# **CURRUCULUM VITAE (CV)**

Name: DR. Asim Muhammad

E-mail: <u>asimmuh@yahoo.com</u>, <u>asimmuh@aup.edu.pk</u>

 Web site:
 www.aup.edu.pk

 Phone:
 0092 91 3339883051

# **CURRENT POSTAL ADDRESS:**

Assoiate 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 indudced 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)".

### NGS, 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. T duction training workshop at Directorate of Livestock Research & Development, Peshawar from June 04, r a 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:**

i

n

i

n

g

a r

r

a

n

g

e

C

o

o r

i

n

e

r

f

o

r

a

g

e

S

p

r

o

- 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: (16<sup>th</sup> to 18<sup>th</sup> March, 1999)
- d 3. Training Course in "COMPUTER AUTOMATION" organized by the PETROMAN COMPUTER INSTITUTE, Peshawar: (28<sup>TH</sup> May, to 15 July, 2001)
- 4. Training Course in "CLINICAL PATHOLOGY" organized by Frontier Homeopathic a t Medical College, Peshawar: (Aug, 2002)
- o 5. Training Course in "BIODIVERSITY AND WEED SCIENCE" organized by the r Department of Weed Science, Agricultural University, December, 2006)
- 6. Training Course in "WEB-BASE TOOLS FOR PLANT SCIENCE RESEARCH" F organized by the British Council and University of Glasgow, United Kingdom (16-19<sup>th</sup> o d April, 2007). d
  - 7. Training Course in "Non-Destructive analysis of Agricultural Product" organized by Nuclear Institute for Food and Agricultural Peshawar (19<sup>th</sup> June to 20 June, 2007)
- a 8. Training Course in "Professional competency enhancement program for teachers n (Pofessional development)" organized by the Higher Education Commission OF d PAKISTAN (May 17 to June 17, 2010)
  - 9. First international weed science conference "Weeds and Agrobiodiversity", 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

- **PAKISTAN**, (December 20-21, 2010).
- I 14. The Challenges of "CLIMATE CHANGE FOR CROP PRODUCTION AND
- N PATHOGENS". Linkages Seminar between The James Hutton Institute and Institute of Soil Sciences, Nanjing, China. (January, 04, 2012).
- T 15. International Conference on "SUSTAINABLE CROP PRODUCTIVITY, I THREATS & OPTIONS". April 11-12, 2013. Pakistan Society of Agronomy, Faisalabad.pp:123.
- U 16. Participation in "Science & Technology, Expo-2013" Organized by
   T Directorate of Science & Technology, Peshawar and PCSIR, Peshawar.
- I 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.
- A 18. Two day workshop on "Application of tissue culture and molecular techniques in
   L crop improvement" dated May 13 to 14, 2014 at Nuclear Institute for Food and Agriculture, Peshawar.
- L 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.
- A 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.
- S 21. National workshop on Awareness on weed management practices for better yield December 30-31, 2015.
- F 22. Intensive training on Agriculture system simulator (APSIM) MODELING (17-01-2016 to 14-02-2016).
- R 23. FORMULATION OF RESEARCH PROJECT "PSF-Islamabad" 28-29 April, 2016.
- A 24. INTEGRATED RURAL DEVELOPMENT, held at Pakistan Academy for Rural Development Peshawar from March 07-10, 2016.
- R 25. ONE DAY WORKSHOP: Intellectual property rights (IPRS): DRAFTING AND
   I FILING OF PATENT APPLICATION. PASTIC /PSF 09am-04pm, Venue:
   C The Agriculture University Peshawar, 16th Dec, 2016 (Friday).
- U 26. **Remote sensing application in water management** Venue Deptt of Water L Management, The University of Agriculture Peshawar, 26-30 December, 2016.
- T 27. Two days training workshops on Research tools and techniques "SPSS & Research Wethodology"
- **R** held on March 02-03, 2017 at the University of Agriculture, Peshawar-Pakistan.
- E 28. Two days international conference on "Innovation In Agriculture" March 28-29, 2017. The Univjersity of Agriculture Peshawar, Pakistan.
- D 29. Climate Change Adaptation and Water Management for small holder farmers of
   E KP. 17- 19, 2017, Pakistan Forest Institute, Peshawar.
- V 30. Climate change & Government Policies. 09-11-2017. Radio-Pakistan Channel FM
   E 101 Expert- Talk under Climate change Resource center.
- L 31. Worth Publishing Research Paper. 18-19<sup>th</sup> October, 2017, The University of Agriculture Peshawar.
- P 32. Collective community action for Eco-watershed Mitigation to floods and **Drought**. 1 May, 2018. Margala, Islamabad.
- E 33. Agricultural Problems and Food Security in the Changing Climate. November 14 -17, 2018. The University of Agriculture, Peshawar.
- T 34. **Developing a Winning Research Proposal**. 26-12-2018. The University of Agriculture Peshawar.
- I 35. Plant Resources: Current Trends, Challenges and Solutions, & 7<sup>th</sup> N International & 16<sup>th</sup> National Conference. 23-26 March, 2018. Islamia College

- tion 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.

