

DR. GHULAM HUSSAIN JATOI



Personal Details

Father's name: Pervez Ahmed Jatoi

Date of Birth: 20/01/1991

Domicile: Larkana (R)

Religion: Islam

Nationality: Pakistani

Language Skills: English, Urdu, Sindhi, and Chinese with speaking writing and reading.

Designation: Lecturer

Department: Plant Pathology

Faculty: Crop Protection

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Qualification: "Ph.D. Doctor of Philosophy"

Date Awarded: 18-01-2019.

Awarding Institute: "Institute of Plant Protection Chinese Academy of Agricultural Sciences (IPPCAAS) Beijing China"

Subject Areas: Biological Control of Plant Pathogens and Biopesticide Engineering

HEC Recognized Supervisor

Google Scholar

<https://scholar.google.com/citations?user=Xi7pAZIAAAAJ&hl=en>

ORIC ID

<https://orcid.org/0000-0002-7266-1567>.

Scopus ID

<https://www.scopus.com/authid/detail.uri?authorId=57191170047>

Web of Science ID

<https://www.webofscience.com/wos/author/record/AAD-6850-2019>

ACADEMIC QUALIFICATIONS

Certificate / Degree	Board / University	Year
Doctor of Philosophy (Biocontrol, Plant Diseases)	Graduate School of Chinese Academy of Agricultural Sciences, Beijing, China	2016-2019
M.Sc. (Agri.) Hons (Plant Pathology)	Sindh Agriculture University, Tandojam	2014-2015
B.Sc. (Agri.) Hons. (Plant Pathology)	Sindh Agriculture University, Tandojam	2009-2013
Intermediate (Pre-medical)	B.I.S.E Larkana	2007-2008
Matriculation (science)	B.I.S.E Larkana	2005-2006

ACADEMIC RESEARCH ACTIVITIES

- **PhD, Thesis Title**
Identification and Functional Analysis of a Novel Protein Elicitor PeBL2 from *Brevibacillus laterosporus* A60
- **M.Sc Agri (Hons) Thesis Title**
In-vitro efficacy of different fungicides, botanical extracts and Bio-control agents against *Helminthosporium oryzae*, the causal agent of brown spot of rice
- **B.Sc Agri (Hons) Internship report Title**
Morphological characterization of rice associated bacteria and their antifungal activity against brown spot fungus (*Helminthosporium oryzae*)

EXPERIENCE

Professional Experience

- Lecturer BPS-18 Regular Department of Plant Pathology, Sindh Agriculture University, Tandojam, Hyderabad, Sindh. 01-06-2023 to up to date
- Assistant Professor, (Adhoc). Mir Chakar Khan Rind University Sibi, Balochistan. 08-10-2020 to 31-05-2023
- Assistant Professor (Contract). Sindh Agriculture University, Tandojam, Hyderabad, Sindh. 15-5-2020 to 7-10-2020.
- Assistant Professor. (IPFP) Sindh Agriculture University, Tandojam, Hyderabad, Sindh. 14-5-2019 to 13-5-2020.

AN OTHERS EXPERIENCE

- Bio-Pesticides Engineering and Biocontrol
- Master research (9) months at NIA Nuclear Institute of Agriculture TandoJam
- Internship: (3) month at NIA Nuclear Institute of Agriculture TandoJam
- Plant Pathology Laboratory: (02) years, at SZABAC-DOKRI
- English Grammar Teacher: (04) Months, at Almas English Coaching center Larkana

HONOURS & AWARDS

- Best Performance Award (GSCAAS) at Beijing China Sports Gala 2016
- Beijing Government Scholarship
- GSCAAS. Beijing China Scholarship for Ph.D.
- HEC Need Based Scholarship for master's degree program
- District Larkana Merit Scholarship for under Graduation

SKILL PROFILE

- To diagnose disease.
- Treatment and management of Plants.
- Molecular studies.
- DNA and RNA Extraction
- Bio-pesticides Engineering
- Isolation and Purification Protein from Microbes.
- Good communication and Presentation skills.
- Ability to take on the most difficult tasks under pressure.
- Have ability to conduct different kinds of trainings on Agriculture.
- Academic Writing

COMPUTER SKILLS

- Expertise in Website developing.
- Expertise in Open Journal System (OJS)

- Expertise in data analyses Statistix 8.1 software
- Microsoft Office (Ms. Word, Ms. Excel, Ms. Power Point).
- Internet (Searching & Browsing).
- Adobe Photoshop

ACHIEVEMENTS

Research Projects

As P I in Research Projects

Dr Ghulam Hussain Jatoi P I and Dr Manzoor Ali Abro C PI. 2020. Isolation of Rhizospheric Bacteria from soil and their Antifungal Activity Against *Helminthosporium oryzae* the causal agent of Brown Spot of Rice. HEC Pakistan SRGP 0.5 million (**Completed**)

Dr Ghulam Hussain Jatoi P I and Dr Sajjad Ali Khuhro Co-PI. 2021. Control Management Strategies for Tomato wilt disease caused by *Fusarium oxysporium* f. sp lycopersici in Balochistan and its Ecofriendly management. Govt of Balochistan by Mir Chakar khan Rind University Sibi balochistan **1.645074 million (Completed)**

