noor, Hanan Ahmad, Muzammal Ahmad. Bioassay for evaluating the suscebility level of Armyworm (S. litura) against double gene Bt Cotton. Lahore 2018 Pp75
- **46.** Nazeer Ahmad, Muhammad Wajid Javed, Samina **Jam Nazeer Ahmad**, Muhammad Zaheer ul Hassan, Asad Aslam, Dildar Hussain, Nasim Ahmad, Fayyaz Ahmad, Arsalan Hafeez, Muhammad Hamid Javed, Abdul Rauf, Muhammad Jafir, Samia Sabir. Modulatory plant defense genes elicitation under herbivory of Helicoverpa armigera. Apolyphagus key pest. Lahore, 2018 Pp108
- **47.** Shakeel Ahmad, Hafiza Masooma Naseer Cheema, Asif Ali Khan, Sohail Ahmad Khan, **Jam Nazeer Ahmad**. Resistance status of Helicoverpa armigera against Bt cotton in Pakistan. 2nd Sino-Pak International Conference on Innovations in Cotton Breeding and Biotechnology held at BZU, Multan. 27- 28th November 2018.
- **48. Jam Nazeer Ahmad**, Dilawa rMajeed, MuhamamdZahid Sharifand Samina J. N. Ahmad. dsRNA Silences the PgCadh Gene in Pink Bollworm and Suppresses the Resistance Evolution against the Cry1Ac. 2nd Sino-Pak International Conference on Innovations in Cotton Breeding and Biotechnology held at BZU, Multan. 27-28th November 2018.
- **49.** Muhammad Amjad, Hafiza Masooma Naseer Cheema, Kashif Noor, Hanan Ahmad, Haram Aziz Alvi, Muzammal Ahmad, **Jam Nazir Ahmad**. Bioassay for evaluating the susceptibility level of army worm (Spodopteralitura) against double gene Bt cotton. 2nd Sino-Pak International Conference on Innovations in Cotton Breeding and Biotechnology held at BZU, Multan. 27-28th November 2018.
- **50. Jam Nazeer Ahmad***, Mujahid Manzoor, Samina jam Nazeer Ahmad, Muhammad Jalal Arif, Iqrar Ahmad Khan3, Samar Abbas and Robin Michael Giblin Davis.. Silencing of CYP450 gene through RNAi enhances the susceptibility and mortality in Red Palm Weevil (RPW) (Rhynchophorus ferruginous) in 1st International Conference of Biotechnology held in Lahore Garrison University , Lahore (OC T 11 12 , 2017)
- **51.** Samina jam Nazeer Ahmad, Dilawar Majeed, Muhmmad Zahid sharif, Muhammad Jaffir and Tanwir Ahmad Malik, Zunaraen Akhtar1 and **Jam Nazeer Ahmad**. Synergistic Effect of Methyl Jasmonate and Salicylic Acid on Cry1Ac Gene Expression in Bt Cotton (Gossipium hirsutam .L) for Sustainable Management of Pectinophora gossypiella in 1st International Conference of Biotechnology held in Lahore Garrison University , Lahore (OC T 11 12, 2017)

- **52. Jam N Ahmad.**, Samina.J.N. Ahmad, Mujahid Manzoor, M. Jafir, R. Ahmad, Zubair Aslam, Samar. A. Naqvi and Iqrar.A. Khan. 2017. Molecular detection, characterization and evaluation of Beauvaria basiana for the management of Spodoptera litura and Rhinchophorus ferrugineus in Pakistan at the International Conference of Agricultural Resource management held at Faisalabad UAF (5-7th April, 2017).
- **53. Jam Nazeer Ahmad.**, Rafiq Ahmad, Samina.J.N. Ahmad, M. Z. Sharif, Zubair. Aslam, Mubashar. A. Malik, Ahuja, and Atle. M. Bones. Plant-Insect Interaction: Evaluation of Aphids Fitness and Managemen Strategy in MINLESS oil seed rape (Brassica napus L.) at the International Conference of Agricultural resource management (ICARM) held in Faisalabad UAF (5-7th April, 2017).
- **54. Jam Nazeer Ahmad**, Muhammad Jafir, Muhammad Aijaz Ahmad, Muhammad Wajid Javed, Muhammad Aslam, Mubashar Ahmad Malik, Muhammad Jalal Arif and Samina Jam Nazeer Ahmad. The management of two fruit flies species Bactocera zonata and Bactocera dorsalis in Mango and Citrus fruits in response to phytohormones application at the Nnational Conference for Fruit fly Management held at UAF, Faisalabad (23-24 November, 2016).
- **55. Jam Nazeer Ahmad**, Samina Jam Nazeer Ahmad, Rafiq Ahmad, Muhammad Jafir, Muhammad Aijaz Ahmad, Muhammad Jalal Arif1 and Tanwir Ahmad Malik. A study on Cry1Ac mediated genes expression in Bt cotton cultivars and Pink boll worm (Pectinophora gossypiella) for proper insect pest management at the International Congress of Entomology held at UAF (15-17 December, 2016).
- **56.** Samina Jam Nazeer Ahmad, Hina batool, Maryam Nasir, Muhammad Aijaz Ahmad, Rizwan Ahmad and **Jam Nazeer Ahmad**. Molecular and Physiochemical induced changes and their effect against aphid (Rhopalosiphum padi L.) infestation in wheat (Triticum aestivum L.) in response to ascorbic acid application at the International Congress of Entomology held at UAF (15-17 December, 2016).
- **57.** Samina Jam Nazeer Ahmad, **Jam Nazeer Ahmad**, Erum Shehzadi and Amara Ashraf. Study of morpho- anatomical and physiological changes induced in oil seed rape (Brassica napus.) infected by phytoplasma" at the "International Conference on "Major Environmental Constraints to Plants: Assessment & Reclamations" arranged by the Department of Botany, Government College University, Faisalabad (28-30th March, 2016).
- **58.** Samina Jam Nazeer Ahmad, **Jam Nazeer Ahmad**, Muhammad Aslam, Muhammad Zahid sharif, Dilawar Majid, Muhammad Jaffir, Muhammad Eijaz Ahmad and Samia Yasin. Molecular and Morphological characterization of phytoplasma infected shesham (Delbergia sissoo) and safeda (Eucalyptus camaldulensis) in Pakistan" at the International Conference of Forestry and Environment arranged by the Department of Forestry, University of Agriculture Faisalabad UAF (21-22nd Nov. 2016).
- **59. Jam Nazeer Ahmad**, Samina Jam Nazeer Ahmad, Muhammad Zahid sharif, Dilawar Majid, Muhammad Jaffir and Rizwan Ahmad. First report of morphological and molecular identification of African Moth (Isturgia disputaria) and its infestation on Kikar (AAcacia nilotica) in Pujab, Pakistan at the International Conference of Forestry and Environment arranged by the Department of Forestry, University of Agriculture Faisalabad UAF (21-22nd Nov, 2016).
- **60.** Samina Jam Nazeer Ahmad, **Jam Nazeer Ahmad**, Muhammad Zahid sharif, and Muhammad Wajid Javed, Dilawar Majid, Muhammad Eijaz Ahmad, Reema Arshad and Samia Yasin. Effect of phytoplasma infection on some primary and secondary metabolites of Sesamum. In "International Conference on "Major Environmental Constraints to Plants: Assessment & Reclamations" arranged by the Department of Botany, Government College University, Faisalabad (28-30th September, 2016).
- **61.** Samina Jam Nazeer Ahmad, Hina batool, Maryam Nasir, Muhammad Aijaz Ahmad, Rizwan Ahmad and **Jam Nazeer Ahmad.** Study of physio-molecular defense responses of wheat infested with aphids and treated with ascorbic acid. In "International Conference on "Major Environmental Constraints to Plants: Assessment & Reclamations" arranged by the Department of Botany, Government College University, Faisalabad (28-30th September, 2016).
- **62. Jam Nazeer Ahmad**, Rafiq Ahmad, Mujahid Manzoor, and Muhammad Jalal Arif 2013. From conventional methods to the recent advances in Biotechnological and Genetics approaches for the early detection of Red Palm Weevil (RPW) by investigating and studying the transcriptional expression of new markers genes in Date palm. International Conference on Date Palm: Present Status and Future Prospects, Islamia University of Bahawalpur, Pakistan. September 2-3, 2013. pp.11 (Best Presentation award).
- 63. Muhammad Irfan, Muhammad Altaf Sabri and Jam Nazeer Ahmad. 2013. Haemocytes Studies of

