

## Past-President Dr. Mangala Rai felicitated

A distinguished life member and past-President (2000-2001) of the Indian Society of Genetics and Plant Breeding, Dr. Mangala Rai took over as Secretary, Department of Agricultural Research and Education (DARE) & Director General, ICAR on 9.1. 2003. He is the fifth person joining the select group of Society Presidents decorating the position of Secretary, DARE & Director General, ICAR following Dr. B.P. Pal, Dr. M.S. Swaminathan, Dr. V.L. Chopra and Dr. R.S. Paroda.

Born in a remote area farm-family on June 30, 1947, Mangala Rai completed schooling while assisting the family in farming and graduated in agriculture in first class first in 1967. He obtained Masters degree in Genetics and Plant Breeding on merit scholarship in 1969 and earned Ph.D. degree on UGC fellowship from the BHU, Varanasi in 1973. Dr. Rai started his professional career as Junior Plant Breeder in April 1973, and worked his way up the ladder as Senior Scientist in ICAR, Plant Breeder-cum-Reader in OUA&T, Project Coordinator (Linseed), Assistant Director General (Seeds) from 1989 to 94, Assistant Director General (Policy & Perspective Planning) from 1994 to 1997 and Deputy Director General (CS) from April 1997 till beginning of January, 2003. With almost every regular position, he was entrusted with important additional responsibilities, such as Director (Oilseeds Technology, TMO), National Director (NATP) and Agriculture Commissioner, GOI.

As Project Coordinator (Linseed), first OSD (TMO), first Assistant Director General (seeds) and first Assistant Director General (Policy & Perspective Planning), he was largely responsible for inculcating new culture in plan formulation, implementation, monitoring and on course correction with a visionary approach. As Deputy Director General (CS), he was leading the largest Division in the Indian Council of Agricultural Research comprising 9 research institutes, one deemed university, 7 National Research Centers, 5 Crop Directorates, 2 National Bureaus, and 33 outreach All India Coordinated Research Projects, accounting for one-third of the total scientific manpower of the Council. As Chairman, National Technical Coordination Committee (Rice-Wheat), fostered the co-evolution of the resource conserving technologies (RCTs) with agents for change with an international Rice Wheat Consortium (RWC). The effort got international recognition with CG Chair's award for excellence in scientific partnership to NARS and CG partners in 2000.

Through over 200 wide ranging presentations in important journals/ platforms covering various facets of genetics, biometrical genetics, salinity tolerance, pest resistance, quality enhancement, mutation breeding, genetic resources, seed technology, biotechnology, bio-energy, etc., Dr. Rai has



made a signal contribution to science and the society. Policy papers relating to GATT, WTO and IPR have helped the National Agricultural System to deal with the current and emerging challenges. Books authored on topical subjects including Transgenics in Agriculture, Hybrids in Crops, Oilseeds Research and Development etc. infused new dimensions to contemporary and future research. His intensive involvement led to the development of 12 varieties of linseed including 3 double purpose varieties first of their kind in the country. Salt tolerant rice variety developed by him and released at the central level possess great potential to tolerate salt stress. In recognition of his scientific contributions in the field of agriculture, CSAU&T, Kanpur conferred D.Sc. degree (*Honoris causa*) in 1999 and MRPC conferred Life Time Achievement Award in 2001 for his research and developmental efforts in oilseeds in general and rapeseed mustard in particular.

Dr. Rai's multifaceted service to professional societies include presidency of 7 national societies related to genetics and plant breeding, genetic resources, seed technology, physiology, oilseeds, allelopathy and agrotechnology and bio-energy, and of the Agricultural Research Service Scientists' Forum. Served as Chair / Member of the editorial boards for several publications. Organizing member of International Congress on Seed Technology, 2nd International Crop Science Congress, 88th Indian Science Congress, National Conferences on Oilseeds, and Hybrids. Fellow of several academies and professional societies (NAAS, ISGPB, IASFC, ISOR, ISCR, ISEP Science Academy) and Patron of Indian Society of Pulses Research and Indian Society of Arid Legume. Served the Board of Management of 6 Agricultural Universities, Board of Directors of NSC and SFCL. As Chairman of several important committees (Central Sub-Committee, Pesticide Registration Committee, Technical Committee of the GOI to monitor Indian Plant Quarantine work, Central Committee on Import and Export of Beneficial Organisms, etc.), took

decisions of far reaching consequences for the Indian agriculture. Also, served as Member Secretary to several important committees such as Policy Planning Committee of the ICAR Governing Body, ICAR Committee on Incentive and Reward System, ICAR Review Committee on AICRPs, National Committee on Productivity Decline in Punjab and Haryana, tenth Plan Working Group of Planning Commission of DARE, Committee on Plant Breeders' Rights etc.

