

CURRICULUM VITAE

Dr. ABID KHAN

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PERSONAL INFORMATION

Father Name :	Amir Muhammad	Marital status:	Married
Nationality :	Pakistani	Religion :	Islam
Date of Birth :	1 st January 1986	CNIC # :	15401-8111486-9
Place of Birth :	Malakand, KP Pakistan	Passport # :	EZ4114863
Domicile :	Malakand, KP Pakistan	Cell # :	+923325150099; +923455150091
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Current Address:	Department of Horticulture, The University of Haripur, Haripur 22620, Pakistan		
Permanent Address:	Village & P/O Garhi Usmani Khel Tehsil Dargai District Malakand KP, Pakistan		

EDUCATION

5. Northwest Agriculture and Forestry University (西北农林科技大学), Yangling, Shaanxi, China
Doctor of Philosophy in Vegetable Sciences (Horticulture), 2018
Thesis: Genome-wide analysis of the dirigent gene family and functional characterization of *CaDIR7* and *CaDIR23* in pepper (*Capsicum annuum* L.) defense against *Phytophthora capsici* and abiotic stresses.
4. The University of Agriculture Peshawar, Pakistan
Master of Sciences (Hons) in Agriculture (Horticulture), 2011
Thesis: Effect of Nitrogen and Potassium levels on growth and yield of chilies (*Capsicum annuum* L.) at Dargai, Malakand.
 - CGPA: 3.68/4.00 (83.36%)
3. The University of Agriculture Peshawar, Pakistan
Bachelor of Sciences (Hons) in Agriculture (Horticulture), 2008

- **Internship Report:** “Litchi propagation through air layering using different media” at Jabban Agricultural Extension Department Dargai Malakand.
 - CGPA: 3.73/4.00 (83.18%)
2. Government Degree College Dargai, Malakand
Board of Intermediate and Secondary Education Malakand at Chakdara
HSSC Examination (Pre-Engineering), 2004
 - Marks: 780/1100 (70.91%)
 1. Government High School Garhi Usmani Khel, Dargai Malakand
Board of Intermediate and Secondary Education Saidu Sharif Swat
SSC Examination (Science Group), 2002
 - Marks: 684/850 (80.47%)

EXPERIENCE

4. ASSISTANT PROFESSOR {October 2019—to date}

Department of Horticulture, The University of Haripur, Haripur, Pakistan

3. LECTURER (03/2012—07/2013)

Department of Horticulture, The University of Agriculture Peshawar, Pakistan

2. HONORS/RECOGNITIONS (2012)

As a JUDGE for the Chrysanthemum Flower exhibition organized by Cantonment Board Peshawar.

1. AGRICULTURE EXPERT (06/2009—06/2011)

Center for Applied Biosciences International South Asia (CABI SA) at Mohmand Agency FATA

- Introduction of FFS (Farmers Field School) program, its objectives and approaches.
- Training to FFS participants on Good Agriculture Practices (GAP), Integrated Crop Management (ICM) practices, Collection of data of ICM plots and farmer practice (FP) plot.
- Analysis of Cost / benefit ratio of ICM plot VS FP plot and Evaluation of ICM/ FP plots.
- Facilitating farmers in organic farming, Motivating farmer to minimum use of pesticides.
- Nutrient management of different crops.
- Educating farmers in biological, cultural and mechanical control of pests.

CONFERENCES / TRAININGS / WORKSHOPS ATTENDED

1. Attended the 16th National Weed Science congress of Weed Science Society of Pakistan at **The University of Agriculture Peshawar- Pakistan** dated July 08-10, 2021.
2. Participated the online Webinar on Dendrochronology “Tree Rings-The story Teller” organized by **Department of Forestry and Wildlife management, The University of Haripur** dated November 12, 2020.
3. Attended the Project Formulation Workshop sponsored by Pakistan Science Foundation Islamabad at **The University of Haripur** dated September 10-11, 2020.
4. Participated in “Palm Oil: Trade & Applications” jointly organized by **Malaysian Palm Oil Board and Department of Food Science & Technology, The University of Haripur**, dated October 26, 2021.
5. Participated in “Food Safety Concerns & Role of Khyber Pakhtunkhwa Food Safety & Halal Authority” organized by **Food Systems Society, Department of Food Science & Technology, The University of Haripur**, dated April 01, 2022.