- Armyworm, Spodoptera litura Fab (Lepidoptera: Noctudae) in response to application of different insecticides. 2nd Post Graduate Entomological Research Conference (PGERC). Department of Entomology, University of Agriculture Faisalabad, Pakistan. July 8-9, 2013. pp 25.
- **64.** Jam Nazeer Ahmad, Sandrine Eveillards. 2013. Alteration in the Expression of developmental and defense related genes are the cause of abnormal flower development and susceptibility in stolbur PO phytoplasma infected. International Conference on Crop Management in changing Climate' University of Agriculture Faisalabad. Pakistan. February 11-13, 2013. pp 8.
- **65. Jam Nazeer Ahmad**, Sandrine Eveillard and Rafiq Ahmad. 2012. Interaction of defense pathways in two different isolates of stolbur C and PO Phytoplasma infected tomato. 12th national and 3rd International Conference of Botany (ICB), Quaid-e-Azam University Islamabad. Pakistan. September 1-3, 2012. pp 161.
- **66. Jam Nazeer Ahmad**, Lilly Maneta Peyret, Patrick Moreau and Rafiq Ahmad. 2012. Study of Lipid Protein interaction in the secretary pathway of plant cell by raising and using anti-lipid antibodies against particular lipids and proteins in Arabidopsis and tobacco plant. 12th national and 3rd International Conference of Botany (ICB), Quaid-e-Azam University Islamabad, Pakistan. September 1-3, 2012. PP 162

ONLINE WEBINAR/WORKSHOPS/CONFERENCES

- **67.** Participated as Main Expert/Scientist/ in a webinar on Locust Attack: Tidy dal: Urti Phirti Qiamat organized by Khwarizmi Science Society on April 2020. Talk is available on You tube Channel (https://youtu.be/IQvR71 HRS9k (April 2020)
- **68.** Participated in Online Workshop under China-Pakistan Science Workshop (II) on Use of New Technologies in Locust Control organized by MoST, CISTE, BAST and Embassy of Pakistan and China (August 20, 2020).
- **69.** Attended Pakistan Academy of Sciences Agriculture Policy debate on Vegetable seed production and supply chain, held on 3rd of November 2020, jointly organized by Pakistan Academy of sciences, university of agriculture Faisalabad, Embassy of people republic of china in Islamabad, Chinese Academy of Agricultural Sciences, Chines Academy of Tropical Agricultural Sciences, Pakistan Institute of Development Economics and Centre for Agriculture Strategy and Development at Pir Mehr Ali Sha University of Arid Agriculture Rawalpindi (November 3, 2020)
- 70. Attended Pakistan Academy of Sciences Agriculture Policy debate on Oilseed crop Production and Supply Chain, held on 6th of November 2020, jointly organized by Pakistan Academy of sciences, university of agriculture Faisalabad, Embassy of people republic of china Islamabad, Chinese Academy of Agricultural Sciences, Chines Academy of Tropical Agricultural Sciences, Pakistan Institute of Development Economics and Centre for Agriculture Strategy and Development at Pir Mehr Ali Sha University of Arid Agriculture Rawalpindi (November 6, 2020)
- **71.** Attended Pakistan Academy of Sciences Agriculture Policy debate on Weeds ecology and Management, held on 24th of Oct 2020, jointly organized by Pakistan Academy of sciences, Pakistan Institute of development economics and Centre for agriculture strategy and development at Pir Mehr Ali sha University of Arid Agriculture Rawalpindi (October 24, 2020).

7. RESEARCH BASED PATENTS:

- 1. Dr. Jam Nazeer Ahmad, Mr. Muhammad Noman Hafeez, Muhammad Huzaifa Jamil. Dr. Samina Tanwir, Real Time In chamber BeeKeeping Technology for Safe and Healthy Honey production. (Patent No. 257/2024)
- Dr. Jam Nazeer Ahmad, Mr. Muhammad Azhar Saeed, Dr. Samina Tanwir, Dr. Khuram Zia. A novel Spodoptera frugiperda associated Nucleopolyhedro Viruses (SfNPV) based biopesticide (FAWKILL) for sustainable management. (Patent No. 258/2024)
- 3. **Dr. Jam Nazeer Ahmad**, Dr. Samina Tanwir, Dr. Muhammad Hamid Bashir, and Dr. Muhammad Umair Sial. HelicoCIDE: A novel Helicoverpa armigera associated Nucleopolyhedroviruses based Biopesticide for the management of Helicoverpa armigera. (Patent No. 256/2024)
- 4. Dr. Muhammad Umair Sial, Noman Hafeez, Soha Ahmed Sadiqui and Dr. Jam Nazeer Ahmad, Insecto Epoxy: An ultimate Epoxy Resin Cocktail for life like insect preservation. (Patent No. 255/2024)

8. STUDENTS RESAERCH AND SUPERVISONS:

A-POST DOC STUDENT COMPLETED RESEARCH: (1 POST. DOC AS MAIN SUPERVISOR)

 Dr. Rabia Saeed completed her Post Doc titled as Functional Toxicogenomics of the Insecticide Resistance in dusky cotton bug (*Oxycarenus hyalinipennis*) and Red cotton bug (*Dysdercus koenigii*) through her Pod Doc fellowship by Islamic Development Bank P. No. 2019-176871 in 2021. (AS POST DOC SUPERVISOR)

B-PhD STUDENTS COMPLETED: (4 PhD AS MAIN SUPERVISOR, 4 AS CO-SUPERVISOR, 3 AS MEMBER)

