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Dr. Rana Nadeem Abbas
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University of Agriculture, Faisalabad
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Rana Nadeem Abbas

DESIGNATION

- **Professor**
Department of Agronomy
University of Agriculture, Faisalabad

EDUCATIONAL QUALIFICATION

- **Post-Doc Fellowship**
Endeavour Research Fellowship Program
University of Queensland, Australia. 2016.
- **Doctor of philosophy**
Ph.D. (Agronomy)
From University of Agriculture, Faisalabad. 2010.
- **Master of Agriculture**
M.Sc. (Hons) Agriculture (Agronomy)
From University of Agriculture, Faisalabad, securing 3.84/4.00 CGPA. 2005.
- **Master of arts**
M.A (English) from Bahaudin Zikaryia University, Multan, securing 453/1000 in 2004.
- **Bachelor of Agriculture**
B.Sc. (Hons) Agriculture (Agronomy)
From University of Agriculture, Faisalabad securing 3.78/4.00 CGPA. 2003.
- **Bachelor of Arts**
B.A from Bahaudin Zikaryia University, Multan, securing 500/800 in 2001.
- **Intermediate**
F.Sc. (Pre-Medical)
F.Sc. From Board of Intermediate and Secondary Education Lahore securing 799/1100 1998.
- **Matriculation** (High first division,)
Matric from BISE Dera Ghazi Khan securing 656/850 Marks. 1996

PERSONAL INFORMATION

- Father's Name Rana Abdul Ghaffar
- Date of Birth 03-04-1981
- Marital Status Married
- N.I.C. # 32403-1649182-7
- Domicile Rajanpur
- Province Punjab

Administrative work, Co-curricular activities and extra-curricular activities, etc.

- **Director Student Affairs**, University of Agriculture Faisalabad.
- **Convener** Admission Committee
- Secretary Advisory Board the Agrarian Society, Faculty of Agriculture, University of Agriculture Faisalabad.
- Editor of a peer reviewed journal "Crop & Environment" Published by Pakistan Society of Agronomy. <http://www.psa.net.pk/Crop-Environment.php>
- Member of the faculty synopsis scrutiny committee.
- Member seminar committee, Department of Agronomy.
- Co-Tutor of Sir Syed-4 tutorial group
- Superintendent of the hostel; Teepu Hall.
- In charge department laboratory equipment and stock of Department of Agronomy.
- President University Basketball, University of Agriculture, Faisalabad.
- Member of Academic Advisory committee, Faculty of Agriculture.
- Team member of the Faculty Vigilance/Examination Committee.
- Member Food/Refreshment Committee, University of Agriculture, Faisalabad during spring and Rabi Festivals.
- Member Sports Committee of Faculty of Agriculture in annual inter faculty sports gala.
- Sports Committee member for sports activities of the Agrarian Society.
- Performing the duties regarding admission seekers in under and post-graduates.

Attended Trainings/Seminars/Workshops and Job Experience

- Lecturer, Department of Agronomy, University of Agriculture, Faisalabad. (30.10.2009 to 22.04.2010).
- Assistant Professor, Department of Agronomy, University of Agriculture, Faisalabad. (23.04.2010 to continue...)
- 6 months foreign training (July 2008 to December 2008) at university of Bologna, Bologna, Italy.

