



डा. एस. अय्यप्पन

सचिव एवं महानिदेशक

Dr. S. AYYAPPAN

SECRETARY & DIRECTOR GENERAL

भारत सरकार
कृषि अनुसंधान और शिक्षा विभाग एवं
भारतीय कृषि अनुसंधान परिषद
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GOVERNMENT OF INDIA
DEPARTMENT OF AGRICULTURAL RESEARCH & EDUCATION
AND

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D.O. No. Secy. (DARE) & DG (ICAR)/2014/2194
Dated the 30 December, 2014

Dear Colleagues,

Greetings to You and Your Families for a Happy & Productive, *Swachh evam Swasth* and Prosperous New Year, 2015.

The year 2014, was an eventful year for the Indian NARES as also for agriculture. In one of the first interactions, Hon'ble Prime Minister of India received the presentation on DARE/ICAR in June, 2014, with both appreciation and suggestions for R&D in agriculture. The late revival of monsoon improved *kharif* prospects, but unprecedented floods in the state of Jammu & Kashmir and the cyclone, *Hudhud* in Andhra Pradesh and Odisha challenged the farming activities. Our appreciation to all colleagues in the ICAR Institutes and State Agricultural Universities, who contributed to restoration work in various ways. These extreme climatic events also warrant agriculture to be climate-resilient, for which our efforts with NICRA have set an example, with over 580 District Contingency Plans duly addressing the monsoon concerns in agriculture during this year.

Family NARES generated cost-effective farm technologies that have been making positive impact on the productivity and quality of farm produce. Release of over 160 improved varieties/hybrids of different crops enhanced the yield potential and stress tolerance/resistance in diverse agro-ecological regions of the country. To name a few, HD 3086 and HD 3090 wheat varieties resistant to yellow and brown rusts; Chickpea GNG 1958; Soybean JS 20-29; Indian mustard DRMRIJ 31 and Pusa Mustard; first ever vegetable variety of Kale - KTK64, are potential releases for cultivation. Over 9000 tonnes of breeder seeds were produced for a faster spread of improved crop varieties. In our efforts to safeguard global food security for the future generations, India joined the Svalbard Global Seed Vault. In cutting edge science, draft sequence of bread-wheat genome was deciphered and high ranking progeny tested bull *Rajat* was cloned from frozen semen somatic cell of a bull that died a decade back. Shrimp (*L. vannamei*) farming in inland saline areas of Haryana opened new avenues.

We had the privilege of receiving the Hon'ble President at the Conference of ICAR Directors and Vice-Chancellors of SAUs in January, 2014. Shri Narendra Modi ji, Hon'ble Prime Minister of India, graced the 86th ICAR Foundation Day Celebrations in New Delhi, in July, 2014. The Hon'ble Prime Minister called upon the agricultural research community to develop technologies for 'more crop per drop', ensure soil health, promote mechanization of small farms, improve farmers' income, usher protein revolution through enhancing pulse production, make India self-reliant in edible oils, meet information needs of farmers through community radio and transfer technologies through a 'Lab to Land' approach. The Director General of the FAO, Dr. José Graziano da Silva, visited the ICAR and interacted with agricultural scientists, when he was conferred the D.Sc. (*h.c.*) by the IARI and Fellowship by the National Academy of Agricultural Sciences (NAAS).

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The Governing Body of the Council approved the Guidelines for implementation of Consortia Research Platforms; Revised guidelines for professional service function for ICAR scientists; ICAR Guidelines for Internal evaluation and forwarding research papers to scientific journals; Data management in ICAR; and the new Guidelines for KVKs. On a progressive mode, EFCs/SFCs of the 12th Plan were completed in 2014, as also the discussions on Vision-2050 documents of all the Institutes.

Global partnerships in International Agricultural Research witnessed the 4th World Congress on Agroforestry, with about 1000 delegates from 80 countries; 'Soycon 2014' International Soybean Research Conference; and the International Conference on Natural Fibres. We dedicated the ICAR Regional Committee Meetings during the year to the 'Indian Farmer', keeping in view the UN declaration of 2014 as the International year of Family farming and the birth centenary of Nobel Laureate, Late Dr Norman Borlaug. The Year 2015 has been designated as the International Year of Soils, indicating the critical role of agricultural sciences in global developmental processes. This also provides us with the opportunity to have soil-centric approach to Indian agriculture, as soil health is the basis of ecosystem functioning for food security.