- 1. Mujahid Manzoor (2006-ag-1700) completed his PhD Degree titled as **Demography, Bio-ecology** and Integrated Management of Red Palm Weevil (RPW) in different provinces of Pakistan in 2017. (AS MAIN SUPERVISOR)
- 2. Muhammad Jafir (2010-ag-3673) completed his PhD degree titles as Molecular study for the identification, characterization and management of lepidopterans insect pests of cotton in Punjab Pakistan in 2021. (AS MAIN SUPERVISOR)
- 3. Mubasher Ahmad Malik (2007-ag-2373) completed his PhD degree titled as studying plant defense response in oil seed rape (*Brassica napus*) for sustainable pest management in 2020. (AS MAIN SUPERVISOR)
- 4. Muhammad Aslam (2009-ag-2844) completed his PhD degree titled as Molecular Identification, Characterization and transmission studies in oil seed associated Phytoplasma diseases and their Insect vectors in 2022. (AS MAIN SUPERVISOR)
- Samia Yasin (2013-ag-766) completed her PhD degree titles as Study of genetic modification of flower development and methylation status in phytoplasma affected *Brassica rapa* in 2020. (AS CO- SUPERVISOR)
- **6.** Aqsa Hanif (2017-ag-3724) completed her PhD titled as **Physiological Characterization and assessment of anti-cancer potential of** *Nepeta fassenii* in 2022 **(AS CO- SUPERVISOR)**
- 7. Bilqees Kanwal (2017-ag-2834) completed her PhD titled as **Dual stress posed by salinity and** fall armyworm (*Spodoptera frugiperda*) infestation on biochemical attributes of maize (*Zea mays* L.) treated with phytohormones in 2024 (AS CO- SUPERVISOR)
- 8. Ayesha Ghaffar (2015-ag-501) completed her PhD degree titles as Physiological Characterization and QTL mapping for Drought tolerance in Wheat (*Triticum aestivum* L.) in 2023 (AS CO- SUPERVISOR)
- 9. Yasir Ali (2009-ag-2687) completed his Phd Degree titled as Phenotypic and genetic attributes conferring non-specific resistance genes against leaf and stripe rusts on wheat in 2020 (AS MEMBER)
- 10. M. Sajjad Nazir (2008-ag-2267) completed his PhD degree titled as **Breeding potential of Okra** leaf Bt cotton resistant to bollworm and sucking insects. (AS MEMBER)
- 11. Fayaz Ahmad (2015-ag-1306) completed his PhD Degree titled as Physiochemical and molecular Defense Response Wheat (*Triticum aestivum*) against aphid infestation (AS MEMBER)

C-PhD STUDENTS UNDER PROGRESS: (1 PhD AS MAIN SUPER, 1 AS CO-SUPERVISOR, 1 AS MEMBER)

1. Muhammad Awais (2018-ag-6846) working for his PhD Degree titled as **Study of Genetic** Variation, Resistance Genes Expression, and innovative approach to Control Fall Armyworm, **Spodopter frugiperda** in Pakistan . (AS MAIN SUPERVISOR)

D-M. PHIL/M.Sc. Hons. STUDENTS RESEARCH (79 AS MAIN SUPERVISOR, 16 AS CO-**SUPERVISOR and MORE THAN 40 AS MEMBER COMMITTEE)**

| M PHII/MSC Hons S |
|-----------------------------|
| TUDENTS THAT WILL |
| BE COMPLETED IN 2026 |
| AS MAIN SUPERVISOR |

| Sr.No | Name and Reg. N | Title of Thesis |
|-------|--|---|
| 84 | Waqar Ahmad 2024-ag-414 | Under progress |
| 83 | Shay Chirag 2024-ag-410 | Under progress |
| 82 | Mukhtiyar Ahmad 2024-ag-412 | Under progress |
| 81 | Muhammad Anas Maqbool 2020-ag-3391 | Under progress |
| 80 | Hammad Naeem 2020-ag-3779 | Under progress |
| M. PH | IIL/MSC. Hons. STU | IDENTS THAT WILL BE COMPLETED IN MAY 2025 AS MAIN SUPERVISOR |
| 79 | Muhammad Noman Hafeez 2019-ag-8086 | DNA Barcoding, Phylogenetic Analysis and Efficacy Evaluation of Armyworms Associated NPV |
| 78 | Hamza Nazir 2019-ag-7856 | Transgenerational effect of Nano particles and Nucleopolyhedroviruses on the Armyworms and associated parasitoids |
| 77 | Ali Sher Bhatti 2019-ag-8090 | DNA Barcoding of Fruit flies, biocontrol agents on vegetables and fruit plants at UAF Main Campus and Their phytosanitary management |
| 76 | Infal Tariq 2019-ag-7849 | DNA Barcoding and Phylogenetic Analysis of major Insect pests of Maize and associated Entomopathogenic fungus |
| 75 | Fehmeeda Naseem 2023-ag-1104 | Development and Evaluation of Pathogencity of Entomopathogenic Based Biopestsicides Against <i>Helicoverpa armigera</i> on tomato plants |
| 74 | Sadaf 2023-ag-997 | Mortality, Developmental, Physio-morphological abnormal in <i>Spodoptero exigua</i> caused by Green synthesized naoparticles |
| 73 | Farooq Wazir Khan Niazi 2019-ag-7069 | DNA Barcoding and Phylogenetic Analysis of Tachinid Parasitoids of Fal armyworm |
| M. PH | IIL/MSC. Hons. STU | IDENTS COMPLETED IN 2024 AS MAIN SUPERVISOR |
| 72 | Noshaba Mubeen 2022-ag-58 | Genetic Variation Analysis and Feeding Potential impact of different Biocontro agents on Parthenium (<i>Parthenium hysterophorus</i>) in Pakistan |
| 71 | Munawara Ashraf 2022-ag-60 | DNA barcoding of Termites associated with Date palm |
| | | |