- Agriculture Credit Officer (March 2005 to August 2005) in The Bank of Punjab.
- 4 months internship (May 2003 to September 2003) experience as a trainee technical services officer in Engro Chemical Pakistan Ltd at D. G. Khan
- Successfully completed a Afghanistan-Pakistan-USA Tri Lateral Commission Training program in support of capacity development for agriculture trade in the Islam republic of Afghanistan and Islamic Republic of Pakistan entitled: Good Agricultural Practices in July, 2011.
- Successfully completed a Afghanistan-Pakistan-USA Tri Lateral Commission Training program in support of capacity development for agriculture trade in the Islam republic of Afghanistan and Islamic Republic of Pakistan entitled: HACCP AND HACCP PLANS in July, 2011.
- Participated in the International seminar on crop management: Issues and Options at Department of Agronomy, University of Agriculture, Faisalabad
- Received Certificate of Appreciation on contributions for organizing the International seminar on crop management: Issues and Options at Department of Agronomy, University of Agriculture, Faisalabad
- Attended seminar “Direct seeded rice: Developments and future strategies” held at UAF on 09.06.2012 organized by department of agronomy, UAF.
- Participated in workshop on intellectual property rights (IPRs) management in Pakistan on 25.02.2012 at UAF.
- Attended seminar “Transgenic Crops: A key to food security” organized by ICDD, University of Kassel, Germany and ORIC, UAF, Pakistan.
- International conference on “Crop Management in Changing Climate.” Feb 11, 2013. Department of Agronomy, University of Agriculture, Faisalabad.
- International seminar on “Strategies on Working with Adult Learners/Farmers” July 15, 2013. University of Agriculture, Faisalabad.
- Pakistan kick off workshop and International Seminar on “Climate Change.” June 4-6, 2013, University of Agriculture, Faisalabad.
- Seminar on “New Technologies and Tools of Applications in Biological Research” on 26-09-2013 at University of Agriculture, Faisalabad. Organized by Chemical House, Lahore, Pakistan.
- National seminar on “Allelopathy Research in Pakistan: experiences and opportunities.” December 12, 2013. New Senate Hall, University of Agriculture, Faisalabad. (Pakistan Allelopathy Society).
- “Project formulation workshops” on 3-4 December, 2013 “at New Senate Hall, University of Agriculture, Faisalabad by Pakistan Science Foundation Islamabad.
- Workshop For “Continuous Learning by Doing: Tools and Technologies for Working as a Team in STC hall, University of Agriculture, Faisalabad on 2-7 May, 2013.
- International seminar and workshop “Innovative Technologies, Precision Agriculture, Renewable Energy, and Bio-system Modeling. June 21, 2013. University of Agriculture, Faisalabad.
- Workshop/Training on self-assessment and quality improvement in research reports. Organized by QEC on 22-05-2013 at Faculty of Agriculture.
- 5th one day workshop on Young Researchers’ Skill Development on 15th December, 2012 at university of Agriculture, Faisalabad.

- International workshop on “Biochar for climate friendly agriculture” March 24-27, 2014. Department of Agronomy, University of Agriculture, Faisalabad.
- Second international workshop on “Biochar for climate friendly agriculture” May12, 2014. Department of Agronomy, University of Agriculture, Faisalabad.
- International seminar on “Global climate change and Pakistan perspective” September 16, 2014. Department of Agronomy, University of Agriculture, Faisalabad.
- Prospects, challenges and strategies to maximize sugarcane production. April 8, 2014, new senate hall, University of Agriculture, Faisalabad.
- Hostel management, Indigenous on campus training at University of Agriculture, Faisalabad. Organized by ORIC. August 25-29, 2014.
- International workshop on Biofortification of staple crops: a solution to combat malnutrition from March 29-31, 2015.
- DICE-2015 Mega Innovation and Entrepreneurship Event on November 24, 2015 at University of Agriculture, Faisalabad.
- Awarded Certificate of completion for participation in “A grant writing training workshop competitive grant program” held on June 1, 2015 at University of Agriculture, Faisalabad.
- Seminar on “Climate change and food security: The emerging issues and possible solutions” organized by AgMIP in collaboration with PMD & WEF on October 16, 2015 at University of Agriculture, Faisalabad.
- International seminar on Risk Management in Agriculture organized by AgMIP-Pakistan on November 28, 2015 at University of Agriculture, Faisalabad.
- Post-Doc Research at University of Queensland, Australia under Endeavour research Fellowship program from March 08, 2016 to September 07, 2016.
- Workshop on “Strategic Use of Digital Technology in University Instruction” with emphasis on hybrid course development on October 17, 2016, organized by U.S.-Pakistan Center for Advanced Studies in Agriculture and Food Security (USPCAS-AFS) at the University of Agriculture, Faisalabad.
- International conference “Advances in Agriculture Resource Management” at University of Agriculture, Faisalabad. 5-7 April, 2017.
- Consultative Session with USPCAS-AFS Stakeholders on Research priorities. March 4, 2017, at New Senate Hall, University of Agriculture, Faisalabad.
- International conference on Global Practice of multidisciplinary scientific studies, March 6-8, 2022. Cyprus.
- International Hands-on training on use of DSSAT and WaNuL CAS for climate change adaptation in Agriculture, May 30th June 2nd, 2022.
- International webinar on biofortification of staple crops August 29, 2022.