P

e

S

h

a

W

a

r

r

a

i

n

i

n

g

c

0

u

r

S

 $\mathbf{e}$ 

0

n

"

P

r o

P

4. 0

j

e c t

prepara

36. **T** 

- 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 3<sup>rd</sup> to November 16<sup>th</sup>, 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 10<sup>th</sup> to August 30<sup>th</sup>, 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 9<sup>th</sup> to September 29<sup>th</sup>, 2021, Hunan, China.
- 43. Training on "**Practical demonstration of Kubota rice transplanter**" MESKAY & Samp; FEMATEE company, The University of Agriculture Peshawar, 27 July, 2022.
- 44. Organizing Team of "Prospects and Economic benefits of garlic variety "NARC HG1" Awareness-Tranining-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 25<sup>th</sup>-26<sup>th</sup> April, 2024.

# AS A RESOURCE PERSON IN CONFERENCE/WORKSHOPS:

- d. Livestock management and animal health (Lecture on Fodder plants) (CLEWS), Sarhad
   t
   Rural Support Programme, May 22, to Jun 11, 2007.
- 2. Livestock management and animal health (Lecture on Fodder plants) (CLEWS),
   y
   c Sarhad Rural Support Programme, August 27 to September 12, 2007.
  - International Conference on "Sustainable Crop Productivity, Threats & Options". April 11-12, 2013. Pakistan Society of Agronomy, Faisalabad.
  - 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.

vii

- 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, & 7<sup>th</sup> International & 16<sup>th</sup> 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 (*Gylycine 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
- 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 Mohmmand Agency.
- 16. Saqeb 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 Phosphrous 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).
- 5. Junaid Ghani, Javed Nawab, Mohammad Eshaq Faiq, SajidUllah, Arshad Alam, Iftikhar Ahmad, Syed Weqas Ali, Sardar Khan, Imran Ahmad, **Asim Muhammad**, Syed AzizUr Rahman. 2023. Multi-geostatistical analyses of the spatial distribution and source apportionment of potentially toxic elements in urban children's park soils in Pakistan: A risk assessment study. Volume 311, Page: 119961.

- 6. Sajidullah Khan, Abdur Rashid, Asad Ullah, Asim Muhammad. 2022. Effect of different environmental condition on phenology and yield of common bean landraces.18 (12): 333-342.
- 7. Fakhar and Asim Muhammad. 2022. Micro-nutrient enrichment through foliar application at different stages of chickpea. Journal of Xi'an Shiyou University, Natural Science Edition. 8(11): 1168-1180.
- 8. Junaid Ghani, Javed Nawab, Mohammad Eshaq Faiq, SajidUllah, Arshad Alam, Iftikhar Ahmad, Syed Weqas Ali, Sardar Khan, Imran Ahmad, **Asim Muhammad**, Syed AzizUr Rahman, Muhammad Abbas, Abdur Rashid, Shah Zaib Hasan, Amir Hamza. **2022**. Multi-geostatistical analyses of the spatial distribution and source apportionment of potentially toxic elements in urban children's park soils in Pakistan: A risk assessment study. Environmental Pollution. Volume 311, Page: 119961. https://doi.org/10.1016/j.envpol.2022.119961 (**I.F: 9.9**)

- 9. Khan MO, Irfan M, Muhammad A, Ullah I, Ali M, Nawaz S, Khalil MK and Ahmad M. **2022.** A practical and economical strategy to mitigate salinity stress through seed priming. Front. Environ. Sci. 10:991977. doi: 10.3389/fenvs.2022.991977 (**I.F: 4.4**)
- 10. Hazratullah, **Asim Muhammad**, M. Alam, I. Ahmad and A. Jalal. 2022. Role of beneficial microbes with nitrogen and phosphorous levels on canola productivity. Brazilian Journal of Biology, 2022, vol. 82, e227703 | <a href="https://doi.org/10.1590/1519-6984.227703">https://doi.org/10.1590/1519-6984.227703</a> (**IF: 1.65**)
- 11. Islam Zeb1, Masood Ahmad1, Faiza Aman1, **Asim Muhammad**2, Farzana Fatima1, Habibullah Khan3, Muhammad Younis2 and Mehboob Alam1. 2022. heavy metal analyses of ready to eat leafy vegetables collected from different areas of district swat. Bioscience Research, 19(1): 322-328.