Genetic Variations and phylogenetic Analysis of sugarcane borers in Punjab

70

Muhammad

Usama Ashraf

2018-ag-6905

Pakistan

| 69 | Areeb Fatima 2018-ag-6331 | DNA barcoding and Phylogenetic Analysis study of parasitoids of fall armyworm S. frugiperda on Maize |
|------|--|---|
| 68 | Muhammad Awias 2018-ag-6846 | DNA barcoding, Phylogenetic Analysis and Biological control of Drosophila melanogaster in Punjab Pakistan |
| M. P | HIL/MSC. Hons. STU | IDENTS COMPLETED IN 2023 AS MAIN SUPERVISOR |
| 67 | Adnan Khalid 2021-ag-1526 | Molecular Identification and Phylogenetic analysis of <i>Spodoptera Ciliur</i> (Lepidoptera: Noctuidae) in Punjab Pakistan |
| 66 | Ambreen Fatima 2021-ag-1581 | Molecular Identification And Phylogenetic Analysis of <i>Atherigona orientalis</i> Ir Punjab, Pakistan |
| 65 | Mahnoor Sultana 2017-ag- 3788 | Molecualr Identification and Phylogenetic Analysis of <i>Spodotera Exigua</i> (Lepidoptera: Noctuidae) and its management by Nano-Biopesticides |
| 64 | Muniba Kirn 2021-ag-2784 | Mass Rearing of Important Lepidoptera Pests on Artificial Diets |
| 63 | Iqra Parveen 2021-ag-1585 | Enzymatic and Histopathological Study on Fall Armyworm <i>Spodopted frugiperda</i> (Insecta: Lepidoptera: Noctuidae) against Silver Nanoparticle |
| 62 | Roha khalid 2021-ag-1463 | DNA barcoding and phylogenetic analysis of Black Cutworm (<i>Agrotis ipsilon</i> Fo its management in Punjab Pakistan. |
| 61 | Ummara Noreen 2021- ag-1594 | DNA Barcoding and Phylogenetic Analysis of <i>Triloch varians</i> For its management in Punjab Pakistan |
| 60 | Muzamil Abbas 2021-ag-59 | Comparitive Susceptibility of Silver Nanoparticles and Synthetic Insectivide For Sustainable Management of Fall Armyworm <i>Spodoptera Fugiperdo</i> (Lepiodoptera: Noctuidae) on Cultivar of Maize |
| 59 | Nadia Sarwar 2021-ag-36 | Biosynthesis, Characterization And Application of Silver Nanoparticles for the Management of Brassica Aphid, <i>BREVICORYNE BRASSICARE</i> L.(Hemiptera Aphididae) On Brassica Crop |
| 58 | Shan Hussain 2021-ag-54 | Potential Impact of Jasmonic acid and <i>Beauvaria Basiana</i> -based silical Nanoparticles on Zea mays against fall armyworm, <i>Spodoptera Fugiperda</i> (Lepiodoptera: Noctuidae) |
| 57 | Tahir Jabar 2017-ag-9235 | Molecular and Enzymatic Study of Resistance of Red PALM Weevil <i>PHYNCHOPHORUS.FERRUGINEUS</i> (Olivier) (Coleoptera: Curculiondae) Agains Insecticides For Sustainable Management |
| 56 | Tania Saeed 2021-ag-44 | Molecular Identification and Characterization of Maize Shoot Fly (Diptera Musidae) In Punjab, Pakistan |
| 55 | Sana Irum 2021-ag-42 | Molecular Identification and Characterization of Brinjal Fruit Borei (Lepidoptera: Crambidae) In Punjab, Pakistan |
| M. P | • | IDENTS COMPLETED IN 2022 AS MAIN SUPERVISOR |
| 54 | Abdullah Shaokat 2014-ag-3074 | Comparative biological study of fall armyworm, <i>Spodoptera frugi<u>perda</u></i> Lepidoptera, Noctuidae, on artificial diets and natural plants |
| 53 | Muhammad Shameikh Ali 2016-ag- 6203 | Toxicological evaluation of silver nanoparticles against <i>Phenacoccu</i> solenopsis and <i>Bemecia tabaci</i> on different cultivars of cotton |
| 52 | Hamid Hussain 2016- ag-8014 | DNA barcoding of Indian Meal Moth and Brown tail moth of Gilgit Baltistar region and their Management through silver nanoparticles |

| 51 | Amna 2020-ag-1731 | Efficacy evaluation of selected insecticides and biopestsicides for the management of Red Palm Weevil, Rhynchophorus ferrugineous |
|-------|---|---|
| 50 | Muhammad Harris 2016-ag- 6452 | Management of different species of fruit fly, Diptera Tephritidae, on Citrus Using hot water and Cold treatment Method |
| 49 | Rubab Fatima 2016-ag- 6382 | Efficacy of Indigenous isolates of Beauvaria bassiana and Metarhizium anisopliae against fall armyworm, Spodoptera frugiperda |
| M. PI | HIL/MSC. Hons. STL | JDENTS COMPLETED IN 2021 AS MAIN SUPERVISOR |
| 48 | Amanullah 2015-ag- 7358 | Comparative toxicity and gene expression study in <i>Pectinophor gossypiella</i> against selected insecticides and silver nano particles |
| 47 | Muhammad Shoaib | Mortality, gene expression and enzymatic analysis of <i>Spodopter</i> frugiperda in response to insecticides and <i>Beauvaria basiana</i> |
| 46 | Usama Shaukat 2019-ag-41 | Efficacy of botanical extracts and insecticides in association of gene expression in fall armyworm |
| 45 | Mohammad Ayoub 2015-ag-6989 | DNA barcoding and genetic analysis of parasitoids of fall armyworm, Spodoptera frugiperda in Faisalabad, Pakistan |
| 44 | Muhamma d Azhar Saeed 2019-ag-33 | Identification, Characterization and Pathogenecity Evaluation of Indigenous Nucleopolyhedrovirus isolates against <i>Spodoptera frugiperda</i> (Lepidoptera: Noctuidae) |
| 43 | Shahid Mahmoo d2015- ag-6265 | Infestation and Biology Study of fall armyworm, Spodoptera frugiperda on different maize cultiwars in Punjab, Pakistan |
| 42 | Mohsin Razzaq 2019-ag-70 | Molecular Characterization and genetic analysis of fall armyworm, Spodoptera frugiperda in Pakistan |
| M. PI | HIL/MSC. Hons. STL | JDENTS COMPLETED IN 2020 AS MAIN SUPERVISOR |
| 41 | Jawad Khalid 2017-ag-0044 | Molecular Characterization of mosquito species from Punjab, Pakistan |
| 40 | Ali Ahmed 2013-ag-3558 | Green Synthesis and Assessment of Silver Nitrate Nanoparticle against Armyworm (<i>Spodoptera litura</i>) in Pakistan |
| 39 | Anam Shahzadi 2018-ag-3746 | Molecular study of Gene Expression and Management of Asian Citru Psyllid (<i>Diaphorina citri</i> Kuwayama) in Punjab, Pakistan. |
| 38 | Mehreen Kousar 2016- ag-1299 | Identification and Characterization of Entomopathogens from Rhinoceros Beetle and their Implementation for Sustainable management |
| 37 | Insha Ishfaq 2018-ag- 3708 | Molecular Detection and Characterization of Wolbachia in insect pest of Lepidoptera, in Pakistan |
| 36 | Shirin Nasrullah 2018-ag- | Study of Molecular Characteristics Identification and Management of Mongo hoppers in Punjab Pakistan |

