

# MUHAMMAD FAROOQ



## Department of Agronomy, University of Agriculture, Faisalabad, Pakistan

### Personal

Father's name	Bashir Ahmad
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Date of Birth	Dec. 02, 1978
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Domicile	Sialkot (Pakistan)
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### Working Experience

- Associate Professor, Department of Agronomy, University of Agriculture, Faisalabad, Pakistan from May 29, 2013 to date.
- Visiting Professor, Dankook University, Cheonan, Republic of Korea from June 01, 2017 to date.
- International Professor, College of Food and Agricultural Sciences, King Saud University, Riyadh 11451, Saudi Arabia from December 22, 2016 to date.
- Adjunct Associate Professor, The Institute of Agriculture, University of Western Australia (UWA), Perth, Australia from September 30, 2014 to date.
- Adjunct Professor, Department of Crop Science and Biotechnology, Dankook University, Cheonan, South Korea from August 12, 2012 to date.
- Adjunct Professor, Institute of Agricultural Sciences in the Tropic, University of Hohenheim, Stuttgart, Germany from September 17, 2016 to date
- Guest Professor, Institute of Agricultural Sciences in the Tropic, University of Hohenheim, Stuttgart, Germany from May 16, 2016 to August 13, 2016
- Visiting Professor, College of Food and Agricultural Sciences, King Saud University, Riyadh 11451, Saudi Arabia from December 25, 2013 to February 17, 2016.
- Guest Scientist, Institute of Plant Nutrition, Justus-Leibig University, Giessen, Germany from July 01, 2011 to June 26, 2012.
- Adjunct Lecturer, The Institute of Agriculture, University of Western Australia (UWA), Perth, Australia from September 30, 2011 to September 29, 2014.
- Visiting Research Fellow, The Institute of Agriculture, University of Western Australia (UWA), Perth, Australia from June 14, 2010 to October 30, 2010.
- Visiting Scientist, Centre of Environment and Life Sciences, CSIRO Plant Industry, Perth, Australia from June 14, 2010 to October 30, 2010.
- Visiting Scientist, Dankook University, Cheonan, Republic of Korea from October 31, 2009 to November 25, 2009.
- Visiting Research Fellow, Institute of Agriculture, University of Western Australia (UWA), Perth, Australia from August 10, 2009 to September 05, 2009.
- Assistant Professor, Department of Agronomy, University of Agriculture, Faisalabad, Pakistan from October 04, 2006 to May 28, 2013.
- Visiting Research Fellow, Plant Breeding, Genetics and Biotechnology (PBGB) Division, International Rice Research Institute (IRRI), Los Baños, Philippines from May 10, 2007 to

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May 09, 2008.

- Lecturer, Department of Crop Physiology, University of Agriculture, Faisalabad, Pakistan from July 01, 2004 to October 04, 2006.
- Scientific Officer, Pakistan Agricultural Research Council from Feb. 16, 2004 to June 30, 2004.

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#### Awards and Fellowships

- ❖ The Best University Teacher Award – 2018 the Higher Education Commission of Pakistan
  - ❖ Research Productivity Award-2017-18 from Pakistan Council of Science and Technology
  - ❖ Gold Medal –2017 from Pakistan Academy of Sciences
  - ❖ Research Productivity Award-2016-17 from Pakistan Council of Science and Technology
  - ❖ COMSTECH Award-2015 for Excellence in Science and Technology - 'Young Scientist Award'
  - ❖ Best Young Research Scholar Award-2015 from the Higher Education Commission of Pakistan
  - ❖ Best Young Research Scholar Award-2014 from the Higher Education Commission of Pakistan
  - ❖ Best Young Research Scholar Award-2013 from the Higher Education Commission of Pakistan
  - ❖ Young Affiliate of the World Academy of Sciences (2014-2019)
  - ❖ Research Productivity Award-2015-16 from Pakistan Council of Science and Technology
  - ❖ Research Productivity Award-2014-15 from Pakistan Council of Science and Technology
  - ❖ Research Productivity Award-2013-14 Category A from Pakistan Council of Science and Technology
  - ❖ Top cited research articles award-2013 from University of Agriculture, Faisalabad, Pakistan
  - ❖ Research Productivity Award-2012-13 Category A from Pakistan Council of Science and Technology
  - ❖ Top cited research articles award-2012 from University of Agriculture, Faisalabad, Pakistan
  - ❖ Best Young Research Scholar Award-2012 from Higher Education Commission of Pakistan
  - ❖ Return Fellowship from Alexander von Humboldt Foundation-2012
  - ❖ Research Productivity Award-2011-12 in Category A from Pakistan Council of Science and Technology
  - ❖ Alexander von Humboldt Fellowship-2011
  - ❖ Research Productivity Award-2010-11 in Category A from Pakistan Council of Science and Technology
  - ❖ Australian Endeavour Research Award-2010
  - ❖ Research Productivity Award 2009-10 from Pakistan Council of Science and Technology
  - ❖ Research Productivity Award 2008-09 from Pakistan Council of Science and Technology
  - ❖ Research Productivity Award 2007-08 from Pakistan Council of Science and Technology
  - ❖ Postdoc fellowship at International Rice Research Institute (IRRI), Los Baños, Philippines
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### Administrative Services

- ❖ JIRCAS Fellowship-2007 from Japan International Research Centre for Agricultural Sciences (JIRCAS)
- ❖ Cash Award from the Vice Chancellor, University of Agriculture, Faisalabad for the completion of Ph.D. degree within six semesters
- ❖ Scholarship for Ph.D. programme from Higher Education Commission, Pakistan
- ❖ Merit scholarship holder throughout the carrier
- ❖ First position in the department in M.Sc. (Hons.)
- ❖ Second position in the department in B.Sc. (Hons.)
- ❖ Best student of the city Gold medal from Sialkot Press Club during 1996-97

- In-Charge, Book Project, University of Agriculture, Faisalabad, Pakistan.
- Convener / Coordinator, Sustainable Agriculture Chair, Faculty of Agriculture, University of Agriculture, Faisalabad, Pakistan.
- Coordinator, Departmental Seminar Series, Department of Agronomy, University of Agriculture, Faisalabad, Pakistan.
- Advisor, Society of Young Agronomists, Department of Agronomy, University of Agriculture, Faisalabad, Pakistan.
- Member, Synopsis review committee, Department of Agronomy, University of Agriculture, Faisalabad, Pakistan.
- Member, Internship evaluation committee, Department of Agronomy, University of Agriculture, Faisalabad, Pakistan.
- Tutor, Tutorial group Altaf Hussain Hali-2, University of Agriculture, Faisalabad, Pakistan.
- In-charge / Manager, Experimental Station, Department of Crop Physiology, University of Agriculture, Faisalabad, Pakistan from June 10, 2005 to October 04, 2006.

