Muhammad Mohsin Raza

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PROFESSIONAL SUMMARY

- Plant pathologist with more than 6 years of experience in plant disease epidemiology and spatial statistics
- Certified Geographic Information System (GIS) specialist with more than 5 years of experience in GIS and Remote sensing
- Freelance data scientist with more than 1 year of experience working as independent Data Scientist
- Proficient in data analytics using R, Python, ArcMap and ArcGIS Pro

ANALYTICAL SKILLS

Data Analysis: R, Python, ArcGIS Pro, Exploratory, MS Power BI, GeoDa, SPSS
Machine Learning: R, Tidymodels, Python, Scikit-learn, Keras, TensorFlow, PyTorch
Miscellaneous: Kaggle Expert, Tidyverse, R Markdown, LaTeX, Dashboards, Github

EDUCATION

Doctor of Philosophy (Ph.D.) **2019**
Plant Pathology - Iowa State University (ISU), Ames, IA, United States
Dissertation: "Modelling yield loss due to soybean sudden death syndrome at different spatial scales."

Graduate Certificate **2019**
Geographic Information Systems (GIS) - Iowa State University (ISU), Ames, IA, United States
Seminar: "Early detection of soybean sudden death syndrome using high-resolution satellite imagery."

Pre-Academic Training **2015**
English for Graduate Studies – Syracuse University, Syracuse, NY, United States

Master of Science M.Sc. (Hons.) **2014**
Plant Pathology - University of Agriculture, Faisalabad, Pakistan
Thesis: "Exploiting the genetic potential of slow rusting wheat genotypes against Leaf and Stripe rust under epidemiological factors and their bio-rational management."

Bachelor of Science B.Sc. (Hons.) **2012**
Agriculture - University of Agriculture, Faisalabad, Pakistan

EXPERIENCE

Postdoctoral Research Fellow - Data Science and Environment **2021 - Current**

- Integrated crop and disease models with remote sensing, climate re-analysis data and climate projections.
- Developed innovative approaches to understanding abiotic and biotic pressures on crop production under climate change.

Data Scientist – Freelance **2020 – 2021**

- Guided recommendations for Experimental design, Data Collection and Analysis
- Remotely collaborated with different research groups and led the data analysis
- Facilitated data wrangling, cleaning, and engineering
- Handled big data analytics and Machine learning tasks
- Supported ArcGIS and Remote Sensing based Projects
- Created stunning and interactive data visualizations using Dashboards and Geo-Apps
- Worked with R, Python, Exploratory, ArcGIS Pro, SAS and GeoDA

Graduate Research Assistant - Plant Pathology **2015 – 2019**
Department of Plant Pathology and Microbiology, ISU

- Designed and supervised field experiments
- Used ground-based remote sensing and aerial imagery to monitor crop health
- Surveyed grower fields in Iowa for disease assessment and sampling
- Coordinated data collection from field experiments and grower fields in Iowa

- Extracted fungal DNA from soil and roots, conducted qPCR and analyzed data
- Obtained satellite images, followed by pre-processing and Image Analysis
- Wrote three technical manuscripts for publication in peer-reviewed journals and over five abstracts for international conferences
- Led soil sampling and data collection in a collaborative research project

Graduate Teaching Assistant - Microbiology **Aug – Dec 2018**
Department of Plant Pathology and Microbiology, ISU
- Facilitated a lab section (24 undergraduate students) of mycology course
- Assisted instructor in preparing lab material
- Guided students in the observation and identification of Macro and Micro fungal specimens
- Graded lab exams, fungal collections, and final exam

LEADERSHIP SKILLS AND SERVICE

Iowa State University

President - Pakistan Student Association (PSA) **2017-2018**
- Led a group of over 40 Pakistani students at ISU
- Represented Pakistani narrative, culture and socio-economic interests at different platforms at ISU
- Organized social meet-and-greet events
- Improved the participation of Pakistani students in cultural events
- Chaired monthly meetings to review the association's progress and debate upcoming events