| | 3780 | |
|-------|----------------------------|--|
| | Rashid Ali | Isolation, Identification and pathogenicity evaluation of |
| 35 | 2018-ag- | entomopathogens for the Management of Rhynchophorus ferrugineu |
| | 3716 | (Olivier). |
| 34 | Ayesha Zulfiqar | DNA Barcoding and phylogenetic analysis of the parasitoids of Cotto |
| | 2018-ag-3736 | bollworms |
| 33 | Azka | Molecular identification and characterization of wheat aphids and |
| | Chaudhary | their microbial management |
| | 2018-ag- 3765 | |
| | Hajra | DNA Barcoding and phylogenetic analysis of yellow peach mot |
| 33 | 2018-ag-3733 | (Conogethes punctiferalis Guenee) Lepidoptera: Crambidae and It |
| | 2010 06 0700 | management through biological control agents. |
| 32 | Khadija Jameel | Synergism between Fungi and Virus for the management |
| | 2016-ag-3474 | Diamondback Moth Plutella xylostella (Lepidoptera: Plutellidae) |
| | | |
| 31 | Awais Qamar | DNA barcoding of forensically important insects from different district |
| | 2014-ag-4725 | of Punjab, Pakistan |
| 30 | Ejaz Ahmad | DNA barcoding and phylogenetic analysis of swarm forming species of |
| 20 | 2014-ag-5133 | desert locust, <i>Schistocera gregaria</i> F. in Pakistan |
| 29 | Wasim Ahmad | Infestation, genetic variation analysis and biology study of Africa |
| 28 | 2014-ag-5095 Saad | moth (<i>Isturgia disputaria G.</i>) in Punjab, Pakistan. PCR detection and identification of wolbachia in different species of |
| 20 | 2014-ag-5558 | mosquitoes from Faisalabad, Punjab, Pakistan. |
| 27 | Habel | Efficacy of different insecticides and nano-particles for th management |
| 21 | Parwaiz | of dusky cotton bug (<i>Oxycarenu hyalinipennis</i> (Hemiptera:Lagaiedae) |
| | 2014-ag- | (|
| | 5573 | |
| | Muhammad | Toxicity of different insecticides and Nano particles against Pin |
| | Umar | Bollworm (Pectinophora gossypiella) (Lepidoptera: Gelichidae) |
| 26 | 2014-ag-2594 | |
| 25 | Muhammad | Identification and expression analysis of resistant genes in pink |
| | Danyal Khan | bollworm of Pakistan |
| | 2014-ag- | |
| M. PH | 5327 IIL/MSC. Hons. STU | IDENTS COMPLETED IN 2019 AS MAIN SUPERVISOR |
| | | |
| 24 | Taiba Sharif | Molecular Identification and Sequence analysis of fruit flies of genus |
| | 2017-ag- | Bactrocera (Diptera: Tephritidae) in Punjab, Pakistan |
| 22 | 3017 Sumaira | Molecular identification and genetic variation study of Asian citrus |
| 23 | Kausar 2017- | psyllid (<i>Diaphorina citri</i>) using mtCOI gene sequence in Pakistan |
| | ag-3059 | psyllid (Diaphornia citri) using inteol gene sequence in Pakistan |
| | Samra | Molecular Characterization and Phylogenetic Analysis of Forensically |
| 22 | 2017-ag-2956 | Important Insects in Punjab, Pakistan |
| 21 | Nawal Sarfraz | Molecular Identification and Characterization of Potato Aphid |
| | | (Macrosiphum euphorbiae) from Punjab, Pakistan |

| | Fariha Zafar | Molecular Identification and Characterization of Cotton leafhoppera |
|---------------------|---|--|
| 20 | 2017-ag- 5145 | Amrasca biguttula biguttula in major Cotton Growing Districts of Punjab, Pakistan |
| 19 | Aliya Noreen 2017-ag-1339 | DNA Barcoding and study of phylogenetic relationship of Spodoptera species of cotton from Punjab, Pakistan. |
| 18 | Shahzeb Shahzad 2017- ag-47 | DNA Barcoding of Dusky cotton bug (Oxycarenus hyalinipennis)) (HEMIPTERA: LYGAIEDAE) and Red Cotton bug (<i>DYSDERCUS CINGULATUS</i>) (HEMIPTERA: PYRRHOCORIDAE) from |
| | Haq Nawaz | different Districts of Punjab. Molecular Identification and phylogenetic study of rice brown |
| 17 | 2013-ag- 3146 | hopper NILAPARVATA <i>LUGENS</i> (HEMIPTERA: DELPHACIDAE) in Punjab, Pakistan. |
| 16 | Muhammad Fahad | DNA barcoding and Phylogenetic analysis of sucking insect pest, Aphids (HOMOPTERA: APHIDIDAE) of cotton and Brassica crops from different |
| 16 M. P I | 2017-ag-80 HIL/MSC. Hons. ST | districts of Punjab, Pakistan UDENTS COMPLETED IN 2018 AS MAIN SUPERVISOR |
| 4.5 | Hafiz Jamshed | Molecular Characterization and Transmission Study of Phytoplasma |
| 15 | Iqbal 2012-ag-3319 | Associated Diseases and Their Insect Vectors on Ornamental Plants in Punjab, Pakistan |
| 14 | Muhammad Zeeshan Sarwar 2012-ag-3358 | Molecular Identification and Characterization of Whitefly, <i>Bemesia tabaci</i> and associated Cotton Leaf Curl Virus |
| 13 | Muhammad Tariq Aziz | Molecular Identification, Phylogenetic Analysis and Biological Activity Evaluation of Entamopathogen for the management of Lepidopterous Insect pests |
| 12 | Muhamma d Salah-ud- Din 2016-ag-766 | Molecular Identification and Phylogenetic relationships of lepidopterist insect pest of cotton, <i>Spodoptera and Pectinophora spp.</i> (Lepidoptera: Noctuidae) from Punjab, Pakistan |
| 11 | Imranullah khan 2016-ag- 1079 | Gene expression study in Cotton bollworm population for insect pest management. |
| 10 | Hina Latif 2016-ag-1424 | Molecular identification and Characterization of Cotton bollworm, Helicoverpa armigera (Lepidoptera: Noctuidae) |
| M. P | HIL/MSC. Hons. ST | UDENTS COMPLETED IN 2017 AS MAIN SUPERVISOR |
| 9 | Muhammad Zahid Sharif 2011-ag-4010 | Molecular identification, characterization and transmission studies in vegetable associated phytoplasmas and their insect vectors in Punjab, Pakistan |
| 8 | Dilawar Majeed 2011- ag-3370 | Study on the evaluation of <i>Cry1Ac</i> mediated defense gene expression in Bt cotton (<i>Gossypium hirsutum</i> L.) cultivars for management of <i>Pectinophora gossypiella</i> |
| M. P | | UDENTS COMPLETED IN 2016 AS MAIN SUPERVISOR |
| 7 | Rizwan Ahmed 2014- | Molecular study of gene expression in oil seed rape (<i>Brassica napus</i>) in response to Armyworm and plant activator application |

