**Professor Dr. HAMAYOON KHAN**

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**Mailing Address: →Director Climate Change Center,**

**The University of Agriculture Peshawar Khyber Pakhtunkhwa-25130, Pakistan, Off Ph:+92-91 5701714**

**Cell Ph:+92-3009081936; Fax:+92-9192165020**

**House #: R-24, University, Campus Peshawar.**

**Email: prof.hamayoon@aup.edu.pk**

**Website: www.aup.edu.pk**

­­­­­­­**Personal Information:**

Name: Hamayoon Khan

Father’s Name: Haji Nowsher Khan

Permanent address: Mohalla: Babi Khail, Village & Post Office:Taraki,

Tehsil: Razar, District: Swabi, Khyber Pakhtunkhwa- Pakistan.

Date of Birth: 11-04-1970

C.N.I.C.No: 16202-3234014-3

Domicile: Swabi

Religion : Islam

Marital Status: Married

Nationality: Pakistani

Languages: Pashto, Urdu & English

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##### **Professional Goal:**

My objective as an Agronomist and an Environmental Scientist is to improve the quality and sustainability (both environmental and economic) of life on earth by developing such cropping systems, techniques and projects that mitigate the impact of climate change and fit better into the natural world and produce more with less. Currently I play two primary official roles i.e. as a teacher (in the class room) and as an supervisor of research students. However, I also have two “unofficial” roles as a mentor and as a role model in my daily activities and in developing my programs research focus.

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**Area of Specialization:**

Crop Physiology, Soil Plant Water Relation and Crop Nutrition, Environmental Conservation Science, Climate Change & NRM

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**HEC Approved Supervisor:Yes**

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**Academic Qualifications:**

1. **Ph.D. (Environment Conservation Science)**-**2009**-Department of Life Environment Conservation Science, The United Graduate School of Agricultural Sciences, Ehime University, Matsuyama, Japan

**PhD Thesis Title:“Adsorption Behavior of Water on Allophone and its Relationship With The Agronomic Traits of Soybean Cultivation”**

**PhD Advisor:**

Dr. Teruo Henmi, Professor in Soil &Environmental Sciences Department, Dean Faculty of Agriculture, Ehemi University Matsuyama, Japan

1. **MS (Environment Conservation Science)**-**2006**-Department of Agricultural Bioresource Science, The United Graduate School of Agricultural Sciences, Ehime University, Matsuyama, Japan

**MS Advisor:**

Dr. Teruo Henmi, Professor in Soil & Environmental Sciences Department, Dean Faculty of Agriculture, Ehemi University Matsuyama, Japan

**Courses Studied during MS (Environment Conservation Science)**

* Principle of Natural Resources and Global Environment
* Frontier of Agricultural and Related Science I
* Frontier of Agricultural and Related Science II
* Outline of The Science For Environmental Conservation
* Conservation of Aquatic Environments
* Hydrological Aspects in Ecology
* Urban Ecological Chemistry
* Chemistry for Improvement of Environments
* Environmental physical chemistry
* Exercise of Environmental Conservation I
* Exercise of Environmental Conservation Ii
* Exercise of Research Environmental Conservation I
* Exercise of Research Environmental Conservation II
* Conservation Genetics

**3. M.Sc (Hons) (Agronomy)**-**1995**-The University of Agriculture, Peshawar-Pakistan

**4. B.Sc. Hons (Agronomy)**-**1994**-The University of Agriculture, Peshawar-Pakistan  
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**Professional Experience:**

* **Professor**, Department of Agronomy, University of Agriculture Peshawar-Since 2012-till date-
* **Associate Professor**, Department of Agronomy, University of Agriculture Peshawar-Since 2009-2012.
* **Assistant Professor**, Department of Agronomy, University of Agriculture Peshawar-Since 2005-2009.
* **Lecturer**, Department of Agronomy, University of Agriculture Peshawar- Since 1996 -2005.

