

Dr. Sayed Hussain

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Personal Profile

Father name	Sayed Ali Akbar
Date of Birth	4 th March 1984
Religion	Islam
Marital Status	Married
Nationality	Pakistani
C.N.I.C. No.	21303-4524274-7
Passport No.	HP6892743
Languages	English, Chinese, Urdu & Pashto

Academic Qualifications

- ❖ Ph.D. in Agriculture and Biotechnology (Horticulture) (2015), Zhejiang University, China (Specialization in Plant Physiology and Molecular Biology)
- ❖ M.Sc. (Hons) in Agriculture (Horticulture) (2010), KPK Agricultural University, Peshawar, Pakistan, (Specialization in Tissue Culture)
- ❖ B.Sc. (Hons) in Agriculture (Horticulture) (2007), KPK Agricultural University, Peshawar, Pakistan,
- ❖ H.S.S.C. in Pre-Engg. (2003), 2nd Division (653/1100), BISE Kohat, KPK, Pakistan
- ❖ S.S.C. in Science (2001), 1st Division (536/850), BISE Peshawar, KPK, Pakistan
- ❖ M.A. (Private) in Political Science (2008), 2nd Division, KUST Kohat, KPK, Pakistan
- ❖ B.A. (Private) in Political Science (2005), 2nd Division, KUST Kohat, KPK, Pakistan

Courses Studied During Ph.D.

- ❖ Principles of Molecular Farming
- ❖ Molecular Breeding of Horticultural Plants
- ❖ Modern Agricultural Science and Research Methods and Practices
- ❖ Physiological and Developmental Regulation of Horticultural Plants
- ❖ Survey of China
- ❖ Chinese Language
- ❖ Professional Foreign Language

Experience got during M. Sc. (Hons) and Ph. D. studies:

- ❖ Tissue culture techniques
- ❖ RNA, DNA extraction, cDNA synthesis and cloning of full length cDNA
- ❖ Primer designing, RT-PCR amplification, cloning and sequencing
- ❖ Multiple sequence alignment, phylogenetic, conserved motif and structural analysis
- ❖ Quantitative Real-Time Polymerize Chain Reaction (qRT- PCR) and Hierarchical Clustering Analysis
- ❖ Agarose gel electrophoresis and photo spectrometric absorbance
- ❖ HPLC techniques and data analysis

Awards/Scholarship

- ❖ Chinese Government Scholarship Award to study Ph.D. under Chinese Scholarship Council (Completed)
- ❖ Got Higher Education Commission (HEC) Scholarship of Partial Support for Ph.D. Studies Abroad
- ❖ Got SRGP Project of Rs. 0.5 Millions from Higher Education Commission (HEC), Pakistan
- ❖ Higher Education Commission (HEC) approved supervisor from August, 2016

Personal Attributes

- ❖ Honest and hard working
- ❖ Consultative or able to work in consensus-centered or building environment
- ❖ Good communication and cooperation skills
- ❖ Sound interpersonal skills
- ❖ Creative and resourceful
- ❖ Good rapport and open
- ❖ Good listener, Fast learner and Team builder
- ❖ Can Cope the challenges to work in unstructured environment or with limited resources
- ❖ Flexible and adaptable

Professional Experience

Abdul Wali Khan University Mardan, KPK, Pakistan

Aug 1st, 2016 to Till-date

Assistant Professor (TTS), in Horticulture Department, Faculty of Agriculture Sciences, Abdul Wali Khan University Mardan, KPK, Pakistan.

- ❖ Teaching and Research
- ❖ Member of Proctorial Board
- ❖ Member of Departmental Disciplinary Committee
- ❖ Member of Departmental Admissions Committee
- ❖ Member of Ground and Garden (G&G) Section of the University
- ❖ Incharge of the Orchard of the University
- ❖ Member of the Nursery of the department

University of Poonch, Rawalakot, Azad Kahsmir

Dec 18th, 2015 to July 31st, 2016

Assistant Professor (IPFP), in Horticulture Department, Faculty of Agriculture Sciences, University of Poonch, Rawalakot, Azad Kshmir.

- ❖ Teaching and Research

Engro Polymer & Chemicals Limited, Peshawar.

Jan 2010 to Aug 2011

Regional Manager & Horticulture Officer

Reporting directly to Group Leader Micro Irrigation and Geomembrane and to Market Development Officer.

