

Profile of Scientist



1. Name of the Scientist : **Dr. J.N. Reddy**

2. Personal bio-data:

a) Position/Designation : Principal Scientist

b) Joining date in ICAR : 16.02.1987

c) Discipline and Specilization : Plant Breeding; Rainfed Lowland Rice Breeding

d) Training/advance exposure in the area of work:

Sl. No	Title of the Course	Duration	Name of the Organizing Institution
1	Winter School on "Recent advances in chromosome manipulations for increasing production and transfer of inbuilt resistance to biotic and abiotic stresses".	November 8-28, 2005	Mahatma Phule Krishi Vidyapeeth (MPKV), Rahuri, Maharastra
2	Training Course on "Analysis of Genotype and Environment interaction in rice"	December 2-21, 1996	DRR, Hyderabad
3	Experimental Design and data analysis Course under Rainfed Lowland Rice Research Consortium.	September 4-16, 1995	CRRI, Cuttack
4	Asian Rice Biotechnology Network Phase I Fellow Up Training Course on "Molecular Genetics of disease resistance and marker-aided selection".	November 9-23, 1994	IRRI, Philippines.
5	Asian Rice Biotechnology Network Phase I Research Training and planning Course on "Application of Molecular marker technology and DNA typing of pathogens".	Sept. 13 th to Oct. 8 th , 1993	IRRI, Philippines.
6	Summer Institute on "Innovative methods and emerging trends in plant breeding research".	June 4-23, 1990	Haryana Agricultural University (HAU), Hissar

e) Contribution to the scientific advancement :
(in about five bullets)

- Associated with the development and release of rainfed lowland rice varieties Varshadhan, Swarna-Sub1 and CR Dhan 501
- Developed improved genotypes viz., CR 2589-8-1-1-1, CR 2590-9-1-1-2 and CR 2530-B-1-5-1-1 with submergence tolerance.
- Associated with the development of improved bacterial blight tolerant genotypes CRMAS 2231-37(IR 64 background) and CRMAS 2232-85(Swarna background) through Marker Assisted Backcross breeding.
- Developed improved genotypes viz., CR 2429-5, CR 2430-10, CR 2428-6, CR 2450-2, CR 2427-31, CR 2430-11, CR 2450-23 and CR 2428-9 with multiple disease (leaf blast, BLB etc) resistance.

3. Future Planning of research (in bullets) :

- Identification of new sources of submergence tolerance
- Transfer of Submergence tolerance gene “Sub1” into popular lowland rice varieties Pooja, Gayatri, Sarala, Varshadhan etc.,
- Development of improved genotypes having submergence tolerance, tolerance to anaerobic germination and water stagnation suitable for semi-deep water logged areas.
- Transfer of bacterial blight and blast resistance genes into popular high yielding varieties.

4. Publications (best five) :

1. **Reddy, J.N.**, R.K. Sarkar, S.S.C. Patnaik, D.P. Singh, U.S. Singh, A.M. Ismail and D.J. Mackill. 2009. Improvement of rice germplasm for rainfed lowlands of eastern India. *SABRAO Journal of Breeding and Genetics*, Vol. 41, Special Supplement, August, 2009.
2. Sarkar, R. K., **J. N. Reddy**, S. G. Sharma and Abdelbagi M. Ismail. 2006. Physiological basis of submergence tolerance in rice and implications for crop improvement. *Curr. Sci.*, 91(7): 899-906.
3. Shanti, M.L., M.L.C. George, C.M. Veera Cruz, M.A. Bernardo, R.J. Nelson , H. Lueng, **J.N. Reddy** and R. Sridhar. 2001. Identification of resistance genes effective against rice bacterial blight pathogen in eastern India. *Plant dis.*, 85: 506-512.
4. **Reddy, J.N.**, D. Pani and J.K. Roy. 1998. Genotype x Environment interaction in lowland rice cultivars. *Indian J. Genet.*, 58(2): 209-213.
5. **Reddy, J.N.**, M.R. Baraoidan, M.A. Bernardo, M.L.C. George and R. Sridhar. 1997. Application of marker - assisted selection in rice for bacterial blight resistance gene, Xa 21. *Curr. Sci.*, 73 [10]: 873-875.

5. Other relevant activities of Scientist :
(in bullets)

- Coordinator for the institute research program 4 “Breeding for resistance/tolerance to biotic, abiotic and environmental stresses” during 2007-2012.
- Coordinator for ICAR-IRRI collaborative program “Eastern India Rainfed Lowland Shuttle Breeding Network (EIRLSBN) since 2001”
- Member secretary, CRRI- QRT for the period 2004-2010.
- Fellow of the Indian Society of Genetics and Plant Breeding, New Delhi