

Foreword

Indian Council of Agricultural Research (ICAR), the Apex body of the National Agricultural Research and Education System (NARES), has been instrumental in enhancing agricultural productivity of the country. It is my privilege as President of the ICAR Society to present *DARE/ICAR Annual Report 2014-15*.

Agriculture has been given a major focus by the present Government, and the Council has been continuously striving to solve different issues related to farmers' fields to ensure sustainable production. In this regard, I recall the visionary speech of our Hon'ble Prime Minister of India, Shri Narendra Modi Ji, who lauded contributions of the Council during the 86th ICAR Foundation Day Celebrations in New Delhi, and guided agricultural research community to develop technologies for 'more crop per drop', safeguard soil-health, promote mechanization of small farms and increase pulses and oilseeds production, and emphasized for a strong 'Lab-to-Land' programme with Community Radio and ICT linkages. The Council is addressing these aspects through research integration, need-based education and inclusive frontline extension programmes.

With over 60% of the cultivated area in the country being rainfed, our agriculture remains strongly monsoon-dependent. Further, unprecedented floods this year in Jammu & Kashmir and impact of the cyclone, *Hudhud*, in Andhra Pradesh and Odisha, warrant Indian agriculture to be climate-resilient. During these events, the institutes and scientists of the Council stood by the farmers with technological backstopping and advisories. Our efforts with NICRA have set an example with over 580 Contingency Plans, duly addressing the monsoon concerns in agriculture at district level. While geo-referenced soil fertility maps help in sustaining soil-health for enhanced production, germplasm collection and evaluation of bioresources provide for biodiversity conservation and utilization. During the year, 30 explorations led to collection of 1,591 accessions, that include 620 wild species, and 40,879 accessions were imported from 38 countries. Over one hundred high-yielding crop varieties/hybrids having tolerance to various biotic and abiotic stresses were released for cultivation in different agro-ecosystems of the country. Further, efforts to popularize novel products and technologies for reduction of post-harvest losses, thereby generating employment opportunities, have contributed significantly to farmers' income.

ICAR's R&D efforts have led to a major

breakthrough in deciphering draft sequence of bread-wheat genome and the whole genome of Aseel bird, and three classical swine fever vaccine strains, *peste des petits ruminants* virus (PPRV) and Sungri/96 strain of Newcastle disease virus (NDV). Female cloned buffalo calf, 'Lalima', produced through 'Hand-guided Cloning' and 'Rajat' cloned from frozen semen somatic cell of a progeny tested Murrah buffalo bull that died a decade back, are noteworthy achievements. Phenotypic characterization and conservation of indigenous breeds, Sanchori, Belahi and Manipuri of cattle; Gojri buffalo; Harringhata Black chicken; fishes such as *Plectranthias alcockii* and *Pempheris sarayu*, are other important accomplishments.

DARE/ICAR established the Rani Laxmi Bai Central Agricultural University at Jhansi for Bundelkhand region and the Indian Institute of Agricultural Biotechnology at Ranchi to advance agricultural research and education. Krishi Vigyan Kendras (KVKs), the Farm Science Centres of the ICAR, have accelerated the 'Lab-to-Land' programmes for transfer of technologies. Three new KVKs were established during the year at Bongaigaon and Buxa in Asom and Ramgarh in Jharkhand. For enhanced participation, innovative farmers were invited to the ICAR-Regional Committee Meetings in 2014, to commemorate International Year of Family Farming. Exhibitions, showcasing ICAR technologies, have immensely enhanced the system's visibility in different fora. This year, we recognized several institutions, scientists and farmers for their good work, conferring 89 awards in 16 different categories. As a reward for the implementation of Official Language Policy, DARE and ICAR, both were conferred the *Indira Gandhi Rajbhasha Puraskar*, 2012-13.

With increasing emphasis on science-led agriculture, I am confident that the *DARE/ICAR Annual Report 2014-15* would be a valuable information treasure and would guide policy makers and farmers alike. It is our sincere endeavour to achieve greater partnerships for ensuring sustained growth in all aspects of Indian agriculture.


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President
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