#### 2021

- 12. Fahad Noor, Imran Ahmad, Mehboob Alam, Abdullah Jan, Khalid Nawab, Abdullah Jalal Akhtar Zaman, Asim Muhammad, Shahryar Javed, Haider Mukhtar.2021.Ascorbic acid prolongs the post harvest life of persimmon. Fresenius Environmental Bulletin. 30 (06A): 6615-6622. (**IF: 0.5**)
- 13. Amanullah, M. Yar, Shah Khalid, M. Soliman Elshikh, H. M. Akram, Manzoor, Asim. M et al. 2021. Phenology, growth, productivity, and profitability of mungbean as affected by potassium and organic matter under water stress vs. no water stress conditions. Journal of Plant Nutrition. https://doi.org/10.1080/01904167.2021.1936025 (**I.F: 1.7**)
- 14. Muhammad Irfan, Farooq Ishaq, Dost Muhammad, Muhammad Jamal Khan, Ishaq, AhmadMian, Khadim, MuhammadDawar, AsimMuhammad, ManzoorAhmad, ShazmaAnwarbShamsherAliaFahim UllahKhandBushraKhaneHamidaBibiaAbidKamalaMariaMusarataWaheedUllaheMuhammadSaeed. 2021. Effect of wheat straw derived biochar on the bioavailability of Pb, Cd and Cr using maize as test crop. Journal of Saudi Chemical Society. 25 (5): 101232. https://doi.org/10.1016/j.jscs.2021.101232 (**IF: 3.932**).
- 15. Sarmad Iqbal, Asim M and Kabir Khan. 2021. Response of Chickpea (*Cicer arietinum* L.) to Different Molbydenum and Boron Levels. Bioscience Research. 18(1): 566-573. (**IF: 0.7**)
- 16. Amanullah, Shah Khalid, Asim Muhammad, Mohammad Yar, Manzoor Ahmad, Hafiz M. Akram, Imran, et al., 2021. Integrated Use of Biofertlizers with Organic and Inorganic Phosphorus Sources Improve Dry Matter Partitioning and Yield of Hybrid Maize. Communications in Soil Science and Plant Analysis. 52 (21): 2732-2747
- 17. Amanullah, Muhammad Ilyas, Haider Nabi, Shah Khalid, Manzoor Ahmad, Asim Muhammad, Saif Ullah, Izhar Ali, Shah Fahad, Muhammad. 2021. Integrated Foliar Nutrients Application Improve Wheat (*Triticum Aestivum* L.) Productivity under Calcareous Soils in Drylands. Communications in Soil Science and Plant Analysis. 52 (21): 2748-2766.
- 18. Muhammad Rizwan, Masood Ahmad, Abdul Mateen Khattak, Asim Mohammad Fawad Ali, Ghulam Nabi Sumbal Ayaz and Noor Ayaz. 2021. Influence of organic potash on the vegetative attributes and corm production of gladiolus cultivars. BIOSCIENCE RESEARCH. 18(4):3326-3333.

- 19. M. Younis, Asim. M. 2020. Sulphur doses and its application times on yield and oil quality of canola under calcareous soil. *Grasas Aceites*. 71 (1), e341. <a href="https://doi.org/10.3989/gya.1176182">https://doi.org/10.3989/gya.1176182</a>. Thomson Reuters / Elsevier/ IF: 1.2
- 20. Mehboob Alam, **Asim M.** et al., 2020. The effects of organic amendments on heavy metals bioavailability in mine impacted soil and associated human health risk. Scientia Horticulturae 262, 109067. **Thomson Reuters master list / Elsevier/ IF: 1,96**
- 21. Sahib Alam, Asim M. 2020. carryover of aflatoxin b1 from feed to broilers' tissues and its

- effect on chicken performance. Fresenius Environmental Bulletin. Volume 29 No. 01/pages 214-221. **Thomson Reuters master list / Elsevier/ IF: 0.7**
- 22. Hazratullah, A. Muhammad, M. Alam, I. Ahmad and A. Jalal. 2020. Role of beneficial microbes with nitrogen and phosphorous levels on canola productivity. **Brazilian Journal of Biology.** 82, e227703: 1-11. (**IF: 1.360**)
- 23. Mehboob Alam, **Asim M.** et al., 2020. Improving okra (*Abelmoschus esculentus* 1.) growth and yield by mitigating drought through exogeneous application of salicylic acid. Fresenius Environmental Bulletin. Volume 29 No. 01. pages 529-535. **Thomson Reuters master list** / **Elsevier/IF: 0.7.**
- 24. Asim Muhammad et al., 2020. Management of weeds through planting dates alteration and using selected maize cultivars under changing climate. Mitteilungen Klosterneuburg Journal. **70(2)**: 108-121. **Thomson Reuters / Elsevier/IF: 0.217**
- 25. **Khan Sher, Asim M, et al. 2020.** The effects of arbuscular mycorrhizal (am) association on the nutritional values of *Mentha Longifolia* L. at various levels of rock phosphate amendments. **Bioscience Research.16**(3): 2957-2970. **Thomson Reuters master list / Elsevier/ Scopus IF: 0.7.**