RESEARCH AND PROJECTS

- Project Coordinator: Establishment of Facilitation Center at University of Agriculture Faisalabad. (Rs 269.929 million) Funded by: ADP 2022-24
- Principal Investigator: "Implications of Integrated Weed Management on Weed Seed Bank Dynamics in Maize Field" (Rs. 2.791 Million Pak. rupees for a period of 3 years) Funded By: Higher Education Commission, H-8, Islamabad.
- Principal Investigator: "*Moringa oleifera* leaf extract: Growth and yield promotion of sunflower." (Rs. 0.435 million) Funded By: Higher Education Commission, H-8, Islamabad (for a period of 1 year).
- Studies into bio-ecological interference of spiny emex (*Emex australis* Steinh.) in wheat (*Triticum aestivum* L.)
- A thesis on the study on "effect of a new herbicide on growth and yield of maize and weeds" in Faisalabad ecological zone as partial fulfillment research of M.Sc.(Hons.) Agri. at student research farm, University of Agriculture, Faisalabad.
- An internship report on evaluating the different cropping pattern and fertilizer status of soils in Tuansa (DG Khan) as partial fulfillment of B.Sc (Hons) Agri. Degree.
- Efficacy of different post emergence herbicides in rice under different planting geometries for weed management.
- Effects of weed free periods and sowing methods on weed dynamics and yield of wheat (*Triticum aestivum* L.)
- Evaluating the influence of fertilizer application methods and weed free periods on weed dynamics in direct seeded fine rice (*Oryza sativa* L.). Completed.
- Allelopathic potential of *Moringa oleifera* leaf extract against sunflower (*Helianthus annuus* L.).
- Growth and yield response of wheat to foliar application of brassica water extracts.
- Weed management in cotton (*Gossypium hirsutum*) sown by different methods.
- Effect of different sowing methods and post emergence herbicides on weeds and wheat (*Triticum aestivum* L.).
- Effect of weed free periods and nitrogen application methods on weed dynamics, growth and yield of wheat (*Triticum aestivum* L.).
- Effect of tillage and herbicides on weed, growth and yield of wheat (*Triticum aestivum* L.).
- Weed seed bank dynamics under different agronomic practices and its implication in maize.
- Effect of sowing methods and weed crop competition on weed dynamics, growth and yield of sunflower.
- Use of herbicide in combination with adjuvant to enhance efficacy against weeds in maize field.
- Effect of stubble management and reduced dose of herbicide on weed control and yield of cotton.

- Effect of tillage and intercropping on weed dynamics, growth and yield of sunflower.
- Effect of different weed free periods and planting geometry on weed dynamics, growth and yield of sunflower.
- Evaluation of chemical weed control options in broadcast and drill sown direct seeded rice.
- Germination Ecology, Interference and Management of *Parthenium hysterophorus* L. in Sunflower.
- Evaluation of herbicides in broadcast and drill sown in direct seeded rice in dry conditions.
- Effect of sowing methods and different seed sizes on weeds, growth and yield of maize.
- Effect of sowing methods and weed crop competition periods on weed, growth and yield of maize.

AREAS OF INTEREST

- Allelopathic effect of weeds on crop plants
- Integrated weed management in crops
- Studies into biology and ecology of weed
- Weed seed Bank Studies
- Weed free and quality fodder

HONOURS AND DISTINCTIONS

- Awarded merit scholarship from University of Agriculture, Faisalabad (2001 to 2003)
- PhD Scholarship under HEC indigenous 5000 fellowship program (2005-2010.)
- IRSIP fellowship, HEC, Pakistan, for 6 month in University of Bologna, Italy. (2008)
- As supervisor produced 03 PhD and 55 students of M.Sc. (Hons.) Agronomy
- As Member supervisory committee produced 03 PhD and 40 students of M.Sc. (Hons.) Agronomy
- Post-Doc Fellowship
Endeavour Research Fellowship Program at University of Queensland, Australia from 08.03.2016 to 07.09.2016.