| | ag-963 | |
|-------|-------------------------------------|---|
| 6 | M. Sajid Sharif 2008- ag-2059 | Evaluation of combined effect of molecular induced resistance and biological control of aphids in transgenic oilseed rape (<i>Brassica napus L.</i>)/ |
| 5 | M. Wajid Javed 2009- ag-3577 | Study on Induced Resistance Based Defense Genes Expression to Control Consequential Insect Pests of Tomato (<i>Lycopersicon esculentum</i>))/ |
| 4 | Rashid Mushtaq 2009-ag-2743 | Molecular detection of NPV and its biological activity for the control of army worm <i>Spodoptera litura</i> F. (Lepidoptera: Noctuidae)/ |
| 3 | Muhammad Jafir 2010-ag- 3673 | Evaluation of Cry1 Ac expression in Bt cotton (Gossypium hirsutumL.) for the management of Helicovera armigera/ |
| 2 | Rizwan Ahmed 2008- ag-3014 | Comparative study on host plant preference regarding phloem feeding insect on oil seed rape (<i>Brassica napus</i> L.)/ |
| M. PI | HIL/MSC. Hons. STU | IDENTS COMPLETED IN 2015 AS MAIN SUPERVISOR |
| 1 | Muhammad Aslam 2009-ag-2844 | Molecular Study of Phytohormone Induced Resistance and Biological Control of Aphids in Oilseed rape (<i>Brassica napus L</i>) |
| | M. PHIL/ | MSC. Hons. STUDENTS COMPLETED AS CO-SUPERVISOR |
| M. Pi | HIL/MSC. Hons. STU | IDENTS COMPLETED IN 2020 AS CO-SUPERVISOR |
| 16 | Fatima Irshad 2016- ag-4065 | Study of physiological changes induced in Wheat (<i>Triticum aestivum</i> L.) treated with Salicylic acid and Jasmonic acid and attacked by Army worm |
| 15 | Urwah Shafique 2016- ag-4076 | Study of Physiological Changes induce in wheat infested by Armyworm |
| 14 | Maria Shahnaz 2016-ag-1608 | Management of biotic stresses induced in wheat by aphid infestation through application of vitamin C and its effects on plant physiology |
| M. Pi | HIL/MSC. Hons. STU | IDENTS COMPLETED IN 2019 AS CO-SUPERVISOR |
| 13 | Maria Bilal 2014-ag-8832 | Physiochemical evaluation of oil seed crop (<i>Brassica napus L.</i>) in response to drought stress |
| 12 | Mufeeza Asgher 2017-ag-5478 | Physiochemical evaluation of oil seed rape (<i>Brassica napus L.</i>) in response to waterlogging |
| 11 | Sumera Saeed 2015-ag-3341 | Evaluation of protein profile of phytoplasma infected periwinkle |
| 10 | Salma Adrees 2013-ag-42 | Effect of Phytoplasma on primary and secondary metabolite content and antioxidant enzyme activity of alfalfa. |
| M. Pi | HIL/MSC. Hons. STU | IDENTS COMPLETED IN 2018 AS CO-SUPERVISOR |
| 9 | lqra Shafique | Study on effectiveness of Methyl Jasmonate against aphid attack on MINELESS transgenic oil seed rape (<i>Brassica napus</i>) |

| | 2016-ag- | |
|---|--------------------|---|
| | 364 | |
| 8 | Ayesha | Effects of Methyl Jasmonate on physiology of MINELESS transgenic oil |
| | Sattar 2016- | seed rape (Brassica napus) |
| | ag-234 | |
| 7 | Iqra Tahir | Study of morphological and anatomical variation in phytoplasma |
| | 2016-ag- | infected periwinkle |
| | 125 | Charles of affactions are of Mathed Laurenate against annual against |
| 6 | Shabi.ul.Fatim | Study of effectiveness of Methyl Jasmonate against army worm |
| | a 2016-ag- 1265 | attack on MINELESS transgenic oil seed rape (Brassica napus) |
| 5 | Shaista | Physiochemical study of MINELESS <i>Brassica napus</i> (L) in response to |
|) | Manzoor 2014- | diamond back moth attack |
| | ag-2302 | diamond back moth attack |
| 4 | Nida | Effect of auxin application on wild type and MINELESS transgenic oil seed |
| - | Muneer | rape (Brassica napus) |
| | 2014-ag- | Tape (Brassica Hapus) |
| | 2719 | |
| 3 | Maryam Shafiq | Effect of abscisic acid application on wild type and MINELESS |
| | 2014-ag-2884 | transgenic oil seed rape (<i>Brassica</i> napus) |
| | | |
| 2 | Muhammad | Physiochemical study on MINELESS transgenic oil seed rape (Brassica |
| | Usman | napus) in response to aphid attack |
| | 2016-ag-120 | |
| 1 | Faiz ul | Comparative study of morphological and anatomical variation |
| | Hassan | between wild type and MINELESS transgenic oil seed rape (Brassica |
| | 2014-ag- | napus) |
| | 9180 | |

9. INTERNATIONAL COLLABORATION:

1. We had International Collaboration with Scientists of USA, NORWAY, ITALY, GERMANY, TURKEY and FRANCE during last 10 Year.

10.OUT REACH ACTIVITIES

- 1. Participated as Main Trainer/ Resource Person in Training of master trainers about fall armyworm (*S. frugiperda*) on Maize and Millets (MMRI No.1808/M-7 dated 27-10-2020) Organized by Maize and Millets Research Institute Yousaf wala (Sahiwal) held on Oct 28, 2020.
- 2. Participated in Online Workshop under China-Pakistan Science Workshop (II) on 'Use of New Technologies in Locust Control' organized by MoST, CISTE, BAST and Embassy of Pakistan and China. (August 20, 2020).
- **3.** Participated as Trainer, Resource Person and Convener for Training Program on Advanced Organic Farming Technologies (Phase II) by Agronomy/Entomology (Sept 21-23, 2020, UAF)
- **4.** Participated as Main Expert/Scientist/ in a webinar on Locust Attack: Tidy dal: "Urti Phirti Qiamat" organized by Khwarizmi Science Society on April 2020. My Talk is available on You tube Channel (https://youtu.be/IQvR71_HRS9k

- **5.** Participated in the "Insect Pathology Short Course" sponsored by Cornell University and the International Organization for Biological Control of Noxious Animals and Plants (IOBC) held at the campus of Cornell University Ithaca, NY, USA. (June 2-7, 2019).
- **6.** Participated as Convener for organizing committee member for the International Entomological Congress-2019 Organized by department of entomology, UAF. (April 8-10-2019)
- **7.** Participated in Seminar/Training on Biosafety Measures in Agricultures: Issues and options organized by ORIC, UAF in collaboration with PARB. (March 19-20, 2019).
- **8.** Participated as Trainer and Resource Person for Four Days Training Program on Orchard Establishment & Management under the Project Capacity building of Agricultural Scientist in collaboration with Govt. Of Baluchistan Organized by ORIC/HIS on March 11-20, 2019, UAF
- Participated as Trainer and Resource Person for Four Days Training Program on Horticultural Nursery Production & Management to Researchers & Academia from Baluchistan Organized by ORIC/HIS on December 3-8, 2018, UAF
- **10.** Participated in "One day workshop on Laboratory Biosafety" arranged by the Department of Plant pathology, University of Agriculture Faisalabad in collaboration with the Pakistan Biological Safety association (February 11, 2019)
- **11.** Participated in Seminar on "Breast cancer awareness and self-examine program" arranged by the UAF Community College (February 19, 2019)
- **12.** Attended the International Seminar on "Awareness of fodder Cultivation under the scenario of Climate Change" held at the University of Agriculture Faisalabad (March 28, 2019)
- **13.** Attended "National Workshop on "Sustainable and Integrated Management of Insect Pests and Diseases of Crops" arranged by NIAB, Faisalabad (23-25th September, 2014)
- **14.** Attended "Project Formulation Workshop" at University of Agriculture Faisalabad arranged by PSF on (3-4 th December, 2013)
- **15.** Attended "Strategies for Working with Adult Learners/Farmers" Institute of Agri. UAF, (15 July, 2013)
- **16.** One day Preparatory seminar for National Innovation Grand challenge initiated by (PIF) organized by ORIC (June 13, 2013).
- **17.** One day workshop on immobilized Laser spectroscopy for isolating cell and Tissues organized by ORIC, UAF and Scientific World 2013.
- **18.** Attended workshop "Strategies for Working with Adult Learners/Farmers" Institute of Agri. UAF, (15 July, 2013)
- **19.** Attended "Workshop for Co-Tutors Learning by Doing: Tools and Techniques for working as a Team" UAF. (2-7 th May, 2013)
- **20.** Participated in One day Training of Presiding and Assistant Presiding officer Organized by Election Commission of Pakistan (19 April 2013).
- 21. Duty performed as Presiding officer in General Election 2013 at Chak Jhumra, Faisalabad
- **22.** Participated in the 1st National Seminar of Pakistan Allelopathy Society on "Allelopathy Research in Pakistan: Experiences and Opportunities" held at the University of Agriculture Faisalabad (12th December, 2013).
- **23.** Participation in the Final COST Action FAO807 meeting held in Lisbon, Purtugal on September 30-October 1, 2013
- 24. ADMINISTRATIVE SERVICES

