

CURRICULUM VITAE (CV)

Name : DR. Asim Muhammad
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CURRENT POSTAL ADDRESS:

Associate Professor, Department of Agronomy, Faculty of Crop Production Science, The University of Agriculture Peshawar, Khyber Pakhtun Khwa, Pakistan

EDUCATION:

Degree/Cert	Board/Univ.	Year	(Major)
Post Doc	CAS-China	2011-2012	Plant Nutrition & Stress Physiology
Ph.D	Agri.Univ.peshawar	2008	Agronomy
M.Sc (Hons)	Agri.Univ.peshawar	2002	Agronomy
B.Sc. (Hons)	Agri.Univ.peshawar	2000	Agronomy
F.Sc	Islamia College Peshawar	1995	Pre-Medical
S.S.C	UPS.Peshawar	1993	Science

AREAS OF INTEREST:

Crop Physiology, Seed Technology, Crop Nutrition, Stress Physiology, Crop Ecology, Crop Modeling, Climate Change

MEMBERSHIPS:

1. Pakistan Weed Science Society (life time)
2. Pakistan Society of Agronomy (1 year)
3. Expert Member of Higher Education Regulatory Authority (HERA)-for 2012-13
4. Member of Board of Study committee of Department of Botany, USTB-2012-13
5. Member of Quality enhancement Cell, University of Science & Technology,Bannu-2012-2014.
6. International Society for development & sustainability Japan.

ACADEMICS

ACADEMIC EXPERIENCE:

1. Serving as **Assistant Professor** in Department of Agronomy, Faculty of Crop Production Sciences, The University of Agriculture Peshawar, since **July 01, 2014 to September 09, 2020**.
2. Serving as **Associate Professor** in Department of Agronomy, Faculty of Crop Production Sciences, The University of Agriculture Peshawar, since **September 10, 2020 to up-to-date**.

ACADEMIC AWARDS:

- **HEC Approved Supervisor** Higher Education commission Islamabad, Ph.D Approved supervisor.
- **Best paper of the session awarded** by Dignified Researchers in Agricultural, Biological and life sciences (Drabl Editor org).
- **HEC travel Grants**
 1. Amount of 98,000/- Rs, awarded by HEC for oral presentation International Congress on Animal & Agricultural Sciences, Colombo, **Sri-lanka**.
 2. Amount of 1,32405/- Rs, awarded by HEC for oral presentation International Congress on Agricultural, Food and Biological Sciences (ICAFNBS-2016). Kuala Lumpur (Malaysia).
- **Projects Grant Awarded** under Higher Education Commission
 - A. Project No: 6304.” Project entitled “Climate Change effects on Maize Productivity, Shifting of Sowing Season and maturity”. -National Research Programme for Universities (NRPU), 2016-17. Total found 2.1 million
- Project No: 9174. Project entitled “Role of Molybdenum and Nitrogen Fixing Bacteria Applications Methods on Yield and Quality of Chickpea Varieties under Irrigated and Rainfed Conditions”. Total found 2.0 million.
- Certificate of Excellence for Reviewing publication papers

COURSES TAUGHT TO B.Sc/M.SC/M.PHIL/PH.D:

General Crop Production, Principle weed Science, Plant Physiology-I, Plant Physiology-II, Plant Nutrition & Soil fertility, Biodiversity and conservation, Mushroom cultivation, Research Methodology, General crop production, Principle weed Science, Agro-Ecology, Basic Agriculture, Crop Management on problem soil, Crop Modelling, Dry land Agriculture

ACADEMIC RESEARCH:

B. Sc (Hons):



Asim M. and Aslam K. K (1998-1999). Effect of Hall Tonic on irrigated wheat yield

Special Problem



Asim M. and Aslam K. K (1998-1999). Effect of seeding depths on yield of two newly developed wheat cultivars for rain fed areas.

M. Sc (Hons):



Asim M. and Paigham S. (2000-2001). Comparative study of landraces and improved varieties of soybean planted on different dates in Peshawar valley.

Ph.D:



Asim M. and Shad K. K. (2004-2006). Effect of planting dates and storage on yield and quality of indigenous land races and improved varieties of soybean.