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**Courses Taught:**

Basic Agriculture

General Field Crop Production

Technology of Major Field Crops

Modern Concepts in Crop Production

Crop Environment

Climate Change & Agriculture

Plant Water Relation

Crop Production and Environment

Cereal Crops

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**QEC University Grading:**

A+ grade in Quality Evaluation Reports in all the mentioned courses

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**Number BSc(Hons),Msc (Hons) and PhD students supervised and awarded degree:**

* **PhD: (01 Completed & 02 in-progress)**
* **MPhill: 25**
* **BSc(Hons): 80**

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**Referee/ Editor:**

* Jounal Revista Planta Daninha, Brazil
* African Journal of Agricultural Science and Technology
* Sarhad Journal of Agriculture
* Referee Journal of Cereals &Oilseeds
* Pakistan Tobacco Journal

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National & International Trainings/Conferences/Workshops Organized/Attended:

* Organized a two days international conference on “Innovations in Agriculture” March 28-29, 2017, at The University of Agriculture Peshawar, Pakistan.
* Organized a three days international conference on “Climate Smart Agriculture” January 27-29,2018. At the university of Agriculture Peshawar.
* Attended international workshop on “Sustainable food security under climate change” July 26-28, 2018 at Serena Hotel Islamabad, Pakistan
* The 13th international Clay Conference-Clay sphere: Past, Present and Future- and 49th Annual meeting of the Clay Science Society of Japan August 21-27, 2005. Waseda University, Tokyo, Japan.
* Adsorption of water on nano-ball as affected by heat treatments, infrared and X-rays powder diffraction data. Clay Science Conference organized by the Japanese Society of Clay Science held in September 6-9, 2006.
* Adsorption of water on nano-ball as affected by heat treatments, infrared and X-rays powder diffraction data. Clay Science Conference organized by the Japanese Society of Clay Science held in Hokkaido September 11-14, 2007.
* Interaction between water molecule and surface structure of soil particles in relation to crop cultivation. Clay Science Conference organized by the Clay Science Society of Japan held in Okinawa, September 2-5, 2008.
* Three days National Conference on “Innovative Technologies and Sustainable Development in Agriculture” on Aug.19-22, 2014 at Baragali (Abbottabad),under Agricultural UniversityTeachers Association(AUTA)
* One day seminar on "Production of medicinal plants in Pakistan" on February 07,2012 organized

by the Department of Agronomy,The University of Agriculture, Peshawar.

* Two days conference titled“Recent Trends in Agronomic Strategies for further Green Revolution” under the Pakistan Society of Agronomy at the University of Agriculture ,Peshawar onMay2-3, 2012.
* Three days International Conference titled“Climate Change:A Challenge forAgriculturists”onMay28-30,2012 at the University of Agriculture, Peshawar, Pakistan as Conference Secretary.
* One day workshop on“Prospect of Jatrophabiodiesel plant in Pakistan” on 19 June 2014 organized by the Agricultural University Teachers Foundation(AUTA) at The University of Agriculture, Peshawar Pakistan.

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**­Professional Societies Membership**

* Crop Science Society of Japan
* Clay Science society of Japan
* Pakistan Society of Agronomy, Faisalabad
* Monbukagakusho Alumni Association of Pakistan(MAAP)
* The International Society for Agricultural Metrology
* Asia-Pacific Chemical, Biological & Environmental Engineering Society
* Saudi Arabian Water Environment Association

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**Services:**

* Working as Director Climate Change Centre, The University of Agriculture Peshawar
* Director Teaching, The University of Agriculture Peshawar, January 23rd till date,
* **President** Federation of All Pakistan Universities Academic Staff Association (FAPUASA), 2011-12 &2016-17.
* **President** Federation of All Pakistan Universities Academic Staff Association (FAPUASA), 2012-2013, KP Chapter
* **President** Agriculture University Teachers Association (AUTA), 2011-12, 2012-13, 2015-16 & 2016-17
* **Member of University Syndicate:** 2001-2003
* **Warden:** Hostel No. 07, From 12-09-1997 to 04-09-2000
* **Staff Proctor:** From 12-09-1997 to 04-09-1999
* Member tour committee, The University of Agriculture Peshawar
* External Examiner, University of Peshawar
* External Examiner, ARID Agriculture University Rawalpindi

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**Awards/ Distinctions:**

* Monbukagakusho Scholarship (2003) for Ph.D., Government of Japan,
* First Position in B.Sc. Hons. Agronomy (Distinction)
* First Position in M.Sc Hons. Agronomy (Distinction)
* Best Debater Award (Inter college completion)

**Countries visited:**

1. Japan 2. Canada 3. Kingdom of Saudi Arabia 4. China 5. England 6. Bahrain 7. UAE

**Research ProjectsSubmitted As A Principal Investigator:**

“Development of heat tolerant chickpea by genetic and molecular appraisal and mitigating impact of climate change” submitted to Pakistan Science Foundation (PSF) for funding.