- 25. Performing duty as member of committee of Departmental Tenure Review Committee (DTRC) constituted by the Vice chancellor, IUB, (No.1068/Faculty-II dated on 31-12-2019) to properly scrutinize the reports of TTS teachers for putting recommendations to the office of the registrar for their promotion of Entomology Department, Agriculture College, Islamia University Bahawalpur. (Member since 2019)
- **26.** Member of committee constituted of Board of Study (BOS) by Vice chancellor, MNS, faculty of Agriculture and Environmental Sciences MNS University of Agriculture, Multan (Member since 2019)
- **27.** Member of committee constituted by the Vice chancellor, UAF, under the direction of HEC (No. PS- 4/20854-60 dated on 01-11-2018) to properly scrutinize the TTS appointment/promotion cases before placing them in selection board and syndicate/BOG. (member since 2018)
- **28.** Member of the Paper checking Committee established by Department of Entomology, UAF since 2nd July 2015.
- **29.** Nominated for the participation of documentary Clip relating faculties/Institutes for the News Education Expo 2014. 17th May 2014.
- **30.** Appointed and serving as Co-Tutor for Rahmat Ali (Group-3) of students in University of Agriculture, Faisalabad, Pakistan (Since 24 December 2012)
- **31.** Appointed and performed duty as Convener/member for written and oral examination of PhD student during 30-04-2019
- **32.** Directed by the Vice chancellor to act as Paper Setter and External Examiner for Annual and Supplementary Examination, 2018 of Diploma in Agricultural Sciences (Theory paper DAS-307 Pesticides and their Applications) and Practical paper of DAS 103 (Introduction of Entomology)
- **33.** Directed by the Vice chancellor to act as paper setter and External Examiner for Annual and Supplementary Examination, 2018 of Diploma in Agricultural Sciences (Theory paper DAS-307 Pesticides and their Applications) and Practical paper of DAS 103 (Introduction of Entomology)
- **34.** Nominated for the participation of Seminar Series for delivering lectures by eminent scientists to Intermediate Pre-Agriculture Students about future educational horizon and opportunities in the field of Agriculture. 26th March 2014.
- **35.** Appointed as Assistant Superintendent Jinnah Hall, University of Agriculture, Faisalabad, Pakistan since 17th October and 27th Sept 2013.
- **36.** Serving as HEC approved Supervisor by Higher Education Commission of Pakistan (HEC) in Department of Entomology, UAF since 8th July 2013.
- **37.** Participation in the Internship Tour for BSc (Honors) Students, organized by Department of Entomology, UAF. Pakistan. 22th May, 2013.
- **38.** Appointed and Duty performed as Superintendent Examination Hall for Annual, 2012 Theory Examination of Diploma Agricultural Classes at R Y Khan Agriculture Research Station. 22 Sept 2012.
- **39.** Established and In charge of the well-equipped Laboratory 'Integrated Genomics, Cellular, Developmental and Biotechnology Laboratory, UAF.
- 40. Established the Insect-bio-Fuel production laboratory at PARS Campus, UAF
- **41.** Duty performing as Invigilator for Mid and Final examination held since 2012.
- **42.** Served Hall management services during different services at UAF since 2012. Served duties as Co-Tutor for the guidance of admission seekers in Undergraduate/Postgraduates students in University of Agriculture, Faisalabad, Pakistan Since 20 August -2013.

- **43.** Serving as Co Advisor/Academic Advisor for Students admission committee of spring and Winter Semesters since 2013.
- **44.** Appointed and serving as Co-Tutor for Rehmat Ali group 3 of students in University of Agriculture, Faisalabad, Pakistan Since 24 December 2012.
- **45.** Farmer advisory services on FM at UAF regarding the Insect pest and diseases problems

11.AWARDS/HONORS:

- 1. Won PhD Overseas Scholarships as well as National and International Research Grants of more than 100 Rs. Million.
- 2. Selected as Best University teacher Award at Agriculture Faculty level of UAF IN 2022-23.
- **3.** Won the Travel grant from PARB for International collaboration/visit and attended the "3rd IPWG (International Phytoplasmologist Working Group) Meeting" held at Mauritius (14-17th January, 2015).
- **4.** Member of the fruit fly management research group (Biotechnological research group) established in UAF since July 2014.
- **5.** Attended 1st annual IFPRI-PSSP Competitive Grants Program Conference held in Pak-Secretariat, Islamabad, Pakistan (14-15 th June, 2014)
- **6.** Appointed/Charged the vacant post as Professor (TTS) in Entomology department since December 2024.
- **7.** Member COST Action FAO807 and Participation in the Final COST Action FAO807 meeting to be held in Lisbon, Purtugal on September 30-October 1, 2013.
- **8.** Nomination for Farmers Capacity building Initiative, Joint Seminar/ Farmer day at Okara on 16th Sept 2013.
- **9.** Letter of appreciation by Department for getting 1st position and Trophy during Kisan Mela 4th April 2013
- **10.** Letter of Congratulations by Chairman and HEC on up-gradation of Pakistan Entomologist to Category "Y" from Z. 19th December 2012.
- **11.** Letter by Vice Chancellor through ORIC for providing Working Space and all equipment facilities at CABB. 10th August 2012.
- **12.** Served as member organizing committee of international seminar on vegetable and fruits pest management the university of Agriculture Faisalabad
- **13.** Professional Membership of following International scientific societies and organizations: 1-Entomological Society of America, 2-Society for invertebrate pathology, 3-Society for Microbiology, 4- Hymenopteran Society, 5-International Horticultural Society, 6-Zoological Society of Pakistan, 7-Young Entomologist, Pakistan.
- **14.** Reviewer of research papers for the International Journal of Botany, Pakistan Journal of Agriculture Sciences, Archives in phytopathology
- **15.** Member of committee constituted by the Vice chancellor of Islamia University Bahawalpur under the direction of HEC to properly scrutinize the TTS appointment/promotion cases before placing them in selection board and syndicate/BOG since 2019
- **16.** Member of committee constituted by the Vice Chancellor of University of Agriculture Faisalabad under the direction of HEC (Endst: No. PS-4/20854-60 dated on 01-11-2018 to properly scrutinize the TTS appointment/promotion cases before placing them in selection board and syndicate/BOG since 2018