As Co-P I in Research Projects

Dr Sajjad Ali Khuhro P I and **Dr Ghulam Hussain Jatoi** Co-PI. 2021. Development of Integrated pest management Modules Against Bollworm complex of Cotton crop by using Eco-Friendly methods. Govt of Nalochistan by Mir Chakar khan Rind University Sibi balochistan **1,145000 Million (Completed)**

Dr. Umed Ali (P.I). **Dr. Ghulam Hussain Jatoi**, Co P.I., 2021. Comparative analysis of maize (*Zea mays* L.) hybrids for low cadmium accumulation under silicon fertilization. HEC Pakistan SRGP 01 million (**Completed**)

Dr. Liaqat Shah (P.I). **Dr Ghulam Hussain Jatoi** Co-P. I). 2021. Performance and evaluation of different wheat varieties under drought and salinity conditions in Sibi-Balochistan, Pakistan. HEC Pakistan SRGP 01 million (**Completed**)

Editor-in-chief

- Journal of Applied Research in Plant Sciences (www.joarps.org)
- Mehrgarh Journal of Sciences and Technology (**08-08-2021 to 31-05-2023**)

Managing Editor

- Pakistan Journal of Biotechnology (www.pjbt.org)

Editorial Board Member in Journals

- International Journal of Plant Biotechnology (<http://journalspub.com/>)

Reviewer in Journals

- Plant Cell, Tissue and Organ Culture (PCTOC)
- Biocontrol Science & Technology
- Pakistan Journal of Biotechnology
- Plant Cell Biotechnology and Molecular Biology
- Pakistan Journal of Agricultural Research
- International Journal of Phytopathology.

Membership in Scientific societies

- Pakistan Phytological society (lifetime Member)
- Pakistan Botany Botanical society
- American society for Microbiology

TRAINING AND WORKSHOPS

1. One Workshop “**Mastering Research Grant Proposal Writing**” organized By Sindh HEC Pakistan 06-11-2024 at ICCBS, University of Karachi
2. Training of trainers (TOT) Cascading Session **2024** Faculty Development Program of Sindh HEC 5 days Training organized by Sindh Agriculture University Tandojam in collaboration with Sindh Higher Education Commission held from 21-25th October 2024
3. In-Service Regional Faculty Professional Development Program awarded Karachi. July **04-20, 2024**. by National Academy of Higher Education (NAHE) Higher Education Commission (HEC), Islamabad held at HEC Regional Centre,
4. International Training Workshop on Green Super Rice (Crop) Breeding Technology **14th -18th November 2016** Beijing. China. Graduate School of Chinese Academy of Agriculture Sciences Beijing. P.R. China.

RESEARCH PUBLICATIONS

Scientific Patent

1. Dewen Qiu, **Ghulam Hussain Jatoi**, Yang Xiufen, Guo Lihua, Jing Jing Yang (2019). A Novel Protein Elicitor PeBL2 from *Brevibacillus laterosporus*, induced by systemic immunity Against *Botrytis Cinerea* in Tobacco Plant. Govt of China.

Chapters

1. Ali, U., Shar, T., Bhutto, M. K., & Jatoi, G. H. (2023). Improving Iron Nutrition in Legumes to Overcome Hidden Hunger. In Legumes Biofortification (pp. 295-326). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-031-33957-8_13.
2. Umair Riaz, Tayyaba Samreen, Muhammad Saqlain Shah, Humera Aziz, Laila Shahzad, Muhammad Zulqernain Nazir, Nimra Raiz, Tariq Mehmood, Ghulam Hussain Jatoi. 2023. Nanotechnology and Use of Nanoparticles in Developing Environmental Stress-Tolerant Plants. In Biology and Biotechnology of Environmental Stress Tolerance in Plants (pp. 571-587). Apple Academic Press.
3. Riaz, U., Anum, W., Jatoi, G. H., Murtaza, G., Qazi, M. A., Rehman, M., & Mustafa, A. (2023). Genetically modified organisms use in green synthesizes nanomaterials. In Synthesis of Bionanomaterials for Biomedical Applications (pp. 151-163). Elsevier. <https://doi.org/10.1016/B978-0-323-91195-5.00015-5>
4. Al-Ani, L. K. T., Franzino, T., Aguilar-Marcelino, L., el Zahar Haichar, F., Furtado, E. L., Raza, W., ... & Raza, M. (2020). The role of microbial signals in plant growth and development: Current status and future prospects. New and future developments in microbial biotechnology and bioengineering, 225-242. (Elsevier) <https://doi.org/10.1016/B978-0-12-820526-6.00015-4>.