Post Doctorate (2011-2012)



Effect of salt stress on growth dynamics of various seed size of soybeans



Salinity induced changes in cell membrane injury, leaf water content, proline and lipid peroxidation



Effects of salt stress on chlorophyll, photosynthetic ability and leaf quality indicators in various seed sizes of soybean



Impact of saline water stress on nutrient uptake of different seed sizes of beans



Effect of salinity on antioxidant responses of beans varieties



Study concerning on leaf area dynamics and light capturing capacity of small and large seeded beans



Beans root growth and development under salt stress



Biomolecular changes during soybean Seed germination after soaking



Soybean Vigour and Viability under Cold stress

PROJECTS:

PROJECTS COMPLETED:

1. **Principle Investigator** in Project entitled “**Production of Biodiesel from seeds of Jatropha plant**”. (Funded by Directorate of Science & Technology)
2. **Principle Investigator** in Project entitled “**To Screen out and evaluate well adopted and highly yielded genotypes of textile cotton**”. (Funded by Directorate of Science & Technology).
3. **Principle Investigator** in Project entitled “**Climate change effects on maize productivity, shifting of sowing season and maturity**”. Total found 2.6 million. (Funded by HEC under National Research Programme for Universities)”.
4. **Principle Investigator** in Project entitled “**Role of Molybdenum and Nitrogen Fixing Bacteria Applications Methods on Yield and Quality of Chickpea Varieties under Irrigated and Rainfed Conditions**”. Total found 2.1 million. (Funded by HEC under National Research Programme for Universities)”.

TRAININGS, FIELDS DAYS AND SCIENTIFIC SESSION ARRANGED:

1. Training arrange as Co-ordinator. Fodder and forages production training workshop at Directorate of Livestock Research & Development, Peshawar from **April 24, 2007 to May 9, 2007.**
2. Training arrange as Co-ordinator. Fodder and forages production training workshop at Directorate of Livestock Research & Development, Peshawar from **June 04, 2007 to June 16, 2007.**
3. Scientific Session on “**Jatropha cultivation and Production**” University of Science & Technology, Bannu and Directorate of Science & Technology, Peshawar.
4. Farmers Field day on “**Jatropha cultivation and Production Technology**” Organized by Directorate of Science & Technology, Peshawar (Venue in Bannu)

EXPERT IN SELECTION COMMITTEES:

1. Department of Botany, University of Science & Technology, Bannu
2. Department of Biotechnology, University of Science & Technology, Bannu
3. Directorate of Livestock Research & Development Peshawar for Fodder officer selection.
4. Expert Principal Investigator for HEC NRPU Projects.
5. DTRC member for Assistant Professor TTS

TRAININGS /CONFERENCES / WORKSHOPS ATTENDED:

1. Training Course in “**MUSHROOM CULTIVATION COURSE**” in Department of Plant Pathology, Faculty of Plant Protection, Agricultural University, Peshawar: (16 Feb to 17 Feb, 1999)
2. Training Course in “**ADVANCE BEE KEEPING**” organized by the Department of Entomology, Faculty of Plant Protection, Agricultural University, Peshawar: (16th to 18th March, 1999)
3. Training Course in “**COMPUTER AUTOMATION**” organized by the PETROMAN COMPUTER INSTITUTE, Peshawar: (28TH May, to 15 July, 2001)
4. Training Course in “**CLINICAL PATHOLOGY**” organized by Frontier Homeopathic Medical College, Peshawar: (Aug, 2002)
5. Training Course in “**BIODIVERSITY AND WEED SCIENCE**” organized by the Department of Weed Science, Agricultural University, Peshawar: (11-16th December, 2006)
6. Training Course in “**WEB-BASE TOOLS FOR PLANT SCIENCE RESEARCH**” organized by the British Council and University of Glasgow, United Kingdom (16-19th April, 2007).
7. Training Course in “**Non-Destructive analysis of Agricultural Product**” organized by Nuclear Institute for Food and Agricultural Peshawar (19th June to 20 June, 2007)
8. Training Course in “**Professional competency enhancement program for teachers (Professional development)**” organized by the Higher Education Commission OF PAKISTAN (May 17 to June 17, 2010)
9. First international weed science conference “**Weeds and Agro-biodiversity**”, Weed science society of Pakistan (**October 23-26, 2003**).
10. Ninth National weeds Science conference on “**ALIEN INVASIVE WEEDS THREAT TO BIODIVERSITY**” (28-30 June, 2009).
11. National seminar on “**FUTURE TRENDS OF BIOTECHNOLOGY IN PAKISTAN**” organized by Department of Biotechnology, University of Science and Technology, Bannu, Pakistan (October 08, 2009).