MEMBERSHIP OF SOCIETIES

- Pakistan Society of Agronomy
- Soil science society of Pakistan

PUBLICATIONS

- (1) Tanveer, A., **R.N. Abbas**, S. Benvenuti, I. Marotti, P. Catizone, G. Denilli. 2008. Ecological features of *Ambrosia* spp. seeds from genetically modified soybean fields. Italian journal of Agronomy 3: 381-382.
- (2) **Abbas, R.N.**, A. Tanveer, A. Ali and Z.A. Zaheer. 2010. Effects of *Emexaustralis* Steinh. on germination and early seedling growth of wheat (*Triticum aestivum* L.). Allelopathy Journal 25 (2): 513-520.
- (3) Tanveer, A., A. Rehman, M.M. Javaid, **R.N. Abbas**, M. Sibtain, A.H. Ahmad, M.S.I. Zamir, K.M. Chaudhary, A. Aziz. 2010. Allelopathic potential of *Euphorbia helioscopia* L. against wheat (*Triticum aestivum* L.), chickpea (*Cicer arietinum* L.) and lentil (*Lens culinaris* Medic.). Turk J Agric For 34: 75-81.
- (4) **R.N. Abbas**, A. Tanveer, A. Ali and Z.A. Zaheer. 2010. Simulating the effect of *Emexaustralis* densities and sowing dates on agronomic traits of wheat. Pak. J. Agri. Sci., 47(2): 104-110.
- (5) Tanveer, A., M.A. Nadeem, M.M. Javaid, A. Aziz, **R.N. Abbas** and A. Ali. 2010. Comparison of emergence of wheat, barley, oat and their associated weeds at different burial depths. Herbologia 11(1): 11-19.
- (6) Tanveer, A., A. Ali, M.M. Javaid, R. Ahmad, M. Ayub, **R.N. Abbas**, H.H. Ali. 2010. The effect of fluroxypyr + MCPA applied with urea and terbutryn alone on weeds and yield components of wheat. Herbologia 11 (2): 57-66.
- (7) **Abbas, R.N.**, A. Tanveer, A. Ali and Z.A. Zaheer. 2010. Density dependent interference of *Emexaustralis* in wheat sown at different times. "Food security from sustainable agriculture" edited by H. Dove, proceeding of 15th agronomy conference 2010, 15-18 November, 2010. Lincoln, New Zealand.
- (8) Khaliq, A., A. Matloob, A. Tanveer, A. Areeb, F. Aslam and **R.N. Abbas**. 2011. Reduced doses of a sulfonylurea herbicide for weed management in wheat fields of Punjab, Pakistan. Chilean Journal of Agricultural Research 71(3): 424-429.
- (9) Abbas, G., T.M. Khan, J. Farooq, A. Mahmood, **R.N. Abbas**, W. Nazeer, A. Farooq, Z. Hasnain and M.N. Akhtar. 2011. Exploring influential plant traits for enhancing upland cotton yield under salt stress. Front. Agric. China 10: 01-07.
- (10) Tanveer, A., M.K. Jabbar, A. Kahliq, A. Matloob, **R.N. Abbas** and Muhammad Mansoor Javaid. 2012. Allelopathic effects of aqueous and organic fractions of *Euphorbia dracunculoides* Lam. On germination and seedling growth of chickpea and wheat. Chilean Journal of Agricultural Research 72(4): 495-501.
- (11) Tanveer, A., M. A. Nadeem, **R.N. Abbas**, M.S. Tufail, M. Tahir and M. M. Javaid. 2012. Efficacy of formasulfuron+isoxadifen ethyl+ iodosulfuron-methyl-sodium on weeds and yield of maize. Herbologia 13(1): 83-91.
- (12) Tanveer, A., M.M. Javaid, A. Khaliq, **R.N. Abbas** and A. Aziz. 2012. Allelopathic effect of *Echinochloa crus-galli* on field crops. Herbologia, 13(2): 9-17.

