

RESUME



Name : Dr. Ashok Kumar Singh

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Qualification	Ph.D. (Genetics)
Area of Interest/ Specialization	Genetics and Plant Breeding, Basmati rice improvement, Rice Genetics and Breeding, Hybrid rice breeding, Molecular Genetics
Academic Experience	29 years of Research including 24 years of research and teaching at ICAR-IARI, New Delhi.
International Exposure	<ul style="list-style-type: none">➤ Training on “High throughput genotyping” at West Virginia State University, West Virginia, USA.➤ “Advances in Marker Assisted Selection” at IRRI, Manila, Phillipines; AHRD training in Molecular and Applied Genetics at Texas A&M University, Texas, USA.➤ Participated as an agriculture expert in the 6th BIMSTEC Expert Group on Agricultural Cooperation (EGAC) meeting held at Chiang Rai, Thailand during Dec. 12-16, 2017.➤ As a member of Indian delegation, I visited Socialist Republic of Vietnam to prepare a detailed plan of work mutual collaboration between India and Vietnam in the area of rice biotechnology and breeding.➤ Visited the DNA testing lab in Germany and UK Nominated as a member of the team to help establish a State of Art Rice Quality Lab at Basmati Export Development Foundation (BEDF), Modipuram.➤ Member of the Indian delegation of Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP) to strengthen partnership with Myanmar, attended meeting at Myanmar, 23-27 March, 2014.➤ As ICAR nominee and a member of delegation from India headed by Chairman, APEDA visited London, to take part in discussion on “Amendment of code of practice on Basmati rice-2004” in 2017.

Projects (National and International)	National – 26 projects (22 as PI; 4 as Co-PI)
Top 10 Peer Reviewed Publications	<ol style="list-style-type: none"> 1. Babu NN, Gopala Krishnan S, Vinod KK, Krishnamurthy SL, Singh VK, Singh MP, Singh R, Ellur RK, Rai V, Bollinedi H, Bhowmick PK, Yadav A, Mariappan N, Singh NK, Prabhu K and Singh AK (2017) Marker aided incorporation of <i>Saltol</i>, a major QTL associated with seedling stage salt tolerance, into <i>Oryza sativa</i> ‘Pusa Basmati 1121’. <i>Front. Plant Sci.</i> 8:41. doi: 10.3389/fpls.2017.00041. 2. Bollineni H, Gopala Krishnan S, Prabhu KV, Singh NK, Mishra S, Khurana JP and Singh AK (2017) Molecular and Functional Characterization of GR2-R1 Event Based Backcross Derived Lines of Golden Rice in the Genetic Background of a Mega Rice Variety Swarna. <i>PLoS ONE</i> 12(1): e0169600. doi:10.1371/journal.pone.0169600. 3. Ellur RK, Khanna A, Gopala Krishnan S, Bhowmick PK, Vinod KK, Nagarajan M, Mondal KK, Singh NK, Singh K, Prabhu KV and Singh AK (2016) Marker-aided Incorporation of <i>Xa38</i>, a Novel Bacterial Blight Resistance Gene, in PB1121 and Comparison of its Resistance Spectrum with <i>xa13 + Xa21</i>. <i>Scientific Reports.</i> 6: 29188. 4. Ellur RK, Khanna A, Yadav A, Pathania S, Rajashekara H, Singh VK, Gopalakrishnan S, Bhowmick PK, Nagarajan M, Vinod KK, Prakash G, Mondal KK, Singh NK and Singh AK (2016) Improvement of Basmati rice varieties for resistance to blast and bacterial blight diseases using marker assisted backcross breeding. <i>Plant Sci.</i> 242: 330-341 5. Khanna A, Sharma V, Ellur RK, Shikari AB, Gopala Krishnan S, Singh UD, Prakash G, Sharma TR, Rathour R, Variar M, Prashanthi SK, Nagarajan M, Vinod KK, Bhowmick PK, Singh NK, Prabhu KV, Singh BD and Singh AK (2015) Development and evaluation of near isogenic lines for major blast resistance gene(s) in Basmati rice. <i>Theor. Appl. Genet.</i> DOI: 10.1007/s00122-015-2502-4. 6. Fiyaz RA, Yadav AK, Gopala Krishnan S, Ellur RK, Bashyal BM, Grover N, Bhowmick PK, Nagarajan M, Vinod KK, Singh NK, Prabhu KV and Singh AK. 2016. Mapping quantitative trait loci responsible for resistance to Bakanae disease in rice. <i>Rice.</i> 9(1):45. 7. Singh VK, Singh A, Singh SP, Ellur RK, Choudhary V, Sarkel S, Singh D, Krishnan SG, Nagarajan M, Vinod KK, Singh UD, Rathore R, Prashanthi SK, Aggrawal PK, Bhatt JC, Mohapatra T, Prabhu KV and Singh AK (2012) Incorporation of blast resistance into "PRR78", an elite Basmati rice restorer line, through marker assisted backcross breeding. <i>Field Crops Res.</i> 128: 8-16. 8. Singh A, Singh VK, Singh SP, Pandian RTP, Ellur RK, Singh D, Bhowmick PK, Krishnan SG, Nagarajan M, Vinod KK, Singh UD, Prabhu KV, Sharma TR, Mohapatra T and Singh AK (2012) Molecular breeding for the development of multiple disease resistant Basmati rice. <i>AoB Plants:</i> pls029 (doi: 10.1093/aobpla/pls029)

