**MUHAMMAD SHAFIQ**

Ph D (Australia)

Plant Production Department, College of Food & Agricultural Sciences, King Saud University, Riyadh – Kingdom of Saudi Arabia

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| **At a glance** | | | | | | | |
| **Research interests** | | * Improving production and postharvest technologies of horticultural crops under marginal dry land ecosystems * Understanding and manipulating regulatory mechanisms involved in abiotic stress tolerance in horticultural crops * Developing natural antagonists of ethylene production/perception for use in postharvest horticulture (bio-regulation of climacteric ripening) * Regulation of depolymerization and solubalization of pectic substances in fresh fruit and vegetable crops | | | | | |
| **Nationalities** | | |  |  |  | | --- | --- | --- | | * Canada | * Australia | * Pakistan | | | | | | |
| **Languages** | | |  |  |  | | --- | --- | --- | | * English | * Urdu | * Hindi | | | | | | |
| **Career history** | | | | | | | |
| **Jan 2016 – present** | | **Assistant Professor**  Plant Production Department  College of Food and Agricultural Sciences  King Saud University – Riyadh (Saudi Arabia) | | | | | |
|  | | **Major achievements** | | | | | |
|  | | * Initiated, developed and conducted a couple of research projects:   1. Natural control of endogenous ethylene biosynthesis in fresh climacteric produce (in progress)   2. Understanding and manipulating mechanisms of pectin solubalization and depolymerization in fresh produce (in progress) * Collaborated with local growers and relevant national/international research-oriented organizations for R & D projects (Horticulture) * Conducted field and laboratory-based experiments in postharvest horticulture (in progress) | | | | | |
| **Aug 2013 – Apr 2014** | | **Senior Research Scientist**  Eddison’s Medicinals Corporation  Mapple Ridge BC – Canada | | | | | |
|  | | **Major achievements** | | | | | |
|  | | * Initiated and developed 6 new programs of research in medicinal horticulture industry along with commercial contracts for plant production sciences * Efficiently dealt with a broad range of stakeholders in British Columbian (BC) provincial horticulture industry including collaborating research organizations and relevant funding agencies * Worked closely with senior managers and corporate staff to develop and deliver cross-platform and cross-divisional projects and initiatives * Provided high quality science advices and mentorship to science staff within the subject matter areas * Reviewed hazard Analysis and Critical Control Points (HACCP) management system in operation and made recommendations to ensure production of high quality herbal products as required by Health Canada | | | | | |
| **May 2012 – Apr 2013** | | **Assistant Professor**  Department of Horticulture  University of Arid Agriculture  Rawalpindi – Pakistan | | | | | |
|  | | **Major achievements** | | | | | |
|  | | * Taught major courses in production horticulture both at under- and Post-graduate levels * Extended technical help, provided mentorship and co-supervised a couple of post-graduate students in horticulture discipline * Initiated, developed and conducted a research project titled “Jelly seed disorder in mango fruit – causes and control” funded by the Higher Education Commission of Pakistan, Islamabad | | | | | |
| **Jun 1993 – May 1999** | | **Assistant Research Officer & Farm Manager** | | | | | |
|  | | Horticultural Research Institute  Faisalabad – Pakistan | | | | | |
|  | | **Major achievements** | | | | | |
|  | | * Initiated, developed and executed the following four research/development projects, funded by the Government of Punjab  1. Establishment of a Date-palm Research Station in Bahawalpur District in the Punjab province 2. Cultural & chemical approaches to check alternate bearing habit in mango cvs. ‘Sensation’ & ‘Sindhari’ 3. Effects of nitrogen fertilization on productivity and quality of ‘kinnow’ mandarin 4. Quick decline of guava orchards in the Punjab province – issues and solutions  * Communicated research findings on a wide range of issues/problems related to production horticulture to the commercial growers/orchardists and the wider scientific community through electronic and print media * Organized/managed optimum environmental conditions (temperature, humidity, radiation, ventilation etc.) in the greenhouses at Progeny and Experimental Gardens of the organization and performed troubleshooting greenhouse mechanical/environmental control systems as and when required * Supervised and managed all farm resources and cultural operations at Progeny & Experimental Gardens of the institution | | | | | |
| **Professional qualifications** | | | | | | | |
| **March 2012** | | Ph D (Horticulture) | | | | | |
|  | | **Curtin University of Technology**  **Perth WA - Australia** | | | | | |
|  | | **Dissertation:**  “Fruit colour, shelf life and quality of ‘Pink Lady’ apple fruit in response to pre-harvest practices” | | | | | |
| **May 1994** | | M Sc Hons. Agriculture (Major: Horticulture) | | | | | |