- (13) Tanveer, A., F. Tabassum, **R.N. Abbas**, M. Tahir, M.M. Javaid, A. Aziz, and M.H. Siddiqui. 2012. Seed germination ecology of *Lathyrusaphaca* L. and *Vicia sativa* L. in comparison with wheat. Pak. J. Weed Sci. Res., 18(3): 293-305.
- (14) Khaliq, A., A. Matloob, A. Tanveer, **R.N. Abbas** and M.B. Khan. 2012. Bio-herbicidal properties of sorghum and sunflower aqueous extracts against germination and seedling growth of Dragon Spurge (*Euphorbia dracunculoides* Lam. Pak. J. Weed Sci. Res., 18(2): 137-148.
- (15) Ikram, R.M., M.A. Nadeem, A. Tanveer, M. Yasin, A.U. Mohsin, **R.N. Abbas**, H. Rehman, M. Sibtain and M. Irfan. 2012. Comparative efficacy of different Pre-emergence herbicides in controlling weeds in cotton (*Gossypium hirsutum* L.). Pak. J. Weed Sci. Res., 18(2): 209-222.
- (16) Tanveer, A., M. Arshad, **R.N. Abbas**, M. Tahir, M.M. Javaid and R.M. Ikram. 2012. Germination response of weeds to different sources and concentrations of N and P. crop and environment. 36-44.
- (17) Khaliq, A., A. Matloob, S. Mahmood, **R.N. Abbas** and M.B. Khan. 2012. Seeding density and herbicide tank mixtures furnish better weed control and improves growth, yield and quality of direct seeded fine rice. Int. J. Agric. Biol., 14(4): 499-508.
- (18) Iqbal, A., N. Akbar, H.Z. Khan, **R.N. Abbas**, J. Iqbal. 2012. Productivity of summer legumes forage intercropped with maize as affected by mixed cropping in different sowing techniques. The Journal of Animal and Plant Sciences. 22(3): 758-763.
- (19) Dinelli, G., I. Marotti, P. Catizone, S. Bosi, A. Tanveer, **R.N. Abbas** and D. Pavlovic. 2013. Germination ecology of *Ambrosia artemisiifolia* L. and *Ambrosia trifida* L. biotypes suspected of glyphosate resistance. Cent. Eur. J. Biol. 8(3): 286-296.
- (20) Iqbal, A., M.N. Iqbal, N. Akbar, M. Waseem, H.Z. Khan and **R.N. Abbas**. 2013. Performance of pearl millet (*Pennisetum americanum* L.) forage grown in association with forage legumes under different sowing techniques. Custos e agronegocio 9(4):257-269.
- (21) Khaliq, A., A. Matloob., M.Z. Ihsan, **R.N. Abbas**, Z. Aslam and F. Rasul. 2013. Supplementing herbicides with manual weeding improves weed control efficiency, growth and yield of dry seeded rice. Int. J. Agric. Biol. 15: 191-199.
- (22) **Abbas, R.N.**, A. Tanveer, A. Khaliq, A. Iqbal, A.R. Ghaffari, A. Matloob and Q. Maqsood. 2013. Maize (*Zea mays* L.) germination, growth and yield response to foliar application of *Moringa oleifera* Lam. Leaf extracts. Crop and Environment 4(1):39-45.
- (23) F. Aslam, A. Khaliq, A. Matloob, **R.N. Abbas**, S. Hussain and F. Rasul. 2014. Differential allelopathic activity of *Parthenium hysterophorus* L. against canary grass and wild oat. J. Anim. Plant Sci. 24(1):234-244.
- (24) Iqbal, M.A., A. Iqbal, N. Akbar, **R.N. Abbas**, H.Z. Khan and Q. Maqsood. 2014. Response of canola to foliar application of moringa (*Moringa olifera* L.) and brassica

(*Brassica napus* L.) water extracts. International Journal of Agriculture and Crop Sciences 7(14):1431-1433.