Full Research Papers

1. Koondhar, G. B., **Jatoi, G. H.**, Abro, M. A., Ahmed, R., Leghar, U. A., Poussio, G. B., & Hajano, J.-uddin. (2024). In-vitro Management of Anthracnose of Onion Caused by Colletotrichum gloeosporioides using Plant Extracts and Fungicides. Journal of Phytobiology, 4(1), 19–31.
2. Batchimeg Togoobat, Purevjargal Baterdene, Uyanga Tsogtsaikhan, **Ghulam H. Jatoi**, Munkhtsetseg Davaadorj, Gantuya Myagmarsaikhan, Enkhtuvshin Khukhuu, Nyamkhuu Tserendolgor, Byambasuren Mijidsuren .2024. Research on the Possibility of Obtaining Biopesticides from Sow Thistle (*Sonchus Arvensis* L.), Int. J. Phytopathol. 13(02),159-167
3. Mal, B., Mangrio, W. M., Sahito, H., **Jatoi, G. H.**, Siddique, A., Mastoi, A. H., Chachar, M. A., Pathan, K A., Sahito, F. I., (2024) Evaluation of Biological Traits, Morphometric Characteristics, Feeding Preferences, and Infestation Potential of Pulse Beetle (*Callosobruchus Maculatus* Fab.) on Various Pulse Crops., Plant Protection, 08(03) 2024. 487-496

4. Mangi, N., Iqbal, M.S., Shuli, F., Iqbal, M.T., Alharthi, B., **Jatoi, G.H.**, Sarfraz, Z., Ma, Q and Sun, X., 2024. Empowering cotton breeding programs through the strategic exploration and exploitation of phenotypic diversity of genetic resources under climate change conditions. *Plant Stress*, P.100548.
5. Gadhi, M. A., Nazir, T., Majeed, M. Z., **Jatoi, G. H.**, Jie, R., & Qiu, D. (2024). In-vitro and in-vivo assessment of biological control potential of nematode symbiont *Xenorhabdus nematophila* against *Pseudomonas syringae*, the causative agent of angular leaf spot of cucumber. *Journal of Phytopathology*, 172(4), e13351.
6. Katario D. K., **Jatoi, G. H.** Lashari, R. A. Ghulam Mustafa Thebo, Noorulain Soomro, Pir Arshad Jan Sirhindi, Sohail Raja Jatoi, Kosar Parveen Kalhoro, Sobia Sattar. 2024. Isolation and Analysis of The Palynomorphs from Khadro Formation Exposed Atranikot Fort Area Sindh, Pakistan. *J. Agri. Vet. Sci.* 03 (1) 2024. 123-135
7. **Jatoi, G. H.**, Abro, M. A., Hajano, J.D., Ali, M., Zangejo, K. M., Khushk, F. A., Poussio, G. B., Talpur, S. A., (2024). Novel studies on the prevalence of leaf spot disease of banana and its chemical control in lower Sindh, Pakistan. *J. Agri. Vet. Sci.* 04 (1): 107-113
8. Gabol, A. H., Rajput L. B., Hajano, J.D., **Jatoi, G. H.**, Gila, A. A., Mangrio G. Q., Koondhar M. M., Fareed. G., (2024). Feeding preference of *Tuta absoluta* on solanaceous host plants under field conditions. *International Journal of Forest Sciences.* 3(1):65-74
9. Malik, J. A., Nizamani, I. A., Khanzada, M. A., **Jatoi, G. H.**, & Gilal, A. A. (2023). Performance of Synthetic Insecticides against Asian Citrus Psyllid *Diaphorina citri* Kuwayama in Lemon Orchard. *Journal of Phytobiology*, 3(2), 57–64
10. Rajput, K., Gilal, A. A., Rajput, L. B., Magsi, S., Sahto, J. G. M., Panhwar, Z., & **Jatoi, G. H.** (2023). Evaluation of plant essential oils against *Sitophilus Oryzae* Linnaeus (Coleoptera: Curculionidae) under laboratory conditions. *Plant Protection*, 7(3), 417-426.
11. Poussio, G. B., **Jatoi, G. H.**, Khaskheli, M. I., Qaz, S. T., Siddiqui, S. A., & Mengwar, M. (2023). Investigating the Efficacy of Diverse Biopesticides for Managing Fusarium Wilt Disease of Tomato. *Journal of Agriculture and Veterinary Science*, 2(3), 167-178.
12. Baloch, S. K., Abro, M. A., Memon, Z. F., Ali, M., **Jatoi, G. H.**, Khan, I. A., Rajpar, A. A. (2023). Assessment of Soma-Clonal Variation CP67-1026 Mutant of Sugarcane through Morphological and Molecular Procedures. *Plant Bulletin*, 2(1), 18–28.
13. Khaskheli, A. A. K., Hajano, J.-U.-D., Abro, M. A., Khaskheli, M. I., Syed, Rehana N., **Jatoi, G. H.**, Khaskheli, M. S., Bheermani, S. S., & Qazi, S. T. (2023). Triggering Systemic Resistance in Tomato Plants using Salicylic Acid and Gibberellic Acid against Tomato Mosaic Disease under Greenhouse. *Jammu Kashmir Journal of Agriculture*, 3(2), 95–103
14. Channa, A. W., Bux, H., Sial, M. A., **Jatoi, G. H.**, Korejo, F., Ali, U., & Keerio, M. A. (2023). Variability in Virulence of Wheat Leaf Rust (*Puccinia triticina*) in the Sindh Province, Pakistan. *International Journal of Phytopathology*, 12(2), 153-160.
15. Khaskheli, M. S., Nizamani, Z. A., Gilal, A. A., **Jatoi, G. H.**, Khan, M. A., & Khan, A. A. (2023). Chemotherapy of Tomato Mosaic Disease using Ribavirin and 8-Azaguanine. *Plant Protection*, 7(1), 93-100.
16. Ishaq, H., Khan, M. A., Ahmed, I., Shah, S. M. A., Ali, U., **Jatoi, G. H.**, ... & Iftikhar, S. (2023). Antifungal Exploitation of Fungicides and Plant Extracts Against *Fusarium Oxysporum* F. Sp. Melongenae Causing Fusarium Wilt of Eggplant. *Pakistan Journal of Biotechnology*, 20(01), 59-67.
17. Abro, M. A., **Jatoi, G. H.**, Poussio, G. B., Koondhar, N., Figari, I. M., & Arshad, W. R. (2022). The Efficient Use of Different Fungal Bioagents for Eco-Friendly Management of Fusarium Wilt Disease of Tomato in Sindh, Pakistan. *Pakistan Journal of Phytopathology*, 34(2), 103-115.