PLPM Department Senator – ISU Graduate and Professional Student Senate (GPSS) **2017-2018**
- Represented and advocated for Plant Pathology and Microbiology graduate students in GPSS
- Reviewed and participated in debates on ISU policies related to the graduate student body
- Communicated meeting minutes and information about changes in ISU policies to department faculty and students
- Vetted funding proposals from graduate students' organizations as a member of Senate Finance committee

Editor - Iowa State Daily (ISD) **2017-2018**
- Volunteered for 1 year in ISD as a community member
- Participated in ISD editorial board meetings
- Led community discussions by providing insight into pertinent topics
- Provided guidance on opinion/editorial pieces during weekly board meetings

Vice President - Fulbright Students and Scholars (FSS) **2016-2018**
- Led a diverse group of Fulbright scholars from all over the world at ISU
- Collaborated with Fulbright Association Iowa Chapter in planning and organizing annual dinners, tours, and workshops
- Participated in Fulbright-in-the-Classroom program at Van Meter Community School District, Iowa
- Assisted the FSS president in managing and leading the organization

President - Plant Pathology Graduate Student Organization **2016-2017**
- Led the graduate student body of the Plant Pathology and Microbiology department
- Planned and organized outdoor events
- Invited speakers from other universities for departmental seminars
- Communicated organization plans and progress in department faculty meetings

Vice President - Pakistan Student Association (PSA) **2016-2017**
- Assisted the PSA president in planning and organization the events and general body meetings
- Represented the organization at different platforms of ISU
- Led the organization in the absence of the PSA president

HONORS & AWARDS

Second place award in the Spatial Analysis ArcGIS Story Maps category from the 2020 Esri User Conference Map Gallery. San Diego, California. **2020**

Fulbright Scholarship, United States Department of State	**2015-2019**
Predictive Plant Phenomics (P3) scholarship to attend Kansas State Polytechnic's small unmanned aerial systems (sUAS) training	**2019**
Graduate Student Seminar Exchange with Michigan State University, East Lansing	**2019**
Third place award in Graduate Student Research Competition (Oral presentation) at 46th Annual meeting of the Southern Soybean Disease Workers. Pensacola Beach, Florida.	**2019**
Golden Key International Honour Society, ISU	**2018**
AAAS/Science Program for Excellence in Science. Nominated by Dr. Wendy Wintersteen (President ISU)	**2018**
The Charles J. Gould Graduate Student Travel Award, North Central Division (NCD) of The American Phytopathological Society (APS), North Dakota State University, Fargo	**2018**
Gamma Sigma Delta - The Honour Society of Agriculture, ISU	**2018**
Bayer/Isagro Scholarship Award, 63rd Annual Conference on Soilborne Plant Pathogens, University of California, Davis	**2017**
Student Travel Award, NCD - APS, University of Minnesota, Minneapolis	**2016**
Leath Fellowship, ISU	**2015-2016**
Leath Assistantship, ISU	**2015-2016**

TRAININGS AND WORKSHOPS

Going Places with Spatial Analysis — **Sep 24, 2020**

- Exploring spatial questions and problems
- Understanding and Comparing Places
- Determining How Places are Related
- Finding the Best Locations and Paths
- Detecting and Quantifying Patterns
- Making Predictions

The Location Advantage — **June 12, 2020**

- Business, Geography, and the Location Advantage
- Understanding Market Opportunity
- Site Selection: Choosing the Right Location
- Marketing: Understanding Your Customers
- Location and Supply Chain Management
- Understanding Risk using Location Based Information

Cartography — **June 2, 2020**

- Multiscale Topographic Maps
- Maths for Map Makers
- The Language of Graphics
- Labels and Composition
- Going 3D
- Mapping Movement and Change/Animation Maps

Spatial Data Science: The New Frontier in Analytics — **April 6, 2020**

- Deep knowledge of Spatial Data Science
- The Spatial Approach to Predictive Analysis and
- Finding Optimal Locations Using Suitability Models
- Pattern Detection and Clustering
- Object Detection with Deep Learning
- Communicating Results with Impact – Story Maps

P3-sponsored sUAS workshop — **Dec 6 - 8, 2019**

- Instructions on safety practices during flight – such as flying a drone in inclement weather -- and basic proficiency and knowledge of UAS flight operations.
- Training on the written Federal Aviation Administration (FAA) exam towards remote pilot certification.