### Organization of Conferences / Workshops

- Convener, Technical Committee, Conference on '**Sustainable Crop and Animal Production Systems**' December 08-10, 2016, University of Haripur, Haripur, Pakistan.
- Member, Organizing Committee, **Third International Conference of Asian Allelopathy Society** - Allelopathy: Direct and Indirect Plant Interactions Mediated by Allelochemicals October 30 to November 02, 2015. Fuzhou, China.
- Secretary Organizing Committee, National workshop on "**Workshop on Scientific Writing**" at PMAS-Arid Agriculture University, Rawalpindi, Pakistan on August 26, 2015
- Secretary Organizing Committee, National workshop on "**Sustainable Production of Pulses: Situation Analysis**" at Bhauddin Zakariya University, Bahadur Sub-campus Layyah, Pakistan on August 11, 2015
- Organizer, International Seminar on '**Australian Agriculture and Global Food Security**' at University of Agriculture, Faisalabad, Pakistan on May 27, 2015.
- Organizer, International workshop on '**Innovative Strategies for Enhancing the Production of Food Legumes**' at University of Agriculture, Faisalabad, Pakistan on May 26, 2015.
- Organizer, International Seminar on '**Rice Allelopathy and Momilactone**' at University of Agriculture, Faisalabad, Pakistan on February 10, 2015.
- Secretary Organizing Committee, International Conference on "**Biofortification of Staple Crops a Solution to Combat Malnutrition**" March 29-31, 2015. University of Agriculture, Faisalabad, Pakistan.
- Secretary, Organizing Committee, First National Conference of Pakistan Allelopathy Society '**Allelopathy Research in Pakistan: Experiences and Opportunities**' University of Agriculture Faisalabad, Pakistan. December 12, 2013
- Member, Organizing Committee, 4<sup>th</sup> International Conference on '**Frontiers in Agriculture**' at Dankook University, Republic of Korea during September 04-06, 2013.

### Membership / Positions in Scientific Societies

- Member Organizing Committee, International Conference ‘**Sustainable Crop Productivity Threats and Options**’ at Ayub Agricultural Research Institute, Faisalabad, Pakistan during April 11-12, 2013
- Secretary Organizing Committee, International Conference on ‘**Crop Management in Changing Climate**’ at Department of Agronomy, University of Agriculture, Faisalabad, during February 11-13, 2013
- Member Organizing Committee, International seminar on ‘**Crop management: Issues and Options**’ at Department of Agronomy, University of Agriculture, Faisalabad, June 01-02, 2011.
- Member Organizing Committee, International conference on ‘**Sustainable food grain production: challenges and opportunities**’ at Department of Agronomy, University of Agriculture, Faisalabad, October 24-26, 2009.
- Member Organizing Committee, International Workshop on ‘**Allelopathy: Current Trends and Future Applications**’ at Department of Agronomy, University of Agriculture, Faisalabad, March 18-21, 2007.
- Secretary, Pakistan Society of Agronomy, Pakistan (2013-2015)
- Secretary, Asian Allelopathy Society (2012-2015, 2015-2018)
- Life member, Pakistan Society of Agronomy, Pakistan
- Life member, Asian Allelopathy Society
- Life member, Soil Science Society of Pakistan
- Member, International Allelopathy Society, 2011 to date
- Member, Australian Society of Agronomy, 2010.
- Member, German Society of Plant Nutrition, 2011, 2012.
- Member, Crop Science Society of Philippines, 2007, 2008.
- Member, Korean Society of Crop Science 2009, 2010
- Member, Pakistan Agricultural Scientists (PAS) Forum, Pakistan, 2001 to date.
- Member, Society for the Advancement of Agricultural Sciences, Pakistan 2001 to date.

### Research Grants

S. No.	Project title	Funding agency	Amount (Rs. millions)	Status	Position
1	Evaluating the conventional and conservation rice-wheat systems for resource use efficiency and productivity	CSISA	1.00	Completed	P.I.
2	Enhancement of the performance of direct seeded rice by seed priming	HEC	1.71	Completed	Co-P.I.
3	Integrated weed management in direct seeded rice	HEC	2.90	Completed	Co-P.I.
4	Transfer of technologies developed by the department of Agronomy, UAF	EFS, UAF	0.59	Completed	Co-P.I.
5	Exploring the Faisalabad flora for allelopathic potential	HEC	0.50	Completed	Co-P.I.
6	Improving wheat performance in conditions of climate change by employing allelopathy	HEC	1.20	Completed	P.I.
7	Application of micronutrients through seed invigoration techniques in rice and wheat	HEC	3.35	Completed	P.I.
8	Improving drought resistance in wheat during reproductive and grain filling phases	IFS	USD 12000	Completed	P.I.
9	Writing multi-authored books by the departments of UAF	EFS, UAF	27.41	In progress	Co-P.I.
10	Strengthening Allelopathy and Plant Eco-physiology lab at the Department of Agronomy, University of Agriculture,	AvH Foundation	Euro 30,000	In progress	P.I.

	Faisalabad, Pakistan				
11	Potential use of superabsorbent polymers in improving wheat productivity under water deficit conditions	AIP	3.5	In progress	P.I.
12	Development and demonstration of resource conservation technologies for sustainable production of basmati rice	ADB	2.0	In progress	P.I.
13	Responses and adaptation of cotton ( <i>Gossypium hirsutum</i> L.) to waterlogging stress	HEC	7.96	Submitted	P.I.
14	Improving the sustainability and profitability of rice-wheat cropping system through conservation practices and inclusion of grain legumes	HEC	6.56	Submitted	P.I.

ADB = Asian Development Bank; AIP = Agricultural innovations program; AvH Foundation = The Alexander von Humboldt Foundation; CSISA = Cereals System Initiative in South Asia; EFS = Endowment Fund Secretariat; HEC = Higher Education Commission; IFS = International Foundation of Science; PARB = Punjab Agricultural Research Board; Riyadh, Kingdom of Saudi Arabia; USPCAS-AFS = U.S. Pakistan Centers for Advanced Studies in Agriculture and Food Security

### Research Interests

- ❖ Crop Physiology
- ❖ Allelopathy
- ❖ Seed Biology

### Courses offered

#### (a) Under-graduate Courses

- ❖ Arid Zone Agriculture
- ❖ Basic Agriculture
- ❖ Environmental Physiology and Crop Improvement
- ❖ Farming Systems and Farm Records
- ❖ Field Crop Physiology
- ❖ Field Crop Production
- ❖ General Crop Physiology
- ❖ Research Planning and Scientific Writing
- ❖ Seed Technology
- ❖ Water Relations of Crop Plants

#### (b) Post-graduate Courses

- ❖ Advanced Agronomy
- ❖ Allelopathy in Crop Production
- ❖ Management of Crop Nutrition
- ❖ Physiology of Crop Nutrition
- ❖ Physiology of Crop Yield
- ❖ Plant's Environments and Efficient Water use
- ❖ Post-harvest Physiology
- ❖ Recent Advances in Agronomy
- ❖ Seed Physiology
- ❖ Seed Technology
- ❖ Stress Agronomy
- ❖ Stress Physiology
- ❖ Sustainability and Agro-Ecosystem Management