12. **“SUSTAINABLE AND COLLABORATIVE RESEARCH NETWORKS”**, Talented research Exchange Program **“INSPIRE”** (November 10-11, 2010).
13. International symposium on **INSTITUTIONAL LINKAGES FOR AGRICULTURE DEVELOPMENT IN PAKISTAN**, (December 20-21, 2010).
14. The Challenges of **“CLIMATE CHANGE FOR CROP PRODUCTION AND PATHOGENS”**. Linkages Seminar between The James Hutton Institute and Institute of Soil Sciences, Nanjing, China. (January, 04, 2012).
15. International Conference on **“SUSTAINABLE CROP PRODUCTIVITY, THREATS & OPTIONS”**. April 11-12, 2013. Pakistan Society of Agronomy, Faisalabad.pp:123.
16. Participation in **“Science & Technology, Expo-2013”** Organized by Directorate of Science & Technology, Peshawar and PCSIR, Peshawar.
17. Two days training workshop on **“Preparation of self-assessment report”** for program Team members, on dated October 10-11, 2013 organized by QEC & HEC at University of Science & Technology, Bannu.
18. Two day workshop on **“Application of tissue culture and molecular techniques in crop improvement”** dated May 13 to 14, 2014 at Nuclear Institute for Food and Agriculture, Peshawar.
19. Training Course on **“RESEARCH PATENTING”** organized by Directorate of Science & Technology, Government of Khyber Pakhtun Khwa in collaboration with intellectual property organization of Pakistan dated 20 to 22 May, 2014 at Pakistan Academy for Rural Development Peshawar.
20. **One day symposium on irradiation as a sanitary and phyto-sanitary treatment of medicina herbs/plants, October 29, 2015, Nuclear Institute of Food & Agriculture, Peshawar.**
21. National workshop on **Awareness on weed management practices for better yield** December 30-31, 2015.
22. **Intensive training on Agriculture system simulator (APSIM) MODELING (17-01-2016 to 14-02-2016).**
23. **FORMULATION OF RESEARCH PROJECT “PSF-Islamabad” 28-29 April, 2016.**
24. **INTEGRATED RURAL DEVELOPMENT**, held at Pakistan Academy for Rural Development Peshawar from March 07-10, 2016.
25. **ONE DAY WORKSHOP: Intellectual property rights (IPRS): DRAFTING AND FILING OF PATENT APPLICATION.** PASTIC /PSF 09am-04pm, Venue: The Agriculture University Peshawar, 16th Dec, 2016 (Friday).
26. **Remote sensing application in water management** Venue Deptt of Water Management, The University of Agriculture Peshawar, 26-30 December, 2016.
27. Two days training workshops on Research tools and techniques **“SPSS & Research Methodology”** held on **March 02-03, 2017** at the University of Agriculture, Peshawar- Pakistan.
28. Two days international conference on **“Innovation In Agriculture”** March 28-29, 2017. The University of Agriculture Peshawar, Pakistan.
29. **Climate Change Adaptation and Water Management for small holder farmers of KP.** 17-19, 2017, Pakistan Forest Institute, Peshawar.
30. **Climate change & Government Policies.** 09-11-2017. Radio-Pakistan Channel FM 101 Expert- Talk under Climate change Resource center.
31. **Worth Publishing Research Paper.** 18-19th October, 2017, The University of Agriculture Peshawar.
32. **Collective community action for Eco-watershed Mitigation to floods and Drought.** 1 May, 2018. Margala, Islamabad.
33. **Agricultural Problems and Food Security in the Changing Climate.** November 14 -17, 2018. The University of Agriculture, Peshawar.
34. **Developing a Winning Research Proposal.** 26-12-2018. The University of

Agriculture Peshawar.

