

Dr. Ahmad Sattar Khan

Professor & Director, Institute of Horticultural Sciences
University of Agriculture, Faisalabad, Pakistan
Ph: +92 41 9200161-170 Ext. 2941 (Work); +92 333-8364513 (Cell)
E-mail: ahmad_khan157@yahoo.com; askhan@uaf.edu.pk
NIC: 33100-0849858-5
Passport No. YL4109583; Nationality: Pakistani
Religion: Islam



1. Education:

- **Postdoc Horticulture: 2011:** Curtin University, Perth, Australia.
(By winning internationally competitive Endeavour Fellowship Award)
- **PhD Horticulture: 2007:** Curtin University, Perth, Australia.
(By winning internationally competitive IPRS Award)
- **M.Sc. (Hons.) Horticulture-1999:** CGPA 3.96/4.0 (UAF)
- **B.Sc. (Hons.) Agriculture-1997:** CGPA 4.0/4.0 (UAF)

Awards/Honours:

- Australian Endeavour Research **PostDoc Fellowship** Award for Curtin University (2010-11)
 - **IPRS-Award** from Curtin, Australia-2003 for **Ph.D.** (2003-07)
 - **Chancellor's Letter of Commendation** for outstanding PhD thesis Research at Curtin, Australia
 - **1st Position** in M.Sc. (Hons.) Horticulture, UAF (**Silver Medal**)
 - **1st Position** in the B.Sc. (Hon.) Agriculture, UAF: CGPA 4.0/4.0 (**Gold Medal**)
 - Research Productivity Award-**PCST** Pakistan (**2012, 2013, 2015**)
 - **Star Laureate Award-2009** in the field of Agriculture
 - **Merit Scholarship** throughout B.Sc. (Hons.) Agri. & M.Sc. (Hons.) Hort. (UAF)
2. **Professional Experience:** Overall **>25 y, 18 y** Post PhD, **8 y as Assoc Prof., > 3y as Professor** at UAF
- **February 2023 to date Director Institute of Horticultural Sciences, UAF**
 - **March 2022 to date Professor (BPS)**
 - **June 2015- to March 2022 Associate Professor (BPS)**
 - **May 2013- to May 2015 Tenured Associate Professor TTS**
 - **May 2009- to April 2013 Assistant Professor TTS**
 - August 2007- May 2009 **Assistant Professor (BPS)**
 - **April 2000 to June 2007 Lecturer, Permanent (BPS)**

3. Publications

- Researcher Papers in **ISI-Journals** with Impact Factor **>90 (IF>200) (g-scholar h-Index>40)**
- **Edited Books/ Books Chapters/ Practical Manuals** 01/ 12 / 02
- Other Res. Papers/Proceedings/Reports/ Popular articles **>60**

List of Salient Publications

- Ayyub, S., A.S. Khan, R. Anwar, and A. Rehman. 2025. Isoleucine treatment prevents postharvest browning and maintains quality by elevating antioxidative defence system of 'Surkh' loquat fruit. *Food Chemistry*, 479, p.143762.
- Ayyub, S., A.S. Khan, R. Anwar, A. Rehman, H.M.S. Shah and S. Ali. 2025. Kojic acid suppresses browning incidence, maintains quality and sensory attributes of harvested loquat fruit by upregulating enzymatic and non-enzymatic antioxidants. *Postharvest Biology and Technology*, 226, p.113560.
- Qasim, M., S. Ali, S., H.U. Javed, S. Naz, S., A.S. Khan, M. Hassan, M. R.N.U. Rehman. 2025. Xanthan gum coating delays ripening of harvested mango (*Mangifera indica* L.) fruit by suppressing chlorophyll catabolism and cell wall polysaccharides degradation. *Postharvest Biol. and Technol.* 228: 113635.
- Ali, S., S. Riaz, H.U. Javed, A.S. Khan, M. Ali, S. Naz, H. Sardar and M.S. Saleem. 2025. Carrageenan based edible coating modulates oxidative stress and delays cell wall polysaccharides disassembly in harvested grapefruit. *J. Stored Product Res.*, 111: 102514.
- Ayyub, S. A.S. Khan, R. Anwar, S. Ali, and M.U. Hasan. 2024. Aloe vera gel coating extends marketability and maintains quality by reducing rachis browning and preserving bioactive compounds of commercial table grape cultivars. *Applied Fruit Science*. 66: 1843-1853. <https://doi.org/10.1007/s10341-024-01161-1>