RESEARCH PROJECTS

June, 2020 (0.5 million): Principal Investigator, entitled “*Micro propagation and regenerating of Ginkgo biloba (a medicinal and landscape plant)*” funded by Higher Education Commission (HEC) Islamabad, Pakistan.

RESEARCH STUDENTS SUPERVISED/Co-SUPERVISED

Name	Research Title
Sanaullah	Evaluation of potato genotypes for better growth, high yield and improved quality under the agro-climatic conditions of Kalam, Swat
Haris Bashir	Estimation of air pollution tolerance indices of trees around industrial area of Hattar, Haripur for establishment of green belt
Nida Arif	Effect of neem and ginger extracts on shelf life and fruit quality of tomato (<i>Solanum lycopersicum</i> L.) at ambient temperature
Shah Fahad	Combined application of methyl silicate and arginine to reduce chilling injury and enhance shelf life of bell pepper

RESEARCH PUBLICATIONS (Accumulative IF 168.106)

1. **Khan A.**, Li R.J., Sun J.T., Ma F., Zhang H.X., Jin J.H., Ali M., Haq S. Ul, Wang J.E. and Gong Z.H. **2018**. Genome-wide analysis of dirigent gene family in pepper (*Capsicum annuum* L.) and characterization of *CaDIR7* in biotic and abiotic stresses. *Scientific Reports* 8:5500. (IF 4.996)
2. Tian S.L., **Khan A.**, Zheng W.N., Song L., Liu J.H., Wang X.Q. and Li L. **2022**. Effects of Chlorella extracts on growth of *Capsicum annuum* L. seedlings. *Scientific Reports* 12:15455. (IF 4.996)
3. Guo M., Wang X.S., Guo H.D., Bai S.Y., **Khan A.**, Wang X.M., Gao Y.M. and Li J.S. **2022**. Tomato salt tolerance mechanisms and their potential applications for fighting salinity: A review. *Frontiers in Plant Science* 13:949541. (IF 6.627)
4. Basit A., Tao S.T., Khan A., Khan S.M., Shahzad R., **Khan A.**, Khan S., Khan M. **2022**. Anti-inflammatory and analgesic potential of leaf extract of *Justicia adhatoda* L. (Acanthaceae) in Carrageenan and Formalin-induced models by targeting oxidative stress. *Biomedicine & Pharmacotherapy* 153, 113322 (IF 7.419)
5. Zuo X.Y., Xiang W., Li K., Zheng S.G., **Khan A.**, Zhang D. **2022**. *MdGRF11*, a growth-regulating factor, participates in the regulation of flowering time and interacts with MdTFL1/MdFT1 in apple. *Plant Science* 321, 111339 (IF 5.363)
6. Tahir M.M., Li S.H., Liu Z.M., Fan L., Tang T., Zhang X.Y., Mao J.P., Li K., **Khan A.**, Shao Y., Zhang D., Ma J.J. **2022**. Different miRNAs and hormones are involved in PEG-induced inhibition of adventitious root formation in apple. *Scientia Horticulturae* 303, 111206 (IF 4.342)
7. Li, K., Tian, H.Y., Mao, J.P., **Khan, A.**, Muhammad M. T., Li, S.H., Chen, S.Y., Shao, Y., and Zhang D. **2021**. Effect of darkness treatment on the morphology, hormone status and gene expression of developing adventitious root in apple rootstock. *Plant Cell, Tissue and Organ Culture* (PCTOC) (IF 2.726)
8. Mao, J.P., Niu, C.D., Chen, S.Y., Xu, Y.C., **Khan, A.**, Zuo, Q.L., Wang, C.J., Han, M.Y., Lu Bao, L. and Zhang D. **2021**. Effects of exogenous methyl-jasmonate on the morphology, hormone status, and gene expression of developing lateral roots in *Malus hupehensis*. *Scientia Horticulturae* 289, 110419 (IF 4.342)
9. Xiao, J.J., Zhang, R.X., **Khan, A.**, Haq, S.u., Gai, W.X. and Gong, Z.H. **2021**. *CaFtsH06*, a novel Filamentous Thermosensitive Protease gene, is involved in heat, salt and drought stress tolerance of pepper (*Capsicum annuum* L.). *International Journal of Molecular Sciences*. 22, 6953. (IF 6.208)
10. Li, Q.H., Yang, S.P., Yu, Y.N., **Khan, A.**, Feng, P.L., Ali, M., Shao, D.K., Wang, Y.Y., Zhang, R.X., Gai, W.X., Han, Rui., Ma, X., Hou, Q.G. and Gong, Z.H. **2021**. Comprehensive transcriptome-based characterization of differentially expressed genes involved in carotenoid biosynthesis of different ripening stages of *Capsicum*. *Scientia Horticulturae* 288, 110311 (IF 4.342)