Do-It-Yourself Geo Apps — **Nov 26, 2019**
- Combined location and narrative in one application to better communicate and broadcast stories.
- Created custom web applications to solve problems in the community.
- Built powerful native applications.

Getting Started with Geoprocessing — **Nov 5, 2019**
- Covered key concepts and geoprocessing techniques for spatial data analysis.

Getting Started with Spatial Analysis — **Nov 4, 2019**
- Explored different categories of spatial analysis to answer geographic questions.

Second International Workshop on Machine Learning for Cyber-Agricultural Systems (MLCAS) — **Sep 11-12, 2019**
- Covered talks, posters and field visits demonstrating the applications of artificial intelligence and machine learning in agriculture
- Panel discussion on charting the roadmap for Future MLCAS Research

Drone Uses for Agriculture Roadshow in Iowa — **Aug 13, 2019**
- Discussed current and future uses of drones for agriculture
- Demonstration of large-area and real-time mapping, subsampling and aerial application using popular models of drones.

ggplot2 graphics with R — **May 17, 2016**
- Hands-on training covering making high-quality graphics in R
- Explained structuring complex graphics

Statistical Analysis System (SAS) Workshop — **May 9-11, 2016**
- Covered a formal introduction to traditional SAS programming
- Explained procedures that involve some applications and statistical graphics
- Introduced SAS Enterprise guide

SCIENTIFIC PUBLICATIONS

2021
1. Qadir, Z.A., A. Idrees, R. Mahmood, G. Sarwar, M. A. Bakar, S. Ahmad, **M. M. Raza**, J. Li. Effectiveness of Different Soft Acaricides against Honey Bee Ectoparasitic Mite *Varroa destructor* (Acari: Varroidae). Insects 2021, 12, 1032. https://doi.org/10.3390/insects12111032
2. **Raza, M. M**. Research Compendium: Effectiveness of different soft acaricides against honeybee ectoparasitic mite Varroa destructor. https://doi.org/10.17605/OSF.IO/N895P
3. Sher, A. A., M. A. Ashraf, B. E. Mustafa, **M. M. Raza**. Epidemiological Trends of Foodborne Campylobacter Outbreaks in the United States of America, 1998-2016. Food Microbiology. 97: 103751.

2020
4. Bi, L., G. Hu, **M. M. Raza**, Y. Kandel, L. Leandro, D. Mueller. A Gated Recurrent Units (GRU)-based model for early detection of soybean sudden death syndrome through time-series satellite imagery. Remote Sensing. 12: 3621.
5. Aslam, H. M. U., K. Naveed, S. I. Hussain, Q. Shakeel, W. Ashraf, H. A. Anwaar, **M. M. Raza**, S. Sarfraz, and I. Tariq. 2020. First report of brown leaf spot of rice caused by *Bipolaris zeicola* in Pakistan. Plant Disease.
6. **Raza, M. M**., C. Harding, M. Liebman, L. F. Leandro. 2020. Exploring the potential of high-resolution satellite imagery for the detection of soybean sudden death syndrome. Remote Sensing. 12(7): 1213.

2019
7. Harding, Chris and **M. M. Raza**. 2019. GIS data and juptyer Notebook for Random Forest models for soybean Sudden Death Syndrome (SDS). Iowa State University. Dataset.

2018
8. Ghuffar, S., G. Irshad, F. Naz, H. B. Rosli, S. Hyder, N. Mehmood, M. A. Zeshan, **M. M. Raza**, C. G. Mayer, and Mark L. Gleason. 2018. First report of two *Penicillium* spp. causing postharvest fruit rot of grapes in Pakistan. Plant Disease 102(5): 1037-1037.