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**Publications: 53 Publications in Refereed Journals**

National and International Research Publications

**Impact Factor Publications**

1. Rozina Gul , **Hamayoon Khan** , Shahenshah, Naqib Ullah Khan , Noreen Asim, Abdul Latif and Ko Harada. 2018. Characterization for Nodulation and Detection of Duplicate Gene Action of Dominant Epistasis Controlling Root Nodulation in Chickpea (Cicer arietinum). Int. J. Agric. Biol., 20: 683‒688

1. **Hamayoon Khan**, Rozina Gul and Naqib Ullah Khan. 2017. Appraisal of interaction among nipping and chickpea (cicer arietinum l.) Genotypes and their correlated response for grain yield. The JAPS., 27(4) 1295-1302.
2. Gul, M. Saeed, H. Khan, **Hamayoon Khan,**M. I. Khan and I. Khan. 2017. Impact of water hyacinth and water lettuce aqueous extracts on growth and germination of wheat and its associated troublesome weeds. Journal of Applied Ecology and Environmental Research. 15(3): 939-950.
3. Zafrullah Khan , Shah Alam Khan, **Hamayoon Khan**, Naeem Khan, Khwaja Junaid and Inamullah Khan (2017). Seven Local Commercial Wheat Cultivars Tested for Resistance against Rhopalosiphum padi L. in Pakistan. Pak. J. Zool., vol. 49(3), 793-799
4. Anum Aslam, Sofia Khalid,**Hamayoon Khan** and M. N. Ahamd. 2016.Determination of fluride concentration in tooth pastes and mouth washes marketed in Rawalpaindi by ion seclective electrode method.Fluoride J. (Accepted for Publication)
5. Khan, I.A., G. Hassan, N. Malik, R. Khan, **Hamayoon Khan** and S.A. Khan. 2016. Effect of herbicides on yield and yield components of hybrid maize (Zea mays). 2016. Planta Daninha, Volume 36(4): 21-25.
6. A.U. Haq, N.U. Khan, H. Raza, S. Gul, S. Akbar, S.U. Khan, S. Muhammad, M. Ali1, **H. Khan** and S.M. Khan (2017). Genetic attributes of f3 populations and their parental lines in upland cotton. The JAPS, 27(2), 655-666
7. Shahen shah, Ghufran ghani , **Hamayoon khan** , Muhammad arif , Abdul qahar , Inamullah , Asad ali and Musharaf ahmad (2015). Response of maize cultivars to phosphorus and zinc nutrition. Pak. J. Bot., 47(SI): 289-292
8. RozinaGul,**Hamayoon Khan,** Arif Khan and Naquibullah khan. (2014). Characterization of chickpea germplasm for nodulation and effect of rhizobium inoculation on nodules number and seed yield. The Journal of Animal & Plant Sciences, 24(5):1421-1429
9. RozinaGul**, Hamayoon Khan**and Naqibullah khan. (2014). Genetic linkage effect on inheritance of nodulation and leaf color in chickpea (Cicerarietinum L.). SABRAO Journal of Breeding and Genetics 46 (1) 89-98.
10. Farhan Ali, RozinaGul, **Hamayoon Khan**, HidayatUllah. (2013). Heterosis and early generation testing is a pivotal method for production of hybrid. Australian Journal of Crop Science, 7(11):1728-1736
