



DR. ASHOK KUMAR SINGH



Dr. Ashok Kumar Singh is an eminent researcher, educator, and visionary research leader whose pioneering contributions have transformed Basmati rice cultivation in India.

2. Born on 1st July, 1962, Dr. Singh earned his Bachelor's degree in Agriculture and Master's degree in Genetics and Plant Breeding from Banaras Hindu University, followed by a Ph.D. in Genetics from ICAR-Indian Agricultural Research Institute (IARI), New Delhi. He joined the Agricultural Research Service in 1994 as a Scientist in the Division of Genetics at ICAR-IARI and has led the Basmati breeding programme since 2008.

3. Dr. Singh has been associated with the development of 27 rice varieties including 11 Basmati rice varieties as the lead breeder. These climate-resilient, short-duration, high-yielding varieties, possessing resistance to major diseases such as bacterial blight and blast, have gained widespread acceptance among farmers, industry stakeholders, and consumers alike. Currently, the varieties developed under his leadership occupy nearly 2 million hectares more than 90% of the total Basmati area in India—and contribute to 50,312 crores of foreign exchange annually (2024-25). Short-duration Basmati rice varieties (Pusa Basmati 1509, Pusa Basmati 1692, and Pusa Basmati 1847) developed by He enabled farmers to increase cropping intensity and diversify cropping system for enhanced income. The development of eight disease-resistant Basmati varieties by him lowered cost of cultivation and minimized pesticide residues, thereby reinforcing India's competitiveness in international Basmati trade. He also spearheaded the development of herbicide-tolerant Basmati varieties, including Pusa Basmati 1985 and Pusa Basmati 1979, suitable for direct-seeded rice cultivation. These innovations save up to 30% irrigation water, lowered production costs by Rs. 5000/acre and reduced greenhouse gas emissions by 30 % while promoting a sustainable, low-carbon Basmati production system.

4. Dr. Singh has guided 34 Ph.D. and five M.Sc. Students making substantial contributions to human resource development and mentoring numerous young professionals who now serve as scientists, educators, administrators, and entrepreneurs in India and abroad. As Director of IARI, he strengthened the institute's stature as a premier global institution. During his tenure, IARI received the Sardar Patel Outstanding Award and secured the top rank in the Agriculture and Allied Sector under the National Institutional Ranking Framework (NIRF-2024). An accomplished scholar, he has authored over 200 research papers in reputed journals, with an h-index of 41 and more than 6,300 citations. He is a fellow of leading scientific academies of India including INSA, NASI and NAAS.

5. Dr. Singh has been bestowed with several prestigious national awards like, Rafi Ahmad Kidwai Award, C. Subramaniam Award, Nanaji Deshmukh Team Award, B.P. Pal Award, Borlaug Award, Om Prakash Bhasin Award and VASVIK Award etc., recognizing his outstanding contributions to agricultural research and education.