

Scientist Profile



1. **Name of Scientist** Dr. Surendra Pratap Singh

2. **Personal Bio-data**

a. Position/Designation Senior Scientist

b. **Contact Details**

i. ICAR Email ID Surendra.Singh10@icar.gov.in

ii. Personal Email ID sps.nduat@gmail.com

iii. Mobile Number 9129017377

c. **Joining Dates In**

i. ICAR May 22, 2012

ii. ICAR-IISR June 11, 2015

d. **Discipline and Specialization** : Plant Physiology

e. **Trainings / Advanced Exposure in the Area of Work**

- Training on “MAS in Rice: Theory, Practice and application” from 24 Nov. to 05 Dec., 2008 at IRRI, Philippines, Manila
- Training on “Hands- on training on screening rice genotypes for salinity tolerance” from 08 to 10 Dec., 2008 at IRRI, Philippines, Manila
- Training on “Physiological and molecular basis of flood tolerance” from 07-27 Nov, 2005 at CAS, Plant Physiology NDUAT, Kumarganj, Faizabad (U.P.)
- Training on “Recent technological advances in agriculture” from 03-23 Jan., 2006 at NDUAT, Kumarganj, Faizabad (U.P.)
- Training on “Participatory Varietal Selection training” 21-23 May, 2008 jointly organized by IIRI Philippines & NDUAT, Kumarganj, Faizabad (U.P.)
- Training on “Crop improvement under submergence and salt stress environment: Physiological and molecular approaches” 04 Jan.-24 Jan., 2011 at CAFT in Crop Physiology NDUAT, Kumarganj, Faizabad (U.P.)

3. **Contributions to the Scientific Advancement**

- Release proposal of two rice varieties, IR64-sub1 and NDR 8011 accepted by State Variety Release Committee (SVRC), U.P.
- Confirmed hypothesis that element toxicities & deficiencies occur in wheat grown in naturally waterlogged farmer's sodic fields and identified Fe, Al and Na as major constraint for wheat production in these soils..
- Identified and popularized waterlogging tolerant wheat varieties in

farmers' sodic fields (NW1014, KRL210) which are up to 75% higher yielding than farmers' varieties.

- Validated and commercialized pressmud and nursery nutrient management technology on farmer's field for improving yield of rice in sodic soil.
- Identified screening indices for salinity and high temperature tolerance in mustard
- Periodic characterization of deficiency symptoms of N, P, K, S, Fe, Zn and B in Indian mustard.

4. Current Area of research

- Multiple abiotic stress tolerance in sugarcane
- Improving physiological efficiency of sugarcane
- Waterlogging and drought tolerance in sugarcane
- Plant nutrition

5. Publications (best five)

- S.P.Singh and T.L.Setter (2015). Effect of waterlogging on element concentrations, growth and yield of wheat varieties under farmer's sodic field conditions. Proceedings of the National Academy of Sciences, India Section B:Biological Sciences. DOI 10.1007/s40011-015-0607
- S.P.Singh and T.L.Setter (2016). A survey of element toxicities in wheat grown in naturally waterlogged farmer's sodic fields of eastern Uttar Pradesh, India. Journal of Plant Nutrition. DOI 10.1080/01904-167.2016.1262411
- S.P.Singh, P.Pandey, M. Kumar, Sanjay Singh, N.S.Pandey and D.Srivastava (2013). Growth and biochemical responses of wheat (*Triticum aestivum L.*) to different herbicides. African Journal of Agricultural Research 8(14):1265-1269
- Radha Jain, S.P.Singh, Anshu Singh, Smita Singh, A. Chandra, S.Solomon (2015). Response of Foliar Application of Nitrogen Compounds on Sugarcane Grown Under waterlogging Stress. Sugar Tech 18 (4): 433-436
- Radha Jain, S.P.Singh, Anshu Singh, Smita Singh, P.Tripathi, Ram Kishor, Asha Gaur, Neeru Jain, S. K. Shukla, A. Chandra and S. Solomon (2016). Changes in Growth, Yield, Juice Quality and Biochemical Attributes of Sugarcane in Response to Orthosilicic Acid Granules. Sugar Tech DOI 10.1007/s12355-016-0469-3

6. Awards and Fellowships

- Scientist of the year award 2012 by Academy of Environmental

Biology, India

- Received Rajiv Gandhi Rashtriya Gyan-Vigyan Pustak Lekhan Purashkar 2013 by Hon'ble President of India at Vigyan Bhawan, New Delhi.

7. Other Relevant Activities

- Chairman/ member of different institute committees
- Incharge of Juice quality control lab, glass house and other different units
- Monitored AICRP Plant Physiology Rapeseed-Mustard experiments at different Institutions/Universities
- As Course Director/ Course Coordinator organized a total of 3 ICAR sponsored 21 days advance training courses/ winter school for ICAR/SAU scientists/faculties.
- Guidance for M.Sc./Ph.D. students
- External examiner and paper-setter of PG/Ph.D. level for universities.
- Reviewer of peer-reviewed NAAS listed journals International / National Journals
- Compilation of annual reports and divisional documents
- Involved in mera gaon and mera gaurav program