11. RozinaGul**, Hamayoon Khan**and Maryam Bibi. (2013). Genetic analysis and interrelationship of yield and yield attributing traits in chickpea (*Cicerarietinum L.).* The Journal of Animal & Plant Sciences, 23(2): 2013, Page: 521-526.
12. **Hamayoon Khan**, Naoto Matsue and TeruoHenmi. (2006). Adsorption of Water on nano-ball allophane. Journal of Clay Science Japan, 12 (2): 261-266.
13. **Hamayoon Khan**, Naoto Matsue and TeruoHenmi. (2006). Adsorption of water on nano-ball allophane as affected by heat treatment. Journal of Clay Science Japan, 13 (2): 43-50.
14. Rozina K., **Hamayoon Khan**,K. Harada. 2010. Evaluation of microsatellite markers to discriminate induced mutation lines, hybrid lines and cultigens in chickpea (Cicerarietinum L). Aust. J. crop Sci, 4(5),301-308
15. Rozina. H., **Hamayoon Khan**,Shahenshah, L. Naz, I. Munir, M.Arif, I.A. Khalil, and A.Z. Khan. 2011. Performance of chickpea genotypes under two different environmental conditions. Afr. J. Biotechnol., 10(9),1534-1544
16. Rozina G., **Hamayoon Khan,** M. Bibi, Q.U. Ain, B. Imran. 2013. Genetic analysis and interrelationship of yield attributibg traits in chickpea (*Cicerarietinum* L.).The J. An. & Pl. Sci., 23(2): 2013: 521-526
17. **Hamayoon Khan,** Amir Z. Khan, P.shah, F. Mohd**,** Amanullah, S.Perveen, S.Nigar, S.K. Khalil and M. Zubair. (2010). Vigor test used to rank seed lot quality and predict field emergence in wheat*. Pak. J. Bot., 42(5): 3147-3155*.
18. **Hamayoon Khan,** Amir Z. Khan,R. Khan, S. Nigar, B. Saeed, H. Gul, Amanullah, S. Wahab, A. Muhammad, M. Ayub, N. Matsue and T. Henmi. (2011).Morphology and Yield of Soybean grown on Allophanic Soil as Influenced by synthetic Zeolite Application..Pak.J.Bot. 43(4): 2099-210.
19. **Hamayoon Khan,** Amir Z. Khan, P. Shah, S. Nigar, S. Perveen, M.K. Shah, Amanullah, S. K. Khalil, S. Munir and M. Zubair (2011)**.** Seed Quality and Vigor of Soybean Cultivars as Influenced by Canopy Temperature. *Pak. J. Bot*., 43(1): 643-648.
20. **Hamayoon Khan,**M.Shafi, JehanBakht, Satta Ali, M. Aman Khan, and M. Sharif. 2012. Effect of planting density on phenology, growth and yield of maize(Zea mays L.). Pak. J. Bot., 44(2), 691-696.
21. Shad K.K., F. khan, A. Rehman, F. Muhammad, Amanullah, A.z. khan, S. wahab and **Hamayoon Khan**. 2011. Dual purpose wheat for forage and grain yield in response to cutting, seed rate and nitrogen. Pak. J. Bot.,43(2); 937-947.
22. Amanullah, S. Shah and **Hamayoon Khan**.2014. Effect of variable nitrogen sourcesand rate on leaf area index and total dry matter accumulation in maiz Zea may L, genotypes under calcareous soils. Turkish Journal of field Crops. 19(2):276-284.
23. Khan S.A, J. C. Reese, Predeesh C, Murugan. MHayat.Yand**Hamayoon Khan.**Categories of resistance in wheat to green bug schizaphisgraminm (rondani) through a novel technique direct current electrical penetration graph (DC-EPG).Accepted for publication in Pakistan Journal of Botany.

National and International Publications/(HEC Recognized)