11. Mussarat M, Ali H, Muhammad D, Ahmad Mian I, Khan S, Adnan M, Fahad S, Wahid F, Dawar K, Ali S, Zia A, Ahmad M, Khan S, Ali Shah W, Romman M, Parvez R, H Siddiqui M, **Khan A**, Wang D, Jiang X. **2021**. Comparing the phosphorus use efficiency of pre-treated (organically) rock phosphate with soluble P fertilizers in maize under calcareous soils. *PeerJ* 9:e11452. (IF 3.061)
12. Meng, Y.C., Zhang, H.F., Pan X.X., Chen N., Hu H.F., Haq, S. Ul., **Khan, A.**, and Chen, R.G. **2021**. *CaDHN3*, a pepper (*Capsicum annuum* L.) dehydrin gene enhances the tolerance against salt and drought stresses by reducing ROS accumulation. *International Journal of Molecular Sciences* 22 (6), 3205. (IF 6.208)
13. Ali M., T. Lamin-Samu A., Muhammad I., Farghal M., Khattak, A.M., Jan I., ul Haq S., **Khan A.**, Gong Z.H. and Lu G. **2021**. Melatonin mitigates the infection of *Colletotrichum gloeosporioides* via modulation of the chitinase gene and antioxidant activity in *Capsicum annuum* L. *Antioxidants* 10(1), 7. (IF 7.675)
14. Zhang H.X., Feng H.X., Jin J.H., **Khan A.**, Guo W.L., Du X.H. and Gong Z.H. **2020**. *CaSBP11* participates in the defense response of pepper to *Phytophthora capsici* through regulating the expression of defense-related genes. *International Journal of Molecular Sciences* 21, 9065. (IF 6.208)
15. Gai W.X., Ma X., Li Y., Xiao J.J., **Khan A.**, Li Q.H. and Gong Z.H. **2020**. *CaHsfA1d* improves plant thermotolerance via regulating the expression of stress- and antioxidant-related genes. *International Journal of Molecular Sciences* 21, 8374. (IF 6.208)
16. Yang Y.T., Wang X.E., Chen P.P., Zhou K.K., Xue W.Y., **Khan A.**, and Chen S.X. **2020**. Redox status, JA and ET signaling pathway regulating responses to *Botrytis cinerea* infection between the resistant cucumber genotype and its susceptible mutant. *Frontiers in Plant Science* 11:559070. (IF 6.627)
17. Mao J.P., Niu C.D., Li K., Muhammad M. T., **Khan A.**, Wang H., Li S.H., Liang Y.Q., Li G.F., Yang Z.K., Zuo L., Han M.Y., Ren X.L., An N. and Zhang D. **2020**. Exogenous 6-benzyladenine application affects the root morphology, by altering hormonal status, and gene expression of developing lateral root in *Malus hupehensis*. *Plant Biology*. (IF 3.877)
18. Zhang, R.X., Cheng, G.X., Liu, G.T., Chen, S.Y., Haq, S. ul, **Khan, A.**, Li, Q.H., Gong, Z.H. **2020**. Assessing the functional role of color-related *CaMYB* gene under cold stress using virus-induced gene silencing in the fruit of pepper (*Capsicum annuum* L.). *Scientia Horticulturae* 109504. (IF 4.342)
19. Ali, M., Muhammad, I., Haq, S., Alam, M., Khattak, A. M., Akhtar, K., Ullah, H., **Khan, A.**, Lu, G., Gong Z.H. **2020**. The *CaChiV12* gene of *Capsicum annuum* L. confers resistance against heat stress and infection of *Phytophthora capsici*. *Frontiers in Plant Science* 11, 1–16. (IF 6.627)
20. Zhang, H., Ma, F., Wang, X., Liu, S., Saeed, U.H., Hou, X., Zhang, Y., Meng, Y., Luo, D., Zhang, W., **Khan, A.**, Chen, R., **2020**. Molecular and functional characterization of