2016
9. **Raza, M. M**., M. A. Khan, M. Yaseen, A. Munawar, and Z. Sabir. 2016. Exploring the potential of multivariate analysis to study the impact of cotton leaf curl disease on yield traits. Pakistan Journal of Agricultural Sciences. 53(3): 507-512.

2015
10. **Raza, M. M**., M. A. Khan, I. Ahmad, A. A. Bajwa, H. M. U. Aslam, B. A. Ullah, and K. Riaz. 2015. Forest pathogens and diseases under changing climate -A Review. Pakistan Journal of Agricultural Research 28 (3): 318-337.
11. M. Mohsin, **M. M. Raza**, J. Shafi, M. Ali. 2015. Integrated fungicidal management for Downy Mildew of Pumpkin *(Pseudoperonospora cubensis)*. Bulletin of Advanced Scientific Research.01(01):1-3.

12. Fatima, K., M. A. Khan, **M. M. Raza**, M. Yaseen, M. A. Iqbal, and M. U. Shahbaz. 2015. Identification of resistant source in lentil germplasm against Fusarium wilt in relation to environmental factors. Academic Research Journal of Agricultural Science and Research. 3 (4):60-70.

2014

13. **Raza, M. M**., M.A. Khan, M. Arshad, M. Sagheer, Z. Sattar, J. Shafi, E.u. Haq, A. Ali, U. Aslam, A. Mushtaq, I. Ishfaq, Z. Sabir and A. Sattar. 2014. Impact of global warming on insects. Arch Phytopathol Plant Protect. 48(1):84-94.
14. Ali, M., M. Hussain, **M. M. Raza**, R. M. M. Khan, W. Hussain, D. Saleem, and H. Abdussamee. 2014. Nutritional and Chemotherapeutic Management Strategies of Powdery mildew in Pumpkin. International Journal of Bio-resource and stress management. 5(1):132-137.
15. Ehetisham-ul-Haq, M., F. Anjum, S. Hussain, M. A. Khan, A. Rashid, and **M. M. Raza**. 2014. Prediction of cotton seedling germination against pre-emergence damping-off on the basis of environmental factors and seed-applied fungicides. Arch Phytopathol Plant Protect.1-10.
16. Nawaz, A., S. Naz, W. Ahmad, J. Shafi, C. Ayyub, M. Atiq, **M. M. Raza**, M. Ali and S. Asad. 2014. Characterization of Some Quantitative Traits of Locally Developed Tomato Hybrids Under Plastic Tunnels. Universal Journal of Plant Science. 2(3): 69 – 76.

2013

17. **Raza, M. M**., M. A. Khan, M. Atiq, R. Binyamin, and M. Javaid. 2013. Prediction of citrus canker epidemics generated through different inoculation methods. Arch Phytopathol Plant Protect. 47 (11):1335-1348.
18. **Raza., M. M**. 2013. Threats to agriculture in Pakistan and their remedies under Pakistani environment. National academy of Young Scientists (NAYS) e-magazine. (4):8-10.
19. **Raza, M. M**., M.A. Khan, K. Riaz, Z. Sattar, A. Ali and A. Abbas. 2013. Impact of Climate Change on Agriculture. National academy of Young Scientists (NAYS) e-magazine. (5).

ABSTRACTS PUBLISHED

2020

1. **Raza, M. M**., F. W. Nutter Jr., L. F. Leandro. 2020.Quantifying the relationship between soybean sudden death syndrome, pathogen density and yield at different spatial scales. Phytopathology. APS Annual Meeting. August 10 – 14. Virtual.