Student supervision	Degree	As major supervisor		As co-supervisor	
		Completed	In-progress	Completed	In-progress
	<b>M.Sc. (Hons.)</b>	42	11	65	20
	<b>Ph.D.</b>	06	05	12	10

**Editorial experience**

- Editor, International Journal of Agriculture and Biology from 2007 to date
- Editor, Crop and Environment from 2010 to date
- Member Editorial Board, Korean Journal of International Agriculture from 2009 to date
- Member Editorial Board, Korean Journal of Crop Science from 2009 to date

**Reviewer of research journals**

- Acta Agriculturae Scandinavica Section B. Soil and Plant Science, 2008, 2009, 2010
- Acta Physiologiae Plantarum, 2009-2017
- Agricultural Water management, 2008, 2009
- Annals of Applied Biology, 2008, 2009, 2010, 2013
- Archives of Agronomy and Soil Science, 2008-2017
- Cereal Research Communications, 2008, 2009
- Chemistry and Ecology, 2010, 2011
- Crop and Pasture Science, 2009-2017
- Crop and Environment, 2010-2014
- Crop Protection, 2012, 2014, 2016, 2017
- Engineering in Life Sciences, 2010
- Experimental Agriculture, 2011, 2014-2016
- Ecotoxicology and Environmental Safety, 2012, 2014
- Field Crops Research, 2011-2016
- HortScience, 2009, 2010, 2014
- International Journal of Agriculture and Biology, 2006-2017
- Journal of Agricultural Research, 2009, 2014
- Journal of Agricultural Science and Technology, 2009, 2011
- Journal of Agronomy and Crop Science, 2007-2015
- Journal of American Society of Horticultural Sciences, 2010, 2012
- Journal of Animal and Plant Sciences, 2008-2017
- Journal of Crop Improvement, 2011
- Journal of Integrative Plant Biology, 2008-2016
- Journal of Genetics and Genomics, 2010, 2011
- Journal of Plant Nutrition and Soil Science, 2011-2015
- Journal of Plant Physiology, 2012-2017
- Pakistan Journal of Agricultural Science, 2007-2015
- Pakistan Journal of Botany, 2007, 2008, 2009
- Pakistan Journal of Seed Technology, 2007, 2008
- Philippines Agricultural Scientist, 2010
- Physiologia Plantarum, 2009, 2010, 2011
- Plant Biosystems, 2011, 2015
- Plant Growth Regulation, 2008-2015
- Plant Science, 2009, 2010, 2012, 2016
- Rice Science, 2011, 2012
- Russian Journal of Plant Physiology, 2008, 2009
- Saudi Journal of Biological Sciences, 2016
- Science Asia, 2010

- Scientia Agricola, 2009, 2010
- Scientia Horticulturae, 2008, 2010, 2012, 2013, 2017
- South African Journal of Botany, 2008, 2010
- Sustainable Agriculture Reviews, 2008-2011
- Soil and Environment, 2008-2016

#### Extra & Co-curricular activities

- Joint Secretary, The Debaters Club, University of Agriculture, Faisalabad, during 1999-00.
- General Secretary, Society of Agricultural Writers, University of Agriculture, Faisalabad, during 2000-01.
- President, Qirat and Naat Club (Seerat Chair), University of Agriculture, Faisalabad, during 2001-02.
- National Cadet Corps during 1995-96.

#### Professional trainings

- Multi-country Observational Study Mission on Advanced Technologies for Greenhouse Farming jointly organized by Asian Productivity Organization and Korea Productivity Centre 16-20 February 2009, Seoul, Republic of Korea.
- “Safety use of radiations in Agriculture” course arranged by Nuclear Institute of Agriculture and Biology (NIAB), Faisalabad, Pakistan.
- “Use of modern Biotechnological tools with conventional breeding for crop improvement” course arranged by Centre for Agricultural Biochemistry and Biotechnology (CABB) University of Agriculture, Faisalabad, Pakistan during 07-12 February 2005.
- Staff Development Course under the National Academy of Higher Education at University of Agriculture, Faisalabad from July 11, 2005 to August 06, 2005.

#### Languages and Degree of Proficiency

	<b>Read</b>	<b>Write</b>	<b>Speak</b>
<b>English</b>	Good	Good	Good
<b>Urdu</b>	Excellent	Excellent	Excellent
<b>Punjabi</b>	Good	Good	Excellent
<b>German</b>	Poor	Poor	Poor
<b>Saraiki</b>	Fair	Fair	Fair
<b>Tagalog</b>	Fair	Poor	Poor
<b>Arabic</b>	Good	Good	Poor
<b>German</b>	Poor	Poor	Fair

#### Information Technology Skills

- ❖ Word Processing (MS Word)
- ❖ Spreadsheet (MS Excel)
- ❖ Presentation (MS PowerPoint)
- ❖ Statistical soft wares (MSTATC, COSTAT, SPSS, SAS)

#### Publications

##### Books

1. **Farooq, M.** and K.H.M. Siddique (Eds). **2017**. Innovations in Dryland Agriculture. Springer International Publishing Switzerland.
2. **Farooq, M.** and K.H.M. Siddique (Eds). **2015**. Conservation Agriculture. Springer International Publishing Switzerland.
3. **Farooq, M.,** A. Wakeel and S.A. Cheema (Eds). **2015**. Biofortification of Staple Crops: A solution to Combat Malnutrition. Proceedings of International Workshop at the University of



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- Agriculture, Faisalabad, Pakistan.
  4. **Farooq, M.**, M. Hussain and D.-J. Lee (Eds). **2013**. Frontiers in Agriculture. Proceedings of 3<sup>rd</sup> International Conference at Dankook University, South Korea.
  5. Cheema, Z.A., **M. Farooq** and A. Wahid (Eds.). **2013**. Allelopathy: current trends and future applications. Springer-Verlag, Heidelberg 69121, Germany.
  6. Cheema, Z.A. and **M. Farooq** (Eds.). **2007**. Agriculture in Pakistan: Ideological and Pragmatic Perspective. Allied Book Centre, Urdu Bazar Lahore, Pakistan.