18. Channa, A. W., Bux, H., Sial, M. A., **Jatoi, G. H.**, Shah, S. M., Figari, I. M., & Koondhar, N. (2022). Evaluation of seedling resistance and marker assisted selection for leaf rust (*Puccinia triticina*) resistance in Pakistani wheat landraces, cultivars and advanced Lines. *International Journal of Phytopathology*, 11(2), 155-169
19. Hussin, S. H., Liu, X., Li, C., Diaby, M., **Jatoi, G. H.**, Ahmed, R., & Iqbal, M. A. (2022). An Updated Overview on Insights into Sugarcane Genome Editing via CRISPR/Cas9 for Sustainable Production. *Sustainability*, 14(19), 12285.
20. Ali, U., Shar, T., **Jatoi, G. H.**, Shah, L., Bhutto, M. K., Ahmed, I., 2020. Interactive impact of potassium and sulphur to enhance the growth and yield characteristics of lentil (*Lens culinaris*) genotypes. *Abasyn Journal of Life Sciences*, 4(3): 111-120 (**HEC-Y**)
21. **Jatoi, G. H.**, Abro, M. A., Ahmed, S. M., Al-Ani, L. K., Ali, U., Jatoi, M. A., & Khaskheli, N. K. (2022). Preliminary Selection and Evaluation of Fungicides and Natural Compounds to Control Grey Mold Disease of Rose Caused by *Botrytis cinerea*. *International Journal of Phytopathology*, 11(1), 49-58. (**HEC-X**)
22. Ali, U., Shar, T., **Jatoi, G. H.**, Shah, S. M. A., Shah, L., Ahmed, I., & Bhutto, M. K. (2022). The Comparison of Mungbean (*vigna radiata* L.) Cultivars in the Presence of Various Potassium Applications. *Journal of Plant and Environment*, 4(1), 39-50.
23. Qaisrani, Z. N., Nuthammachot, N., Techato, K., **Jatoi, Ghulam Hussain**, Mahmood, B., & Ahmed, R. 2022. Drought variability assessment using standardized precipitation index, reconnaissance drought index, and precipitation deciles across Balochistan, Pakistan. *Brazilian Journal of Biology*, 84:1-12(**HEC-W**)
24. Bano, S., Baloch, A. W., Mari, S. N., Shirazi, M. U., **Jatoi, G. H.**, Gandahi, N., & Ali, M. (2021). Assessing the genetic potential of mustard genotypes for water stress through PEG-6000 treatments. *Abasyn Journal of Life Sciences*, 4(2), 46-58.
25. Khuhro, S. A., **Jatoi, G. H.**, Laghari, U. A., Zangejo, K. M., & Shamim, A. (2021). Screening the Varietal Resistance and Mating Disruption Management of Cotton Bollworm *Helicoverpa armigera* and *Pectinophora gossypiella* at Sibi Balochistan. *Journal of Plant and Environment*, 3(2), 81-89.
26. Amjad, S. F., Mansoor, N., Din, I. U., Khalid Iqbal, R., **Jatoi, G. H.**, Murtaza, G., ... & Datta, R. (2021). Application of zinc fertilizer and mycorrhizal inoculation on physio-biochemical parameters of wheat grown under water-stressed environment. *Sustainability*, 13(19), 11007.
27. Channa, A. W., Bux, H., Sial, M. A., **Jatoi, G. H.**, & Kumar, R. (2021). Virulence phenotyping of leaf rust (*Puccinia triticina*) isolates from southern Pakistan. *International Journal of Phytopathology*, 10(2), 101-123.
28. Leghari, A. K., Laghari, U. A., Majidano, A. Q., **Jatoi, G. H.**, Shar, T., Khuhro, S. A., & Bhutto, M. K. (2021). Integrated management of np fertilizers can boost the growth and yield performance of sunflower (*Helianthus annuus* L.). *Plant Archives* (09725210), 21(2).
29. Mangi, N., MA, Q., **Jatoi, GH.**, Sarfraz, Z., Soomro, N., Iqbal, M., Wang, X., Jarwar, AM, S, Fan S. (2021) Effect of subtending leaf removal on yield and fiber quality traits in upland cotton (*Gossypium hirsutum* L.). *Applied Ecology and Environmental Research*. 19 (04): 3202-3225 HEC Sci IF-0.94)
30. Mangi, N., Nazir, M. F., Wang, X., Iqbal, M. S., Sarfraz, Z., **Jatoi, G. H.**, ... & Shuli, F. (2021). Dissecting source-sink relationship of subtending leaf for yield and fiber quality attributes in upland cotton (*Gossypium hirsutum* L.). *Plants*, 10(6), 1147.
31. Soomro, N., Jamal Mangi, JU., Jatoi, GH., Bhugio, FA Fahim Arshad and Shahnawaz Khuhro. (2021). Anatomical Studies of Miocene Dicot Wood of Fabaceae Excavated from Ranikot (paleo-forest) Jamshoro, Sindh, Pakistan, *International Journal on Emerging Technologies* 12(2): 21-25. (HEC Y)
- 32.