- 26. Mehboob Alam, **Asim M.** et al. 2019. Microbiological quality of fresh vegetables from selected retail establishments in Peshawar-Pakistan. Fresenius Environmental Bulletin. Volume 28 No. 11A, pages 8773-8782
- 27. Ahmad Khan, **Asim. M.** et al. 2019. Nitrogen Affects Leaf Expansion and Elongation Rates During Early Growth Stages of Wheat. INTERNATIONAL JOURNAL OF AGRICULTURE & BIOLOGY, Online: 1814–9596 18–0027/201x/00–0–000–000 DOI: 10.17957/IJAB/15.1001/. **Thomson Reuters master list / Elsevier/ IF: 0.8**.
- 28. Zeeshan Sharif, Asim Muhammad. 2019. Mitigating Climate Change Effects on Maize Production through Sowing Time Alteration and Hormonal Application. **Bioscience Research.**16(3): 2957-2970. **Thomson Reuters master list / Elsevier/ Scopus IF: 0.7.**
- 29. **Asim.** M. et al., 2018. Characteristics and reproductive growth potential of himalayan soybean land races under various sowing dates. Bioscience Research, 2018 15(4): 3952-3966. **Thomson Reuters master list / Elsevier/ Scopus IF: 0.9.**
- 30. **Asim. M**. et al. 2019. Effect of different climatic zones and sowing dates on maize emergence and leaf parameters. Acta Ecologica Sinica., 39 (2019) 461e466. **Thomson Reuters master list** / **Elsevier/Scopus.**
- 31. **Asim M**. etal. 2018. Improving maize yield by cultivars selection and sowing time alteration under changing climate. Bioscience Research, 2018 15(3):2828 -2839. **Thomson Reuters** master list / Elsevier/ Scopus IF: 0.9
- 32. Shazma Anwar, Muhammad Faraz, Said Munir, Muhammad Islam and **Asim Muhammad.** 2018. The effects of phosphorus management on yield and yield components of wheat varieties. IJAER (2017); 3(4): 427 432.
- 33. Naseer Gul and **Asim Muhammad**. Vigor and stand establishment of harvested wheat seeds affected by nitrogen fixing microbes with nitrogen ratios. Bioscience Research, 2018 15(1): 23-29.
- 34. Misbahullah, Shad. K. **Asim. M. 2018**. Weed Density, Phenology, Tillers and Flag Leaf Area of Wheat Af-fected by Sorghum Extract Concentration in Combination with Herbicides and Application Time. Pakistan Journal of Agricultural Research. Pakistan Journal of Agricultural Research, 31(2): 106-115. **DOI.**

#### http://dx.doi.org/10.17582/journal.pjar/2018/31.2.106.115

- 35. **Asim M**. et al. **2018**. Morpho-physiological changes of *jatropha curcas* leaves cultivated in marginal land under rain fed condition. ARPN journal of agricultural and biological science vol. 13, no. 11: 124-132. ISI master list (**Thomson Reuters**).
- 36. Muhammad Faheem Jan1, Asad Ali Khan, Asim. M et al. **2018**. Response of maize hybrids and associated weeds to integrated potassium application. Pak. J. Weed Sci. Res., 24(4): 399-408.
- 37. Khan Sher, Ali Hazrat, Muhammad Nisar and Asim Muhammad. **2018**. Effects of the root bark extract of Monotheca buxifolia (FALC.) A. DC on antioxidant potential and seral properties of rabbit (*Oryctolagus cuniculus*). *Pak. J. Weed Sci. Res.*, 24(4): 429-438.
- 38. Shah Faisal M, Asim. M. et al. 2018. Normal mode analysis of thermophilic cellulase FNCEL5A using elastic network models. J Proteomics Bioinform 11: 111 109.

### **2017**

- 39. **Asim Muhammad et al. 2017.** Management of sulphur and its application stages on canola phenology, maturity and biomass yield under Maize-Canola cropping system. **Bioscience Research**,14(1): 84-94. **Bioscience Research**.( **Thomson Reuters, Scoupus Index=0.9, SNIP: 0.949, H index=4, IPP=0.55).**
- 40. Irum Noreen, Arshad Iqbal, Fazl-e-Rabbi, Asim Muhammad, Zamarud Shah and Zia Ur Rahman. 2017. Antimicrobial activity of different solvents extracted samples of a weed *Acacia Cyanophylla*. **Pak. J. Weed Sci. Res. 23(1): 79-90.** (**HEC Recognized Journal**).
- 41. Vigor and viability of osmoprimed harvested seeds of wheat varieties. 2017. ARPN journal of Agricultural and Biological Sciences. 12 (10): 12 -18. (Thomson Reuters General Master List-2016-2017).
- 42. **Asim Muhammad et al. 2017.** Germination and field emergence potential of soybean land races vs improved varieties under different sowing dates. Pure & Applied Biology Journal. http://dx.doi.org/10.19045/bspab.2017.60007. (**HEC Recognized Journal**).
- 43. Amir zaman Khan, **Asim** et al. 2017. Performance of nitrogen fixing bacteria with increasing nitrogen ratios on growth, maturity and biomass of winter wheat varieties. **Bioscience Research.** 14(2): 114-121. (**Thomson Reuters,Scopus Index=0.9, SNIP: 0.949, H index=4, IPP=0.55).**
- 44. Tariq shah, **Asim** et al. 2017. Influence of Pre-sowing seed treatments on germination properties and seedling vigour of wheat. Research in Agricutural & Vet. Sci. **Azerbaijan** 1(1):62-70.
- 45. Amir Zama. Asim Muhammad. 2017. Influence of seed invigoration techniques on germination and seedling vigor of maize (*ZEA MAYS* L.). Cercetări Agronomice în **Moldova** / 2017. RG IF=0.22, CAB International & others