35. **Plant Resources: Current Trends, Challenges and Solutions**, & 7th International & 16th National Conference. 23-26 March, 2018. Islamia College Peshawar.
36. **Training course on “Project cycle/Project preparation and management under the Project strengthening of forestry education at PFI, Peshawar, held at Forest Education Division, Peshawar, 03 to 05, April 2019.**
37. **Workshop on “Integration of ICT in Agriculture and Applied Research” on 21 February 2019, The University of Agriculture Peshawar.**
38. **Certificate of Appreciation for International Conference “Strategies for ensuring food security in the Changing climate” dated 23 to 24, October 2019, Food and Agriculture Organization of the United Nations.**
39. **Certificate for National Weed Science Congress of Weed Science Society of Pakistan, July 810,2021.**
40. Seminar on Official of **Animal Feed Formula Promotion for BRI Countries**” sponsored by the Ministry of Commerce and organized by Hunan Agricultural Group Co.,Ltd. from November 3rd to November 16th, 2021. Hunan, China.
41. **“Training Course on Cultivation of Oil Crops for Pakistan (Rapeseed, Peanut, etc.)”** sponsored by the Ministry of Commerce and organized by Hunan Agricultural Group Co.,Ltd. From August 10th to August 30th, 2021, Hunan, China.
42. **“Training Course on Farm Products Circulation Technology for BRI Countries”** sponsored by the Ministry of Commerce and organized by Hunan Agricultural Group Co.,Ltd. from September 9th to September 29th, 2021, Hunan, China.
43. Training on **“Practical demonstration of Kubota rice transplanter”** MESKAY & FEMATEE company, The University of Agriculture Peshawar, 27 July, 2022.
44. Organizing Team of **“Prospects and Economic benefits of garlic variety “NARC HG1” Awareness-Training-Business Opportunity”** January 07 to 08, 2023.
45. Certificate in Training **“Awareness and control of wild onion (*Asphodelus tenuifolius*) in chick pea at District Karak”**., January 26 to 27, 2023, Department of Weed Science Peshawar.
46. National seminar on **Promoting Agriculture Development and Food security through intellectual property, Genetic Resources and Associated Traditional, Knowledge** held on 29-30 August, 2024.
47. Training workshop on, **“seed coating and pelleting technologies: a smart start-up for Agriculture**, on August 9, 2024.
48. **“Advances in seed storage techniques”** held on 25th-26th April, 2024.

AS A RESOURCE PERSON IN CONFERENCE/WORKSHOPS:

1. Livestock management and animal health (Lecture on Fodder plants) (CLEWS), Sarhad **Rural Support Programme**, May 22, to Jun 11, 2007.
2. Livestock management and animal health (Lecture on Fodder plants) (CLEWS), Sarhad **Rural Support Programme**, August 27 to September 12, 2007.
3. International Conference on **“Sustainable Crop Productivity, Threats & Options”**. April 11-12, 2013. Pakistan Society of Agronomy, Faisalabad.
4. National conference (UPBG-2013) on **“Role of Botanical gardens in Biodiversity conservation and sustainable management”**. Center of plant Biodiversity, University of Peshawar, Baragali Summer campus, University of Peshawar, June 14-16, 2013.
5. Scientific Session on **“Jatropha cultivation and Production”** University of Science & Technology, Bannu and Directorate of Science & Technology, Peshawar.
6. Farmers Field day on **“ Jatropha cultivation and Production Technology”** Organized by Directorate of Science & Technology, Peshawar (Venue in Bannu)
7. Field Day lectures on **“ Jatropha cultivation and Production Technology”** Organized by Directorate of Science & Technology, Peshawar (Venue in Bannu).