- (25) Iqbal, A., M.A. Iqbal, A. Raza, N. Akbar, **R.N. Abbas** and H. Z. Khan. 2014. Integrated nitrogen management studies in forage maize. American-Eurasian J. Agric. & Environ. Science 14(8):744-747.
- (26) Iqbal, A., M. A. Iqbal, F. Nabeel, H. Z. Khan, N. Akbar and **R.N. Abbas**. 2014. Economic and sustainable forage oat (*Avena sativa* L.) production as influenced by different sowing techniques and sources of nitrogen. American-Eurasian J. Agric. & Environ. Science 14(10):1035-1040.
- (27) Ashraf, U., A.S. Kanu1, Z. Mo, S. Hussain., S.A. Anjum, I. Khan, **R.N. Abbas**, X. Tang. 2015. Lead toxicity in rice: effects, mechanisms, and mitigation strategies. Environ Sci Pollut Res. Environ. Sci. Pollut. Res. 22: 18318–18332.
- (28) Iqbal, M.A., Q. Maqsood, **R.N. Abbas**, A. Iqbal, S. Afzal and N. Akbar. 2015. An appraisal of benzoic acid and sorgaab effect on weed management and wheat (*Triticum aestivum* L.) yield. ARPN Journal of Agricultural and Biological Science 10:44-47.
- (29) Iqbal, M.A., A. Iqbal, N. Akbar, H. Z. Khan and **R.N. Abbas**. 2015. A study on feed stuffs role in enhancing the productivity of milch animals in Pakistan- Existing scenario and future prospect. Global Veterinaria 14 (1): 23-33.
- (30) **Abbas, R.N.**, Q. Maqsood, A. Iqbal, H.Z. Khan, M.A. Iqbal, S. Afzal and N. Akbar. 2015. Optimization of *Moringa oleifera* Lam. Leaf extract as a priming tool and plant nutrient supplement for *Helianthus annuus* L. J. Advanced Bot. and Zoology. 3(3):1-6.
- (31) Iqbal, M.A., A. Iqbal, S. Afzal, N. Akbar, **R.N. Abbas** and H. Z. Khan. 2015. In Pakistan agriculture mechanization status and future prospectus. American-Eurasian J. Agric. & Environ. Sci., 15 (1): 122-128.
- (32) Tanveer, A., S. Ahmad, **R.N. Abbas**, M. Zafar, H.H. Ali and M. Buriro. 2015. Field validation of ammonium sulphate as an activator adjuvant on bromoxynil + mcpa + metribuzin efficacy against maize weeds. Pak. J. Weed Sci. Res., 21(2): 283-293.
- (33) Maqsood, Q., **R.N. Abbas**, A. Khaliq and Z.A. Zahir. 2016. Sowing method and mulch effects on weed seed germination and dynamics in soil. SYLWAN, 160(12): 232-248. (Impact Factor: 0.410)
- (34) Ashraf, U., **R.N. Abbas**, S. Hussain, Z. Mo, S.A. Anjum, I. Khan and X. Tang. Consequences of varied planting geometry and early post emergence herbicides for crop-weed interventions in rice under semi-arid climate. Planta Daninha. 34(4): 737-746. (Impact Factor: 0.395)
- (35) Areeb, A., A. Khaliq, **R.N. Abbas** and M. Yaseen. 2016. Manipulation of agro-management practices for weed control and enhancing wheat productivity. The Journal of Animal and Plant Sciences. 26(2): 494-506 (Impact Factor: 0.448)