- 46. Amir Zaman Khan, Roohul Amin, **Asim Muhammad** and Habib Akabar. 2016. Influence of Seed Hardening techniques on Vigor, Growth and Yield of wheat under Drought Conditions. **Journal of Agricultural Studies, USA.** 4(3):278-286. (**RG IF:0.32. Hindex:6, Google Impact: 0.85**)
- 47. Amanullah, Majidullah and **Asim Muhammad. 2016**. Effect of tillage and phosphorus interaction on yield of mungbean (*Vigna radiata* L., Wilczek) with and without moisture stress condition. **International Scientific Researches Journal. PONTE. Flourence Italy.** 72(2): 114-139. (**Thomson Reuters Index: Impact factor. 1.2**)

- 48. **Asim Muhammad**, Shad Khan Khalil, Amir Zaman Khan and Nisar Ahmad. Response of soybean varieties to maturity and biomass production under various planting dates. **Pure & Applied Biology**. **5(2): 2016.** (**HEC Recognized Journal**)
- 49. Amir Zaman Khan, Imran, Asim Muhammad, Aiman Khalil, Hasina Gul, Habib Akbar and Said Wahab. Impact of fertilizer priming on seed germination behavior and vigor of maize. **Pure and Applied Biology**. <a href="http://dx.doi.org/10.19045/bspab.2016.50093">http://dx.doi.org/10.19045/bspab.2016.50093</a>. (**HEC Recognized Journal**).
- 50. Amir Zaman Khan, H. Muhammad, A. Muhammad, S. K. Khalil, Z. Shah and R. Amin. 2016. Phenology, Yield and Nutrient Uptake Efficiency of Wheat as Affected by Organic and Inorganic Nitrogen Fertilizer alone and in Combination with Effective Microorganism. **Middle East Journal of Agriculture. U. A. E.** 5(4): 435-441.
- 51. Anus Ahmad, Usman Ahmed, Nisar Ahmad, Asim Muhammad. Antioxidant-based Evaluation of Seed Extracts of Two Maize Varieties for Medicinal Purpose. **Proceedings of the Pakistan Academy of Sciences: B. Life and Environmental Sciences** 53 (4): 293–298. (Research Gate Impact factor 0.08) (HEC Recognised Journal)
- 52. Saad Ullah Khan, Adeela Haroon, Asim Muhammad, et al. 2016. Ethnomedicinal plants used by local inhabitants in the prevention of gastrointestinal problems in low hilly areas of F.R. Bannu, Pakistan. **Pak. J. Weed Sci. Res.**, 22(4): 617-625. (**HEC Recognized Journal**)
- 53. Amanullah, Siddique Khan and Asim Muhammad. 2015. Beneficial Microbes and Phosphorus Management Influence Dry Matter Partitioning and Accumulation in Wheat (Triticum aestivum L.) With and Without Moisture. J Microb Biochem Technol, USA. 7 (6): 40-416. (RG IF: 0.59, H index: 8. SJR: 0.26)
- 54. Mushraf Khan. Asim Muhammad. 2015. Variability of Vigour and Viability of Various Varieties of Common Bean (*Phaesolus vulgaris* L.) Land Races. **American-Eurasian J. Agric. & Environ. Sci.**, 15 (5): 957-961. (index in Thomson Reuters G. list-2016).
- 55. Nisar Ahmad, **Asim Muhammad**, Iqbal Munir, Zamarud Shah and Abdul Basir. **2015**. Characterization of Rapeseed Germplasm for Various Quality Parameters. **American-Eurasian J. Agric. & Environ. Sci.**, 15 (12): 2466-2472. (index in Thomson Reuters G. list-2016).
- 56. Muhammad Ilyas, Muhammad Sayyar Khan, Muhammad Rameez Khan, Khalil Ahmad and **Asim Muhammad**. **2015**. Response of different mutants of Arabidopsis thaliana under arsenic stress. **J. Agric. Res**., 53(3). 375-388. (**HEC Recognized Journal**)
- 57. **Asim Muhammad** et al. **2015**. Effect of Selected γ -Irradiated Cotton Varieties on Fiber Quality During M2 Generation under Rainfed Condition. **American-Eurasian J. Agric. & Environ. Sci.**, 15 (2): 191-196.
- 58. **Asim Muhammad**, et al. **2015**. Induced Genetic Variability in Selected γ-Radiated Cotton Varieties during Second Year Ratooning Under Rain Fed Environment. **Asian Journal of Natural & Applied Sciences** Vol. 4(1): 70-81. **Japan.**
- 59. Asim Muhammad et al. 2015. Performance of Selected Irradiated Cotton Varieties During M2 Generation. American-Eurasian J. Agric. & Environ. Sci., 15 (2): 154-160. (index in Thomson Reuters G. list-2016)
- 60. Amir zaman, **Asim Muhammad** et al. **2015**. Influence of slow release urea fertilizer on growth, yield and N uptake on Maize under calcarious soil condition. **Pure and Applied Biology**. 4 (1): 70-79. (**HEC Recognized Journal**)
- 61. Anuar-ul- Haq, **Asim Muhammad** et al. **2015**. Microbiological hazard analysis and exposure assessment of street vended ready-to-eat foods in dhaka city, Bangladesh. **American-Eurasian J. Agric. & Environ. Sci.**, 15 (9): 1725-1731, 2015. (index in