* + - 1. Naimat Ullah , Asim Muhammad , Habib Ullah Marwat , **Hamayoon Khan** and Muhammad Subhan (2017). Vigour and viability of osmoprimed harvested seeds of wheat varieties. Journal of Agricultural and Biological Science, 12 (1), 12-18
      2. Asim Muhammad , Inamullah, **Hamayoon Khan** and Muhammad Arif (2017). Germination and field emergence potential of soybean land races vs improved varieties under different sowing dates. Pure Appl. Biol., <http://dx.doi.org/10.19045/bspab.2017.60007>
      3. Fayaz Ahmed and **Hamayoon Khan**. 2016. Effect of different fertilizer treatments on the performance of some local rice varieties under SRI (system of rice intensification) and converntional management practices in district Swat. Pure Applied Biology., 5(1): 37-47
      4. Soshma Jan, Rozina Gul**,** Fahim Ullah Khan, **Hamayun Khan** and Sana Saeed. 2015. Interrelationships among yield and yield components in chickpea *(Cicer arietinum* L.) under irrigated and rainfed conditions. Pure Appli. Biol. 4(4): 551-556
      5. **Hamayoon Khan**, M. Arif, R. Gul and K. Naveed. 2001. The Residual effect of groundnut crop and soil amendments on the performance of gram under rain fed condition. Sarhad J. Agric. Vol. 17(4). 525-531
      6. **Hamayoon Khan**, M. Arif, R. Gul, N. Ahmad and I. A. Khan. 2002. Effects of sowing dates on maize cultivars. Sarhad J. Agric. Vol. 18(1):159-163.
      7. Rozina G., **Hamayoon Khan**, S. Sattar, Farhatullah, F. Munsif, Shadman, S. A. K. Bangash and S. H. Khattak. 2011. Comparison among nodulated and non-nodulated chickpea genotypes. Sarhad J. Agri., 27(2): 577-581.
      8. Rozina G., **Hamayoon Khan**,, G. Mairag, S. Ali, Farhatullah and Ikramullah. 2007. Correlation Study on Morphological and Yield Parameters of Mungbean (Vigna radiate). Sarhad J. Agric. 24(1): 37-42.
      9. Rozina K., Farhatullah and **Hamayoon Khan**. 2011. Dissection of variability and heritability estimates of chickpea germplasm for various morphological markers and quantitative traits. Sarhad.J.Agric. 27(1): 67-72.
      10. Mohsin R., **Hamayoon Khan,** F. Karim and M. J. Tahir 2003. Nitrogen use efficiency as affected by time of application in rice (IRRI-6). Sarhad j. Agric. Vol. 19, No.4.
      11. Mohsin R., **Hamayoon Khan** M.J. Tahir, M.Hussainand Shahenshah.2004. Effect of different combinations of NPK on growth and yield of seed cotton varieties CIM-443. SarhadJ.Agric. 20(1);1-4.
      12. B. Ahmad, Mohammad, **Hamayoon Khan**, and S.Z. Iqbal 1999. Seed production and yield component as effected by ade,size, and spacing of steckling in turnip (brassica Rapa L.). Sarhad J. Agric. Vol. 15 (5).
      13. B. Ahmad, I. Mohammad, M. shafi, H. Akbar, **Hamayoon Khan**, and A. Razaq (1999). Effect of row spacing on the yield and yield components of wheat (cultivar, Bakhtawar-92). Sarhad j. Agric. Vol. 15 (2).
      14. Tariq M., R. Gul, F.Munsif, F. Jalal, Z. Hussain, N. Noreen, **Hamayoon Khan**,Nasiruddin and H. Khan. 2011. Effect of phosphorus levels on yield and yield componentsof maize. Sarhad J. Agric. 27(2): 167-170.
      15. Saifullah, A.Jan, F. Munsif, M. Arif, **Hamayoon Khan,** K. Ali, M. Waqas and A. Ali. 2011. Performance of millet varieties under different irrigation levels. Sarhad J. Agric. 27(1); 1-7.
      16. Muhammad A., Ihsanullah, S. Khan, F. Ghani and **Hamayoon khan** (2001). Response of maize varieties to different planting methods. Sarhad J. Agric. Vol. 17 (2); 159-163.
      17. Habib A., Siraj-ud-Din, M. shafi, J. Bakht, B. Ahmad and **Hamayoon Khan** (2000). Yield and yield components of wheat and gram planted in monoculture and in combination at different row directions and crop geometry. Sarhad J. Agric. Vol. 16 (3).