- Farooq, M. A.S. Khan, T. Shaheen, M.H. Almas, A.U. Malik, R. Anwar, R.N.U. Rehman, S. Ali and M.U. Hassan. 2023. Exogenous application of macro- and micro-nutrients improves plant growth, productivity and quality of 'Pineapple' sweet orange. *Pak. J. Bot.*, 55(4): 1-8.
- Shah, H.M.S., A.S. Khan, Z. Singh and S. Ayyub. 2023. Postharvest biology and technology of loquat (*Eriobotrya japonica* Lindl.). *Foods*, 12(6): 1329. https://doi.org/10.1007/978-3-319-76843-4_12
- S. Ali, A.S. Khan, A. Nawaz, S. Naz, S. Ejaz, A.A. Shah and M.W. Haider. 2023. The combined application of Arabic gum coating and γ -aminobutyric acid mitigates chilling injury and maintains eating quality of 'Kinnow' mandarin fruits. *Intl. J. Biol. Macromol.* 236(12396): 1-16.
- S. Ali, A.S. Khan, A. Nawaz, S. Naz, S. Ejaz and S. Ullah. 2023. Glutathione application delays surface browning of fresh-cut lotus (*Nelumbo nucifera* Gaertn.) root slices during low temperature storage. *Postharvest Biology and Technology* 200 (112311):1-10.
- Hasan, M.U., A.U. Malik, B.A. Saleem, R. Anwar, S. Khalid, A.S. Khan and M. Nasir. 2023. Supplementation of potassium and phosphorus nutrients to young trees reduced rind thickness and improved sweetness in 'Kinnow' mandarin fruit. *Erwerbs-Obstbau* 65:1657-1666.
- Khan, A.S., M. Munir, T. Shaheen, T. Tassarwar, M.A. Rafiq, S. Ali, R. Anwar, R.N.U. Rehman, M.U. Hasan, and A.U. Mali. 2022. Supplemental foliar applied mixture of amino acids and seaweed extract improved vegetative growth, yield and quality of citrus fruit. *Sci. Hort.*, 296, p.110903.
- Ali, M.H., A.S. Khan, M.J. Jaskani, R.A. Anwar, S. Ali, A.U. Malik, M.U. Hasan, R.N.U. Rehman, and S. Ayyub. 2022. Pre-storage application of L-arginine mitigates chilling injury and maintains quality of Sandhuri guava fruit. *J. Food Proces. Preserv.*, 46(3), p.e16405.
- Ali, S., Anjum, M.A., Khan, A.S., Nawaz, A., Ejaz, S., Khaliq, G., Iqbal, S., Ullah, S., Rehman, R.N.U., Ali, M.M. and Saleem, M.S., 2022. Carboxymethyl cellulose coating delays ripening of harvested mango fruits by regulating softening enzymes activities. *Food Chem.*, 380, p.131804.
- Azam, M., R. Qadri, A. Aslam, M. I. Khan, A.S. Khan, R. Anwar, M.A. Ghani, S. Ejaz, Z. Hussian, M.A. Iqbal and J. Chen. 2022 Effects of different combinations of N, P and K at different time interval on vegetative, reproductive, yield and quality traits of mango (*Mangifera indica*. L) cv. Dusehri. *Brazilian Journal of Biology*. 82: e235612. <https://europemc.org/article/MED/33681899>
- Ali, S., A.S. Khan, A.U. Maik, R. Anwar, M.A. Anjum, A. Nawaz, M. Shafique and S. Nzaz. 2021. Combined application of ascorbic and oxalic acids delays postharvest browning of litchi fruits under controlled atmosphere conditions. *Food Chem.* 350: 129277.