Dr. Rai's experiences and international responsibilities included the Membership on CIMMYT Board of Trustees; Chairmanship of Asian Maize Biotechnology Network (AMBIONET), International Sunflower Research Network, Technical Committee of the Contact Group of Nations Negotiating the International Undertaking on PGRFA and SAARC, SAIC Governing Board; Membership of Steering Committee of SysNet, IRRC and SAARC Technical Committee on Agriculture and Regional Secretary of SABRAO. Important international assignments include leadership of a 4-members FAO-Ethiopian Seed Security Mission which led to food security through seed security. FAO Resource person on Hybrids, Oilseeds Research and Development, Global Rice Breeding Strategy, Indian Vegetable Oils Program and IDRC expert on Sudanese Oilseeds Program. The important international interactions extended through 62 visits to 23 countries, many a times as chief negotiator/leader. Chaired the Plenary Session of 3rd Crop Science Congress, Germany; Farmers Participatory Plant Breeding Congress, U.K.; Sesame and Sunflower International Workshop, Egypt and WTO Impacts on Indian Agriculture of the Indian Science Congress, New Delhi to mention a few.

Dr. Rai was instrumental in affecting changes in the overall concept of agricultural research and management in crops research in systems perspective across various disciplines throughout the country. Shifts from commodity centric approach to system ecology approach has been appreciated and acknowledged in India and being used now in CGIAR. His responsibility for Policy and Perspective Planning of R&D programs on a national scale has been instrumental in finalizing Vision-2020 Perspective Plans for all the Institutes, NRCs, Directorates and Bureaus. This exercise backed by appropriate programs and policies would provide India a cutting edge over its regional and global competitors.

New concepts of revolving funds, rolling plan for seeds, single window system, contract research, contract services, consultancy, public-private interface, resource-sharing, in-service skill upgradation initiated by Dr. Rai have brought a perceptible positive change in agricultural research and development. He wishes to see the

Council as a vibrant learning organization to be able to innovate, to harness synergies of networking and partnerships, provide avenues to attain, sustain and promote constructive growth for effective delivery of need based services and technologies to see India as a developed nation addressing issues of equity, social justice and balanced harmonized growth.

Dr. Rai possesses rich varied expertise of science, society and socio-economic-cultural fabric together with comprehensive experience and understanding of institution building, public policy formulation and analysis, human resource needs, and administrative and financial management. He recognizes that knowledge base in various sectors would lead to capitalization of complementarities and harnessing of synergies. He believes that understanding of the dynamics of change can transform weaknesses into growth opportunities. As a teacher, researcher, persuader, negotiator, research manager and a science leader, Dr. Rai has been known for his quick-to-respond quality, readiness, simplicity, flexibility and firmness in dealing with emerging challenges and complex problems. Paradigm shifts in research and development process are already taking place due to globalization and liberalization of trade, empowerment and enhancement in purchasing power, increasing consumer preferences, competition in cost and quality, processing, diversified product development, value addition and deriving wealth from agricultural wastes, IPR regime and proprietary products, knowledge intensive technology transfer, shifting of goods and services from public to private sector and varied partnerships of stake holders.

As usable genetic variability would be increasing due to advancement of science and technology, strategies for integrated gene management would be rewarding. Power of science, technology and market intelligence in trade, increasingly will play a significant role in transformation of Indian agriculture and national economy. Dr. Rai's mission is to bring transparency, efficiency, effectiveness and relevance in scientific pursuits, with a human touch, to achieve ecologically sustainable agriculture in the country.

The Executive Council and all the Members of the Indian Society of Genetics and Plant Breeding extend their hearty congratulations to Dr. Rai on his joining the coveted position of Secretary DARE and Director General, ICAR and wish him grand success in his new assignment in guiding the destiny of country's agriculture from the front.

**M.C. Kharkwal**  
*Secretary & Editor*