Training of farmers, extension agents, NGOs on various aspects of green sector including:

- ❖ Reporting to team leader of the area
- ❖ Mange the team in the whole area
- ❖ Preparation of Weekly and Quarter reports of all the regional activities
- ❖ Kitchen gardening
- ❖ Off season vegetable production
- ❖ Promotion of PVC based tunnels farming
- ❖ Family Nutrition Kits (FNKs) installation, maintenance and their importance in the whole region of KPK
- ❖ Surveying for different system installation
- ❖ Usage of different irrigation system
- ❖ Land Scaping
- ❖ Fruit orchard management
- ❖ Fruit plants nursery management
- ❖ Vegetable seed production
- ❖ Post harvest management of horticultural crops to reduce losses
- ❖ Compost making and Organic crop production
- ❖ Cereal Crops management
- ❖ Farmers' field school in Integrated Crop Management of potato
- ❖ Orchard laying out and maintenance
- ❖ Research trials on various crops to devise the proper crop management strategies
- ❖ Training Coordinator
- ❖ Proposal, Site visit and progress report preparation
- ❖ Preparation and presentation of various reports
- ❖ Relief Activities in flood affected areas
- ❖ Supervision of Two B.Sc (Hons) students in their research work as a Co-Supervisor

Society Reformer Organization Kurram (SRO Kurram).

Jan 2008 to Dec 2009

Social Organizer

- ❖ Visualize, design, budget, conduct and report various experiments on the various aspects of horticultural crops including vegetables, fruits
- ❖ Identifying contacts persons in villages and carry out dialogues
- ❖ Mobilizing and identifying the willingness of the local community for helping themselves
- ❖ Introducing the program, its objectives and approach among the community people with a primary focus on poverty alleviation
- ❖ Community Mobilization & social organization
- ❖ Conduct Health Awareness Campaign
- ❖ Conduct Education Awareness Campaign
- ❖ Monitoring project activities in field
- ❖ Documentation / Record keeping of all activities
- ❖ To accomplish Task assigned by upper management
- ❖ Farm Management
- ❖ Fruit plants nursery management
- ❖ Supervision of field coordinator in their field work
- ❖ Training Coordinator
- ❖ Capacity building of the stake holders in green sector
- ❖ Evaluation of different deciduous
- ❖ Capacity building of farmers
- ❖ Report writing, data analysis, proposal writing and budget preparation
- ❖ Member monitoring and evaluation team for the SRO Kurram

Agriculture Research Station Parachinar Kurram

July 2007 to Nov 2007

Internee

- ❖ Experiment on Nodules Formation in Ground Nut for nitrogen Fixing
- ❖ Different Horticulture Practices of Fruit and Vegetables
- ❖ Report Writing
- ❖ Field Visits
- ❖ Arranging Farmer Field days
- ❖ Training Coordinator
- ❖ Report to Director of Station

Training and Workshops/Conference Attended

- ❖ Four days training workshop on **communication and presentation skills** arranged by “Community Appraisal and Motivation Programme” (CAMP)
- ❖ One day training workshop on **Ag water hydraulics** arranged by EPCL at Peshawar
- ❖ Coordinating Three days training program on **HEIS, Off-seasonal vegetable Production and Tunnel Farming** arranged by EPCL at Peshawar
- ❖ Attended seven days International workshop on **Biology of Fruit Quality** arranged by Fruit Science Institute ZJU
- ❖ Attended Six, one day International seminars on **different topics about fruit plants** arranged by Fruit Science Institute ZJU
- ❖ Attended Seven days of **11th International Barley Genetics Symposium (IBGS)** arranged by Agriculture and Biotechnology College ZJU
- ❖ Attended Three days of **2nd International Symposium of Crop Germplasm Innovation and Molecular Breeding**, arranged by ABC, ZJU
- ❖ Attended Sino-German workshop on **Genetic and Biotechnology of Rapeseed** arranged by ABC, ZJU
- ❖ Attended 3rd International Symposium of **Crop Germplasm Innovation and Molecular Breeding** at Agriculture and Biotechnology College ZJU
- ❖ Attended three days workshop on **Landscape Plants** arranged by Agriculture and Biotechnology College ZJU
- ❖ Attended two Lectures on the status of **Crop Research and Brassica carinita Improvement** in Ethiopia Institute of Agricultural Research (EIAR) arranged by Agriculture and Biotechnology College ZJU

Supervision of Research Students

- ❖ Supervised 8 B.Sc. (Hons) Agriculture Students

Research Expertise

- ❖ **Ph.D.:** Thesis on “Roles of carbohydrates and dehydrin genes in the dormancy transition of pear”.
- ❖ **M.Sc. (Hons):** Thesis on “Micro-tuberization of four potato (*Solanum tuberosum* L.) cultivars through tissue culture”.
- ❖ **B.Sc. (Hons):** Research report on “Effect of rhizobium inoculation on the growth and yield of ground nut under the agro-climatic conditions of Kurram Agency”.