8. Asim Muhammad and Naseer Gul. **2016. International Congress on Agricultural, Food and Biological Sciences (ICAFNBS-2016) scheduled on Nov. 15-16, 2016 at Kuala Lumpur (Malaysia).**
9. Kamran Khan & **Asim Muhammad. 2016.** Effect of Environmental Variation on Yield and Yield Components of Mung Bean Varieties. National Conference on Thinking Climate Change Adaptation in Water and Farming. THINK – ADAPT 2016, November 28 – 30, 2016 Climate Change Centre, The University of Agriculture, Peshawar, Pakistan.
10. Plant Resources: Current Trends, Challenges and Solutions, & 7th International & 16th National Conference. 23-26 March, 2018. Islamia College Peshawar

PARTICIPATION IN SIENCE EXHIBITIONS & STALLS:

1. Fodder sample stalls in various Doodh Milas (Milking cow Exhibition) during 2007.
2. Participation in “**Science & Technology, Expo-2013**” Organized by Directorate of Science & Technology, Peshawar and PCSIR, Peshawar.

STUDY TOURS ARRANGED FOR B.Sc, M.Sc AND Ph.D :

1. Ph.D, M.Phil study visit to Gram Research Station, Ahmadabad, Karak, dated 11-10-2013.
2. Study Tour of students of Department of Botany to Biodiversity & Conservation of Tanda Dam, Kohat dated 05-02-2013.
3. Study tour to Plant Biodiversity center Azakhel, Nowshera (B.Sc Hons) dated 04-05-2015.
4. Study tour to Plant Biodiversity center Azakhel, Nowshera (Ph.D Scholars) dated 26-04-2016 to Study Crop management in problematic soils.

STUDENTS SUPERVISED:

PH.D SCHOLAR SUPERVISED AS MAJOR ADVISOR:

1. Kossoko Adeola Abdel Djalal (International OIC Funded Student from Africa). **2025.** Effect of tillage, organic matter and nitrogen fertilization on yield, and yield components of maize.
2. Fakhir-Ull-Islam. **2021.** Influence of micro-nutrients on growth and yield of rainfed chickpea and its seed storability potential.
3. Kabir Khan. **2024.** Role of molybdenum and application methods of nitrogen fixing bacteria on yield and seed vigor of chickpea varieties.

PH.D SCHOLAR SUPERVISED AS Co-ADVISOR:

1. Sajidullah. **2023.** Environmental Diversity on Comparative Performance of Common Bean (*Phaseolus vulgaris* L.) Landraces: A Study in Swat, Peshawar and Bannu regions of Khyber Pakhtunkhwa
2. Kamran Khan. **2023.** Effects of diverse soil properties on the growth, development and productivity of chick pea varieties

M.PHIL STUDENTS SUPERVISED AS MAJOR ADVISOR:

1. Liaqat Khan. **2025.** Response of soybean to trichoderma and phosphorous levels
2. Mehwish Kafeel. **2025.** Growth, chlorophyll content and yield of wheat in response to magnesium and nitrogen fertilization.
3. Subaktageen. **2024.** Influence of various organic sources and bio-fertilizers on yield and yield attributes of mung bean
4. Nouman. **2024.** Effect of different sowing methods on yield and yield components of chickpea lines
5. Ussman. **2024.** Effect of salicylic acid levels at different growth stages of maize varieties
6. Aysha Zahoor. **2023.** Influence of nitrogen levels and nitrogen fixing bacteria on yield and yield attributes of Mungbean
7. Rizwan Ali . **2023.** Effect of Phosphorus levels and Nitrogen fixing bacteria inoculation on yield and yield components of soybean (*Glycine max* L. merr
8. Salman Khan. **2023.** Effect of nitrogen and potash levels on maize yield
9. Wasi Ullah. **2023.** Effect of sowing dates on various common bean landraces