2019

2. **Raza, M. M.,** S. Eggenberger, F. W. Nutter Jr., L. F. Leandro. 2019. Influence of time of sudden death syndrome foliar symptom onset on SDS intensity, soybean yield, and yield components. Phytopathology. APS Annual Meeting. August 3 – 7. Cleveland, Ohio, U.S.A.
3. **Raza, M. M.,** S. Eggenberger, F. W. Nutter Jr., L. F. Leandro. 2019. Early detection of soybean sudden death syndrome using high-resolution satellite imagery. Phytopathology. APS Annual Meeting. August 3 – 7. Cleveland, Ohio, U.S.A.
4. **Raza, M. M.,** S. Eggenberger, F. W. Nutter. Jr., L. F. Leandro. 2019. Early detection of soybean sudden death syndrome using high-resolution satellite imagery. Proceedings of the 46th Annual meeting of the Southern Soybean Disease Workers. March 6-7, 2019. Pensacola Beach, Florida, U.S.A.

2017

5. **Raza, M. M**., S. Eggenberger, F. W. Nutter. Jr., L. F. Leandro. 2017. Can Canopy Reflectance be used for Early Detection of Soybean Sudden Death Syndrome? Phytopathology. APS North Central Division Meeting. June 14-16. University of Illinois at Urbana Champaign, Illinois, U.S.A.
6. Mushtaq, A., **M. M. Raza**, M. L. Gleason, K. Riaz. 2017. Integrated management of blossom end rot of tomato in Faisalabad, Pakistan. Phytopathology. APS North Central Division Meeting. June 14-16. University of Illinois at Urbana Champaign, Illinois, U.S.A.

2016

7. **Raza, M. M.,** M. A. Khan, M. Yaseen. 2016. Exploring the slow rusting potential of wheat genotypes against leaf and stripe rust of wheat. Phytopathology. APS Annual Meeting. July 30 – August 3. Tampa, Florida, U.S.A.
8. **Raza, M. M.,** Nutter, F. W., Jr., Holah, N., Eggenberger, S. K., Narvaez, D. F., Kelly, H., Isard, S., Wright, D., Marois, J. 2016. Comparison of visual disease assessment versus GIS/remote sensing methods to accurately detect the epicenters of Soybean rust foci. Phytopathology. APS North Central Division Meeting. June 7-9. University of Minnesota St. Paul Campus in Roseville, Minnesota, U.S.A.

2015

9. **Raza, M. M**., M. A. Khan, M. Yaseen, M. Atiq, A. Mushtaq, A. Ikram, K. Riaz. 2015. Biorational management of leaf rust of wheat caused by *Puccinia recondita* rob.ex. Desm. f. Sp. *tritici*. 10th Biennial International Conference of Pakistan Society for Microbiology. March 25-28. Punjab University, Lahore, Pakistan.
10. Ikram, A., M. Atiq, S. T. Sahi, A. Mushtaq, **M. M. Raza**, H. M. U. Aslam. 2015. Potential of *Trichoderma harzianum* and Arbuscular mycorrhizal fungi to manage *Fusarium* wilt disease in tomato caused by *Fusarium oxysporum* f.sp. *lycopersici*. 10th Biennial International Conference of Pakistan Society for Microbiology. March 25-28. Punjab University, Lahore, Pakistan.
11. Mushtaq, A., S. T. Sahi, M. Atiq, K. Riaz, **M. M. Raza,** Amna Ikram. 2015. Evaluation of different plant activators for the management of Bacterial leaf spot of Mungbean. 10th Biennial International Conference of Pakistan Society for Microbiology. March 25-28. Punjab University, Lahore, Pakistan.

2014

12. Mushtaq, A., S.T. Sahi, M. Atiq, K.Riaz, **M. M. Raza**, Parveen. 2014. Optimization of temperature and pH requirements of *Fusarium oxysporum* fsp. *Lycopersici* causing wilt diseases. 5th international conference on

agriculture, food security and climate change. September 9. The University of Poonch. Rawalakot, Azad Kashmir, Pakistan.