33. Mahjabeen Panhwar, **Ghulam Hussain Jatoi**, Ghulam Jilani, Zameer Ali Palh, Shaharyar Brohi, Shehnaz Panhwar, Sujo Meghwar and Khalid Hussain Lashari. (2021). Exogenous Hydrogen Peroxide (H₂O₂) Eustress to Wheat Genotypes Attenuates their Salinity Distress, *International Journal on Emerging Technologies* 12(1): 258-269 (HEC Y)
34. Sajjad Ali Khuhro, Jan Muhammad Mari, **Ghulam Hussain Jatoi**, Noorulain Soomro, Umed Ali Leghari and Ali Nawaz Mengal. 2021. Resistant Cultivars of Safflower *Carthamus tinctorius* based on Yield Performance and Infestation against *Acanthiophilus helianthi* (Diptera: Tephritidae), *International Journal on Emerging Technologies* 12(1): 175-180 (HEC Y)
35. Umed Ali1, **Ghulam Hussain Jatoi**, Sajjad Ali Khuhro, Tahmina Shar, Rafiq Ahmad and Mahpara Khatoon. 2021. Potassium Management for the Improvement of Growth and Yield of Grass Pea (*Lathyrus sativus* L.), *International Journal on Emerging Technologies* 12(1): 181-187. (HEC Y)
36. Noorulain Soomro, Jamal Uddin Mangi, Mahjabeen Panhwer, **Ghulam Hussain Jatoi**, Sajjad Ali Khuhro, Qamaruddin Khokhar, Shabab Ali Khan, Ali Nawaz Mengal, Nasirudin Shaikh. 2021. Anatomical characteristics of fossil wood collected from the Manchar Formation (Miocene), Thano Bula Khan, Sindh, Pakistan. *Italian Botanist*, 11:1-8 (HEC X)
37. Kandhro., A. G., Hajano, J. U.D., Bhutto, M.S., Jiskani, M. M., Ahmed, M A., Khoso, F. N., Soomro, A. H., Qazi, S. T., Soomro, W. A., and **Jatoi, G. H.,** (2020). Spatial distribution of chili leaf curl disease and its correlation with environmental factors in Indus Delta and Southern Irrigated Plain Zone of Pakistan, *Pure and Applied Biology*, 9(4):2543-2553. (HEC Y)
38. Keerio, A. D., Nazir, T., Anwar, T., Abdulle Y. A., **Jatoi, G. H.**, Gadhi, M. A and Qiu, D. (2020). Insecticidal Effect of Moderately Purified Protein 3 Acquired from *Beauveria bassiana* (Balsamo) and its 4 Presumptive Role in a Tomato (*Lycopersicon 5 esculentum*) Defense against Whitefly (*Bemisia 6 tabaci*) *Insects*, **11**, 574. (IF 2.20)
39. Abdulle, Y. A., Keerio, A. U., Malik, A. B., **Jatoi, G. H.**, Sokea, T., and Dewen Qiu, D., (2020). Protein Secreted from *Lecanicillium lecanii* induced resistance against whitefly in cotton. *Plant Protection Science*, (Under Review as 90/2019-PPS). **Sci IF 1. 2)**
40. Kakar, A. U., Abro, M. A., **Jatoi, G. H.**, Talpur, M. S. A., Soomro, W. A., Qazi, S., Dawood, M and Baloch. A. (2020). Evaluation of different fungicides, botanical extracts and bio-control agents against *Alternaria alternata* the causal agent of leaf spot in Spinach, *17 (2):79-84*
41. Keerio, A. U., Nazir, T., Abdulle, Y. A., **Jatoi, G. H.**, Gadhi, M. A., Anwar, T., & Qiu, D. (2020). In vitro pathogenicity of the fungi *Beauveria bassiana* and *Lecanicillium lecanii* at different temperatures against the whitefly, *Bemisia tabaci* (Genn.)(Hemiptera: Aleyrodidae). *Egyptian Journal of Biological Pest Control*, 30, 1-9.
42. Reki, M. A., Abro, M. A., **Jatoi, G. H.**, Gadhi, M. A., Muhammad, S., & Ali, A. (2020). Evaluation of Different Fungicides, Botanical Extracts, and Biocontrol Agents Against *Penicillium Expansum* The Causal Agent Of Blue Mold Of Apple. *Pakistan Journal of Biotechnology*, 17(1), 25-31.
43. **Ghulam Hussain Jatoi**, Shar Muhammad, Wazir Ali Metlo, Laith Khalil Tawfeeq Al-Ani, Haseenullah, Manzoor Ali Abro, Muswar Ali Gadhi, Naveed Wahid Awan, Manzoor Ahmed Reki. (2020). Efficacy of different essential oils, fungicides and biocontrol agents against *Aspergillus niger* the causal agent of fruit rot in Pomegranate. *Int. J. of Biosci.* 16 (3):51-65 (HEC Y)
44. Wazir Ali Metlo, **Ghulam Hussain Jatoi**, Naveed Wahid Awan, Qurat-ul-Ain Shaikh, Hidayatullah, Ghulam Sarwar Channa, Muneer Ali Bhagat, Muhammad Haroon Hulio, Sultan Hmed Metlo. (2020). First record of *Fusarium solani* (Mart.) sacc. associated with sudden decline disease of date palm (*Phoenix dactylifera* L.) in Khairpur, Sindh, Pakistan *Int. J. of Biosci.* 16 (3):122-128 (HEC Y)