- 10 Amir Sohail. **2023**. Effect of humic acid and foliar sulphur application on soybean cultivars
- 11 Abdur Rehman. **2022**. Effect of nitrogen and potash levels on yield and yield components of maize
12. Nizam Ullah. **2022**. effect of different doses of phosphorus and beneficial microbes on yield of barley Naqash Ahmad. **2022**. Effect of different transplanting dates on yield and quality of fcv tobacco.
13. Mahmadullah. **2021**. ffect of nitrogen-fixing bacteria with nitrogen levels on yield attributes of barley
14. M. Bilal. **2021**. Effect of humic acid levels and nitrogen sources on yield and yield components of maize.
15. Junaid Ur Rehman. **2021**. Effect of potash levels and salicylic acid priming on chickpea
16. Sarmad Iqbal. **2020**. Response of chickpea to different molybdenum and boron levels.
17. Zeeshan Sharif. **2019**. Effect of sowing dates and foliar application of salicylic aid on yield and yield components of Maize.
18. Urooj Rehmani. **2019**. Effect of nitrogen levels and nitrogen fixing bacteria on yield and yield components of lentil varieties.
19. Ussman sultan. **2019**. Effect of sowing timings for best hybrids selection of sunflower for spring crop.
20. Hazratullah. **2018**. Effect of Nitrogen, Phosphorous levels and Beneficial Microbes on Yield and Yield components of Canola.
21. Awais Khan. **2017**. Effect of FYM and Phosphorous levels on growth and yield of Lentil.
22. Muhammad Suleman and Asim Muhammad. **2016**. Salicylic acid seed priming and sowing dates effect on yield and yield components of barley. (Completed Approved in Board of Studies of December 15, 2016).
23. Sulaiman Khan and Asim Muhammad. **2016**. Effect of different levels of humic acid and phosphorus on yield and yield components of wheat varieties. (Completed Approved in Board of Studies of December 15, 2016).
24. Fayaz Ali Niaz. **2015**. Sulphur and nitrogen management for improving yield and quality of canola.
25. Muhammad Younis. **2015**. Effect of sulfur levels and application time on yield and quality of canola.
26. Nematullah. **2013**. Effect of intra-row spacing on newly developed varieties of Okra (*Ebulmoschus esculentus*).
27. Rafiullah Wazir. **2013**. Influence of planting depths on newly developed varieties of okra (*Abelmoschus esculentus* l. Moench)
28. Atiq-ur-rehman. **2013**. Performance of newly developed Okra varieties in rainfed environment of Bannu.
29. Abida. **2013**. Determination of vigour and viability of different wheat varieties.
30. Sajid Ullah. **2012**. Response of wheat to various sources and levels of osmopriming.
31. Sher Ullah. **2012**. Effect of different nitrogen levels on growth and yield of Barly.
32. Kamran Khan. **2012**. Effect of planting dates on Mung bean varieties for yield and yield components.

M.PHIL STUDENTS SUPERVISED AS Co-ADVISOR:

1. Afza Tabasum. **2016**. Effect of sorghum extract concentration in combination with herbicide application times on weed density and yield of wheat. (Department of Agronomy, Peshawar).
2. Wasim ali. **2016**. Response of Maize hybrid to reduce and left over levels of nitrogen, phosphorus and zinc in cereal legume, cropping system.
3. Anas Iqbal. **2016**. Response of wheat to different levels of nitrogen, zinc humic acid. (Department of Agronomy, Peshawar).
4. Abdul Rab. **2016**. Response of weed density and yield of wheat to sorghum herbage type, concentration and application time. (Department of Agronomy, Peshawar)

