

Brief Profile of Dr. R.S. Sengar



Name : **Dr. Rakesh Singh Sengar**
Designation and Department : Professor and Head, Deptt. of Agri. Biotechnology.
 Nodal Officer, ICAR – Nodal Cell, SVPUAT.
Educational Qualification : Ph.D. (Plant Science, 1992)
 M.Sc. (Plant Science, 1988)
Postal Address : Professor and Head, Dept. of Agriculture Biotechnology,
 College of Agriculture, S.V.P. University of Agriculture
 and Technology, Meerut 250110;
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Email : sengar065@gmail.com
Area of Interest/Specialization : Molecular Biology and Genetic Engineering, Stress
 Physiology, Tissue Culture, Seed Development,
 Biochemistry.

Administrative Experience

Post Held	Place of Posting	Period		Total Period
		From	To	
Nodal Officer ICAR Cell	S.V.P.U.A.&T., Meerut	July 2016	Continue	About 11 Month
Professor & Head	Agriculture Biotechnology, SVPUAT, Meerut	01-07-2010	Continue	About 6 years
Associate Director Extension	KVK, Ghaziabad	23-12-2003	5-5-2006	2 Years 5 Months
Officer In-charge -Department of Physiology and Biochemistry -Department of Finger Printing and DNA Recombination	College of Biotechnology, S.V.P.U.A.&T., Meerut	6-05- 2006	28-12- 2006	7 Month 22 Days
Associate Professor Agriculture Biotechnology	College of Agriculture, S.V.P.U.A.&T., Meerut	29-12-2006	30-06- 2010	5 Years
Media Officer	S.V.P.U.A.&T., Meerut	18-1-2005	To Date	About 11 Years
University Right to Information Officer	S.V.P.U.A.&T., Meerut	26-10-2005	12-6-2006	8 Months
University Associate Information Officer	S.V.P.U.A.&T., Meerut	13-6-2006	19-7-2006	1 Month
NSS Officer and University Co- ordinator	S.V.P.U.A.&T., Meerut	20-2-2006	2012	6 years

Major Contributions in Research

- Contribution of new knowledge on the role and regulation of enzymes of nitrate and ammonia assimilation proline metabolism and polyamine metabolism in plants
- Popularization of farming of medicinal and Aromatic Plant in farmers.
- Standardizations of Protocols for different tissue culture techniques used to regenerate and multiply some of the plants of commercial importance.
- Developed new technology to generate eco- friendly slow release fertilizers.
- Studied the process of heavy metal toxicity and phytoremediation in potential plant species.
- Identification and Molecular characterization (proteomics and genomics) of different crops.
- Developed successful protocol for the development of Synthetic seeds in Sugarcane.
- Successful regeneration of Drought stress induced Banana plantlets via the use of 6th hormone Bressionoids.