#### **Thomson Reuters G. list-2016**)

## **2014**

- 62. Rehman Ullah Khan, Sultan Mehmood, Saad Ullah Khan, **Asim Muhammad** and Zahid Hussain. **2014**. Camparative study of weed species recorded in different field crops of bannu, khyber pakhtunkhwa, pakistan. **Pak. J. Weed Sci. Res.**, 20(4): 489-504. (**HEC Recognised**)
- 63. Hameeda Bibi, Muhammad Afzal, **Asim Muhammad**, Mustafa Kamal, Ihsan ullah, Sohail, Inayat Ur Rahman and Ali Asghar. 2014.Morphological and Anatomical Studies on Some Monocot Xerophytes of District Karak, Pakistan. **Middle-East Journal of Scientific Research**. 22 (6): 843-850.
- 64. Hameeda BiBi, Muhammad Afzal, **Asim Muhammad**, Mustafa kamal, Sohail, Ihsan ullah and Waqar Khan. 2014. Morphological and Anatomical Studies on Selected Dicot Xerophytes of District Karak, Pakistan. **American-Eurasian J. Agric. & Environ. Sci.**, 14 (11): 1201-1212.
- 65. Saleem Khan, Muhammad Irfaq Khan, **Asim Muhammad**, Farhadullah Khan, Rahmat Ali Khan. **2014**. Gamma rays induced variations in some cotton (*Gossypium hirsutum* L.) genotypes and their evaluation in the environment of Bannu. **International Journal of Advanced Research**. Volume 2, Issue 10, 512-518.
- 66. **Asim Muhammad** et al. **2014**. Growth analysis of soybean landraces under extended planting dates. **Sarhad J. Agric**. Vol.30, No.3: 297-304.**HEC Recognised**
- 67. Rafi Wazir, **Asim Muhammad** et al. **2014**. Morpho-anatomical features of weed flora of rainfed Maize field in Mir Ali, North Waziristan Agency, Pakistan. **Pak. J. Weed Sci. Res.**, 20(3): 385-403. (**HEC Recognised**)
- 68. Hamid Ullah and **Asim Muhammad**. **2014.** Estimation of Induced Variability of Yield Contributing Traits in M1 gamma Irradiated Germplasm of Okra (*Abulmoschus Esculentus* L.). **South Asian Journal of Life Sciences**. 2 (1): 4 7.

- 69. Atiq Mehsud, Sultan Mehmood, Asim Muhammad. 2013. Morphology and anatomy of some weeds from flora of district Bannu, Pakistan. Pak. J. Weed Sci. Res., 19(4): 437 445, 2013. **Pak. J. Weed Sci. Res.**, 19(4): 447-464. (**HEC Recognised**)
- 70. Saad Ullah Khan1, Rehman Ullah Khan, Ihsan Ullah, Sultan Mehmood, **Asim Muhammad** and Manzoor Ullah. **2013**. Morpho-anatomical study of selected plants of district Bannu, Khyber Pakhtunkhwa, Pakistan. **Pak. J. Weed Sci. Res.**, 19(4): 447-464. (**HEC Recognised**)
- 71. **Asim.** M, Shad K. K, Amir Z. K, Amanullah, and Sultan M. W. **2013**. Growth analysis of soybean Land races. 45(3): 941-949. **Pak. Journal of Botany. Thomson reuters List/IF: 0.9**
- 72. **Asim M**. and Shad Khan Khalil. **2013**. Effect of storage material, conditions and duration on Viability and moisture content of land races and improved Varieties of soybean planted on different dates. **Asian Academic Research Journal of Multidisciplinary Research**. **India**. 1(12): 52-63.**IF: 2**
- 73. **Asim Muhammad**. **2013**. A Changes in soybean seed quality and vigour under different planting dates. **Asian journal of natural and applied sciences**. Oyama, **Japan**. 2 (3): 1-10.
- 74. Mushraf, **Asim Muhammad**, Shah Faisal Mohammad and Saddullah Khan. **2013**. Response of maize yield and yield components to different hy
- 75. dropriming durations in rainfed region of Bannu. **EJournal of Biological Sciences**. 6(1): 12-16.
- 76. Saad Ullah Khan, Rehman Ullah Khan, Sultan Mehmood, **Asim Muhammad** T.Z. Bokhari Aziz khan, Ihsan Ullah. **2013.** Medicinally important underground fruit and leafy vegetables of frontier regions of Bannu, Khyber Pakhtunkhwa, Pakistan. **European**

