Dr. A. S. HARI PRASAD Email-id: <u>hari.prasad1@icar.gov.in</u> Phone: 040-24591253(O) 97010-07431(M)

1. Personal bio-data:

- a) Position/Designation
- b) Joining date in ICAR
- c) Discipline and Specialization

- Principal Scientist
 April 12, 1993, (DOB: 24/06/1967)
 Plant Breeding(Hybrid rice Breeding)
- d) Training/advance exposure in the area of work: Hybrid rice

parental line improvement

- Received a 14 day extensive training in 'Marker Ass isted Selection (MAS) in Rice: Theory, Practice and Application'at IRRI, Philippines in 2008. The training programme included hands-on experience in the field of marker assisted selection.
- Received a 10 day Training on 'Utilization of molecular markers and transgenics for precision in rice breeding'atDirectorate of Rice Research, Hyderabad during 2006.
- Received a seven day training programme on 'Management Development Programme on Public-Private-Partnerships for Innovation in Agriculture' at NAARM, Hyderabad during 2009.
- Attended a one day training programme on 'Intellectual Property Awareness programme (IPAP)' at the Patent office, New Delhi during 2006.
- Attended a two day training programme on 'Capacity building programme for Indian Agriculture Research, Extension and Development organizations in Globalized Agricultural Economy' at IARI, New Delhi during 2005. This was jointly organized by ICAR and CITA, New Delhi).



e) Contribution to the scientific advancement:

- Actively involved in the development of four wheat varieties viz., VL Gehun 738, VL Gehun 802, VL Gehun 804, VL Gehun 829 and one Barley variety viz., VL Barley 56.
- Actively involved in the development of world's first aromatic rice hybrid Pusa RH-10, three aromatic rice varieties viz., Pusa Sugandh-2, Pusa Sugandh-3, Pusa Sugandh-, Pusa Basmati-6 and Pusa 4A (CMS line registered with NBPGR, New Delhi INGER No. 01021).
- Actively working on the development of new set of hybrid rice parental lines (through inter sub-specific hybridization approach) that can help in developing hybrids with higher yield heterosis.
- Developed a PCR based functional marker system for the major wide compatible gene locus S5 in rice (This work was published in 'Molecular breeding' 26:719-727, Journal ID: (M060) NAAS rating: 8.47).
- Actively involved in the resource generation in the form of royalty payment of the rice hybrids (viz., Pusa RH-10 at IARI, New Delhi to the tune of more than one Crore rupees; DRRH-2, DRRH-3 & other technologies at IIRR, Hyderabad to the tune of Rs 1.73 Crore) to the Institutes.

2. Future Planning of research:

- Development and improvement of inter sub-specific derived genotypes for use as parental lines for enhancing the yield heterosis.
- Parental line purification and seed production of experimental hybrids and released hybrids.

3. Publications:

- Rahul Priyadarshi, **Hari P. S. Arremsetty**, Akhilesh K. Singh, Durga Khandekar, Kandasamy Ulaganathan, Vinay Shenoy, Pallavi Sinha, and Vikas K. Singh, 2018. Marker-Assisted Improvement of the Elite Maintainer Line of Rice, IR 58025B for Wide Compatibility (S5n) Gene. **Frontiers in Plant Science**, 9 (1051).
- A.S. Hari Prasad, P. Senguttuvel, P. Revathi, K.B. Kemparaju, K. Sruthi, R.M. Sundaram, M. Seshu Madhav, M.S. Prasad and G.S. Laha, 2018. Breeding strategies for Hybrid rice parental line improvement, Oryza Vol. 55 (Special Issue) 2018
- Rahul Priyadarshi, Hari Prasad A.S, Akhilesh Kumar Singh, Ulaganathan K And Vinay Shenoy 2016. Comparative analysis of effectiveness of wide compatibility (WC) trait between improved maintainer line having WC and without WC gene in rice. Green Farming Vol. 7 (5).

- Shantha Nagarajan, Jagadish SVK, Hariprasad AS, Tomer AK, Anand A, Madan Pal and Aggrawal PK. 2010. Local climate affects growth, yield and grain quality of aromatic and non-aromatic rice in northwestern India. Agriculture, Ecosystem and Environment 138: 274-281.
- Sundaram RM, Sakthivel K, Hariprasad AS, Ramesha MS, Viraktamath BC, Neeraja CN, Balachandran SM, Shobha Rani N, Revathi P, Sandhya P and Hari Y, 2010. Development of a PCR based functional marker system for the major wide compatible gene locus S₅ in rice. Mol. Breeding 26:719–727.

4. Other relevant activities of Scientist:

- Acting as Principal Investigator of the Hybrid rice programme of ICAR, and involved in coordination of the research activities, and their implementation.
- As a Chair Person of Institute Technology Management Unit (ITMU), I'm taking care of technology commercialization activities of the Institute