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From the DG's Desk

Dear Readers,

India is the second largest producer of fruits and vegetables, largest producer and consumer of cashew nut, tea and spices, third largest producer of coconut, fourth largest producer and consumer of rubber and sixth largest producer of coffee in the world. Today, horticulture in India, as a consequence of several dynamics like focused research, active technological and policy initiatives, accessible high efficiency inputs, *etc.* has become a sustainable and viable venture for farmers particularly the small and marginal farmers.

India has witnessed sharper increase in acreage in horticultural crops compared to food grains over the last 15 years and the

area under horticultural crops increased by 54% from 16.2 m ha in 2001-02 to 24.94 m ha in 2015-16 compared to an expansion of area under food grains by around 1.28%. At present, India is producing 295.31 million tonnes of



horticultural produce from an area of 24.94 m ha and production is growing at a compound growth rate of 5.65% since this century. As per the economic survey 2015-16 report, the percentage share of horticultural output in agriculture is more than 33% and the share of plan outlay for horticulture, which was 3.9% during IX Plan, has increased to 4.6% during the XII Plan.

I have no doubt in my mind that research contribution by NARS system is one of the factors responsible for this momentous growth in horticulture. The research work carried out in the Council during the last five decades has paid rich dividends in terms of release of more than 250 varieties/hybrids in fruits, vegetables, ornamental crops, tuber crops, spices and plantation crops, mushroom, etc. Some of the important fruit varieties like Mallika and Amrapali mango, vegetable varieties viz., triple resistant variety Arka Manik of watermelon, yellow vein mosaic virus resistant Arka Anamika of okra, high yielding French bean

variety Arka Komal and PKM variety of drumstick have spread throughout the length and breadth of the country. Kashi Pragati in okra, Kashi Kanchan in cowpea and Kashi Anmol in chilli are the most successful varieties adopted by the growers of Eastern Uttar Pradesh with a record 20% increase in productivity. First ever heat tolerant potato variety Kufri Surya for extending cultivation to warmer climate is an example of how the Council is addressing the issue of climate change.

Many hybrids like Arka Kiran—a red pulp hybrid in guava; Ambika—a regular bearing mango hybrid having yellow colour with red blush; Udhayam, a hybrid plantain variety tolerant to low temperatures; Arka Rakshak—a triple resistant tomato hybrid; onion variety Arka Kalyan and hybrids Arka Meghana in Chilli; Arka Anand in brinjal; Arka Suvidha in French bean; Arka Prajwal in tuberose; and Jawahar in

Aswagandha, a variety that has recorded highest dryroot yield in medicinal crops; are among few important released varieties/hybrids, which have made significant impact on production and enhanced economic gains. In tuber crops, high starch

(33-34%) and high yielding (38-39 t/ha) triploid cassava varieties Sree Athulya and Sree Apoorva were released for growing in industrial belt of major cassava growing states of Kerala and Tamil Nadu. In cashew, NRCC Sel-1, NRCC Sel-2 and Bhaskara were

borticultural crops.

ICAR has developed a large number of

sustainable production, protection and

post-harvest management technologies for

higher yield and better quality in

ICAR has developed a large number of sustainable production, protection and post-harvest management technologies for higher yield and better quality in horticultural crops. Technology for high density planting of mango, banana and pineapple, is being practiced by majority of fruit growers. A high density orchard system for apple and almond have also been developed. In cashew, the results showed that high density planting of cashew resulted in 2.5-folds higher yield over conventional method. Grape rootstock identified by the IIHR, Bengaluru has revolutionized grape cultivation in dry land and problematic soils. Technology for foliar nutrition of micro nutrients viz., banana special, mango special for higher yields and quality is well appreciated by the farmers. The Council has developed bio fertilizers like PSB. Azospirillum, VAM, etc. and microbial consortium, which contributed significantly towards better soil nutrient uptake, improving plant health, and faster composting of leaf litter.

released as high yielding cashew varieties.