CaNAC035 , an NAC Transcription Factor from Pepper (*Capsicum annuum* L.). *Frontiers in Plant Science* 11, 1–15. (IF 6.627)

21. Haq, S.Ul., **Khan, A.**, Ali, M., Khattak, A.M., Gai, W.X., Zhang, H.X., Ai-Min Wei, Gong, Z.H. **2019**. Heat Shock Proteins : Dynamic biomolecules to counter plant biotic and abiotic stresses. *International Journal of Molecular Sciences* 20, 5321. (IF 6.208)
22. Haq, S.Ul, **Khan, A.**, Ali, M., Gai, W.X, Zhang, H.X., Yu, Q., Yang, S., Wei, A., Gong, Z.H. **2019**. Knockdown of *CaHSP60-6* confers enhanced sensitivity to heat stress in pepper (*Capsicum annuum* L.). *Planta*. (IF 4.540)
23. Ali, M., Xian, G.W., Abdul Mateen, K., **Khan, A.**, Haq Ul, S., Xiao, M., Ai Wei, M., Muhammad, I., Jan, I., Gong Z.H. **2019**. Knockdown of the chitin-binding protein family gene *CaChiIV1* increased sensitivity to *Phytophthora capsici* and drought stress in pepper plants. *Molecular Genetics and Genomics*. (IF 2.980)
24. Sun, J., Cheng, G., Huang, L., Liu, S., Ali, M., **Khan, A.**, Yu, Q.-H., Yang, S., Luo, D.-X., Gong, Z.-H., **2019**. Modified expression of a heat shock protein gene, *CaHSP22.0*, results in high sensitivity to heat and salt stress in pepper (*Capsicum annuum* L.). *Scientia Horticulturae* 249, 364–373. (IF 4.342)
25. Zhang, H., Ali, M., Feng, X., Jin, J., Huang, L., **Khan, A.**, Lv, J., Gao, S., Luo, D., Gong, Z. **2018**. A Novel Transcription Factor *CaSBP12* Gene Negatively Regulates the Defense Response against *Phytophthora capsici* in Pepper (*Capsicum annuum* L.). *International Journal of Molecular Sciences*, 48, 1–20. (IF 6.208)
26. He, Y., Luo, D., **Khan, A.**, Liu, K., Arisha, M.H., Zhang, H., Cheng, G., Ma, X., and Gong, Z.-H., **2018**. *CanTF*, a novel transcription factor in pepper, is involved in resistance to *Phytophthora capsici* as well as abiotic stresses. *Plant Molecular Biology Reporter* 36, 776–789. (IF 1.816)
27. Ali, M., Luo, D-X., **Khan, A.**, Haq, S., Gai, W-X., Zhang, H.X., Cheng, G.X., Muhammad, I., and Gong, Z.-H. **2018**. Classification and genome-wide analysis of Chitin-binding proteins gene family in pepper (*Capsicum annuum* L.) and transcriptional regulation to *Phytophthora capsici*, abiotic stresses and hormonal applications. *International Journal of Molecular Sciences* 19(8), 2216 (IF 6.208)
28. Huang, L., Cheng, G., **Khan, A.**, Wei, A., Yu, Q., Yang, S., Luo, D., Gong, Z.-H., **2018**. *CaHSP16.4* , a small heat shock protein gene in pepper, is involved in heat and drought tolerance. 256(1):39-51 *Protoplasma*. (IF 3.186)
29. Jin, J.H., Wang, M., Zhang, H.X., **Khan, A.**, Wei, A.M., Luo D.X. and Gong ZH. **2018**. Genome-wide identification of the AP2/ERF transcription factor family in pepper (*Capsicum annuum* L.). 61(9):663-674 *Genome*. (IF 2.449)
30. Cheng, G.X., Li, R.J., Wang, M., Huang, L.J., **Khan, A.**, Ali, M., Gong, Z.H., **2018**. Variation in leaf color and combine effect of pigments on physiology and resistance to whitefly of pepper (*Capsicum annuum* L.). *Scientia Horticulturae* 229, 215–225. (IF 4.342)