      18. Fida M., H. Daniel, K. Shahzad and **Hamayoon khan** (2001). Heritability estimations for yield and its components in wheat. Sarhad J. Agric. Vol 17 (2).
      19. Fazal H. T., A.Z. Khan, J. M. Khan, S. K. Khalil and **Hamayoon Khan** (2002). Field performance of maiz planted at different seeding depth and seed size. Pak. J. seed tech., 1(2).
      20. **Hamayoon Khan**, N. Matsue and T. Henmi (2007). Adsorption of Water on Nano-Ball Allophane as Affected by Dry Grinding. Int. J. Soil Sci., 2 (4): 247-257.
      21. Amir Z. K., **Hamayoon Khan**, R. Khan, A. Ghoneim and A. Ebid. 2007. Seed Development Profile of Soybean as Influenced by Planting Dates and Cultivars under Temperate Environment. Am. J. Plt. Phys. 2(4):251-260.
      22. Amir Z. K., **Hamayoon Khan**and R. Khan. (2007). Influence of Canopy Temperature on Physio-Chemical Quality of soybean. Research Journal of Botany, 2 (4) 202-207.
      23. Amir Z. K., **Hamayoon Khan**,, A. Ghoneim, R. Khan and A. Ebid. 2007. Seed Quality and Vigor of Soybean as Influenced by Planting Dates, Density and Cultivar under Temperate Environment. Int. J. of Agric. Res. 2 (4): 368-376.
      24. Amir Zaman Khan, **Hamayoon Khan**, R. Khan and A. Ghoneim and A. Ebid. 2007. Comparison of Different Wheat Seed Categories (VS) Farmer’ seed: Yield and Yield Components. Trends in Appl. Sci. Res. 2(6):529-534,
      25. **Hamayoon Khan**,, A. Z. Khan, R. Khan, N. Matsu and T. Henmi. 2008. Zeolite Application Affects Vegetative Phenology of determinate and indeterminate soybean grown on Allophanic soil. Int. J. Agric. Res. 3(2): 148-154.
      26. **Hamayoon Khan**., A. Z. Khan, R. Khan, N. Matsu and T. Henmi. 2008. Water adsorption and surface acidity of nano-ball Allophane as affected by heat treatment. J. Env. Sci. & tech. **2 (1): 22-30.**
      27. **Hamayoon Khan**,, A. Z. Khan, R. Khan, N. Matsu and T. Henmi. 2008. Soybean Leaf Area, Plant height and Reproductive Development as influenced by Zeolite Application and Allophanic Soil. J. plt Sci. 3(4): 277-286.
      28. **Hamayoon Khan**, A. Z. Khan, R. Khan, N. Matsu and T. Henmi. 2009. Influence of Zeolite Application on Germination and Seed Quality of Soybean grown on Allophanic soil. Res. J. Seed Sci. 2(1):1-8
      29. RozinaGul, Sajid Ali, **Hamayoon Khan**, Nazia, Farhan Ali and Imran Ali. 2007. Variability among Mungbean (vigna radiate) Genotypes for yield and Yield Components Grown in Peshawar Valley. J. Agric. Bio. Sci. 1 (4):6-9.

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**Collaborators & Other Affiliations**

* Dr. Naoto Matsue,Professor, Soil and Environmental Sciences, Ehime University Matsuyama, Japan;
* Dr. RiazAllam, Senior Scientist, National Agriculture Research Council, Islamabad;
* Dr. Iftikhar Ahmed, Principal Scientist, Nuclear Institute for Food & Agriculture Peshawar Pakistan

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**References:**

**1. Professor Dr. Naoto Matsue**

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Agricultural Sciences, Ehime University 3-5-7 Tarumi, Matsuyama, Ehime, 790-8566 Japan  
Phone:+81-89-946-9910 F a x:+81-89-943-5242 E-mail :matsue@agr.ehime-u.ac.jp

**2. Professor Dr. Rozina Gul**

Department of Plant Breeding & Genetics, The University of Agriculture, Peshawar, 25120,

Khyber Pakhtunkhwa, Pakistan

Phone: + 92 91 5611471, Mobile: + 92 3329976704, Fax: + 92 91 9216520

Email: [drrozinakhan@aup.edu.pk, drrozinakhan@yahoo.com](mailto:drrozinakhan@aup.edu.pk,%20drrozinakhan@yahoo.com)