45. Wazir Ali Metlo, **Ghulam Hussain Jatoi**, Ghulam Sarwar Channa, Naveed Wahid Awan, Manzoor Ali Abro, Hidayatullah, Muneer Ali Bhagat, Muzamil Hussain Memon, Muhammad Ibrahim Chandio, Ayesha Siddiqua. (2019). Pathogenicity test of different fungi on date palm causing sudden decline disease of date palm (*Phoenix dactylifera* L.) in Khairpur, Pakistan, *Int. J. Biosci.* 15(6), 89-96 (HEC Y)
46. Manzoor Ali Abro, Xiang Sun, Xingchun Li, **Ghulam Hussain Jatoi** and Liang-Dong Guo. (2019). Biocontrol potential of fungal endophytes against *Fusarium oxysporum* f.sp. Cucumerinum causing wilt in cucumber. *The Plant Pathol. J.* 35(6) 598-608 **Sci IF 1. 60**
47. Hassan Saeed Mengal, Manzoor Ali Abro, **Ghulam Hussain Jatoi**, Gul Bahar Poussio, Lubna Nawab, Nazir Ahmed, Abdul Qayyum Zehri, Ahmed Ali. (2019). Efficacy of different fungicides, botanical extracts and bio-control agents against *Cladosporium cladosporioides*, the causal agent of Cladosporium rot in Grapes. *Acta Ecologica Sinica.* <https://doi.org/10.1016/j.chnaes.2019.08.002> **Sci IF. 1.1**
48. **Ghulam Hussain Jatoi**, Guo Lihua, Yang Xiufen, Muswar Ali Gadhi, Azhar Uddin Keerio, Yusuf Ali Abdulle, Dewen Qiu. (2019). A novel protein elicitor PeBL2, from *Brevibacillus laterosporus* A60, induces systemic resistance against *Botrytis cinerea* in tobacco plant. *The Plant Pathol. J.* 35(3):1-11. **Sci IF 1. 60**
49. Shabana Memon, Naveed Iqbal, Fareeha Zaman, Sadaf Memon, Manzoor Ali Abro and **Ghulam Hussain Jatoi**. (2018). Heritability estimates in F₂ segregating population in hexaploid wheat (*Triticum aestivum* L.). *Pak. J. Biotechnol.* 15(3) 803-810.
50. Muswar Ali Gadhia Zubair Ahmed Nizamani **Ghulam Hussain Jatoi** Manzoor Ali Abro Azhar Uddin Keerio Gul Bahar Poussio Dewen Qiu. (2019). In-vitro efficacy of bio-control agent and essential oils against leaf blight of chickpea caused by *Alternaria alternate*. *Acta Ecologica Sinica.* <https://doi.org/10.1016/j.chnaes.2018.11.002> **Sci IF. 1.1**
51. **Ghulam Hussain. Jatoi**, Azhar ddin Keerio, Yousif Abdali Qiu Dewen. (2018) Efficacy of selected Fungicides and Bio-Pesticides on the mycelial colony growth of the *Helminthosporium oryzae* Brown spot disease of rice. *Acta Ecologica Sinica*, 39(6), 456-460. <https://doi.org/10.1016/j.chnaes.2018.09.018> **Sci IF. 1.1**
52. Sadam Hussain Bhutto, Javed Asghar Tarique, Jamal-U-Ddin Hajano,, Rehana Naz Syed, **Ghulam Hussain Jatoi**, Qurban Ali Rattar and Zeeshan Ghulam Nabi Gishkori. (2018) Some biochemical characterization against *Xanthomonas oryzae* pv. *oryzae* cause bacterial leaf blight of rice. *Pak. J. Biotechnol* 15 (2) 429-434
53. Adnan Baloch, Shah Dad, Rehmat Ali Baloch, **Ghulam Hussain Jatoi**, Muhammad Anwar, Zaheer Uddin Babar Bhatti. (2018). Effect of medium, temperature and ph, on *In-vitro* growth of *Botryodiplodia theobromae* isolated from Guava. *Pak. J. Biotechnol.* 15 (1): 123-127.
54. Sadam Hussain Bhutto, Javed Asghar Tariq, Rehana Naz Syed and **Ghulam Hussain Jatoi**. (2018). Isolation and characterization of bacteria isolated from the rice crop in lower Sindh Pak. *J. Biotechnol.* 15(1):151-154
55. Faisal Adnan, Ahmed Khan, Umar Zaib, Nisar Ahmed, Abdul Salam and **Ghulam Hussain Jatoi**. (2017). Surveillance of apple canker and identification of canker pathogen in apple orchards at district ziarat (Balocistan). *Pak. J. Biotechnol.* 14 (4) 771-775
56. M.A. Mugheri, A.W. Baloch, M. Baloch, T.A. Yasir, N. Gandahi, **G.H. Jatoi**, A.M. Baloch, M. Ali, I.A. Baloch (2017) Genetic Diversity Analysis Through Phenotypic sssessment in BT-Cotton Germplasm, *Sindh Univ. Res. Jour. Sindh Univ. Res. Jour. (Sci. Ser.)* 49(004) 739-742)
57. Nazir Ahmed Abro, Manzoor Ali Abro, Imran Khatri, **Ghulam Hussain Jatoi**, Rehana Kandhro, Shabana Naz Mazari (2017). Relative field abundance of gram pod borer *Helicoverpa armigera* (hub.) On different chickpea genotypes and its laboratory rearing on some natural hosts *Pak. J. Biotechnol.* 14(3):443-447
58. Adnan Baloch, Manzoor Ali Abro, **Ghulam Husain Jatoi**, Nazir Ahmed Abro, Shah Dad, Mohammad Rafique, Rahmat Ali, Shabana Memon and Naimatullah Mangi. (2017). *In -vitro* evaluation of different