#### Book Chapters

1. Nawaz, A. and **M. Farooq**. **2017**. Rice physiology. In: Chauhan, B.S., K. Jabran and G. Mahajan (Ed). Rice Production Worldwide. Springer International Publishing Switzerland. pp. 455-485.
  2. **Farooq, M.** and K.H.M. Siddique. **2017**. Research and developmental issues in dryland agriculture. In: Farooq, M. and K.H.M. Siddique (Eds). Innovations in Dryland Agriculture. Springer International Publishing Switzerland. pp. 31-46.
  3. Nawaz, A. and **M. Farooq**. **2017**. Nutrient management in dryland agriculture. In: Farooq, M. and K.H.M. Siddique (Eds). Innovations in Dryland Agriculture. Springer International Publishing Switzerland. pp. 115-142
  4. Arshad, M.S., M. Sanaullah and **M. Farooq**. **2017**. Soil carbon sequestration in dryland agriculture. In: Farooq, M. and K.H.M. Siddique (Eds). Innovations in Dryland Agriculture. Springer International Publishing Switzerland. pp. 469-490
  5. **Farooq, M.**, A. Rehman, A. Wahid and K.H.M. Siddique. **2016**. Photosynthesis under heat stress. In: Pessarakli, M. (Ed). Handbook of Photosynthesis, Third Edition, Taylor and Francis Group, LLC 6000 Broken Sound Parkway, Suite 300, Boca Raton, FL 33487 USA. pp. 697-701.
  6. Rehman, H., A. Nawaz, A. Wakeel, Y.S. Saharawat and **M. Farooq**. **2015**. Conservation agriculture in South Asia. In: Farooq, M. and K.H.M. Siddique (Eds). Conservation Agriculture. Springer International Publishing Switzerland. pp. 249-283
  7. **Farooq, M.** and K.H.M. Siddique. **2015**. Conservation agriculture: concepts, brief history and impacts on agricultural systems. In: Farooq, M. and K.H.M. Siddique (Eds). Conservation Agriculture. Springer International Publishing Switzerland. pp. 3-17
  8. Nawaz, A., **M. Farooq**, S.A. Cheema and Z.A. Cheema. **2014**. Role of allelopathy in weed management. In: Chauhan, B.S. and G. Mahajan (Ed). Recent Advances in Weed Management, LLC, 233 Spring Street, New York, NY 10013, USA.
  9. **Farooq, M.**, A. Wahid and K.H.M. Siddique. **2014**. Physiology of grain development in cereals. In: Pessarakli, M. (Ed). Handbook of Plant and Crop Physiology, Third Edition, Taylor and Francis Group, LLC 6000 Broken Sound Parkway, Suite 300, Boca Raton, FL 33487 USA.
  10. Wahid, A., **M. Farooq** and K.H.M. Siddique. **2014**. Implications of oxidative stress for crop growth and productivity. In: Pessarakli, M. (Ed). Handbook of Plant and Crop Physiology, Third Edition, Taylor and Francis Group, LLC 6000 Broken Sound Parkway, Suite 300, Boca Raton, FL 33487 USA.
  11. Aziz, T., M. Sabir, **M. Farooq**, M.A. Maqsood, H.R. Ahmad and E.A. Warraich. **2014**. Phosphorus deficiency in plants: responses, adaptive mechanisms, and signaling. In: Hakeem, K.R., R.U. Tahir and I. Tahir (Eds) Plant signaling: Understanding the molecular cross-talk. Springer, LLC, 233 Spring Street, New York, NY 10013, USA. pp. 133-148.
  12. Jabran, K., **M. Farooq**, T. Aziz and K.H.M. Siddique. **2013**. Allelopathy and crop nutrition. In: Cheema, Z.A., M. Farooq and A. Wahid (Eds.). Allelopathy: Current Trends and Future Applications. Springer-Verlag, Heidelberg 69121, Germany, pp. 337-348.
  13. **Farooq, M.**, M. Hussain, A. Wahid and K.H.M. Siddique. **2013**. Drought stress in plants: an overview. In: Aroca, R. (Ed). Plant Responses to Drought Stress: From Morphological to Molecular Features. Springer-Verlag, Germany, pp. 1-36.
  14. Cheema, Z.A., **M. Farooq**, and A. Khaliq. **2013**. Application of allelopathy in crop production: success story from Pakistan. In: Cheema, Z.A., M. Farooq and A. Wahid (Eds.). Allelopathy: Current Trends and Future Applications. Springer-Verlag, Heidelberg 69121, Germany, pp. 113-144.
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15. Maqbool, N., A. Wahid, **M. Farooq** and Z.A. Cheema. **2013**. Allelopathy and abiotic stress interaction in crop plants. In: Cheema, Z.A., M. Farooq and A. Wahid (Eds.). *Allelopathy: Current Trends and Future Applications*. Springer-Verlag, Heidelberg 69121, Germany, pp. 451-468.
  16. Jabran, K. and **M. Farooq**. **2013**. Implications of potential allelopathic crops in agricultural systems. In: Cheema, Z.A., M. Farooq and A. Wahid (Eds.). *Allelopathy: Current Trends and Future Applications*. Springer-Verlag, Heidelberg 69121, Germany, pp. 349-388.
  17. Hussain, M., **M. Farooq**, S.M.A. Basra and D.J. Lee. **2013**. Application of moringa allelopathy in crop sciences. In: Cheema, Z.A., M. Farooq and A. Wahid (Eds.). *Allelopathy: Current Trends and Future Applications*. Springer-Verlag, Heidelberg 69121, Germany, pp. 469-484.
  18. **Farooq, M.**, K.H.M. Siddique and S. Schubert. **2012**. Role of nitric oxide in improving plant resistance against salt stress. In: Ahmad, P., M.M. Azooz and M.N.V. Prasad. *Ecophysiology and Responses of Plants under Salt Stress*. Springer, LLC, 233 Spring Street, New York, NY 10013, USA.
  19. Wahid, A., **M. Farooq**, I. Hussain, R. Rasheed and S. Gelani. **2011**. Responses and management of heat stress in plants: In: Ahmad, P. and Prasad, M.N.V. (Eds.). *Environmental adaptations and Stress Tolerance of Plants in the Era of Climate Change*. Springer, Netherlands. pp. 135-157.
  20. **Farooq, M.**, A. Wahid, S.M.A. Basra and K.H.M. Siddique. **2010**. Improving crop resistance to abiotic stresses through seed invigoration. In: Pessarakli, M. (Ed). *Handbook of Plant and Crop Stress*, Third Edition, Taylor and Francis Group, LLC 6000 Broken Sound Parkway, Suite 300, Boca Raton, FL 33487 USA. pp. 1031-1050.
  21. Wahid, A. **M. Farooq**, E. Rasul, S.M.A. Basra and K.H.M. Siddique. **2010**. Germination of seeds and porpagules under salt stress. In: Pessarakli, M. (Ed). *Handbook of Plant and Crop Stress*, Third Edition, Taylor and Francis Group, LLC 6000 Broken Sound Parkway, Suite 300, Boca Raton, FL 33487 USA. pp. 321-337.
  22. **Farooq, M.**, A. Wahid, N. Kobayashi, D. Fujita and S.M.A. Basra. **2009**. Plant drought stress: effects, mechanisms and management. In: Lichtfouse, E. (Ed.). *Sustainable Agriculture*, Springer, the Netherlands.
  23. Wahid, A. **M. Farooq**, R. Rasheed, S. Gelani and E. Rasul. **2009**. Sugarcane under thermal stress: some biotechnological considerations. In: Ashwani Kumar (Ed). *Advances in Biotechnology*. University of Rajasthan, Jaipur, **India**.
  24. **Farooq, M.**, S.M.A. Basra, A. Wahid, A. Khaliq and N. Kobayashi. **2009**. Rice seed invigoration: a review. In: Lichtfouse, E. (Ed.). *Organic Farming, Pest Control and Remediation of Soil Pollutants Sustainable Agriculture Reviews*. Springer, the Netherlands. pp. 137-175.
  25. Wahid A., M. Arshad and **M. Farooq**. **2009**. Cadmium phytotoxicity: responses, mechanisms and mitigation strategies. In: Lichtfouse, E. (Ed.). *Sustainable Agriculture Reviews– Book Series*, Springer.
  26. Cheema, Z.A., A. Khaliq and **M. Farooq**. **2008**. Sorghum Allelopathy for weed management in wheat. In: Zeng, R.S., A. Mallik and R. Lu (Eds.), *Allelopathy in Sustainable Agriculture and Forestry*. Springer.
  27. **Farooq, M.** **2007**. Fertilizers in Pakistan. In: Cheema, Z.A. and M. Farooq (Eds.). *Agriculture in Pakistan: Ideological and Pragmatic Perspective*. Allied Book Centre, Urdu Bazar Lahore, Pakistan.
  28. **Farooq, M.** **2007**. Pesticides in Pakistan. In: Cheema, Z.A. and M. Farooq (Eds.). *Agriculture in Pakistan: Ideological and Pragmatic Perspective*. Allied Book Centre, Urdu Bazar Lahore, Pakistan.
  29. **Farooq, M.** **2007**. Transgenic Plants: Concerns and Prospects. In: Cheema, Z.A. and M. Farooq (Eds.). *Agriculture in Pakistan: Ideological and Pragmatic Perspective*. Allied Book Centre, Urdu Bazar Lahore, Pakistan.
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Articles in Peer  
Reviewed Journals