ICAR actively participated in the *Swachh Bharat Abhiyan*, launched on the day of Gandhi Jayanti and is committed to be a proud partner in this National Mission. I take this opportunity to call upon all colleagues to ensure a clean and hygienic environment in all our institutions, and establish models for others to emulate.

For rich contributions, DARE and ICAR were awarded the *Indira Gandhi Rajbhasha Puraskar* by the Hon'ble President of India, and several of our Institutes and Scientists were recognized for inclusive R&D in agriculture. Our colleagues in the Institutes deserve appreciation for their contributions in accomplishing defined priorities within the timelines, that enabled DARE/ICAR to achieve a composite RFD score of over 90% for the third consecutive year.

While challenges are many, as also are the opportunities, and the way forward is to be responsive, proactive and innovative. Partnerships for Integration, Convergence and Synergy are what the 'Family NARES' and 'Team ICAR' stand for, in our cause to make Indian agriculture a proud profession of our farmers and a preferred destination for the youth.

As in the past, let us give our best and I wish you all the best.

With greetings and regards,

Yours sincerely,



(S. Ayyappan)

Encl: DARE/ICAR Salient Achievements - 2014

Distribution:

1. Special Secretary & FA, DARE/ICAR; Additional Secretary, DARE & Secretary, ICAR
2. DDGs; ADGs; National Coordinators; Principal Scientists, Senior Scientists; Directors, Project Directors; Deputy Secretaries, Under Secretaries of DARE/ICAR Hqrs.
3. Directors of ICAR Institutes/Directorates/Bureaux/NRCs; Zonal Project Directors; Project Coordinators.

For kind information:

1. PS to AM.
2. Chairman, ASRB; Members, ASRB; Secretary, Controller of Examinations, Deputy Secretary, Under Secretary, ASRB.
3. President, National Academy of Agricultural Sciences, New Delhi.
4. Vice-Chancellors of State and Central Agricultural Universities.
5. Secretary General, IAUA, New Delhi.
6. Directors of CGIAR Centres in New Delhi.
7. Chief Executive Officer, AgrInnovate India Ltd., New Delhi.



INDIAN COUNCIL OF AGRICULTURAL RESEARCH

SALIENT ACHIEVEMENTS- 2014

1. Productivity Enhancement

- Improved Varieties: Wheat HD 3086 and HD 3090; Chickpea GNG 1958; Soybean JS 20-29; Indian mustard DRMRIJ 31 and *Pusa Mustard*; Onion *Bhima Red*; Tomato DARL 68 and Punjab *Ratna* and hybrids Improved *Bhagya* 2011/TODHyb2; Chilli-LCA 620; Cauliflower-SBECF 102 & DC 31; Ash gourd-DAG12; First ever vegetable variety of *Kale* - KTK64; hybrid Brinjal PBHL 52 and hybrid *Okra* - JOH 0819 and variety VRO 25; Sunhemp strain Ankur (SUIN 037); Cashewnut-Bidhan Jhargram
- 9000 mt of breeder seeds produced and distributed
- Hydroponics-based green fodder feed technology developed
- Brucellosis detection method and sheep pox vaccine developed
- Technology developed to utilize open coal pits for cage culture

2. Cutting Edge Science

- Draft sequence of bread-wheat genome deciphered
- Decoded First Draft Whole Genome Sequence of *Helicoverpa armigera* (NPV)
- First complete Mitochondrial Genome Sequence of phytophagous Ladybird Beetle, *Henosepilachna pusillanima* (Mulsant) decoded
- Whole genome sequence of 'Aseel', an indigenous chicken-breed, decoded
- Female cloned Buffalo Calf 'Lalima' born
- High ranking Progeny Tested Bull 'Rajat' born through Cloning from Frozen Semen
Somatic cell of a bull died a decade back

3. Natural Resource Management

- Enabled 580 district level contingency plants and soil fertility maps for 65 districts for climate resilience and soil health
- Commercialized 4G nano-based nutritional agri-inputs (phosphorus, magnesium, zinc, and iron)
- Launched Land Resource Inventory at 1:10,000 scale for Agricultural Land Use Planning