fungicides and the bio-control agent *Trichoderma harzianum* against *Botryodiplodia theobromae*, the cause of Guava decline, Pak. J. Biotechnol. 14(3): 491-496.

59. Shahzad Ahmad, Iram Firdous, **Ghulam Hussain Jatoi**, Mehar-ul-Nissa Rais and Abdul Qayyum Mohsin. (2017). Economic impact of climate change on the production of citrus fruit in Punjab province of the Pakistan Sci.Int.(Lahore) 29(2):413-415
60. Shabana Memon, Sidra Nizamani, Sadaf Memon, **Ghulam Hussain Jatoi**, Liaquat Ali Bhutto and Arshad Ali Kaleri. (2017). Assessment of heterotic effects in intra-hirsutum crosses for yield and fiber traits Pak. J. Biotechnol. Vol. 14 (2) 245 – 249
- A. U. Keerio, G. M. Khusk, A. G. lanjar, **G. H. Jatoi**, Z. S. Lanjar, B.H. Chang, and N. A. Khuhro. (2017). Comparative efficacy of leaf extracts of tobacco varieties against Cabbage Aphid *Brevicoryne brassicae* linnaeus (*Homoptera: aphididae*), Sci.Int. (Lahore), 29(1):271-274.
61. Asad Amin, Wajid Nasim, Muhammad Mubeen, Muhammad Nadeem, Liaquat Ali, Hafiz Mohkum Hammad, Syeda Refat Sultana, & Khawar Jabran, M. Habib ur Rehman, Shakeel Ahmad, Muhammad Awais, Atta Rasool, Shah Fahad, & Shah Saud, Adnan Noor Shah, Zahid Ihsan, Shahzad Ali, Ali Ahsan Bajwa, Khalid Rehman Hakeem, Asif Ameen, Amanullah, Hafeez Ur Rehman, Fahad Alghabar, **Ghulam Hussain Jatoi**, Muhammad Akram, Aziz Khan, Faisal Islam, Syed Tahir Ata-Ul-Karim, Muhammad Ishaq Asif Rehmani, Sajid Hussain, Muhammad Razaq. (2017). Optimizing the phosphorus use in cotton by using CSM-CROPGRO-cotton model for semi-arid climate of Vehari-Punjab, Pakistan. Environ Sci Pollut Res, January 2017. **Sci IF 3.20**
62. Ghulam Mohammad Kakar, Ghulam Mustafa Laghari, Ahmed Shah Kakar, Mehrunisa Memon, Hidayatullah and **Ghulam Hussain Jatoi**, (2016). Allelopathic effect of common lambsquarter (*Chenopodium album*) on seedling growth of different Maize varieties. Sci.Int.(Lahore), 28(5): 4595-4600 (HEC Y)
63. Qaiser Khan Kakar Asmatullah Kakar, Atta Mohammad Sarangzai, **Ghulam Hussain Jatoi**, and Hidayatullah. (2016). Population frequency and pre-dispersal damage of *Juniperus excelsa* tree berries by seed chalcid, *Megastigmus spp.* (Hymenoptera Torymidae) in juniper forest Tehsil. Sci.Int.(Lahore), 28(5),4965-4971. (HEC Y)
64. **Ghulam Hussain Jatoi**, Manzoor Ali Abro, Javad Asghar Tariq, Shabana Memon, Naimatullah Mangi, sultan Ahmed Maitlo, Azhar-ul-Din Kerio, Shahid Hussain and Abdul Salam Mengal, (2016). Efficacy of selected fungicides on the linear colony growth of the *Helminthosporium oryzae* caused by brown spot disease of rice. Pak. J. Biotechnol. 13 (1):13 -17 (HEC Y)
65. **Ghulam Hussain Jatoi**, Manzoor Ali Abro, Javed Asghar Tariq, Shabana Memon, Naimtullah Mangi, Azhar-ul-Din Keerio, Muswar Ali Gadhi, Shahid Hussain and Dewen Qiu, (2016). Screening of potential bacterial bio-control agents against the *Helminthosporium oryzae in-vitro* conditions. caused by brown spot of rice. Pak. J. Biotechnol. 13(2):95- 100 (HEC Y)
66. **Ghulam Hussain Jatoi**, Manzoor Ali Abro, Shabana Memon, Shahid Hussain, Naimatullah Mangi, and Sajjad Ahmed Maari, (2015). Efficacy of different Botanical extracts on the linear colony growth of the *Helminthosporium oryzae*. European Academic Research, 3 (07):8383-8397.
67. **Ghulam Hussain Jatoi**, Abdul Gaffar Bhatti, Hidayatullah, Shabana Memon, M. Uzair Bhatti, Manzoor Ali Abo and Sadaf Memon: (2016). Rhyzobacteria associated from rhyzospheric soil and their antifungal activity against Brown spot fungus (*Helminthosporium oryzae*). Sci.Int-(Lahore), 28(4):4119-4122 (HEC Y)
68. Shabana Memon, Sadaf Memon, **Ghulam Hussain Jatoi**, Qamaruddin Jogi, Naeem Ahmed Qureshi, Mah-e-Jabeen Memon, (2016). Correlation estimates for earliness and yield related traits in cotton (*Gossyium hirsutum l*). Sci.Int.(Lahore), 28(4): 4099-4102 (HEC Y)
69. Tariq Ali Baloch, Jan Muhammad Mari, **Ghulam Hussain Jatoi**, Shahida Parveen Soomro, Majida Parveen Soomro & Mujeeb-ur-Rehman Soomro, (2016). Study on pest and predator's population in chilli agro-ecosystem by using different trap crops. American research thoughts, 2 (5):3726-3736