Other important challenging aspect in horticulture addressed by the Council, is the management of pests and diseases, which cause substantial loss to the farmers. Portable dipstick kits for detection of five major potato viruses at field level, duplex PCR detection kits for tomato bigomo virus and big bud phytoplasma, Molecular technology for virus diagnosis in banana, diagnostics tools for CTV, ICRVS, CMBV, CEVD and greening in citrus, pheremone traps for mango fruit fly and melon flies, etc., have greatly benefited the farmers. Many farmer and environmentfriendly plant protection technologies like microbial bio-control agents, use of plant botanicals and plant products, biopesticide formulation Menma from cassava leaf for management of banana pseudo -stem weevil, a novel delivery method of biocontrol agents through encapsulation in spice crops, were developed and extensively used by the farmers across the country.

Primary or secondary horticultural crops not only provide income security to farmers but also ensure

> employment of available labour effectively. In this direction many crop based combinations developed by various research institutes have proved to be very useful for farmers and act as a complementary role in doubling the farmers' income. Intercropping in

mango with pineapple as well as intercropping cashew with pineapple, turmeric and amorphophallus are found compatible and profitable. Various multistoreyed cropping system under arid ecosystem viz., aonla- ber- brinjal, aonla- bael- karonda; aonlakhejri- suaeda- moth bean- mustard, etc are also found to be sustainable and remunerative to the farmers. Rice-black gram-short duration cassava crop sequence over sole cassava is also recommended.

The Council through its institutes maintains a wealth of varied collection of germplasm comprising fruits, vegetables, floriculture, spices, plantation and tuber crops, reflecting the considerable genetic biodiversity that included potential sources of resistance to various biotic and abiotic stresses as well as high nutritional, and medicinal values and quality traits. IIHR, Bengaluru has a collection of 9,418 germplasm in fruits, vegetables, ornamental and medicinal crops. Central Institute for Arid Horticulture, Bikaner has a collection of 2,400 germplasm and National Research Centre for Citrus, Nagpur, has 614 exotic and indigenous accessions.

Still, there are many challenges such as shrinking of arable lands, increased demand for horticultural crops, concerns of safe and pesticide-free food availability, climate changes, invasive pests, deterioration of soil and plant health system, etc. Further, the dynamic production problems, volatile marketing conditions and developing technologies for value addition and processing to minimize the postharvest loss are the other challenging issues facing horticultural research.

Horticulture holds promise for scientists and farmers as the productivity of many horticultural crops is less than potential yield and world average. India has more than 12.86 million ha of cultivable wasteland and many horticultural crops which have lesser demands on water and other inputs can be used to grow horticultural crops. At present lesser than 2% of horticultural produce is being processed and there is tremendous scope to increase to the targeted level of ten percent. Horticulture as per estimates can provide direct employment for 7.7 million people and indirect employment for 30.0 million.

To maintain horticulture sector as a prominent segment under agriculture requires continuous efforts both from research and development. The present area-led growth may not sustain for long as cropped area is limited. Hence, emphasis should shift towards productivity-led growth. This calls for dissemination of existing technologies and making available of required technologies and technical know-how. The unceasing efforts shall continue to address dynamic complexities of production and protection environment of the horticultural cultivation. Development of varieties/hybrids to address the multi dimensional pest/disease issues is a focus area in horticulture as this not only brings down crop loss, but also greatly helps farmers in reducing costs, and ensures supply of safe or less pesticide-residue produce to consumers.

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WORKSHOPS, MEETINGS, SEMINARS, CONFERENCES, SYMPOSIA

Tropical Agriculture gets a boost

New Delhi, 11 September 2017. Indian Council of Agricultural Research (ICAR) and the International Center for Tropical Agriculture (CIAT) signed a Work Plan for the period 2017-2020 for scientific and technical cooperation in research and training in tropical commodities. Dr T Mohapatra Secretary, DARE and DG, ICAR signed the Work Plan on behalf of ICAR and Dr Ruben G. Echeverria, DG, CIAT on behalf of CIAT.