4. Mechanization and Post-Harvest Management

- Fabricated Model solar fishing boat and launched *Makhana* Popping Machine
- Shrink-wrap pomegranates for freshness and quality
- Chitosan-based hand sanitizer developed
- New design of jute ribboner supplied to Jute Corporation of India

5. Technology Assessment, Refinement and Transfer

- First Super Computing Hub in Agriculture dedicated to the Nation
- *Rashtriya Krishi Mahila Mahotsav* in Bengaluru
- Campaign for Functional Food Value of Camel Milk
- Satellite fish nursery technique for livelihood improvement in Andamans
- Strawberry cultivation for improved livelihood of *Jhumias* in northeast India
- NAIP: Agri-Innovation Conclave 2014
- NAIP: *Krishi Parivartan Yatra*

6. IP Portfolio Management

- *In vitro* propagation of pomegranate cv. *Bhagwa* including bio-hardening technology commercialized
- Arecanut Tissue Culture Technology commercialized
- Dairy Technologies - Indigenous probiotic strains of *Lactobacillus plantarum* Lp91 and *Lactobacillus fermentum* Lf1, commercialized

7. HRD and Capacity Building

- 100th FOCARS Batch inducted at NAARM, Hyderabad
- 115 Afghanistan students provided scholarships and 35 international students admitted to Indian Agricultural Universities
- IAUA-ICAR Convention on 'World Class University', 8-9 November, 2014

8. Partnership and Linkages

- ICAR with State Line Departments: Monsoon 2014 preparedness
- ICAR and ICRAF: 4th World Congress on Agroforestry with about 1000 delegates from 80 countries
- DARE/ICAR and DoAC: Unveiled the draft National Agroforestry Policy
- ICAR-DAC Interface for 'Upscaling of Climate Resilient Practices through NMSA'
- ICAR Regional Committee Meetings dedicated to Late Dr Norman E Borlaug, with the message: '*Take it to the farmer*'
- Safeguarding Global Food Security: ICAR joins the Svalbard Global Seed Vault
- 'Soycon 2014', International Soybean Research Conference
- International Conference on Natural Fibres

9. Information, Communication and Publicity Services

- Climate Resilient Agriculture and Biotechnology highlighted in the Indian Science Congress 2014
- *Krishi Vasant*-2014, Nagpur: Mega Showcasing of Technologies and Innovations by ICAR
- ICAR '*Krishi Kranti Rath*' Flagged off, Linking KVKs with Development for awareness about new technologies and sensitizing farmers
- e-KAPAS: 10 lakh voice messages in 100 days, in 9 languages in 10 cotton growing states
- Weekly National Agromet Advisory jointly with IMD launched
- Presentation of DARE/ICAR to the Hon'ble Prime Minister of India, 13 June, 2014
- Partnering with the '*Swacch Bharat Abhiyan*'

10. Organization & Management Reforms

- Introduced biometric attendance system
- ICAR Guidelines for Research Papers in Scientific journals and Data Management
- ICAR Rules and Guidelines for Professional service Functions (Training, Consultancy, Contract research and Contract service)
- ICAR Manual for Establishment and Administration
- Guidelines for implementation of Consortium Research Projects
- Approved New KVK Guidelines
- Renamed several research institutions in conformity with sectoral needs

11. New Institutions

- Rani Laxmibai Bundelkhand Central Agricultural University at Jhansi
- Indian Institute of Agricultural Biotechnology at Ranchi
- New KVKs at Bongaigaon and Buxa in Asom; and Ramgarh in Jharkhand

12. Honours

- Hon'ble President of India, Shri Pranab Mukherjee addressed the Conference of ICAR Directors and SAU Vice-Chancellors, 2014
- Hon'ble Prime Minister of India, Shri Narendra Modi ji graced the ICAR Foundation Day Celebrations, 2014
- Bharat Ratna Professor C.N.R. Rao visited NAAS and ICAR, June, 2014
- Director General, FAO Dr. José Graziano da Silva interacted with 'Family NARES', September, 2014
- India Gandhi Rajbhasha Puraskar, 2014 for DARE and ICAR

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