- Malik A.U., M.U. Hasan, S. Khalid, M.S. Mazhar, M.S. Khalid, M.N. Khan, B.A. Saleem, A.S. Khan and R. Anwar. 2021. Biotic and abiotic factors causing rind blemishes in citrus and management strategies to improve the cosmetic quality of fruits. *Intl. J. Agri. Biol.* 25:298-318. (Journal Article)
- Qureshi, M.A., M.J. Jaskani, A.S. Khan and R. Ahamd. 2021. Influence of endogenous plant hormones on physiological and growth attributes of Kinnow Mandarin grafted on nine rootstocks. *J. Plant Growth Regula.* 41(3): 1254-1264.
- Shafqat, W., M.J. Jaskani, R. Maqbool, A.S. Khan, S.A. Naqvi, Z. Ali. and I.A. Khan. 2020. Genome wide analysis of citrus sinensis heat shock proteins. *Iran. J Biotechnol.*, 189(4): 29-38.
- Rashid, M.Z., S. Ahmad, A.S. Khan and B. Ali. 2020. Comparative efficacy of some botanical extracts and commercial coating materials for improving the storage life and maintain quality of Kinnow mandarin (*Citrus reticulata* L.). *Appl. Ecol. Envir. Res.* 18(1):713-729.
- Haider, S.T.A., S. Ahmad, A.S. Khan, M.A. Anjum, M. Nasir, S. Naz. 2020. Effects of salicylic acid on postharvest fruit quality of "Kinnow" mandarin under cold storage. *Sci. Hort.* 259: 108843.
- Nasir, M., A.S. Khan, S.M.A. Basra and A.U. Malik. 2020. Improvement in growth, productivity and quality of 'Kinnow' mandarin fruit after exogenous application of *Moringa olifera* leaf extract. *South Afr. J. Bot.* 129: 263-271.
- Khalid, S., A.U. Malik, A.S. Khan, M.N. Khan, M.I. Ullah, T. Abass and M.S. Khalid. 2017. Tree age and fruit size in relation to postharvest respiration and quality changes in Kinnow mandarin fruit under ambient conditions. *Sci. Hort.*, 220: 183-192.
- Khan, I.A. A.S. Khan, I. A. Rajwana, A.A. Khan, M.A. Azamt and S.A. Raza. 2016. Premium quality mango genotypes for extended harvest season. *HortScience.* 51 (12): 1609-1612.
- Sajid, A., A.S. Khan, A.U. Malik and M. Shahid. 2016. Effect of controlled atmosphere storage on pericarp browning, bioactive compounds and antioxidant enzymes of litchi fruits. *Food Chem.* 206:18-29.
- Khalid, S., A. U. Malik, A. S. Khan, M Shahid, and Muhammad Shafique. 2015. Tree age, fruit size and storage conditions affect levels of ascorbic acid, total phenolic concentrations and total antioxidant activity of 'Kinnow' mandarin juice. *J. Sci. Food Agri.* 96: 1319-1325.
- Nasir, M., A.S. Khan, S.M.A. Basra and A.U. Malik. 2016. Foliar application of moringa leaf extract, potassium and zinc influence yield and fruit quality of 'Kinnow' Mandarin. *Sci. Hort.* 210: 227-235.