Both sides inter-alia agreed to coordinate in the areas of cooperation, as listed below, subject to terms and conditions stipulated in the MoA and the Work Plan:

1. Adding value to cassava: germplasm improvement and crop breeding, managing pest and disease risks, quality seed production, diversified uses and

- markets, socio-economic assessment;
- 2. Forages and livestock systems: germplasm improvement and crop breeding, enhancing integrated livestock-crop systems, managing environmental impact on livestock sector and pasture lands;
- 3. Agricultural landscapes and soil ecology: restoring degraded agricultural landscapes, soil health, assessment of land use change, cropping systems diversification for sustainable soil management;
- 4. Climate change and ecosystem services: Big Data analytics of climate-smart agriculture, analysis and investment prioritization of adaptation and mitigation actions, climate-risk vulnerability analysis, decision-support tools and climate information services;
- 5. Food systems and value chains: nutrition-sensitive value chains, developing and promoting nutrientdense crops and varieties, agri-food based strategies for nutrition and health improvement, resilient and efficient agri-food systems, developing climatesmart value chains

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Inauguration of Indo-US collaborative FTF-ITT programme

Kochi, 12 September 2017. While inaugurating the fifteen day training programme on "Recent Trends in Harvest and Post- Harvest Technologies in Fisheries" at ICAR-Central Institute of Fisheries Technology, Kochi, Chief Guest Dr P Rajendran, Vice Chancellor, Kerala Agricultural university highlighted that there exists tremendous potential for growth in fisheries and livestock sector. Fisheries is important for economies of Kerala and India.

The programme is eleventh in the series of the 'Feed the Future India Triangular Training (FTT-ITT) programme', a triangular cooperation between India, US and Africa for adapting technological advances and innovative solutions to address Global Food Security. This Indo-US joint initiative is funded by USAID, India representing US Government and coordinated by National Institute of Agricultural Extension Management (MANAGE), Hyderabad under the aegis of Ministry of Agriculture and Farmers Welfare, Government of India. Twenty-two executives representing 8 member countries viz., Afghanistan, Ghana, Kenya, Liberia, Malawi, Mongolia, Sudan and Uganda participated.

Dr C N Ravishankar, Director, ICAR-CIFT highlighted the role of CIFT in promoting application based research in harvest and post-harvest fisheries sector during the presidential address.

Dr Ravi Nandi, Programme Manager at MANAGE, Hyderabad, briefed about the genesis of FTT-ITT programme-during the visit of then US president, Mr Barak Obama to India in November 2010. Dr A K Mohanty, Head, Extension, Information and Statistics division, gave an overview of the training programme at CIFT.

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Amelioration of acid soils

Kolkata, 11 August 2017. The Indian Institute of Soil Science, Bhopal in collaboration with National Bureau of Soil Survey and Land Use Planning, organized a brainstorming session on amelioration of acid soils of eastern India in Kolkata.



Dr D D Patra, Vice-Chancellor, Bidhan Chandra Krishi Viswa Vidyalaya, Mohanpur, West Bengal, said that acid soils of eastern India have idiosyncratic problems, which need to be addressed with locally adaptable, practicable and economically viable technology interventions.

Dr S K Chaudhari, ADG (SW&M) emphasized upon the need of enlisting the region specific problems and possible interventions occurring in the acid soils of eastern India. Dr Ashok K Patra, Director, ICAR-IISS, Bhopal briefed about acid soils of eastern India, and other associated problems. Dr S K Singh, ICAR-NBSSLUP, Nagpur, highlighted the importance of village level planning and role the NBSSLUP in developing land resource inventory and GIS database.