Honour's/Awards and Distinctions

Honour's/Awards Received	Year	Awarding Agency
1. Best young Agriculture Writer Award	1999	Centre for Agriculture and Rural Development, New Delhi, India
1. Award for outstanding contribution in popularization of Science through Hindi. The award was given by Hon'ble science and technology minister Shri Bachi Singh Rawat , Govt. of India, New Delhi.	2000	CSIR Technology Prize by Vigyan Bharti, Lucknow
2. Best Extension Worker Award For outstanding contribution in Agri Extension	2002	Shah Times, Haldawani, (Uttarnchal)
4. Man of the year Award	2003	American Biographical institute Inc. U.S.A.
5. Research Board of Advisors Award	2005	American Biographical Institute, Inc. U.S.A.
6. Utkrith Lekhan Samman	2006	Vishwa Agro Marketing and communication Kota-Rajeshthan
7. Young Scientist Award For outstanding contributions in the field of Agriculture and Science Extension	2007	Lok Vikas Sansthan Ajitmal- Etawah
1. Kunwar Saxena Bahadur SRDA Award For outstanding contributions in the field of crop physiology/tissue culture	2008	Society for Recent Development in Agriculture, Meerut
2. Young Scientist Award For enhancement of Agriculture Production	2009	MAC Krishi Jagran, Centre for Agriculture and Rural Production, New Delhi
10. Honoured for the organization of Earth Day	2009	L. Venkateshwar Lu, Vice chancellor & Commissioner, SVP UA&T., Meerut
11. Aryabhat Award	2010	Vigyan Bahrti, New Delhi
12. Aryabhat Samman For best paper presentation in the National Conference, New Delhi	2010	Vigyan Bahrti, New Delhi
13. Fellow of Society of Plant Research	2011	Society of Plant Research, Bareilly
14. Hitech Horticulture Society Gold medal	2011	Hitech Horticulture Society, Meerut
15. J.C.Edward Medal	2012	BIOVED Research Society, Allahabad
16. Scientist of the Year	2013	The Academy of Environmental Biology, Lucknow
17. Life Time Achievement Award	2014	Dr. Babasaheb Ambedkar National Institute of Social Sciences, Dr. Ambedkar Nagar (Mhow) M.P.
18. Honoured for the organization of cultural program in Kisan Mela	2014	Prof. H.S. Gaur, Vice Chancellor of SVPUA&T, Meerut
19. Fellowship Award	2015	Society of Recent Development in Agriculture, Meerut
20. Dr. R.B. Lal Vishisht Sikshak Puruskar This award was given by Hon'ble U.P. Governor Shri Ram Nayak Ji in CSA University of Agri. & Tech., Kanpur	2015	Uttar Pradesh Academy of Agricultural Sciences, Lucknow
21. Fellowship Award	2016	Gramin Vikas Avam Siksha Prasar Samiti, Agra
22. Farm and Food Award	2016	Farm and Food, New Delhi
23. TSBAS Fellow	2016	Technical Society for Basic and Allied Sciences, New Delhi
24. Young Achiever Award	2016	Society for Plant Research, Bareilly
25. Honoured for the organization of cultural program in Kisan Mela	2017	Prof. Gaya Prasad, Vice Chancellor of SVPUA&T, Meerut

Research Experience: 23 years.

Student research project at PG level: Guided/guiding: 10 Co-guided/guiding: 70
 Student research project at PhD level: Guided/guiding: 16 Co-guided/guiding: 61

Events and Activities:

- Attended and Participated in Trainings, Seminars, Workshops and Orientation Courses: 150+
- Organised various exhibitions and Kisan Mela.
- Organised various Farm visits, Youth and Farmer teaching and training Programs.
- Organised 21 days Summer School on Enhancing farmer income through entrepreneurship in PTC Technology.

Special Assignments / Other Responsibilities:

- Work as a Nodal Officer, ICAR Nodal Cell at SVP University of Agri & Tech.
- Working as Media Officer of the University
- Working as NSS Coordinator of the University.
- Working as a Chief Editor of International Journal of Biological Science, Biotech Today.
- Working as a member of Editorial board of international journal of Plant Physiology and Molecular Biology.
- Working as Editor in Chief in Magazine *Krishi Darshika*.
- Developed “Agriculture Panchang” (2004- 2008).

Gene Sequence Deposition

- 44 wheat genotypes from our collection characterized for drought tolerance were qualified for the allotment of IC number for germplasm registration.
- **Sequence submitted in Gene Bank of National Centre for Biotechnology Information (NCBI), New Delhi:**
 1. Successfully submitted Nucleotide sequence of *Colletotricum falcatum* isolate cf01 internal transcribed spacer 1, partial sequence; 5.8S ribosomal RNA gene and internal transcribed spacer 2, complete sequence; and 28S ribosomal RNA gene, partial sequence.
GeneBank KU220959, GeneBank KU220960, GeneBank KU220961.1, GeneBank KU220962.1, GeneBank KU220962.2
 2. Successfully submitted Nucleotide sequence of *Rhizoctonia solani* strain SVPRS03 internal transcribed spacer 1, partial sequence; 5.8S ribosomal RNA gene, complete sequence; and internal transcribed spacer 2, partial sequence.
GeneBank KU215866, GeneBank KU215867, GeneBank KU215869, GeneBank KU215870, GeneBank KU215871, GeneBank KU215872, GeneBank KU215873, GeneBank KU215874, GeneBank KU215876, GeneBank KU215877