13. **Raza, M. M**., M. A. Khan, K. Riaz and M. Ali. 2014. Biochar, It's impact on plant resistance to biotic stresses. In international workshop on Biochar in Pakistan. Department of Agronomy, University of Agriculture Faisalabad, Pakistan.
14. Mushtaq, A., M. Atiq, M. A. Khan, S.T. Sahi, **M. M. Raza** and M. Javed. 2014. Prevalence of citrus tristeza virus in district Faisalabad and its confirmation through serological techniques. In 3rd International Conference of Pakistan Phytopathological Society, Climate Change and Plant Diseases Challenges and Opportunities. University of Karachi, Karachi, Pakistan.
15. **Raza, M. M**., M.A. Khan, M. Atiq, Z. Sattar, A. Ali, A. Mushtaq and M. Hussain. 2014. Identification of resistant source in wheat lines/varieties against leaf rust (*Puccinia recondita* rob. ex desm. f.sp. *tritici*). In 3rd International Conference of Pakistan Phytopathological Society, Climate Change and Plant Diseases Challenges and Opportunities. University of Karachi, Karachi, Pakistan.
16. **Raza, M. M**., M.A. Khan, Z. Sattar, H.M.U. Aslam, A. Ali and A. Mushtaq. 2014. Impact of changing climate on forest pathogens and diseases. In 3rd International Conference of Pakistan Phytopathological Society, Climate Change and Plant Diseases Challenges and Opportunities. University of Karachi, Karachi, Pakistan.
17. Sattar, Z., M.A. Khan, **M. M. Raza**, H.M.U. Aslam, I. Ashfaq and J. Ahsan. A two environmental variable model to predict powdery mildew on pea caused by *Erysiphe pisi* DC. In 3rd International Conference of Pakistan Phytopathological Society, Climate Change and Plant Diseases Challenges and Opportunities. University of Karachi, Karachi, Pakistan.
18. Atiq, M., S. Asad, J. Shafi, W. Ahmad and **M. M. Raza**. 2014. Impact of different fungicides against charcol rot disease and yield attributes of mungbean. In 3rd International Conference of Pakistan Phytopathological Society, Climate Change and Plant Diseases Challenges and Opportunities. University of Karachi, Karachi, Pakistan.

2013

19. **Raza, M. M**., M.A. Khan, A. Ali, and Z. Sattar. 2013. Evaluation of multiple regression models based on epidemiological factors to predict citrus canker epidemics generated through different inoculation techniques. In KMRC Multidisciplinary Research Conference. Kinnaird College.
20. **Raza, M. M**., M. A. Khan, M. Bilal, U. Naseer, and M. A. Bhatti. 2013. Response of food deteriorating *Penicillium* species to different disinfectants and preservatives. In International conference on emerging issues in Nutrition and Food Safety. National Institute of Food Science and Technology, University of Agriculture Faisalabad.

ORAL PRESENTATIONS

2019

1. "Early detection of soybean sudden death syndrome using high-resolution satellite imagery." May 9, 2019. Michigan State University, East Lansing, Michigan, U.S.A.
2. "Early detection of soybean sudden death syndrome using high-resolution satellite imagery." The 6th Graduate and Professional Student Research Conference. April 10, 2019. Iowa State University, Ames, Iowa, U.S.A.
3. "Early detection of soybean sudden death syndrome using high-resolution satellite imagery." The 46th Annual meeting of the Southern Soybean Disease Workers (SSDW). March 6-7, 2019. Pensacola Beach, Florida, U.S.A.
4. "Impact of sudden death syndrome foliar symptom onset time on final disease intensity, soybean yield, and yield components." NCERA137: Soybean Disease Committee Meeting. March 5, 2019. Pensacola Beach, Florida, U.S.A.

2018

5. "Impact of sudden death syndrome (SDS) on soybean health and yield." Graduate College 3 Minute Thesis Competition. October 23, 2018. Iowa State University, Ames, Iowa, U.S.A.

2017

6. "Soybean Sudden Death Syndrome: Variation in disease intensity, pathogen density, canopy reflectance and yield at different spatial scales." The 63rd Annual Conference on Soilborne Plant Pathogens and The 49th California Nematology Workshop. March 28-30, 2017. University of California, Davis, California, U.S.A.