31. Jing, H., Li, C., Ma, F., Ma, J. H., **Khan, A.**, Wang, X., Zhao LY, Gong ZH, Chen RG., **2016.** Genome-wide identification, expression diversification of dehydrin gene family and characterization of *CaDHN3* in pepper (*Capsicum annuum* L.). *PLoS One* 11, 1–19. **(IF 3.752)**
32. Zhang, H.X., Jin, J.H., He, Y.M., Lu, B.Y., Li, D.W., Chai, W.G., **Khan, A.**, Gong Z.H., **2016.** Genome-wide identification and analysis of the SBP-box family genes under *Phytophthora capsici* stress in pepper (*Capsicum annuum* L.). *Frontiers in Plant Science* 7, 1–14. **(IF 6.627)**
33. Jin, J.H., Zhang, H.X., Tan, J.Y., Yan, M.J., Li, D.W., **Khan, A.**, Gong Z.H., **2016.** A New Ethylene-Responsive Factor *CaPTI1* gene of pepper (*Capsicum annuum* L.) involved in the regulation of defense response to *Phytophthora capsici*. *Frontiers in Plant Science* 6, 1–12. **(IF 6.627)**
34. Shah, S. N. M., Gong, Z.-H., Arisha, M. H., **Khan, A.** and Tian, S.L. **2015.** Effect of ethyl methyl sulfonate concentration and different treatment conditions on germination and seedling growth of the cucumber cultivar Chinese long (9930). *Genetics and Molecular Research* 14, 2440–2449. **(IF 0.000)**
35. **Khan, A.**, Noor, S., Shah, M., Rab, A., Sajid, M., Ali, K., et al., **2014.** Influence of nitrogen and potassium levels on growth and yield of chillies (*Capsicum annuum* L.). *International Journal of Farming and Allied Sciences*. 3, 260–264.
36. **Khan, A.**, Sajid, M., Hussain, Z., and Khattak, A. M., **2012.** Effect of different weed control methods on weeds and yield of Chillies (*Capsicum annuum* L.). *Pakistan Journal Weed Science*. 18, 71–78.
37. Haider, N., Alam, M., **Khan, A.**, Haider, W., Hussain, S., and Zeb, S., **2017.** Influence of humic acid application on phenology, leaf area and production duration of okra (*Abelmoschus esculentus* L.) cultivars. *Pure and Applied Biology*. 3, 1010-1020.
38. Ahmad, M., Ali, M., Ayaz, M., **Khan, A.**, Hamid, A., and Amin, B., **2017.** Morphological and Biochemical study of exotic pepper (*Capsicum annuum* L.) germplasm. *Science International*. 29, 245–255.
39. Amin, B., Yaqub, A., Ali, M., Ullah, M., **Khan, A.**, Muhammad, T., et al., **2016.** Response of potato genotypes to different levels of nitrogen. *Pure Applied Biology*. 5, 369–377.
40. Shah, S. N., Ali, A., Shah, M., and **Khan, A.**, **2014.** Potassium influence on flowering and morphology of *Zinnia elegans*. *International Journal of Farming and Allied Sciences*. 377–381.
41. Faisal, S., Shah, S. M., Majid, A., and **Khan, A.**, **2013.** Effect of organic and inorganic fertilizers on protein, yield and related traits of maize varieties. *International Journal of Agriculture and Crop Sciences*. 1299–1303.
42. Sajid, M., Rab, A., Amin, N. ul, **Khan, A.**, Mateen, A., Ahmad, N., et al., **2013.** Effect of Diammonium Phosphate (DAP) on flowers and bulb production of Tulip's cultivars. *Pure*

Applied Biology. 2, 48–52.

43. Ali, K., Munsif, F., Din, I. U., **Khan, A.**, and Khan, N., **2012**. Maize penology as affected by tillage practices and nitrogen sources. *Agricultural Science Research Journals*. 2, 453–458.

SKILLS

- **IT:** MS Office (MS Word, MS Excel, MS PowerPoint), Statistix 8.1.
- **Languages:** English, Urdu, Pashto, Chinese

REFERENCE

1. Dr. Shah Masaud Khan

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2. Dr. Gong Zhen-Hui

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3. Dr. Muhammad Sajid

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