- academic research, International multidisciplinary research journal. Romania, European Union. 1(7):1613-1623.
- 77. Muhammad A. R. S, Hidayatullah K, Samiullah K, Nawshad M, Fahim U. K, Shahnaz, **Asim M**, Yar M. K. **2013**. Cytotoxic, antioxidant and Phytotoxic effect of Solanum surathense burm F fruit extracts. **International Journal of Pharmacognosy and Phytochemistery**.28(2):1154-1158.

#### **2012**

78. **Asim. M**, S. K. Khalil, A. Z. Khan, and Sultan Mehmood Wazir. **2012**. Seasonal and cultivar effects on nodulation potential of soybean. **Pak. Journal of Botany**. 44(1): 317-320. **Thomson reuters List/IF: 0.9** 

#### **2011**

- 79. Amanullah and **Asim. M. 2011**. Evaluation of comman Bean germplasm collected from the neglected pockets of NWFP Pakistan at Kalam (Swat). **Pak. Journal of Botany**. 43(1): 213-219. **Thomson reuters List/IF: 0.9**
- 80. Syed Adil Shah, Aurang Zeb, Tariq Masood, Nadia Noreen, Sayed Jaffar Abbas, Muhammad Samiullah, Md. Abdul Alim, **Asim Muhammad. 2011**. Effects of sprouting time on biochemical and nutritional qualities of Mungbean varieties. **African Journal of Agricultural Research. Africa.** Vol. 6(22): 5091-5098. **Thomson reuters List**
- 81. Saqib Ullah. **Asim Muhammad**, M. Subhan, Sultan Mehmood Wazir and Shah Faisal Mohammad.**2011**. Effect of hydropriming on growth and development of maize landrace in Bannu. **Pakistan Journal of Plant Sciences**. 5(6): 47-49.

#### **2010**

- 82. Faran Durrani, Muhammad Subhan, Sultan Mehmood, Saira Abbas, **Asim Muhammad** and Fayyaz Chaudhary. **2010.** Stimulatory Effect of NAA (Naphthalene acetic acid) and BAP (Benzyl aminopurine)on Flowers, Seeds, Chlorophyll and Protein-Content in Spinach (*Spinacia oleracea* L.). **Sarhad Journal of Agriculture** 24(6): 33-36. **Thomson reuters** List/IF: **0.9**
- 83. **Asim Muhammad**, Mohammad Akmal Khan, Sultan Mehmood Wazir and Shah Faisal Mohammad. **2010**. Characterization and fodder production potential of local cowpea germplasm. **ARPN Journal of Agricultural and Biological Sciences**. 5(6):47-49.

#### **2009**

- 84. **Asim. M**, S. K. Khalil, A. Z. Khan, Khalil and Amanullah.**2009**. Nutritional quality and production of soybean land races and improved varieties as affected by planting dates. **Pak. journal of Botany.** 41(2): 683-687. **Thomson reuters List/IF: 0.9**
- 85. Muhammad Zahoor, Sultan Mehmood Wazir and **Asim Muhammad**. **2009**. Ethnobotanically important flora of darra'e pezo and its outskerts villages district Lakki Marwat (N.W.F.P), Pakistan. **Pakistan Journal of Plant Sciences**. 15(1): 75-80.
- 86. Mustafa Kamal, Sultan Mehmood Wazir, Muhammad Hasan, M. Subhan, Saadullah Khan, **Asim Muhammad** and Shaheen Taj. **2009**. Ethnobotanically important plants of district Bannu, Pakistan. **Pakistan Journal of Plant Sciences**. 15(2): 87-93.