5. Faisal Khan. **2016**. Allelopathic effect of sunflower extract on weeds suppression and productivity of wheat. (Department of Agronomy, Peshawar)
6. Asif-Ur-Rehman. **2016**. Effect of nitrogen fixing bacterai and nitrogen ratios on wheat varieties. (Department of Agronomy, Peshawar)
7. Ujala Mehtab. **2016**. Cloning, expression and purification of his tagged high fidelity recombinant PFU DNA polymerase.(Institute of Biotechnology & Genetic Engineering, Peshawar)
8. Kashif. **2016**. Wheat growth and yield response to organic fertilizer and NP levels.
9. Arsalan Zahid. **2016**. Effect of humic acid and phosphorus on barley yield, yield components and seed recovery percentage. (Department of Agronomy, Peshawar).
10. Mansoor Javed. **2016**. Effect of Planting Methods and Nitrogen Sources on Maize Yield and Soil fertility. (Department of Agronomy, Peshawar).
11. Waseem Ullah. **2016**. Influence of soil and foliar applied calcium ammonium nitrate on yield and yield components of wheat cultivars. (Department of Agronomy, Peshawar).
12. Muhammad salman wazir. **2016**. Winter species VS intercropping for production and grain quality of wheat under N-Application timing.
13. Said Badshah. **2015**. Effect of Potassium on Maize Lodging under high nitrogen nutrition with optimum and reduced irrigation.
14. Mushraf Khan .**2013**. Determination of vigour and viability of different varieties of kidney beans. (Hazara University).
15. Ihsan Ullah. **2012**.Biodiversity of weeds in cereal crops in F.R. Bannu
16. Hamidullah Khan. **2012**. Estimation of induced variability of yield contributing traits in M1 Gamma irradiated germplasm of Okra
17. Zeeshan Ahmad Wazir. **2012**. Study of performance of garlic varieties in Prevailing environment of UST, Bannu
18. Ashfaq Ali Khan. **2012**. Effect of plant growth regulators on yield and oil quality of sesame.
19. Hidayat ullah Khan .**2012**. Mutation of effectiveness and efficiency of Gamma rays on yield and yield components in sunflower varieties.
20. Abdul Malik.**2012**. Study of evaluation of four varieties of onion in the environment of Bannu.

M.Sc STUDENTS SUPERVISED AS MAJOR ADVISOR:

1. Asia Gul. **2014**. Effect of salinity on shoot architecture of chickpea varieties.
2. Rukhsana. **2014**. Effect of salinity on leaf parameters of chickpea varieties.
3. Sadia Perveen. **2014**. Salinity stress on seedling physiology of chick pea varieties.
4. Zaib Bahar. **2014**. Inhibitory affects of sodium chloride stress on check pea varieties.
5. Sobia rauf. **2014**. Effect of Gamma Radiation rays on growth and reproductive stage of cotton varieties.
6. Sidra-tun-nisa. **2014**. The effects of sodium chloride stress on root architecture and temperature on check pea.
7. Shazia Ahmad. **2014**. Induced mutation analysis in newly developed cotton varieties in Bannu.
8. Irum Ahmad. **2014**. Performance of selected cotton varieties during second year of cultivation.
9. Kalsoom Naz. **2014**. Response of newly developed cotton varieties to Cobalt-60 sources of Gamma radiation.
10. Tahir Azam. **2013**.Determination of seed quality of various seed sizes of common bean Landraces
11. Ziad-ur-Rehaman. **2013**.Evaluation of Seed coat characteristics of different seed sizes of common bean varieties
12. Tayab Rashid. **2013**. Vigour and viability of various seed sizes of common bean varieties.
13. Fazal Mehmood.**2011**. Influence of sowing depths on growth dynamics of Mungbean Varieties.
14. Shakirullah.**2011**. Response of Mungbean varieties to different sowing depths.
15. Yaqoob Khan.**2011**. Some important Medicinal plants of Mohmmmand Agency.
16. Sageb ullah.**2010**. Effect of Hydropriming durations on growth and yield of Maize land race in

- Bannu.
17. Musharaf khan.**2010**. Responses of Maize seeds (*Zea Mays* L.) to different hydropriming durations
 18. Nazakat.**2010**. Influences of seed hydropriming techniques on the seedling emergence, establishment and growth of maize in Bannu.

BS (BIOTECHNOLOGY) STUDENT SUPERVISED AS MAJOR ADVISOR:

1. Muhammad Ishfaq. **2013**. Morph-physiological study of leaf quality of *Jatropha*.
2. Nematullah.**2011**.Determination of vigour and viability of osmoprimed seeds of wheat varieties.