Publications

Mehnaz A, **Sayed H***, Abdul H, Sajid M, Saeed AC, Zulifqar AS, Abid Y, Fozia K, Uzma A, Kiran F, Faiza J, Zarfshan M, Saba B, Ayaz AA and Naveed A. 2017. Interactive Effect of Phosphorus and Potassium on Growth, Yield, Quality and Seed Production of Chili (*Capsicum annuum* L.). Journal of Horticulture.

- Sayed Hussain**, Yuanwen Teng, Abdul Hamid, Syed Zulfiqar Ali Shah, Abrar Hussain Shah, Abid Yaqoob, Tahir Ali, Maqsood Ahmed, Imtiaz Hussain, Uzma Arif. 2016. Carbohydrate changes during dormancy release in floral, vegetative buds and bark tissues of pear cultivar 'Wonhwang' cuttings following dormancy breaking agents treatment. *International Journal of Environmental & Agriculture Research*, 2(3): 53-64. **(IF. 1.23)**
- Uzma Arif, **Sayed Hussain**, Syed Zulfiqar Ali Shah, Abdul Hamid, Abid Yaqoob, Ayaz Ahmed Arif, Ahmed Younis, Saddam Hussain. 2016. Interactive Effect of Phosphorus and Zinc on the Growth, Yield and Nutrient Uptake of Garlic (*Allium sativum* L.) Variety Gulabi. *Asian Journal of Agricultural and Food Sciences*, 4(5): 279-284. **(IF. 0.546)**
- Imtiaz Hussain, Nagina Zeb, Muhammad Sajid, Noor ul Amin, Abdul Mateen Khattak, Abrar Hussain Shah, **Sayed Hussain**, Aqleem Abbas. 2016. The rooting response of silvery (*Leucophyllum frutescens*) cuttings to different growing conditions and planting dates. *International Journal of Biosciences*, 8(2): 9-15. **(IF. 0.032)**
- Sayed Hussain**, Qingfeng Niu, Minjie Qian, Yuanwen Teng. 2015. Genome-wide identification, characterization and expression analysis of the dehydrin gene family in pear (*Pyrus pyrifolia*). *Tree Genetics and Genomes*, 11: 110. **(IF. 2.451)**
- S. Hussain**, Q. Niu, F. Yang, N. Hussain, and Y. Teng. 2015. The possible role of chilling in floral and vegetative bud dormancy release in *Pyrus pyrifolia*. *Biologia Plantarum*, Pp 1-9. **(IF. 1.849)**
- Hussain S**, Liu G, Liu D, Hussain N, Ahmad M, Teng Y. 2015. Study on the expression of dehydrin genes and activities of antioxidative enzymes in floral buds of two sand pear (*Pyrus pyrifolia* Nakai) cultivars requiring different chilling requirements for bud break. *Turkish Journal of Agriculture and Forestry*, 39: 930-939. **(IF. 1.311)**
- Qingfeng Niu, Jianzhao Li, Danying Cai, Minjie Qian, Huimin Jia, **Sayed Hussain**, Guoqin Liu, Yuanwen Teng and Xiaoyan Zheng. 2015. Dormancy-associated MADS-box genes and microRNAs jointly control dormancy transition in pear (*Pyrus pyrifolia* white pear group) flower bud. *Journal of Experimental Botany*, doi: 10.1093/jxb/erv454. **(IF. 5.526)**
- Liu D, Zhang D, Liu G, **Hussain S**, Teng Y. 2013. Influence of heat stress on leaf ultrastructure, photosynthetic performance and ascorbate peroxidase gene expression of two pear cultivars (*Pyrus pyrifolia*). *Journal of Zhejiang University Science B* (online). **(IF. 1.679)**
- Liu G, Li W, Zheng P, Tong X, Chen L, Liu D, **Hussain S**, Teng Y. 2012. Transcriptomic analysis of 'Suli' pear (*Pyrus pyrifolia* white pear group) buds during the dormancy by RNA-Seq. *BMC Genomics*, 13:700. **(IF. 3.986)**
- Li G, Jia H, Wu R, **Hussain S**, Teng Y. 2012. Characterization of aromatic volatile constituents in 11 Asian pear cultivars belonging to different species. *African Journal of Agricultural Research*, 7(34): 4761-4770. **(IF. 0.263)**
- Liu GQ, Zheng PH, **Sayed H**, Teng YW. 2013. Characteristics of two dormancy-associated MADS-box genes in pear and their expression analysis during the dormancy. *Acta Horticulturae Sinica*, 40(4): 724-732.
- Zheng PH, Liu GQ, **Sayed H**, Teng YW. 2013. Studies on changes in carbohydrate contents and related genes expression in floral buds of 'Cuiguan' pear during dormancy. *Acta Horticulturae Sinica*, 40(2): 325-332.

