

Brief Bio-data of Dr. R.K. Gautam



1. Name : Dr. R.K. Gautam
2. Date of birth : June 17, 1967
3. Present position & address: Senior Scientist (Plant Breeding)
Central Soil Salinity Research Institute, Karnal -132001,
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4. Academic Record:

Examination/ Degree/Diploma	Class/ Division	Year	Subject with major field	University
B.Sc(Agril.)	I	1987	Plant Breeding as elective	HP Agricultural University, Palampur, India.
M.Sc (Plant Breeding)	I	1989	Plant Breeding	HP Agricultural University, Palampur, India
Ph.D (Plant Breeding)	I	1993	Plant Breeding	HP Agricultural University, Palampur, India

5. Research experience:

(a) Total years: 14 years

(b) Year wise break up with position:

Employer	Designation with Institution and Place of work	Period (from-to)	Scale of pay/basic pay	Whether permanent or temporary
Director Research, Punjab Agricultural University (PAU), Ludhiana	Assistant Rice Breeder, PAU, Regional Rice Research Station, Kapurthala, Punjab	25.08.1993 to 7.09.1998	Rs.2200- 4000.	Permanent
Director Research, PAU, Ludhiana	Assistant Plant Breeder (Sr. Scale), PAU, Regional Rice Research Station, Kapurthala, Punjab	8.09.1998 to 14.11.2000	Rs.10000- 15200	Permanent
Director, CSSRI, Karnal	Senior Scientist (Plant Breeding)	15.11.2000 till date	Rs.12000- 18300	Permanent

6. Specialization:

Scientific capabilities and interests: *Rice breeding, salt tolerance, disease resistance, molecular breeding, varieties*

b) **Salient Accomplishments:**

- Involved in the development and release of 6 successful varieties of rice for the Punjab State viz. PR113, PR115, PR116, PR118, Super Basmati, PAU 201, PAU 3030-29-2 (basmati type) for the Punjab state. Since bacterial leaf blight resistance was not present in the parent varieties, the varieties were developed by introgression of the *xa-5* gene from the wild rice *Oryza rufipogon* into the basmati varieties.

blight is a serious rice disease in Punjab, all these varieties possess bacterial blight (BB) resistance governed by diverse genes for durability of resistance. These varieties have already considerable area under them in India.

- Involved in the development and release of salt tolerant rice variety-CSR36 which is recommended for the sodic soils of Haryana, UP and Pondicherry.
- Responsible for Breeder's Seed Production program of salt tolerant rice varieties viz. CSR10, CSR13, CSR23, CSR25, CSR30 (basmati type) and CSR36 at CSSRI, Karnal for supplying their seed to different organizations and farmers every year. Large areas in India are under these varieties every year.
- Helped in the development of 4 CMS lines (PMS14A, PMS15A, PMS16A and PMS17A) all possessing dominant bacterial blight resistance for developing B resistant rice hybrids.
- Identification and registration of 2 unique Sesbania germplasm lines CSD137 and CSD123 with National Bureau of Plant Genetic Resources, New Delhi. CSD137 is identified to have maximum foliage weight in sodic soils whereas CSD123 possesses distinct early maturity. CSD137 has been assigned with registration No. INGR No. 04108 and a national Identity No. IC 427827. Similarly, CSD123 has been assigned with registration No. INGR No. 06016 and a national Identity No. IC 546953.

c) Current Research Projects in hand: (International/National)

Designation	Co-ordinating Institute	Name of Research Project
Principal Investigator	International Rice Research Institute, Manila, Philippines.	CGIAR's Challenge Program on Water & Food (PN7) "Development of technologies to harness the productivity potential of salt affected areas of the Indo-Gangetic, Mekong and Nile River Basins"
Principal Investigator	International Centre for Genetic Engineering and Bio-technology, (ICGEB) New Delhi.	DBT funded "Development and evaluation of salt and drought tolerant transgenic rice" under Indo-US ABSPII.
Principal Investigator	National Research Centre on Plant Biotechnology, New Delhi	ICAR Network project on Transgenics in Crops-Salinity Tolerance in Rice: Functional Genomics component.
Investigator	Central Soil Salinity Research Institute, Karnal, India	Evaluation and breeding rice for salinity, alkalinity and submergence stress tolerance.

d. International exposure:

Name of Scientist	Place of visit	Dates	Purpose
Dr. R.K.Gautam	International Rice Research Institute, Manila,, Philippines	March 11-May 3,1996	Training on “Hybrid Rice Breeding and Technology” and was awarded distinction.
Dr. R.K. Gautam	IRRI,Philippines	Feb.20-28,2005	Workshops on Advances in Marker Assisted Selection, Project Review and Planning and Management.
Dr. R.K.Gautam	Kathmandu, Nepal	July 3-4,2006	Annual CPWF Stakeholders Workshop
Dr. R.K. Gautam	Bang Saen, Thailand	November 7-11,2007	Delta -2007 Conference and CPWF-PN7 project meeting

7. Publications (R.K. Gautam):

- a) (i) Research Journals: 18
(ii) Books chapters : 2
(iii) Conferences/Symposia: 15
(iv) Bulletins/Technical Reports: 5
Total : 40

b) Best 5 publications of last 10 years:

Nayak, A.K., **Gautam,R.K.**, Sharma,D.K., Mishra,V.K., Singh,C.S. and Jha,S.K.(2007).Growth,oil yield and ion partitioning in *Ocimum basilicum* grown in sodic soils. *Communication in Soil Science and Plant Analysis*. (Canada) accepted.

Gautam,R.K. Omvir and Bharaj,T.S. (2005). Breeding bacterial blight resistant rice (*Oryza sativa* L.) hybrids. *Indian J.Genet. & Plant Breeding*. 65(2) :121-122.

Gautam, R.K., Sethi, G.S. and Plaha, P (2003). P-stress tolerance in some rye- introgressed bread wheats and association of the trait with specific rye chromosome(s).*Cytologia* (Japan). 68(2) : 127-132.

Gautam, R.K.and Sethi, G.S. (2002) Character associations in *Secale cereale* L. introgressed bread wheats under irrigated and water stress conditions. *Indian J. Genet. Plant Breeding*.62 (1):69-70.

Gautam, R.K., Sethi, G.S. and Plaha, P.(2000). Some useful characters implicated in tolerance to low phosphorus and water stress in hexaploid triticale x bread wheat derivatives. *Cereal Research Commun.* (Hungary) 28:117-121.

Gautam,R.K., Bharaj, T.S.,Omvir, Muker,H.S., Randhawa,H.S. and Sekhon, R.S. (1997). Performance of exotic (IRRI) and locally developed cytoplasmic male sterile lines at Kapurthala, Punjab, India. *International Rice Research Notes*. 22(3):9-10.

Gautam,R.K., Sethi, G.S., Rana, M.K. and Sharma, S.K. (1998). Induction, inheritance pattern and agronomic performance of awned mutants in a multiple disease resistant bread wheat. *Indian J. Genet. Plant Breeding* 58(4):1-6.