BSc (Agronomy) STUDENT SUPERVISED AS MAJOR ADVISOR:

1. Izhar Ullah. 2019. Role of molybdenum and methods of application of nitrogen fixing bacteria on weeds and crop competition.
2. Hamza Rehmat. 2019. Effect of Mo and B levels on weed in chickpea crop
3. M. Umair. 2019. Response of chickpea of different Mo and B levels
4. Muhammad Suleiman. 2018. Performance of lentil varieties to the application of nitrogen levels and nitrogen fixing bacteria
5. Behzad Zafar. 2018. Performance of lentil varieties to the application of nitrogen levels and nitrogen fixing bacteria.
6. Muzzam Azeem. 2017. Effect of FYM and Phosphorous levels on growth dynamics of Lentil.
7. Shah Fahad. 2016. Leaf, root and dry matter dynamics of barley toward sowing dates and salicylic acid priming.
8. Masoom Shah. 2016. Growth and dry matter production response of wheat varieties to different levels of humic acid and phosphorus.
9. Muhammad Naseer. 2015. Vigour and viability of harvested seeds of wheat affected by nitrogen ratios and N-fixing biofertilizers.
10. Saifullah. 2015. Growth dynamics of mung bean varieties under saline stress.

BSc (Agronomy) STUDENT SUPERVISED AS CO-SUPERVISOR ADVISOR:

1. Naveed Khan. 2016. Response of wheat to different levels of Nitrogen, Zinc and Humic acid.
2. Abdul Basit. 2016. Effect of seed size, storage conditions and timings on seed quality of wheat.
3. Misbahullah. 2016. Effect of sorghum extract concentration in combination with herbicide application times on weed density and yield of wheat.
4. Muhammad Hamid. 2015. Effect of Sorghum extract type, concentration and application time on weed density and yield of wheat.
5. Junaid Haroon. 2015. Response of weeds density and yield of wheat to rice herbage type, concentration and application time..

NATIONAL INTERNSHIP PROGRAMME INTERNEES RESEARCH TITLES

1. Saud khan. 2016. Vigour and viability of harvested barley seeds affected by sowing dates and salicylic acid priming.
2. Suleiman Khan. 2016. Response of two wheat varieties for leaf growth and chlorophyll content towards humic acid and phosphorus levels.
3. Abdul Basit. 2016. Growth and stand establishment of Mungbean affected by soil phosphorus and foliar iron application.

RESEARCH PUBLICATIONS:

2025

1. Dawar, K., Khan, A.U., Al-Mutairi, M. Asim M. et al. 2025. Utilizing spent mushroom substrate biochar to improve *Zea mays* L. growth and biochemical resilience against cadmium and chromium toxicity. *Sci Rep* **15**, 17511 (2025). <https://doi.org/10.1038/s41598-025-01617-8>

2024

2. Khadim Dawar, Atif Dawar, Muhammad Tariq, Ishaq Ahmad Mian, **Asim Muhammad**, Laiba Farid, 2024. Enhancing nitrogen use efficiency and yield of maize (*Zea mays* L.) through Ammonia volatilization mitigation and nitrogen management approaches. *BMC Plant Biology*, 24,74: 1-12.
3. Javed Nawab, Junaid Ghani, Sajid Ullah, Imran Ahmad, Sultan Akbar Jadoon, Shaukat Ali, Emiliya Hamidova, **Asim Muhammad**. 2024. Influence of agro-wastes derived biochar and their composite on reducing the mobility of toxic heavy metals and their bioavailability in industrial contaminated soils. 1-15.

2023

4. Mahboob ala metal. Effect of chitson on Post-harvest shelf life of persimmon. *Acta. Sci. Pol. Hortorum. Cultus* 22 (2): 27-43. (IF: 0.6).
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11. African Advances in Agricultural Research
12. Herald Journals of Agriculture and Food Science Research
13. African Journal of Microbiology Research
14. Pakistan Journal of Weed Science Research
15. Journal of Ecology and Ecosolution
16. SKY Journal of Agriculture Sciences
17. The Science of Nature-Springer
18. Pure & Applied Biology
19. Kwait Journal of Science
20. Acta Ecologica Sinica, 21. Agronomy Journal
21. Agriculture
22. Agronomy
23. International Journal of Agronomy
24. Journal of Agronomy
25. Crop Journal
26. Etc