

## **BIOGRAPHY OF DR. RAJIV ARVIND MARATHE**

Dr. Rajiv Marathe bears legacy of modest farming and established himself as a well-acclaimed agricultural scientist. He devoted scientific career for development of farmers' friendly technologies in wide arena of crops and soils at various ICAR institutes located in different agro-climatic regions of India including NEH regions. Dr Marathe was born and brought up in Sakhardoh village of Washim (MS) district with agriculture background. He did his B.Sc. (Agriculture) (1987) from Shri Sivaji College of Agriculture, Amravati; M.Sc. (1989) and Ph.D. (2005) in the discipline of Soil Science from Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola (MS). He secured first division with distinction during his Post Graduation and Doctoral programme.

He started his carrier from NBSS & LUP (ICAR), Jorhat, Assam and worked there during 1989–1995 then in NRC for Citrus, Nagpur as a Scientist during 1995 to 2005. As a founder member he established new ICAR institute NRC on Pomegranate, Solapur and worked during 2005-2013. As a founder member he was involved in almost all the activities viz inauguration function of the centre, land possession, establishment of research farm, construction of office cum laboratory building and development of all infrastructure facilities and inauguration of office cum laboratory building. He was again transferred to CCRI, Nagpur (05.11.2013 to 26.10.2017) and NBSS & LUP, Nagpur and worked there till his joining as a Director ICAR – NRC on Pomegranate at Solapur on 28.04.2021.

He developed exclusive Soil Resource Maps and Land Use Plans for Mizoram and aspirational districts of India for NITI Ayog. Standardized soil suitability criteria, drainage plans, plantation systems (Broad Raised Bed & Bedding system), techniques for utilising marginal lands and mapping of potential soils. His research areas also encompass nutrient management technologies based on standardized nutrient deficiency symptoms and leaf sampling technique for pomegranate. It extrapolates to organic production protocols with innovative organic manure application (slurry). Research recommendations of Dr. Marathe on irrigation schedule (quantity, frequency, drip geometry) for pomegranate along with innovative irrigation (ring and double laterals) have wide acceptability. He also standardized HDP technology acid lime and Nagpur mandarin. On the crop improvement front his has notable contributions in release of four pomegranate varieties, one citrus rootstock cultivar and genome sequencing of pomegranate var. Bhagawa, five fungal and bacterial sequences and isolation of five novel beneficial microbes.

Apart from institute research projects he was instrumental in externally funded R&D projects from NHM, NATP, RKVY, CSIR, POCRA, World Bank, NHB, NITI Aayog, FDCM, VDB of worth Rs 1000 Lakhs, besides several contract and consultancy projects from private firms. He published many books, manuals, bulletins, folders and more than 78 research papers in international and national journals having high NAAS ratings.

For his outstanding research contributions, Dr. Marathe is awarded with prestigious Vasantrao Naik (ICAR) award, Eminent Scientist Award-2022 (AEDTS), State Level ‘‘Rajarshi Chatrapati Shahu Maharaj Krishi Jivan Gaurav Puraskar 2017 and Sanmanpatra’’ (Honor). He is also honoured with Fellowships from NAAS, New Delhi; IAHS, New Delhi; ISAH, Bikaner; SARP, Solapur and ISC, Nagpur. He is honoured as a Member of General Body of ICAR, New Delhi and Executive Council of VNMKV, Parabhanji.

### **Perspective on future action plans**

Dr Marathe has embarked on identification of climate analogues for expanding hardy fruit crops in non-traditional potential areas especially marginal and calcareous waste lands which are otherwise unsuitable for agriculture. To cope-up climate change scenario, he has orientation for standardization of agro-ecoregion specific crop production technologies harnessing IoT based decision tools. Development of AI based nutrient deficiency diagnostics tools, soil and leaf analysis based nutrient advisor for use of nano fertilizers, zone specific customised nutrient formulations, secondary and multi-micronutrients nutrient mixtures including microbial consortium is an integrated plan. Climate smart management of irrigation and nutrients to reduce carbon footprints and PoP for protected cultivation is also being attempted.