1. Rehman, A., **M. Farooq**, M. Naved, A. Nawaz and B. Shahzad. **2018**. Seed priming of Zn with endophytic bacteria improves the productivity and grain biofortification of bread wheat. *European Journal of Agronomy* 94:98-107
  2. **Farooq, M.**, A. Ullah, D.J. Lee, S.S. Alghamdi and K.H.M. Siddique. **2018**. Desi chickpea genotypes tolerate drought stress better than kabuli types by modulating germination metabolism, trehalose accumulation, and carbon assimilation. *Plant Physiology and Biochemistry* doi 10.1016/j.plaphy.2018.02.020.
  3. Riaz, U., G. Murtaza, Saifullah and **M. Farooq**. **2018**. Influence of different sewage sludges and composts on growth, yield and trace elements accumulation in rice and wheat. *Land Degradation and Development* doi 10.1002/ldr.2925.
  4. Rehman, A., **M. Farooq**, A. Nawaz, A.M. Al-Sadi, K.S. Al-Hashmi, F. Nadeem and A. Ullah **2018**. Characterizing bread wheat genotypes of Pakistani origin for grain zinc biofortification potential. *Journal of the Science of Food and Agriculture* doi 10.1002/jsfa.9010
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  85. Kamran, M., H. Rehman, S.M.A Basra and **M. Farooq**. **2011**. Alternate wetting and drying in direct seeded rice to improve the crop performance by seed priming. **International seminar on Crop management: issues and options** at Department of Agronomy, University of Agriculture, Faisalabad, June 01-02, 2011.
  86. Kashif, M.S, M. Maqsood, **M. Farooq**, H.H. Ali and .R. Chadhar. **2011**. Effect of nitrogen application and irrigation scheduling on growth, radiation use efficiency and yield of maize. **International seminar on Crop management: issues and options** at Department of Agronomy, University of Agriculture, Faisalabad, June 01-02, 2011.
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  88. Nawaz, A, **M. Farooq**, A. Rehman and T. Aziz. **2011**. Studying the resource use efficiency and productivity of wheat conventional and conservation rice-based systems. **International seminar on Crop management: issues and options** at Department of Agronomy, University of Agriculture, Faisalabad, June 01-02, 2011.
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  90. Rehman, A, **M. Farooq**, S.A. Cheema and K. Jabran. **2011**. Pre-sowing seed treatments with boron enhances the chickpea performance. **International seminar on Crop management: issues and options** at Department of Agronomy, University of Agriculture, Faisalabad, June 01-02, 2011.
  91. Razzaq, A, Z.A. Cheema, K. Jabran and **M. Farooq**. **2011**. Allelopathic water extracts reduce the herbicides use for economic weed management in wheat. **International seminar on Crop management: issues and options** at Department of Agronomy, University of Agriculture, Faisalabad, June 01-02, 2011.
  92. Cheema, S.A., H. Nawaz and **M. Farooq**. **2011**. Exploiting allelopathic potential of plants collected from Faisalabad district. **International seminar on Crop management: issues and options** at Department of Agronomy, University of Agriculture, Faisalabad, June 01-02, 2011.
  93. Cheema, Z.A., G. Haider, **M. Farooq**, A. Khaliq and M.N. Mushtaq. **2011**. A bioassay study to investigate the effect of allelopathic crop water extracts on the germination and seedling growth of horse pursplane. **International seminar on Crop management: issues and options** at Department of Agronomy, University of Agriculture, Faisalabad, June 01-02, 2011.
  94. Ali, H.H., M. Maqsood, **M. Farooq**, M.S. Kashif and A.R. Chadar. **2011**. Radiation interception, growth and yield of spring maize as affected by different planting patterns and irrigation levels. **International seminar on Crop management: issues and options** at Department of Agronomy, University of Agriculture, Faisalabad, June 01-02, 2011.
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  105. Habib M. Z., **M. Farooq**, T. Aziz and A. Rehman. 2009. Employing allelopathy to improve salinity tolerance in rice. **International conference on sustainable food grain production: challenges and opportunities**. Department of Agronomy, University of Agriculture, Faisalabad-Pakistan. November 24-25, 2009.
  106. Iqbal, M., A. Matloob, A. Khaliq, **M. Farooq** and F. Aslam. 2009. Exploring the critical weed competition period in dry direct seeded fine grain aerobic rice. **International conference on sustainable food grain production: challenges and opportunities**. Department of Agronomy, University of Agriculture, Faisalabad-Pakistan. November 24-25, 2009.
  107. Rehman, A., **M. Farooq** and T. Aziz. 2009. Rice seed priming with boron improves the germination and early seedling growth. **International conference on sustainable food grain production: challenges and opportunities**. Department of Agronomy, University of Agriculture, Faisalabad-Pakistan. November 24-25, 2009.
  108. Wahid, A., M. Farooq and S.M.A. Basra. 2009. Improving cereal crops for tolerance to abiotic stresses. **International conference on sustainable food grain production: challenges and opportunities**. Department of Agronomy, University of Agriculture, Faisalabad-Pakistan. November 24-25, 2009.
  109. Maqbool, N., A. Wahid, **M. Farooq** and Z.A. Cheema. 2009. Improving maize germination and growth using low concentrations of sorghab. **International conference on sustainable food grain production: challenges and opportunities**. Department of Agronomy, University of Agriculture, Faisalabad-Pakistan. November 24-25, 2009.
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  111. Rehman, H., **M. Farooq**, S.M.A. Basra and I. Afzal. 2008. On-farm assessment of seed priming techniques in direct seeded rice. **Modern Approaches and Techniques in Agriculture to ensure Food Security in Pakistan**. International Symposium, Agro-climatology lab., Department of Agronomy, University of Agriculture, Faisalabad-Pakistan. October 13~14, 2008.
  112. Jabran, K., Ehsanullah, **M. Farooq**, M. Hussain and M. Shahid. 2008. Canola (*Brassica napus* L.) extracts inhibit germination and seedling growth of mungbean (*Vigna radiata* L.). **Modern Approaches and Techniques in Agriculture to ensure Food Security in Pakistan**. International Symposium, Agro-climatology lab., Department of Agronomy, University of Agriculture, Faisalabad-Pakistan. October 13~14, 2008.
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  114. Basra, S.M.A., **M. Farooq** and H. Rehman. 2008. Improving the performance of late sown wheat by seed priming. **Recognizing Past Achievements, Meeting Future Needs! 5<sup>th</sup> International Crop Science Congress and Exhibition**. International Convention Centre, Jeju, Korea April 13~18, 2008.
  115. Rehman H., **M. Farooq** and S.M.A. Basra. 2008. Improving the emergence and early seedling growth of melons (*Cucumis melo* L.) by osmopriming. **Recognizing Past Achievements, Meeting Future Needs! 5<sup>th</sup> International Crop Science Congress and Exhibition**. International Convention Centre, Jeju, Korea April 13~18, 2008.
  116. Jabran, K., Z.A. Cheema, **M. Farooq**, A. Khaliq. 2007. Evaluation of fertigation and foliar application of some fertilizer alone and in combination with allelopathic crop water extract. **International Workshop on allelopathy: current trends and future applications**. Weed Science–Allelopathy Lab., Department of Agronomy, University of Agriculture, Faisalabad, March 18-21, 2007.
  117. Jabran, K., Z.A. Cheema, **M. Farooq**, A. Khaliq. 2007. Effectiveness of various concentrations of allelopathic water extracts against aphids (*Aphis pomi* L.). **International Workshop on allelopathy: current trends and future applications**. Weed Science – Allelopathy Lab., Department of Agronomy, University of Agriculture, Faisalabad, March 18-21, 2007.
  118. Razzaq, A., Z.A. Cheema, A. Khaliq and **M. Farooq**, 2007. Reduction in herbicide dose in combination with allelopathic sorghum and sunflower water extracts for weed control in wheat. **International Workshop on allelopathy: current trends and future applications**. Weed Science–Allelopathy Lab., Department of Agronomy, University of Agriculture, Faisalabad, March 18-21, 2007.
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  120. Basra, S.M.A. Afzal, I. and **Farooq, M.** 2006. Changes in Growth, Ionic and water relations in spring wheat (*Triticum aestivum* L.) as affected by pre-sowing seed treatments during salinity stress. **International Conference on Sustainable Crop production on salt-affected Land**. Saline Agriculture Research Centre, University of Agriculture, Faisalabad, Dec. 4-6, 2006.
  121. Basra, S.M.A. and **Farooq, M.** 2006. Polyamines in the priming media improve the germination and early seedling growth in hybrid sunflower. **International Symposium on**
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- sustainable Crop Improvement and Integrated Management.** Faculty of Agriculture, University of Agriculture, Faisalabad, Sept. 14-16, 2006.
122. **Farooq, M.** and Basra, S.M.A. **2006.** Priming with ethanol, ascorbic acid and salicylate enhances the germination and early seedling growth of Pea (*Pisum sativum* L.). **International Symposium on sustainable Crop Improvement and Integrated Management.** Faculty of Agriculture, University of Agriculture, Faisalabad, Sept. 14-16, 2006.
123. Basra, S.M.A., **Farooq, M** and B.A. Saleem. **2006.** Omopriming improves the Germination, seedling vigor of tomato seeds. **27<sup>th</sup> International Horticultural Congress. Global Horticulture: Diversity and Harmony.** National Horticultural Research Institute, Imok-dong 475, Suwon 440-706, Korea 13-19 August, 2006.
124. **Farooq, M** Basra, S.M.A. and I. Afzal. **2006.** Germination, seedling vigor and electrical conductivity of seed leachates as affected by dry heat treatment of tomato seeds. **27<sup>th</sup> International Horticultural Congress. Global Horticulture: Diversity and Harmony.** National Horticultural Research Institute, Imok-dong 475, Suwon 440-706, Korea 13-19 August, 2006.
125. **Farooq, M** and Basra, S.M.A. **2006.** Improving the performance of transplanted rice by seed priming. **International Symposium on Application of Plant Sciences in Emerging Scenario.** Department of Botany, GC Universality, Faisalabad at 20-22 March, 2006.
126. Afzal, I., S.M.A. Basra, N. Ahmad and **M. Farooq.** **2005.** Seed enhancements to induce salt tolerance in wheat (*Triticum aestivum* L.). **8<sup>th</sup> International Workshop on seeds** under the title “Seed Germination and Dormancy” which was held at **Brisbane, Australia** during 8-13<sup>th</sup> May, 2005.
127. Afzal, I., S.M.A. Basra, N. Ahmad and **M. Farooq.** **2005.** Seed invigoration techniques for alleviation of salinity stress in wheat (*Triticum aestivum* L.) during germination. **8<sup>th</sup> International Workshop on seeds** under the title “Seed Germination and Dormancy” which was held at **Brisbane, Australia** during 8-13<sup>th</sup> May, 2005.
128. Afzal, I., S.M.A. Basra, A. Hameed and **M. Farooq.** **2005.** Pre-sowing seed treatments for inducing salt tolerance in wheat. **6<sup>th</sup> International Conference on “Eco-physiological aspects of plant responses to stress factors”** Poland from 14-17<sup>th</sup> September, 2005.