70. Rajna Devi, Washu Dev, Shazia Babar, M. Nawaz Khandhro, Shabana Memon, **Ghulam Hussain Jatoi**, and Qamaruddin Jogi. (2016). Boron application using optimizing dose and time through foliar application for enhancing yield Of Wheat. *Sci.Int. (Lahore)*, 28(4):4039-4042 (HEC Y)
71. Mahpara Bhutto, Ahmed Naqi Shah, Umed Ali Leghari, **Ghulam Hussain Jatoi**, Maqsood Ahmed Khaskheli and Anab Khanzada. (2016). Growth and yield response of Wheat (*Triticum aestivum* L.) as affected by foliar fertilization of zinc. *Sci.Int. (Lahore)*, 28(4):4189-419. (HEC Y)
72. Shahid Hussain, Dr. Manzoor Ali Abro, **Ghulam Hussain Jatoi**, Sajjad Merri, Abdul Salam Mangal, (2015). The coprinaceae family (*hypholoma aroma kharmang olding. spp*) contained more beautiful and newer mashrooms from azad jammu and kashmir, Pakistan. *American research thoughts*, 1 (12): 3004-3011.
73. Abdul Salam Mengal, Shahid Hussain, Manzoor Ali, Abro, Abd-Ur-Rehman Khalid Sajjad Ahmed Maari, **Ghulam Hussain Jatoi**, Tahira Nisa, Muhammad Rafiq, Sohail Iqbal. (2015). Evaluation of different botanical extracts on the linear colony growth of the fungus *Fusarium wilt* of mango nursery and its in-vitro control. *European Journal of Biotechnology and Bioscience*, 3 (11) 07-14
74. Manzoor Ali Abro, Sajjad Ahmed Maari, Lemon Kumar, Gul Bhar Pussio, **Ghulam Hussain Jatoi** (2014). Behavior of *Fusarium nivale* causal agent of mango malformation against different culture media and range of different temperatures and *in-vitro* control. *European Academic Research*, 2 (08):8475-8485.
75. Sajjad Ahmed Maari, Dr. Manzoor Ali Abro, Shahid Hussain, **Ghulam Hussain Jatoi**, Abdul Salam Mengal, (2014). Comparative effectiveness of fungicides, botanical extracts and bio-control agent against *Fusarium nivale* causal agent of mango malformation. *European Academic Research*, 3 (08):8694-8705.

Scientific Abstracts Published

1. Shabana Memon, Sadaf Memon, Naushad Ali, **Ghulam Hussain Jatoi** and Manzoor Ali Abro. (2016). Genetic diversity induced through different irrigations among wheat genotypes. 14th National & 5th International Conference of Botany. P-201
2. **Ghulam Hussain Jatoi**, Manzoor. Ali. Abro, Javed Asghar Tariq, Shabana Memon, Ghulam Yaseen Dahar, Asif Ali Rajper and Naimatullah Mangi. (2015). *In-vitro* efficacy of different fungicides, botanical extracts against *Helminthosporium oryzae*, the causal agent of brown spot of rice. 5th International Conference Pakistan *Phytopathological Society*. P-154
3. Ghulam Yaseen Dahar, Manzoor Ali Abro, Muhammad Ismail Bozdar, Asif Ali Rajper, **Ghulam Hussain Jatoi** and Gulbahar Pussio. (2015). In-vitro evaluation of fungicides and botanical extracts against *Ceratocystis fimbriata*, the causal agent of mango sudden death. 5th International Conference Pakistan *Phytopathological Society*, P-161
4. Asif Ali Rajper, Manzoor Ali Abro, Ghulam Yaseen Dahar, **Ghulam Hussain Jatoi**, Lemon Kumar and Gulbahar Pussio. (2015). In-Vitro chemical and botanical control of *Botrytis Cinerea*, the Causal agent of gray mold of strawberry. 5th International Conference Pakistan *Phytopathological Society*. P-165.

REFERENCES

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