Recommendations

- Acid soils of eastern India should be characterized on the basis of extent of Ca and P deficiency and toxicity of heavy metals and should be mapped agroeco region wise for which an action plan need to be developed.
- Liming materials used for the amelioration of acid soils should be properly characterized and their specifications should be entered in the Fertilizer Control Order.
- New liming materials such as biochar need to be researched and their field level impact should be evaluated.
- A database of all the possible ameliorants for acid soils need to be created.

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Roadmap for implementation of 'Delhi Declaration on Agrobiodiversity Management'

New Delhi, 28 August, 2017. The 12-point Delhi Declaration on Agrobiodiversity Management was adopted by the participants of the First International Agrobiodiversity Congress (IAC-2016) as a roadmap for conservation and utilization of genetic resources to achieve sustainable development goals (SDGs). To chalk out a plan for effective implementation of the Delhi Declaration, a brainstorming meeting on 'Strategies for Implementation of Delhi Declaration on Agrobiodiversity Management in India, was organized on 28 August, 2017 in NASC Complex, New Delhi. The meeting was co-organized by ICAR through its five genetic resources bureaus, Protection of Plant Varieties and Farmers' Rights Authority, Indian Society



of Plant Genetic Resources, Bioversity International, Trust for Advancement of Agricultural Science, and Indian Society of Genetics and Plant Breeding.

Dr T Mohapatra, Secretary (DARE) and DG (ICAR); and Dr R S Paroda, Chairman (TAAS) and President (ISPGR) co-chaired the meeting. In the first session, Chairperson of NBA, Directors of five genetic resources bureaus, Registrar General of PPV&FRA and regional representative of Bioversity International made detailed presentations on the on-going research and service activities. Experts included Drs A K Srivastava, (Chairman, ASRB), R B Singh (Chancellor, CAU, Imphal), R S Rana (Member, NBA), J S Sandhu (President, ISGPB) and Mr Ajay Vir Jakhar (Chairman, Punjab State Farmers Commission).



Dr R S Paroda emphasized the need for action based on coordinated efforts across implementing agencies. He urged participants to undertake the work towards sustainable use of agrobiodiversity on war footing and ensure its timely implementation.

Dr T Mohapatra appreciated the efforts in organizing the IAC-2016 and bringing out Delhi Declaration and its follow up through a brainstorming on implementation strategies. He highlighted that ICAR and constituent institutes and Bureaus are working in the direction of fulfilling the spirit of Delhi Declaration.

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Aquaculture for rural population

Tamil Nadu, 19 August 2017. Central Central Institute of Brackishwater Aquaculture, Chennai in association with the Fisheries Technocrats Forum (FTF), Chennai conducted a Farmers Conclave cum Workshop on "Sustainable Livelihood Options in Aquaculture for Rural Population", at Nagapattinam, which is the fisheries and aquaculture hub of Tamil Nadu.

Dr KK Vijayan, Director, ICAR-CIBA and Member-Secretary, Coastal Aquaculture Authority (CAA), Government of India, said that large areas of brackishwater bodies of this region need to be



effectively used for cage culture of fishes for producing food, employment and income. He informed that farmers can interact with CIBA on-line through "vanamishrimpapp", a mobile-phone based tool, available free-of-cost for sound technological support and profitable practice of shrimp farming. He expressed that CIBA can impart skill development to fisher youth under the Attracting and Retaining Youth in Agriculture (ARYA) programme.

The workshop recommended that entrepreneurship development in nursery rearing of finfishes, mud crab and shrimp need to be taken up on priority. Development of policy guidelines for open water aguaculture and development of subsidy oriented schemes by the State and Central governments were identified as policy initiatives to enhance the fisheries production and doubling the farmers' income in this region.

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Adopting Agricultural Engineering **Technologies**

New Delhi, 3 August, 2017. An interaction workshop between ICAR and International Fund for Agricultural Development (IFAD) was organized at NASC Complex, New Delhi by Agricultural Engineering Division of ICAR, New Delhi. Presidential address was delivered by Dr Trilochan Mohapatra, Secretary DARE and DG, ICAR. Eminent scientists and researchers from allover India participated in the workshop. The objectives of



the workshop were to:

- showcase the renewable energy technology (RET) that are ready for larger scale demonstration and for commercialization,
- (ii) assess the enabling measures required to facilitate the use of small scale and cost effective RETs by marginal and small holder farmers, and
- (iii) identify agro-ecological zones and scale up of use of RETs for mechanization, irrigation, post-harvest handling/storage/processing and agricultural waste management.