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**Guest Speaker**

- ❖ Sustainable rice-wheat cropping system: issue and options Public lecture delivered at the University of Hohenheim, Hohenheim, Germany on July 26, 2016
- ❖ Strategies for sustaining the productivity of rice-wheat cropping system during International Conference on Soil Sustainability for Food Security during November 15-17, 2015 held at the University of Agriculture, Faisalabad, Pakistan.
- ❖ Agriculture and Agricultural Systems in Pakistan: an overview on November 28, 2102 at Swedish Agricultural University, Malmo, Sweden.
- ❖ Strategies for producing more rice with less water on 05 Oct 2012 at Dankook University, Cheonan, Republic of Korea.
- ❖ How to write a good paper on 17 Nov 2009 at Dankook University, Cheonan, Republic of Korea.
- ❖ Seed priming: a cost effective way to harvest higher grain yield on 23 Nov 2009 at Dankook University, Cheonan, Republic of Korea.
- ❖ Rice Seed Priming: an effective tool in improving germination, crop stand and economic yield on 05 Sep 2007 at International Rice Research Institute, Los Baños, Philippines.

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**Conference/seminars/  
workshops attended**

- Conference on Sustainable Crop and Animal Production Systems December 08-10, 2016, University of Haripur, Haripur, Pakistan.
  - International Conference on Significance of Potash use in Pakistani Agriculture. November 24-25, 2016, University of Punjab, Lahore, Pakistan.
  - Seed Training Workshop ‘Dry chain technology for reducing post-harvest losses of seeds and grains. November 23, 2016, University of Agriculture, Faisalabad, Pakistan.
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- 2<sup>nd</sup> Pakistan Seed Congress. November 21-22, 2016, University of Agriculture, Faisalabad, Pakistan.
  - Workshop on project planning and Scientific writing at the University of Hohenheim, Stuttgart, Germany July 12-13, 2016.
  - Stakeholders Interactive Workshop “Prospects of New Crops in Pakistan” at University of Agriculture, Faisalabad on Saturday April 9, 2016.
  - International Conference on Soil Sustainability for Food Security during November 15-17, 2015 held at the University of Agriculture, Faisalabad, Pakistan.
  - Third International Conference of Asian Allelopathy Society - Allelopathy: Direct and Indirect Plant Interactions Mediated by Allelochemicals during October 30 to November 02, 2015 held at Fuzhou, China.
  - International Seminar on ‘Australian agriculture and global food security’ at University of Agriculture, Faisalabad, Pakistan on May 27, 2015.
  - International Seminar on ‘Innovative strategies for enhancing the production of food legumes’ at University of Agriculture, Faisalabad, Pakistan on May 26, 2015.
  - International Conference on “Biofortification of Staple Crops a Solution to Combat Malnutrition” March 29-31, 2015. University of Agriculture, Faisalabad, Pakistan.
  - Global Forum for Innovations in Agriculture arranged by Abu Dhabi Food Control Authority during March 09-10, 2015 at Abu Dhabi, United Emirates.
  - International Seminar on ‘Rice allelopathy and momilactone’ at University of Agriculture, Faisalabad, Pakistan on February 10, 2015.
  - International Conference on ‘Conservation Agriculture for Smallholders in Asia and Africa’ at Bangladesh Agricultural University, Mymensingh, Bangladesh during December 7-11, 2014.
  - 25<sup>th</sup> General Meeting of the World Academy of Sciences (TWAS) at Muscat, Oman, during October 26 – 29, 2014.
  - 5<sup>th</sup> International conference ‘Frontiers in Agriculture’ at the Dankook University, Cheonansi, Republic of Korea during September 18-20, 2014
  - International seminar ‘Nexus among climate changes: water and agriculture managements’ at the University of Agriculture, Faisalabad, Pakistan on September 16, 2014.
  - National Workshop on ‘Balance Use of fertilizer for Quality Produce’ arranged by International Potash Institute in Faisalabad on August 20, 2014
  - Biochar for climate friendly agriculture: Shifting paradigms for higher precision and efficiency”, 24-27<sup>th</sup> March, 2014, Faisalabad, Pakistan
  - Crop Productivity and Sustainability- Shaping the Future” March 20-21, 2014. Bhatinda, India.
  - First National Conference of Pakistan Allelopathy Society ‘*Allelopathy Research in Pakistan: Experiences and Opportunities*’ University of Agriculture Faisalabad, Pakistan. December 12, 2013
  - DAAD-HEC International Summer School “Food security in times of climate change” at COMSATS Institute of Information Technology (CIIT) Park Road Chak Shahzad Islamabad, Pakistan during November 2-5, 2013
  - TWAS Regional Workshop "Challenges and Opportunities in Science and Technology in Developing Countries” at Jawaharlal Nehru Centre for Advanced Scientific Research in Bangalore, India during November 21-23, 2013
  - 4<sup>th</sup> International Conference on ‘Frontiers in Agriculture’ at Dankook University, Republic of Korea during September 04-06, 2013.
  - AgMIP- Pakistan Kickoff Workshop and International Seminar on Climate Change” June 4-6, 2013. University of Agriculture Faisalabad, Pakistan.
  - International conference on sustainable crop productivity: threats and options at Ayub Agricultural Research Institute, Faisalabad, Pakistan. April, 11-12, 2013.
  - International Conference on Crop Management in Changing Climate at Department of Agronomy, University of Agriculture, Faisalabad, Pakistan, February 11-13, 2013.
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- International Conference of Asian Allelopathy Society at Department of Botany, Panjab University Chandigarh, India. December 14-18, 2012.
  - 6<sup>th</sup> World Allelopathy Congress at South China Agricultural University, Guangzhou, Peoples Republic of China December, 15-19, 2011, Guangzhou, China.
  - Annual meeting of the German Societies for Plant Nutrition and Crop Science, Kiel, Germany 27-29 September, 2011.
  - International seminar on '*Invasions by alien plants: mechanisms and impacts*', at Justus-Leibig University, Giessen, Germany November 28, 2011
  - International seminar '*How to enhance crop yield for food, feed and fuel?*' at Justus-Leibig University, Giessen, Germany October 13, 2011
  - International seminar on Crop management: issues and options at Department of Agronomy, University of Agriculture, Faisalabad, June 01-02, 2011.
  - Genetic control of flowering and photoperiod responsiveness in pea by Jim Weller from the School of Plant Science, University of Tasmania on September 14, 2010 at CSIRO Plant Industry, Underwood Avenue, Corner Brockway Road, FLOREAT WA 6014, Australia.
  - 'SOLiD next generation sequencing' by Dr Michael Rhodes from United Kingdom Human Genome Mapping Project Resource Centre on 30th June 2010 at The University of Western Australia, 35 Stirling Highway, Crawley WA 6009