	<p>9. Basavaraj SH, Singh VK, Singh A, Singh A, Singh A, Yadav S, Ellur RK, Singh D, Gopala Krishnan S, Nagarajan M, Mohapatra T, Prabhu KV and Singh AK (2010) Marker-assisted improvement of bacterial blight resistance in parental lines of Pusa RH10, a superfine grain aromatic rice hybrid. <i>Molecular Breed.</i> DOI 10.1007/s11032-010-9407-3.</p> <p>10. Marathi B, Guleria S, Mohapatra T, Parsad R, Nagarajan M, Vinod KK, Atwal SS, Prabhu KV, Singh NK and Singh AK (2012) QTL analysis of novel genomic regions associated with yield and yield related traits in new plant type based recombinant inbred lines of rice (<i>Oryza sativa</i> L.). <i>BMC Plant Biology.</i> 12:137 doi:10.1186/1471-2229-12-137.</p>
<p>Awards and Recognition</p>	<p>a. National Awards/ Recognitions:</p> <ul style="list-style-type: none"> ➤ Bharat Ratna Dr. C. Subramaniam Award for Outstanding Teachers 2013, awarded by the Indian Council of Agricultural Research, New Delhi for outstanding contributions in teaching and guidance of post graduate students in the discipline of Genetics and Plant Breeding. ➤ Rafi Ahmed Kidwai Award for Outstanding Research in Agricultural Sciences 2013 awarded by the ICAR New Delhi for the pioneering contribution in basic and applied research in rice genetics and breeding. ➤ Borlaug Award 2012, for outstanding contribution for Basmati rice research and development in India. ➤ ICAR Special Recognition Award 2009, awarded by ICAR and DARE, Krishi Bhavan, New Delhi for outstanding contribution to development of Basmati rice varieties. ➤ Sh, Om Prakash Bhasin Award 2017, by Sh. OP Bhasin Foundation, New Delhi. ➤ Dr. Amreek Singh Cheema Award 2018, Awarded by the Young Farmers' Association of Punjab Rakhda, Patiala, 2018. ➤ Best Scientist Award 2011, Awarded by the Young Farmers' Association of Punjab Rakhda, Patiala, Sept.24, 2011. ➤ Agriculture Leadership Award 2011, Awarded for outstanding contribution to rice breeding by Agriculture Today, Sept. 14, 2011. ➤ Outstanding Agriculture Research Team Award 2006, awarded by Consortium of Indian Farmers Association (CIFA), Hyderabad. ➤ Certificate of Appreciation, NAIP 2012, awarded for outstanding contribution in model translational research under the NAIP Sub-Project "Allele mining and expression profiling of resistance and avirulence genes in rice-blast pathosystem for development of race non-specific disease resistance" by NAIP, ICAR, New Delhi. <p>b. Awards for excellence in Teaching:</p> <ul style="list-style-type: none"> ➤ Best Teacher Award of IARI in the year 2003, awarded by the Indian Agricultural Research Institute, New Delhi for outstanding contributions in teaching and guidance of post graduate students in the discipline of Genetics and Plant Breeding. <p>c. Awards for excellence in Research:</p>

	<ul style="list-style-type: none"> ➤ Late Dr. B. P. Pal Memorial Award-2007, awarded by the IARI for significant research contribution to development of Improved Pusa Basmati 1, a bacterial blight resistant variety of Basmati rice through marker assisted breeding. ➤ Appreciation Certificate for ‘Excellence in Rice Genetics and Breeding’-2005, awarded by the IARI for outstanding contributions in basic and applied research and development of Basmati rice varieties. <p>d. Fellowships of Academies/ Societies</p> <ul style="list-style-type: none"> ➤ Fellow of National Academy of Agricultural Sciences, New Delhi-2011 ➤ Fellow of Indian National Science Academy, New Delhi, 2017 ➤ Fellow of Indian Society of Genetics and Plant Breeding, New Delhi, 2014 <p>e. Awards/ Merit medals in Education:</p> <ul style="list-style-type: none"> ➤ Awarded merit-cum-means fellowships of ICAR for B.Sc. (Ag) studies (1979-82) ➤ Awarded ICAR Junior Research Fellowship for M.Sc.(Ag) studies (1983-85) ➤ Awarded B.H.U Gold Medal for securing first position in M.Sc.(Ag) Examination ➤ Awarded Binani Gold Medal for securing first position in M.Sc.(Ag) Examination-1985 in Banaras Hindu University, Varanasi. <p>e. International Awards/ Honours:</p> <ul style="list-style-type: none"> ➤ FAO Fellowship in Molecular and Applied Genetics at Texas A& M University, Texas, USA during September 2 to December 8, 2009 [<i>Certificate enclosed</i>]. ➤ FAO consultant in the “Side Event on Global Partnership Initiative for Plant Breeding Capacity Building’ during the Governing Body Meeting of the International Treaty on Plant Genetic Resources for Food and Agriculture from June 12 to 14, 2006.
Mentorship	<ul style="list-style-type: none"> ➤ Guided 5 MSc, and 14 PhD students as Chairman of the Advisory committee at ICAR-IARI, New Delhi; Guided 10 Ph.D. students as external major advisor submitted thesis to universities like Banaras Hindu University, Banasthali University, CCS-Meerut, Aligarh Muslim University, etc. ➤ Three of the Ph.D. students have been awarded with prestigious Jawaharlal Nehru Award for best Ph.D. thesis research work by ICAR ➤ Three of the M.Sc. students and two Ph.D. students have been awarded with IARI merit medal and