- (36) Maqsood, Q., **R.N. Abbas**, A. Khaliq, Z.A. Zahir. 2016. Tillage and weed management effects on weed density and its Biomass. *Transylvanian Review* 24(11): 1070-1077.
- (37) Akhter, M.J. **R.N. Abbas**, M.A. Waqas, M.A. Arshad, F. Nadeem, M. Azam and U. Gull. 2017. Adjuvant improves the efficacy of herbicide for weed management in maize sown under altered sowing methods. *J. Exp. Bio. & Ag. Sci.* 5(1):22-30.
- (38) Tanveer, A., M.M. Javaid, **R.N. Abbas**, H.H. Ali, M.Q. Nazir, R.M. Balal and M.A. Shahid. 2016. Germination ecology of catchfly (*Silene conoidea* L.) seeds of different colours". *Planta Daninha*. 35:24-29. (Impact Factor: 0.395)
- (39) Maqsood, Q., **R.N. Abbas**, A. Khaliq, Z.A. Zahir. 2016. Weed seed bank dynamics: weed management through tillage systems and weed management practices. *Planta Daninha*. (Accepted).
- (40) Iqbal, M.A., I. Brandon, J. Bethune, A. Iqbal, **R.N. Abbas**, Z. Aslam, H. Z. Khan and B.Ahmad. 2017. Agro-botanical response of forage sorghum-soybean intercropping systems under atypical spatio-temporal pattern. *Pak. J. Bot.*, 49(3): 987-994.
- (41) Iqbal, A., M.A. Iqbal, A Iqbal, Z Aslam, M Maqsood, Z Ahmad, N Akbar, HZ Khan, **R.N. Abbas**, R.D. Khan, G. Abbas and M. Faisal. 2017. Boosting forage yield and quality of maize (*Zea mays* L.) with multi-species bacterial inoculation in Pakistan. *Python int. j. of experimental Bot.* 86: 84-88.
- (42) Iqbal, M.A., A. Iqbal and **R.N. Abbas**. 2017. Spatio-temporal reconciliation to lessen losses in yield and quality of forage soybean (*Glycine max* L.) in soybean-sorghum intercropping systems. 77(1): (Accepted)
- (43) Maqsood, Q., **Abbas, R. N.**, Khaliq, A., & Zahir, Z. A. (2018). Weed seed bank dynamics: weed seed bank modulation through tillage and weed management. *Planta daninha*, 36.
- (44) Zaman, Q., Aslam, Z., Rashid, M., Aslam, A., Ehsan, N., Saqib, Z. A., **Abbas, R. N** & Yaseen, M. (2020). Zinc nutrition application augments mor-pho-physiological attributes, productivity and grain zinc bioavailability of Paddy Rice. *J. Appl. Bot. Food Qual*, 93, 11-19.
- (45) Ahmad, N., **Rana, N. A.**, Tanveer, A., & Saqib, Z. A. (2020). Comparative Efficacy of Weed Control Practices for Parthenium Weed and Sunflower Crop under Varying Tillage Systems. *Phyton*, 89(3), 727.
- (46) Ibrahim, M. U., **Abbas, R. N.**, Aslam, Z., Ahmad, A., Ali, A., Akbar, G., ... & ur Rehman, W. (2020). 21. Evaluation of chemical weed control options in broadcast and drill sown direct seeded rice. *Pure and Applied Biology (PAB)*, 9(2), 1473-1480.
- (47) Ahmad, J. A. M. S. H. A. I. D., Iqbal, A., Mahmood, A. T. H. A. R., Iqbal, M. A., Khan, H. Z., **Abbas, R. N.**, ... & Maqsood, M. U. H. A. M. M. A. D. (2020). Effect of cutting management, seeding rates and sowing method on seed yield of alfalfa (*Medicago sativa* L.). *Pak. J. Bot.*, 52(4), 1449-1454.

- (48) Bashir, S., Basit, A., **Abbas, R. N.**, Naeem, S., Bashir, S., Ahmed, N., ... & Li, Y. (2021). Combined application of zinc-lysine chelate and zinc-solubilizing bacteria improves yield and grain biofortification of maize (*Zea mays* L.). *PLoS One*, 16(7), e0254647.
- (49) **Abbas, R. N.**, Iqbal, A., Iqbal, M. A., Ali, O. M., Ahmed, R., Ijaz, R., ... & Bethune, B. J. (2021). Weed-Free Durations and Fertilization Regimes Boost Nutrient Uptake and Paddy Yield of Direct-Seeded Fine Rice (*Oryza sativa* L.). *Agronomy* 2021, 11, 2448.
- (50) Ashraf, U., Mahmood, S., Anjum, S. A., **Abbas, R. N.**, Rasul, F., Iqbal, J., ... & Tang, X. (2022). Exogenous gamma-aminobutyric acid application induced modulations in the performance of aromatic rice under lead toxicity. *Frontiers in Plant Science*, 13.
- (51) ur Rehman, S., Aslam, Z., Aljuaid, B. S., Abbas, R. N., Bashir, S., Almas, M. H., ... & Bashir, S. (2022). Reduction in the Allelopathic Potential of *Conocarpus erectus* L. through Vermicomposting. *Sustainability*, 14(19), 1-11.
- (52) Iqbal, S., Iqbal, M. A., Li, C., Iqbal, A., & **Abbas, R. N.** (2023). Overviewing Drought and Heat Stress Amelioration—From Plant Responses to Microbe-Mediated Mitigation. *Sustainability*, 15(2), 1671.
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- Acting as Editor of a peer reviewed journal “Crop & Environment” Published by Pakistan Society of Agronomy. <http://www.psa.net.pk/Crop-Environment.php>
- **Review of well reputed national and international Journal Papers**
- Title: “Influence of poultry manure on the yield and quality of spring maize.”

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- Screening of herbicides for efficient control of broadleaf weeds in wheat (*Triticum aestivum* L.)
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