  - First Asian Allelopathy Society, South China Agricultural University, Guangzhou, Peoples Republic of China December, 18-22, 2009, Guangzhou, China.
  - International conference on sustainable food grain production: challenges and opportunities. Department of Agronomy, University of Agriculture, Faisalabad-Pakistan. November 24-25, 2009.
  - Modern Approaches and Techniques in Agriculture to ensure Food Security in Pakistan. International Symposium, Agro-climatology lab., Department of Agronomy, University of Agriculture, Faisalabad-Pakistan. October 13~14, 2008.
  - Recognizing Past Achievements, Meeting Future Needs! 5<sup>th</sup> International Crop Science Congress and Exhibition. International Convention Centre, Jeju, Korea April 13~18, 2008.
  - Breeding for resistant varieties to rice virus diseases in Korea by Do-Yeon Kwak on March 26, 2008 at International Rice Research Institute, Los Baños, Philippines.
  - New practical techniques to reduce water consumption and greenhouse gas emission in paddy fields by Dr. Yuichiro Furukawa on March 25, 2008 at International Rice Research Institute, Los Baños, Philippines.
  - Nutrient and crop managers: Interactive computer-based decision tools for facilitating dissemination of integrated nutrient and crop management by Dr. Roland Buresh on March 18, 2008 at International Rice Research Institute, Los Baños, Philippines.
  - Direct drilling wheat into rice residues in the north-west Indo-Gangetic Plains by Dr. Elizabeth Humphreys on March 4, 2008 at International Rice Research Institute, Los Baños, Philippines.
  - Productivity, Sulfur Dynamics, and Sustainable Management for Rice-Maize (*Oryza sativa* L. *Zea mays* L.) as Compared to Rice-Rice Cropping Patterns by Su Su Win on February 26, 2008 at International Rice Research Institute, Los Baños, Philippines.
  - Epoxide hydrolase genes as disease response (DR) genes and quantification of foliar diseases by Dr. Paul Goodwin, Professor, Department of Environmental Biology, University of Guelph, Canada on February 20, 2008 at International Rice Research Institute, Los Baños, Philippines.
  - Keeping up in Latin America: Rice strategic research from Colombia by Dr. Joe Tohme, Geneticist, Agro-biodiversity and Biotechnology Project Leader, International Center for Tropical Agriculture (CIAT), Colombia on February 14, 2008 at International Rice Research Institute, Los Baños, Philippines.
  - GMO Another Day: What would change if GMO would be everywhere? by Dr. Philippe Hervé on February 7, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - Gene bank management in the context of GM crops by Dr. Ruairaidh Sackville Hamilton on January 23, 2008 at International Rice Research Institute, Los Baños, Philippines.
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- The Discriminating Analytical Chemist Guide for Trace Element Speciation in Environmental and Agricultural Sample by Dr. Ed F. Paski, University of British Columbia, Instructor, British Columbia Institute of Technology, Burnaby, BC Canada on January 18, 2008 at International Rice Research Institute, Los Baños, Philippines.
  - Irrigation Investments in India: An Analysis of Economic Performance in the last Three Decades by Dr. Arlene Inocencio on January 17, 2008 at International Rice Research Institute, Los Baños, Philippines.
  - Molecular mapping for resistance genes of brown plant hopper in rice by Dr. Suk-Man Kim on January 15, 2008 at International Rice Research Institute, Los Baños, Philippines.
  - Structure and Mechanisms of the Complexes from the Respiratory Chain by Hartmut Michel, Nobel Chemistry Prize Laureate (1988), Director, Dept. of Molecular Membrane Biology, Max Planck Inst. of Biophysics, Germany on January 11, 2008 at International Rice Research Institute, Los Baños, Philippines.
  - Drought tolerance and synthetic apomixis: odd bedfellows or a perfect match? By John Bennett on January 10, 2008 at International Rice Research Institute, Los Baños, Philippines.
  - Sustainable insect pest management in irrigated rice agro-ecosystems by Dr. Yolanda Chen, Scientist, Entomology on November 26, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - What I know about Zn by Dr. Guy Kirk, Prof. of Soil Systems and Head of Soil Systems Group, National Soil Resources Institute, Natural Resources Department, Cranfield University, USA on November 26, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - A new gene for broad-spectrum resistance to rice blast by Dr. K. K. Jena Senior Scientist, Plant Breeding and IRRI country representative for Korea on November 15, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - Status of resistance breeding to bacterial blight in Korea by Dr. Ki-Young Kim, Honam Agricultural Research Institute (HARI), NICS, Rural Development Administration, Republic of Korea on November 14, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - Navigating our way towards drought-adaptation in cereals with fine-mapping by Dr. Andrew Borrell, Principal Research Scientist, Delivery/Plant Science, Hermitage Research Station, Department of Primary Industries and Fisheries, Queensland, Australia on November 13, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - Bacterial determinants and plant defense pathways underpinning rhizobacteria - mediated systemic resistance in rice by David De Vleeschauwer, Laboratory of Phytopathology, Ghent University, Coupure Links, 653, 9000 Ghent, Belgium on October 18, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - Biofuels - what's in it for rice farmers? by Dr. Achim Dobermann on October 18, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - Reclamation and management of salt-affected soils: The Indian experience by Gurbachan Singh, Director, Central Soil Salinity Research Institute (CSSRI), Karnal, India on October 11, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - Biological and genetic characterization of a putative rice mutant for reaction to rice tungro disease by Dr. Negussie S. Zenna on September 26, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - Supporting Intellectual Property Management at Public Institutions in Southeast Asia by Dr. Kyle Jensen of the Public Intellectual Property Resource for Agriculture (PIPRA) on July 30, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - Gender and Diversity in Times of Change by Vicki Wilde, Leader, CGIAR Gender and Diversity Program on July 19, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - Proteomics workflow by Wee Guan Lim, Application Specialist, Bio-Rad Singapore on July 3, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - Randy Barker on June 29, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - Impact Pathways in the Challenge Program on Water and Food by Boru Douthwaite, Senior
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Scientist, Rural Innovation Institute, International Center for Tropical Agriculture (CIAT) on June 28, 2007 at International Rice Research Institute, Los Baños, Philippines.