List of Major Research Project

S.N.	Title of Project	PI/ Co-PI	Sponsoring and Funding Agency	Amount (Rs)
1	Establishment of Tissue Culture Production Laboratory for Commercialization and Extension of Sugarcane among Farmers of Western U.P.	PI	Ministry of Agriculture New Delhi, (2006 to 2008)	80 lac
2	Collection improvement production of Jatropha and its distribution and popularization among the small and marginal farmers of (U.P.)	PI	NOVOD BOARD Ministry of Agriculture (2008 to 2013)	15.568 lac
3	Farmers Participatory Hybrid Rice Seed Production, Distribution and Benefit Sharing to the Farmers of Western Uttar Pradesh.	Co P.I.	Ministry of Agriculture and Co-operation, New Delhi, (2006-08)	2 lac
4	National Project on organic farming	Co P.I.	Ministry of Agriculture Govt. of India, New Delhi (2007-2008)	1 lac
5	Functional genomic analysis of drought stress and tagging of drought tolerant gene(s) in Indian wheat cultivars	Co P.I.	Department of Science & Technology, New Delhi (2007-2010)	60 lac
6	Scaling up water productivity in Agriculture for lively hood through teach-cum-demonstration	Co P.I.	Indian council of Agriculture research, New Delhi (2008 to Date)	1.24 lac
7	Establishment of plant health clinic.	Co P.I.	U.P Council of Agricultural research, (2008 to Date)	2 lac
8	Identification and Development of thermo- tolerant Wheat varieties suitable for different Agro- climatic zones of U. P.	Co P.I.	U.P Council of Agricultural research, (2008 to Date)	28.484 lac
9	Establishment of leaf/tissue analysis laboratory	Co P.I.	U.P Council of Agricultural research, (2009)	20 lac
10	Maize insect survey in U.P.	Co P.I.	Monsanto India Ltd. (2009-2010)	1.80 lac
11	Association and functional genomic analysis for salinity tolerance in sugarcane (<i>Saccharum officinarum</i> L.) (WOS-A)	Mentor	Department of Science & Technology, New Delhi (2010-2014)	20 lac
12	Molecular characterization and gene mapping of salinity and drought resistance of aroma rice (<i>Oryza sativa</i> L.)	Mentor	Department of Science & Technology, New Delhi	25 Lac

	(WOS-A)		(2012 to 2016)	
13	Development of drought tolerant and disease resistant banana cultivars through tissue culture (WOS-A)	Mentor	Department of Science & Technology, New Delhi (2015 to date)	30 Lac
14	Analysis of biomass, hydrolysis and ethanol production by fungal crude enzymes	Mentor	UGC, New Delhi	23 Lac
15	Genetic Enhancement for yield and Quality in Basmati Rice through Marker Assisted Backcrossing and Association Mapping	Co P.I.	U.P. Council of Agricultural Research	2.5 crore
16	Production of disease free Banana (<i>Musa sapientium</i>) plants through Tissue culture Technique for establishment of nursery and distribution of low cost plantlets among farmers	P.I.	DBT, New Delhi	23
17	Micropropagation of stable hermaphrodite papaya and promotion among the western U.P	P.I.	UPCST, Lucknow	12

Publications:

Research/Review Articles	:	176
Book Chapter	:	21
Laboratory manual	:	8
Books		
- Authored	:	3
- Edited	:	3
- Technical	:	10
- Monograph	:	23
- Research Documents	:	4
- Proceedings Edited	:	6
Krishi Panchang	:	4
Citation of Research papers	:	242
Popular Articles in Hindi	:	900
Popular Article in English	:	47
Abstracts in English	:	247
Abstracts in Hindi	:	11
Radio Talks	:	216
Doordarshan and E.Tv. Programmes	:	86
Honours/ Awards	:	25
Projects as Principal Investigator	:	4
Projects as Co-Principal Investigator	:	9
Projects as Mentor	:	4