- Bah AA, Wang F, Huang Z, Shamsi IH, Zhang Q, Jilani G, **Hussain S**, Hussain N, Ali E. 2012. Phyto-characteristics, cultivation and medicinal prospects of Chinese jiaotou (*Allium chinense*). International Journal of Agriculture and Biology, 14: 650–657. (Review Article) **(IF. 0.902)**
- Zhang Q, Shamsi IH, Wang J, Song Q, Xue Q, Yu Y, Lin X, **Hussain S**. 2013. Surface runoff and nitrogen (N) loss in a bamboo (*Phyllostachys pubescens*) forest under different fertilization regimes. Environmental Science and Pollution Research, 20: 4681-4688. **(IF. 2.828)**
- Nadir B, Muhammad Y, Shah F, Muhammad A, Bashir U, Wajid PA, **Sayed H**. 2014. Evaluation of Parthenium (Parthenium hysterophorus L.) water extract alone and with low doses of herbicide for weed control in wheat. International Journal of Current Microbiology and Applied Sciences, 6: 354-363 **(IF. 2.0)**
- Maqsood A, Sabir SM, Teng Y, Qaisar M, **Hussain S**, Naz RMM, Nisar H. 2017. Evaluation of nutritional analysis and *in vitro* antioxidant activity among Malus genotypes native to diverse region of Azad Jammu & Kashmir- Pakistan. Plant Genetic Resources, (Under Review). **(1.057)**
- Maqsood A, Anjum MA, Teng Y, Rabbani MA, **Hussain S**, Naz RMM. 2017. A study on genetic diversity of Pyrus Germplasm native to Azad Jammu and Kashmir (Pakistan) based on phenotypical/morphological characteristics. Chilean Journal of Agricultural Research, (Revised & Submitted). **(IF. 0.697)**
- Maqsood A, Ghafoor A, Anjum S, Sabir SM, **Hussain S**, Naz RMM, Khan MR. 2017. Co-Efficient of Variability, Correlation and Path Analysis for Some Biochemical Traits in Tomato for Commercial Exploitation. Acta Agriculturae Scandinavica, (Under review). **(IF. 0.646)**
- Sayed H**, Syed A, Imtiaz H, Nazim H, Abrar HS. 2017. Micro-tuberization of four potato cultivars grown in Hazara Division through tissue culture. Turkish Journal of Biology (Revised & Submitted) **(IF. 1.343)**
- Nuzhat Huma, Nok Ko, Anjum Murtaza, Imtiaz Hussain, **Sayed Hussain**, Imran Hayat, Saima Rafiq. 2017. Anti-inflammatory and anti-cancer activities of water soluble peptide extract of Cheddar cheese. Food Research International, (Under Review). **(IF. 3.182)**
- Sayed Hussain**, Minjie Qian, Qingfeng Niu, Yuanwen Teng. 2017. Biochemical changes in floral and vegetative buds of two pear (*Pyrus pyrifolia* L.) cultivars during dormancy. Biologia Plantarum (Under review) **(IF. 1.849)**
- Imtiaz Hussain, M.Sajid, Noor ul Amin, S. Mussarat Hussain, **Sayed Hussain**, Nagina Zeb. 2016. Growing conditions and planting dates affect the vegetative growth of Silvery (*Leucophyllum frutescens*). Sarhad Journal of Agriculture, (Accepted)

Reviewer Ship

❖ Peer Reviewer of 9 international journals such as:

- Agricultural Sciences
- American Journal of Plant Sciences
- Biologia Plantarum
- American Journal of Molecular Biology
- International Journal of Bioassays

- American Journal of Biology and Life Sciences
- Open Science Journal of Bioscience and Bioengineering
- International Journal of Agriculture, Forestry and Fisheries
- Journal of Plant Research

Computer Skills

- ❖ Good working experiences in MS Office and data analysis software's such as Excel, DPS, SPSS, AutoCAD, Origin, Primer premier, HMM, ClustalX, ClustalW, MEGA, MEME, DNAMAN, Adobe Photoshop, MeV, DNA user etc.

Subject interest and Expertise

- ❖ Molecular Farming
- ❖ Molecular Breeding of Plants
- ❖ Modern Agricultural Science and Research Methods and Practices
- ❖ Physiological and Developmental Regulation of Plants
- ❖ Agriculture & Biotechnology (All Courses)
- ❖ Bioinformatics
- ❖ Integrative biology
- ❖ Biochemistry