|  | | **University of Agriculture**  **Faisalabad – Pakistan** | | | | | |
|  | | **Thesis:** “Studies of ‘Sayer’ and ‘Gola’ date varieties to determine their commercial value under Punjab conditions” | | | | | |
| **March 1992** | | B Sc Hons. Agriculture (Major: Horticulture) | | | | | |
|  | | **University of Agriculture**  **Faisalabad – Pakistan** | | | | | |
|  | | **Major subjects:**   |  |  | | --- | --- | | * Principles of Fruit Production | * Advance Vegetable Production | | * Commercial flower production | * Landscape Horticulture | | * Horticultural Nurseries * Tuber crops * Mushroom culture | * Postharvest Horticulture | | | | | | |
| **Projects, grants & awards** | | | | | | | |
| **2016 – present**  **2012 – 2013** | | 1. **Natural control of endogenous ethylene biosynthesis in fresh climacteric produce** 2. **Understanding and manipulating mechanisms of pectin depolymerization and solubalization in fresh produce**   King Abdul Aziz City of Science & Technology – Riyadh (Saudi Arabia)  **Startup Research Grant**  Higher Education Commission of Pakistan – Islamabad  Project title “Jelly seed disorder in mango fruit – causes and control” | | | | | |
| **2003 – 2006** | | **Curtin University Postgraduate Scholarship** (for Ph D studies)  Curtin University of Technology – Perth WA (Australia) | | | | | |
| **2005**  **1995 – 1999**  **1996 – 1998** | | **Student Conference Travel Award**  Curtin University of Technology – Perth WA (Australia)  Australasian Postharvest Horticulture Conference held in New Zealand  **Establishment of a Date-palm Research Station in Bahawalpur**  Government of the Punjab – Lahore  **Tackling quick decline of guava orchards in the Punjab province – issues and solutions**  Government of the Punjab – Lahore | | | | | |
| **Oral presentations** | | | | | | | |
| **Sep 27–30, 2005** | | **Australasian Postharvest Horticulture Conference**  Rotorua – New Zealand  “Harvest date and low temperature storage influence fruit colour and quality of ‘Pink Lady’ apple” | | | | | |
| **Aug 13–19, 2006** | | **XXVII International Horticulture Congress**  Seoul, South Korea  “Training systems and preharvest Ethrel application affect fruit colour development and quality of ‘Pink Lady’ apple at harvest and in controlled atmosphere storage” | | | | | |
| **Evocative publications** | | | | | | | |
| **2014** | | **Shafiq M**, Singh Z and Khan AS. 2014. Pre-harvest Ethrel® application and training systems affect colour development, accumulation of flavonoids and fruit quality of ‘Cripps Pink’ apple. ***Australian Journal of Crop Science*** 8(12): 1579-1589 (**IF: 1.632**) | | | | | |
| **2013** | | **Shafiq M**, Singh Z and Khan AS. 2013. Time of methyl jasmonate application influences the development of fruit colour in ‘Cripps Pink’ apple. ***Journal of the Science of Food & Agriculture*** 93(3): 611-618 (**IF: 2.463**) | | | | | |
| **2011** | | **Shafiq M**, Singh Z and Khan AS. 2011. Delayed harvest improves red blush development and quality of ‘Cripps Pink’ apple. ***Scientia Horticulturae*** 129(4): 715-723 (**IF: 1.624**) | | | | | |
| **2011** | | **Shafiq M**, Singh Z and Khan AS. 2011. Preharvest spray application of methyl jasmonate improves red blush and flavonoid content in ‘Cripps Pink’ apple. ***The Journal of Horticultural Science & Biotechnology*** 86(4): 422-430 (**IF: 0.538**) | | | | | |
| **2011** | | **Shafiq M**, Singh Z and Khan AS. 2011. Delayed harvest and cold storage period influence ethylene production, fruit firmness and quality of ‘Cripps Pink’ apple**. *International Journal of Food Science & Technology*** 46: 2520-2529 (**IF: 1.640**) | | | | | |
| **2008** | | Singh, Z. and **Shafiq, M**. 2008. Training systems and pre-harvest Ethrel application affect fruit colour development and quality of ‘Pink Lady’ apple at harvest and in controlled atmosphere storage. ***Acta Hort.(ISHS)*** 774: 165-172 | | | | | |
| **2001** | | Khan, M. I., C. A. Haq, M. T. Malik, A. G. Grewal and **M. Shafiq**. 2001. Effects of foliar applications of Boron and Zink on mango production. ***Journal of Agricultural Research*** 39(2): 149-158 | | | | | |
| **Referees** | | | | | | | |
|  | | **Dr. Zora Singh**  Professor/Director  International Institute of Agri-Food Security  Curtin University  Perth WA (Australia)  Phone: +61 8 9266 3138  Email: [z.singh@curtin.edu.au](mailto:z.singh@curtin.edu.au) | | | **Dr. Amanullah Malik**  Professor/Director  Institute of Horticultural Sciences  University of Agriculture  Faisalabad (Pakistan)  Cell: +92 333 651 6883  Email: [malikaman1@gmail.com](mailto:malikaman1@gmail.com) | | |
|  | | **Dr. Ishfaq Ahmed Hafiz**  Professor/Head  Department of Horticulture  University of Arid Agriculture  Rawalpindi – Pakistan  Phone: +92 51 929 0771  Email: [decenthafiz@gmail.com](mailto:decenthafiz@gmail.com) | | | **Dr. Abdullah A Alsadon**  Professor  Plant Production Department  College of Food & Agricultural Sciences  King Saud University, Riyadh – Saudi Arabia  Phone: +966 11 467 8460  Email: [aalsadon@ksu.edu.sa](mailto:aalsadon@ksu.edu.sa) | | |