- **17.** Nominated as Member of BOS faculty of Agriculture and Environmental Sciences MNS University of Agriculture Multan Since 2019
- **18.** Appointed and serving as Co-Tutor for Rahmat Ali group 3 of students in University of Agriculture, Faisalabad, Pakistan Since 24 December 2012 till Now
- **19.** Appointed and performed duty as Convener/member for written and oral examination of PhD student during 30-04-2019
- **20.** Directed by the Vice chancellor to act as paper setter and External Examiner for Annual and Supplementary Examination, 2018 of Diploma in Agricultural Sciences (Theory paper DAS-307 Pesticides and their Applications) and Practical paper of DAS 103 (Introduction of Entomology)
- **21.** Member of the Paper checking Committee established by Department of Entomology, UAF Since 2nd July 2016 till now.
- **22.** Serving as HEC approved Supervisor by Higher Education Commission of Pakistan (HEC) in Department of Entomology, UAF since 8th July 2013 till now.
- **23.** Performing duty as Superintendent Examination Hall for Annual, 2018-19 Theory Practical Examination of Diploma Agricultural Classes at UAF Laboratory School.
- **24.** Appointed and performed duty as examiner for students of PhD comprehensive written and oral examination since 2016 till now.
- 25. Member exhibition committee in Kisan Mela, invigilation team since 2013
- **26.** Reviewer of research papers for the International Journal of Botany, Pakistan Entomologist and International Poster journal of Science and Technology.
- 27. Life time member of Pakistan Entomological Society
- 28. Duty performed as Invigilator for Mid and Final examination held on session 2018-19

12.MAJOR ACHIEVEMENTS DURING LAST 13 YEARS

- 1. As Principle Investigator, I have completed 5 National and 1 International Mega Projects (>100 million Pak Rs.) being at the top position in our department. As CoPI- I have completed 6 National Projects (>150 million Pak Rs.)
- 2. First time, I have established Well Equipped Laboratory, IGCDB, insect growth rooms and Learning Research Centre (Green and glass houses with fenced area) for research experimentation and student training.
- **3.** First time in Pakistan, I have Established **DNA library of Pakistani Insects** with more than 300 different insects, Pathogens including beneficial and forensic insects.
- **4.** First time in Pakistan, The **molecular data of more than 300 different insect pests** and pathogens have been submitted on NCBI and many more under process.
- 5. First time in Pakistan, I have identified many (>50) indigenous entomopathogens (Viruses, Bacteria and fungi, Protozoans) on molecular level.
- 6. First time in Pakistan, I have Developed 5 bio-pesticides based on these entomopathogens against 5 major Lepidoptera's insect pest of different crops. FAWKILL, HelicoCIDE, PgCIDE, SpodoKill etc. Three Have been patented and 3 under process.
- **7.** First time in Pakistan, I have developed **real time Indoor Beekeeping technology** that also has been patented and being executed in our department. Patented

- 8. First time in Pakistan, I have developed a new insect resistant genetically improved plant system of oil seed rape (Brassica napus L) that is resistant to some major insect pests.
- **9.** I was Selected as **Best Teacher at department and Faculty level** during Year 2022 in Best University Teacher Award category.
- 10. Throughout my career, I got all annual increments with excellent marks (> 95). I always remained among the top of top 5 percent teachers/scientists in each Year SAR. Many time I got 100/100 marks.
- 11. First time in history of UAF, I have supervised one Post doc student funded by world Islamic Bank during 2021 Period.
- 12. I have also supervised 4 Phd students and more than 70 MSc Hons. Entomology students as Major Supervisor. There are many more as member/Co-Supervisor.
- 13. I have published more than 50 W category IF publications (IF more than 100). I have 5 International book chapters in 5 different International Books have also been published.
- 14. I have established Insect rearing Methods of different insects and Reared generation after generation major insect pests of cotton and date palm on artificial diets in laboratory.
- 15. I have developed methodologies for the Molecular Identification, Characterization and Management of Insect vectors and their associated diseases in Pakistan.
- 16. I have established international collaboration with particularly Norway, France, and Italy and USA laboratories.
- 17. Successful completion of completed **training for more than 150 Postgraduate Students** in my laboratory (More than 50% female students) and more than 50 (under progress) from different department.
- **18.** Prepared **3 laboratory manuals,** (1-Lab manual for safety Rules; 2-Lab Manual of SOP for COVID-19; 3-Lab Manual for Waste Management) and one Lab research work book for research students.
- 19. Several times I have provided **training to Government official Agriculture staff** as well as laboratory staff of different department/institutes in Capacity Building Program regarding pest identification and Management.
- 20. I have also provided **training to progressive farmers** of different provinces to enhance Organic farming in the country.
- 21. I have also established Academia Industry linkage Program through ORIC and working with different industries in Pakistan.
- We are providing of **high technology and diversified research facilities for postgraduate** (MSc/MPhil/PhD) students at UAF.
- 23. I have synthesized nanoparticles based pesticides as well and evaluated successfully against different insect pest. Some Nano pesticides are under development and evaluation process.
- 24. First time in Pakistan, Molecular data of more insects >100 insects and >10 entomopathogens and >13 phytopathogenic diseases and their insect vectors have been identified, characterized and will be soon submitted on NCBI.

- **25.** I have 4 patents, and no one in our dept. or university has such new technology and environment friendly based parents.
- **26.** I am providing Insect pests **identification facilities to quarantine departments** as well as exporters and importers in Pakistan.



LEARNING RESEARCH CENTRE

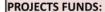


INTEGRATED GENOMICS CELLULAR DEVELOPMENTAL AND BIOTECHNOLOGY LABORATORY,
DEPARTMENT OF ENTOMOLOGY, UAF

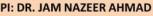
OBJECTIVE OF LABORATORY AND LEARNING CENTRE

- BIOPESTICIDES RESEARCH, SYNTHESIS AND PRODUCTION UNIT
 INSECT-PLANT PATHOGENS INTERACTION RESEARCH CHAMBERS
- INSECT REARING AND INTEGRATED PEST MANAGEMENT
- INSECT PESTS, AND DISEASES IDENTIFICATION (DNA BARCODING)
- INSECT PESTS, AND DISEASES IDENTIFICATION (DNA BARCODING)
 INSECT VECTORS AND ASSOCIATED PATHOGENS IDENTIFICATION
- DUYTODATHOCENS AND ASSOCIATED INSECT VECTORS CONTROL
- PHYTOPATHOGENS AND ASSOCIATED INSECT VECTORS CONTROL
- USE OF NANOTECHNOLOGY, BIOTECHNOLOGY AND MOLECULAR BIOLOGY FOR SUSTAINABLE PEST MANAGEMENT
- RESEARCH ON TRANSGENIC CROPS FOR PEST MANAGEMENT
- STUDENTS/RESEARCHERS TRAININGS ABOUT LATEST TECHNIQUES





- PAK-NORWAY FRAMEWORK FOR INSTITUTINAL COOPERATION PROGRAMME
- II. HIGHER EDUCATION COMMISSION OF PAKISTAN
- III. PUNJAB AGRICULTURAL RESEARCH BOARD



DEPARTMENT OF ENTOMOLOGY,

UNIVERSITY OF AGRICULTURE, FAISALABAD