2016

7. "Comparison of visual disease assessment versus GIS/remote sensing methods to accurately detect the epicenters of Soybean rust foci." APS North Central Division Meeting. June 7-9, 2016. University of Minnesota St. Paul Campus in Roseville, Minnesota, U.S.A.
8. "Exploring the slow rusting potential of wheat genotypes against leaf and stripe rust of wheat." 3rd Annual Graduate and Professional Students' Research Conference. April 12, 2016. Iowa State University of Science and Technology, Ames, Iowa, U.S.A.

2015

9. "Biorational management of leaf rust of wheat caused by *Puccinia recondita* rob.ex. Desm. f. Sp. *tritici*". 10th Biennial International Conference of Pakistan Society for Microbiology. March 25-28, 2015. Punjab University, Lahore, Pakistan.

2013

10. "Evaluation of multiple regression models based on epidemiological factors to predict citrus canker epidemics generated through different inoculation techniques." Kinnaird multidisciplinary research conference. December 18-19, 2013. Kinnaird College, Lahore, Pakistan.

POSTER PRESENTATIONS

2020
1. "Quantifying the relationship between soybean sudden death syndrome, pathogen density and yield at different spatial scales." APS Annual Meeting. August 10-14. Virtual Meeting. Denver, Colorado, U.S.A.

2019
2. "Influence of time of sudden death syndrome foliar symptom onset on SDS intensity, soybean yield, and yield components." APS Annual Meeting. August 3-7. Cleveland, Ohio, U.S.A.
3. "Early detection of soybean sudden death syndrome using high-resolution satellite imagery." APS Annual Meeting. August 3-7. Cleveland, Ohio, U.S.A.

2018
4. "Time of sudden death syndrome foliar symptom onset influences soybean yield." APS North Central Division Meeting. June 12-14. Fargo, North Dakota, U.S.A.

2017
5. "Can Canopy Reflectance be used for Early Detection of Soybean Sudden Death Syndrome?" APS North Central Division Meeting. June 14-16. University of Illinois at Urbana Champaign, Illinois, U.S.A.
6. "Integrated management of blossom end rot of tomato in Faisalabad, Pakistan" APS North Central Division Meeting. June 14-16. University of Illinois at Urbana Champaign, Illinois, U.S.A.

2016
7. "Exploring the slow rusting potential of wheat genotypes against leaf and stripe rust of wheat." APS Annual Meeting. July 30 – August 3. Tampa, Florida, U.S.A.

POPULAR ARTICLES

National Language (Urdu)

2013
1. **M. Mohsin Raza,** M. Aslam Khan**.** 2014. Tobacco Mosaic Virus. Zarai Digest, Jan-March 2013.
2. **M. Mohsin Raza**. 2013. Whip Smut of Sugarcane. Engro Behtar Zindagi. Kharif 2013.
3. **M. Mohsin Raza**. 2013. Red Rot of Sugarcane. Engro Behtar Zindagi. Kharif 2013.

2011
4. Dr. M. Atiq, Dr. Nazir Javed, **M. Mohsin Raza**, Aadil Nawaz, Zeeshan Iqbal. April-June 2011. Common Scab of Potato. Zarai Digest. 46 (02).
5. Irfan Ahmad, **M. Mohsin Raza**, Umair Anwar, S. T. Sahi. March 2011. Global Warming. Zarai Digest. 46 (01).
6. Dr. Atiq, Mubashir Ali, Tayyab Ilyas, **M. Mohsin Raza**, Zeeshan Iqbal, Aadil Nawaz. Feb 2011. Bacterial Wilt of Tomato. Niday Kisan. 24 (02).
7. Dr. Atiq, Waqas Hussain, Humaira Saeed, Tehmina Javed, **M. Mohsin Raza**, Aadil Nawaz. Jan 2011. Brown Shrank. Niday Kisan. 24 (01).