#### **2004**

87. Asim. M, A. Khan and R. Amin .2004. Effect of Seeding Depths on yield of Two Wheat Cultivars. Sarhad Journal of Agriculture (20): 179-182. HEC Recognised

## **2003**

88. Asim. M and P. Shah. 2003. Comparative yield and yield components of land races and improved varieties of soybean. Sarhad Journal of Agriculture (19): 459-461. HEC

#### Recognised

- 89. **Asim.** M. P. Shah, M. Hatam and T. Jan. **2003**. Comparative seasonal nodulation efficiency of landraces and improved varieties of soybean cultivars. **Sarhad Journal of Agriculture** (19): 443-445. **HEC Recognised**
- 90. **Asim. M** and A. Khan. **2003**. Effect of Hall Tonic on irrigated wheat yield. **Journal of Agronomy** (2): 28-33.
- 91. **Asim. M**, P. Shah, M. Hatam and T. Jan. **2003**. Comparative growth and vegetative development of landraces and improved varieties of soybean. **Journal of Agronomy.** 2(4): 214-216.
- 92. Ruhul. A, Shad khan and **Asim. Muhammad. 2003**. Phenological development and weeds dry matter production in canola as affected by pre and post emergence herbicides

#### **RESEARCH PAPERS (Conferences)**

- 36. Effect of soil amended humic acid and phosphorous levels on wheat yield under irrigated calcareous soil of Peshawar Valley.(Submitted to Emirates Journal of Food and Agriculture, Manuscript Number: EJFA-2016-11-1758). (**Thomson Reuters Index: Impact factor. 0.623**).
- 37. Effect of humic acid and phosphorus levels on barley yield and yield components (Submitted to Emirates Journal of Food and Agriculture, Manuscript Number: EJFA-2016-10-1503). (**Thomson Reuters Index: Impact factor. 0.623**)
- 38. Analysis of Potato varieties for their Genetic Diversity using Randomly Amplified Polymorphic DNA primers' (Submitted to Emirates Journal of Food and Agriculture, Manuscript Number: EJFA-2016-11-1600). (**Thomson Reuters Index: Impact factor. 0.623**).
- 39. Sajid Ullah, Kamran Khan and Muhammad Asim. Effect of different Osmopriming sources on yield and yield components of winter Wheat. 3<sup>rd</sup> 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.pp: 47.
- 40. Kamran Khan, **Asim Muhammad**, Sajid Ullah Khan and Feroz Khan. Effects of planting dates on Mung bean landraces vs improved varieties for stand establishment and growth dynamics. 3<sup>rd</sup> 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.pp:41.
- 41. Muhammad Subhan, **Asim Muhammad**, Hidayat Ullah, Rahman Ullah, Kamran Khan and Sajid Ullah Khan. Evaluation of acclimatization of exotic species of biodiesel plant (*Jatropha curcas* L.) on the basis of vegetative parameters in the environment of rainfed and sandy loam of Bannu. 3<sup>rd</sup> 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.pp:45.
- 42. Muhammad Subhan, Asim Muhammad, Hidayat Ullah, Rahman Ullah, Dil Khuram and Inam Ali Shah. Study of yield and yield components of Biodiesel plant under Agro Climatic condition of Bannu. 3<sup>rd</sup> 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.
- 43. Biodiversity in the weeds flora of cereal crops in FR- Bannu, Khyber Pakhtunkhawa,

- Pakistan. Oral Presentation at 5<sup>th</sup> International and 12<sup>th</sup> National conference of Weed Science organized by The Weed Science Society of Pakistan at Shaheed Benazir Bhutto University, Sheringal, Dir Upper, Khyber Pakhtunkhwa, Pakistan on June 12-14, 2015. Abstract page No:66
- 44. Illustrated weed flora of rice crop in FR- Bannu, Khyber Pakhtunkhawa, Pakistan. Oral Presentation at 5<sup>th</sup> International and 12<sup>th</sup> National conference of Weed Science organized by The Weed Science Society of Pakistan at Shaheed Benazir Bhutto University, Sheringal, Dir Upper, Khyber Pakhtunkhwa, Pakistan on June 12-14, 2015. Abstract page No:67.
- 45. Saqibullah and Asim Muhammad. 2014. Modeling and determination of seed

- characteristics of different seed sizes of chick Pea. Fourth International & 13<sup>th</sup> National conference of Botany organized by Pakistan Botanical Society as Shaheed Benazir Bhuttu Univeristy, Sheringal, Dir Upper Khyber Pakhtun Khwa, Pakistan.
- 46. 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).
- 47. Kamran Khan & **Asim Muhammad**. **2016**. Response of Mungbean varieties toward environmental variations. 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.

## **RESEARCH ARTICLES CITATIONS: Total 275.**

# AS A REVIEWER IN NATIONAL & INTERNATIONAL JOURNALS:

- 1. International Research Journal of Plant Sciences
- 2. Journal of Agricultural Extension and Rural Development
- 3. World Journal of Agricultural Sciences
- 4. International Research Journal of Agricultural Sciences.
- 5. International Scholars Journals
- 6. Annual Research & Review in Biology
- 7. Agriculture Research Journal
- 8. Pakistan Journal of Agricultural Sciences
- 9. Journal of Agricultural and Crop Research
- 10. African Journal of Agriculture Research
- 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