- Khan, A.S., S. Ali and I.A. Khan. 2015. Morphological and molecular characterization and evaluation of mango germplasm: An overview. *Sci. Hort.* 194: 1–14.
- Khan, A.S., M., Nasir, A.U. Malik, S.M.A. Basra, M.J. Jaskani. 2015. Combine application of boron and zinc influence the leaf mineral status, growth, productivity and fruit quality of ‘Kinnow’ mandarin (*Citrus nobilis* Lour × *Citrus deliciosa* Tenora). *J. Plant Nutri.* 38: 821-838.
- Khan, A.S. and Z. Singh. 2008. 1-Methylcyclopropene application and modified atmosphere packaging affect ethylene biosynthesis, fruit softening, and quality of ‘Tegan Blue’ plum during cold storage. *J. Am. Soc. Hort. Sci.* 133, 290-299.

Postgraduate student Research supervision/Thesis

- **PhD:** Supervised (06) Co-supervised (08) **14**
- **MSc:** Supervised (66) Co-supervised (36) **102**

4. Major R&D Projects completed (PI/Co.PI/Team scientist etc)

- Internationally Funded / Collaborated projects: 05 (Approx.: Pak Rs 10+26 = **36 M**)
- Nationally & Industry Funded/Collaborated projects: 06 (Approx.: Pak Rs 08+26 = **34 M**)

List of Salient Research Projects

- Exploiting CA Technology Potential for Extended Storage and Shipping of Fresh Produce to International Markets, Funded by PARB, Pakistan as Team Scientist (**Rs. 21.159 million; completed**)
- Characterization of native and potential mango varieties in relation to *Ceratocystis manginecans* and other economic traits as Team Scientist (**Rs. 24.99 millions; Completed**)
- Prototype development and technology transfer for mango pickle prepared from organically produced mango fruit from Kashmir. Funded by BIC, UAF, Pakistan. As PI (**Rs. 0.48 million; Completed**)
- Postharvest storage life and quality management of litchi. As PI. Funded by HEC (**Rs. 5.894 million; Completed**)
- Multiplication and Commercialization of New Potential Mango Accessions. Funded by AIP, UC Davis, USA (**US\$37617; Completed**)
- Evaluation of Growth Performance of New Potential Mango Accessions in the Field. Funded by AIP, UC Davis, USA (**US\$27163; Completed**)
- Mango Ripening in the Post-genomic Era, Funded by LUMS, Lahore (**Rs. 0.903 millions; Completed**)
- Improving smallholder well-being through participation in modern value chains: sustaining future growth in the Pakistan citrus industry” (relating to ACIAR Project No. HORT/2020/129, As Project Co-ordinator, Funded by ACIAR (**Rs. 78/88 million/ 496093 thousand AUS\$; ongoing**)
- Improvement of fruit quality and postharvest performance of papaya fruit by using ecofriendly chemicals” As Co. PI. Funded by HEC (**Rs. 6.859 million; ongoing**)

5. Technologies Developed:

- Khan, A.S., A.U. Malik, S. Ali, M. Shahfiq, M. Shoaib and R. Ahmad. 2017. Postharvest Pericarp Browning Management in Litchi (Technology Development)
- Khan, I.A., A.S. Khan and I.A. Rajwana. 2016. **10-New Premium Quality Mango** Genotypes for Extended Harvest Season (Technology Development)
- Malik, A.U., M. Amin, P. Johnson, R. Homes, O.H. Malik, A.S. Khan and A. Rehman. 2016. **Mango Sea Freight** Technology (Technology Development)
- Malik, A.U., M. Amin, O.H. Malik, A.S. Khan and A. Rehman, R. Hameed, M. Umair and M. Imran. 2016. **Controlled Atmosphere Technology** for Storage of Fresh Fruits & Vegetables (Technology Development)

6. Scholarly Activities:

- **Chief Editor**, *Journal of Horticultural Science & Technology (JHST)* published by **PSHS 20221-2023**

7. Administrative Activities:

- *Postgraduate Advisor, IHS, UAF (Jan 2022 to date)*
- *In-Charge Postharvest Lab, IHS, UAF (June 2021 to date)*
- *Chairman Sports Board UAF (2022-2023)*
- *President Agrivarsity Scouts Group (2012-2023)*
- *Secretary BoS, IHS, UAF (2007-2023)*
- *Convener PSHS, UAF (2008-2014)*