- Agricultural and economic development and poverty alleviation: lessons from five Asian countries by Dr. Development of *Oryza minuta* specific clones using representational difference analysis and genomic relationship in *Oryza* by Dr. Jung-Hyun Shim on June 25, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - Physiology of submergence tolerance: Relevance to breeding and management strategies by Evangelina Ella on June 21, 2007 at International Rice Research Institute, Los Baños, Philippines.
  - International Workshop on allelopathy: current trends and future applications. Weed Science–Allelopathy Lab., Department of Agronomy, University of Agriculture, Faisalabad, March 18-21, 2007.
  - International Conference on Sustainable Crop production on salt-affected Land. Saline Agriculture Research Centre, University of Agriculture, Faisalabad, Dec. 4-6, 2006.
  - International Symposium on sustainable Crop Improvement and Integrated Management. Faculty of Agriculture, University of Agriculture, Faisalabad, Sept. 14-16, 2006.
  - 27<sup>th</sup> International Horticultural Congress. Global Horticulture: Diversity and Harmony. National Horticultural Research Institute, Imok-dong 475, Suwon 440-706, Korea 13-19 August, 2006.
  - International Symposium on Application of Plant Sciences in Emerging Scenario. Department of Botany, GC Universality, Faisalabad at 20-22 March, 2006.
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