2010
8. Hafiz Salman Saeed**, M. Mohsin Raza**, Umair Anwar, Tahir Munir Butt. July-December 2010. Role of Solar Energy in the Rural Development. Zarai Digest Technology Transfer No 2010. 45 (03).
9. Dr. Atiq, **M. Mohsin Raza**, Zeeshan Iqbal, Jawad Khan, Adnan Farid. Dec 2010. Solar Energy and Rural Development. Kisan Risala 08 (02).
10. Dr. Atiq, **M. Mohsin Raza,** Aamna Ikram, Aadil Nawaz, M. Sarfraz. Dec 2010. Global Warming. Kisan World. 01 (12).
11. Dr. Atiq, Adnan Hussain, Jamil Shafi, Tehmina Javed, Aadil Nawaz, **M. Mohsin Raza.** Sep 2010. Black Shrank of Sweat potato. Niday Kisan. 23 (09).
12. Tallat Bilal Yasoob, **M. Mohsin Raza,** Dr. Atiq, Dr. S.T. Sahi. May 2010. Role of Live Stock in Global Warming. Niday Kisan. 23 (05).

International Language (English)

2015
1. **M. Mohsin Raza,** Muhammad Aslam Khan, Waqar Iqbal. 2015. Role of IT in Modern Agriculture. Technology Times. 06(24).

2014
2. **M. Mohsin Raza,** Muhammad Aslam Khan, Muhammad Arshad, Zeeshan Sattar, Iqra Ishfaq, Usman Aslam, Asim Ali. 2014. Global warming and Insects. NAYS e-Magazine. (06).
3. **M. Mohsin Raza,** Muhammad Aslam Khan, Zeeshan Sattar, and Asim Ali**.** 2014. Impact of Climate Change on Rice Production. Rice Plus. Volume 6-Issue 1: 6-7.
4. Zeeshan Sattar, Dr. Muhammad Aslam Khan, Iqra Ashfaq, and **M. Mohsin Raza**. Importance of Rice Blast and their Management Strategies. Rice Plus. Volume 6-Issue 1: 6-7.

2013
5. **M. Mohsin Raza**, Zeeshan Sattar, Muhammad Aslam Khan, Sabir Khan. July 08-21. Constraints in Livestock Sector of Pakistan. Technology Times. 04(28-29).
6. **M.Mohsin Raza**. M. Aslam Khan. Zeeshan Sattar. June 24-July 7. Constraints of Citrus Industry in Pakistan. Technology Times. 04 (26-27).
7. **M. Mohsin Raza**. June 17-23. The burning abodes. Technology Times. 04(25).
8. **M. Mohsin Raza**. Muhammad Aslam Khan, Karim Yar Abbasi, Kashif Riaz, Fatma Hussain. June 10-16. Need to Explore Indigenous Medicinal Plants. Technology Times. 04(24).
9. **M.Mohsin Raza**. M. Aslam Khan. Zeeshan Sattar.May13-May19. Green Energy is the Future. Technology Times. 06(20).
10. **M.Mohsin Raza.** Zeeshan Sattar, Asim Ali, Aiman, Iqra Ishfaq and Zarnab. Feb-April. Climate Change and Forest Diseases. NAYS e-Magazine. (03).
11. **M. Mohsin Raza.** Nov 2012 - Jan 2013. Climate Change and Diseases of Food Crops. NAYS e-Magazine. (02).

2011

12. Dr. M. Atiq, Dr. Nazir Javed, **M. Mohsin Raza**, Aadil Nawaz, Zeeshan Iqbal. May. Tourism in Pakistan. Kisan Risala. 13 (02).
13. Dr. Atiq, Dr. M. Aslam Khan, Dr. Nazir Javed, Amana Ikram, **M. Mohsin Raza**, Aleena Mushtaq. May. Pakistan's Agriculture Challenges & Suggestions. Kisan Risala. 13 (02).
14. Dr. Atiq, Dr. Shahbaz Talib Sahi, Dr. Nazir Javed, **M. Mohsin Raza**. A Hanging Sword on Pakistan Agricultural Economy. Kisan Risala. 10 (02).