

Dr Major Singh (DOB June 20, 1960 ) Service - 36 years in Agricultural research and Management (Scientist – 13 years, Sr Scientist – 8 years, Principal Scientist/Professor – 15 years) Administrative experience- (Director – 5.3 years, Project Coordinator - 1.5 years, Head of Division - 5 years) Awards and recognitions: Fellow – National Academy of Agricultural Sciences, New Delhi, National awards – (1) ICAR Team Award for outstanding contributions in the field of vegetable breeding, 2005 (2) Rajeev Gandhi National Award from Ministry of Home Affairs 2010, Awards from academic societies - Dr. Harbhajan Singh Award for outstanding research 2003, 2004 and 2015; Certificate of merit by Seed Research 2005; CHAI Appreciation award 2021, Recognitions from academic bodies - Vice-president, Indian Society of Alliums, Pune; Secretary, APIV, Varanasi; Chief Editor, Vegetable Science and Journal of Alliums. Mobilization of external funding: Leader/Principle Investigator in 13 externally funded projects which have inter disciplinary, inter-institutional and even international participation. Publications: Published more than 200 research articles in various National and International Journals out of which 100 research articles are in high impact journals. Guided 5 M.Sc. and 13 Ph. D students.

Authored three books “Heterosis in crop plants”, Legume vegetables” and Biotechnology in crop improvement: concepts and manual. Published more than 16 Research/extension bulletins, 26 book chapters and 50 popular articles. Scientific Accomplishments: Developed two hybrids ‘Kashi Sandesh’ and ‘Kashi Komal’, two varieties ‘Kashi Taru’ and ‘Kashi Prakash’ In brinjal; three hybrid ‘Kashi Surkh’, ‘Kashi sinduri’, ‘Kashi gaurav’ and one variety ‘Kashi Anmole’ in Chilli; two varieties ‘Kashi Shakti’ and ‘Kashi Mukti’ in pea; one hybrid ‘Kashi Abhiman’ and one variety ‘Kashi Aman’ in tomato; one variety ‘Kashi Param’ in french bean. These varieties and hybrids were popularized among the farmers field through demonstrations. Developed Bt brinjal and Bt tomato using Cry 1Ac gene construct for resistant to shoot and fruit borer. Coordinated biosafety evaluation of Bt brinjal lines in the country. Developed transgenic lines in tomato using AtDREB1A and BcZAT12 gene constructs for water-deficit and multiple abiotic stress tolerance. Started marker assisted breeding in tomato and pyramided of genes Ty1, Ty2 and Ty3 to develop durable resistant varieties against TyLCV. Started research on climate resilience and developed two tomato lines and two onion lines for high temperature tolerance. In onion two lines were identified for drought and excess water tolerance. Apart from scientific achievements, extension activities were also undertaken for the direct benefit of the farmers. Under the tribal support project, Nandurbar district of Maharashtra was taken up for technology transfer and promotion of onion cultivation. Due to continuous efforts of 5 years, the area under onion has increased 4 times in the district and farmers have benefited a lot by getting good price. Kharif onion, which is confined to Maharashtra and Karnataka, was extended to non-traditional regions such as eastern Uttar Pradesh and north eastern region of India. During the last three years, more than 400 farmers have started production of Kharif onions in Mirzapur, with the help of the state government, the production of Kharif onions is being increased to 2000 hectares.