DG, ICAR emphasized the importance of agricultural mechanization and post-harvest processing. He lauded the efforts of Agricultural Engineering Division of ICAR and IFAD for this initiative of increasing the adoption of agricultural engineering technologies.

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Drought Research and Management

New Delhi, 21 July 2017. Natural Resource Management Division, ICAR organized a workshop on "Drought Research and Management".

Chief Guest Shri Parshottam Rupala, Minister of State for Agriculture, Farmers Welfare and Panchayat Raj, appreciated the efforts made by ICAR and other



national institutes for addressing the problems related to drought by developing doable technologies. Shri Rupala emphasized on problems of small farmers, drought management in horticultural crops, collection of crop data from farmers' fields, encouraging planting of fodder yielding tree species on community

lands, along the roads and railway tracks and suggested to converge these development activities with national schemes such as MGNREGA and various Government programmes.

Dr Trilochan Mohapatra, Secretary (DARE) & Director General (ICAR) advocated for validation of district contingency plans developed by CRIDA and field testing.

Shri Sunil Kumar Singh, Additional Secretary & Financial Advisor (DARE/ICAR) stated that the management of drought is much more difficult than flood management, So more investment is needed for drought research and management.

In the technical session, presentations were made on research and management aspects of drought covering agriculture, livestock, horticulture, weather

forecasting, etc., from which the following recommendations emerged.

- A multi-parametric and integrated drought monitoring index be developed for scientific assessment of drought and declaration of drought by the States.
- Weather data collection infrastructure in the country need to be expanded and integrated so that decentralized agro-advisories can be issued to farmers at block level.
- Research on drought tolerant varietal development to be strengthened by making use of modern tools like phenomics, etc.
- District contingency plans need to be tested at field level as joint efforts of SAUs and line departments.
- Technologies for saving existing horticulture orchards in drought prone areas need to be compiled/developed and implemented in the form of a new scheme by DAC&FW, Gol.
- Planting of top feed tree species to be taken up on village common lands and avenues under MGNREGA to provide fodder during drought periods.
- In chronically drought prone districts, more drought water proofing/conservation works may be converged with ongoing mega schemes like MGNREGA.
- For drought preparedness, large-scale adoption of soil and rain water management (both in situ and ex situ) technologies need to be taken up on priority.

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Enhancing Aquaculture Production

Lucknow, 25 July, 2017. A two day training workshop on "Applications of Single Molecule Real Time (SMRT) Sequencing and Bioinformatics Analysis" was organised at ICAR- National Bureau of Fish Genetic Resources, Lucknow.



The workshop was aimed at enhancing the capacity and knowledge of scientists, providing the latest information about SMRT sequencing technology, its application in various areas of genomic research and bioinformatics analysis thereof.

Dr Sudhir Raizada (ADG, Inland Fisheries), ICAR, in his inaugural address emphasised on the use of latest technologies that can enhance aquaculture

production of the country.

Ms. Camille Cyncynatus, Director Sales, Pacific Biosciences, South Asia, emphasized on the importance of SMRT technology and various prospects of research that can be carried out on this platform.

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Nutrition Smart Village

Bhopal, 22 August, 2017. Chief Minister of Madhya Pradesh Shri Shivraj Singh Chouhan inaugurated a two day orientation workshop on Nutrition Smart Village.

Shri Chouhan said that children being the future of the country need to be given proper nutrition. He asked field officials to work towards eradicating malnutrition from Madhya Pradesh. Smt Archana Chitnis, Minister of Women and Child Development informed that one village each from all the 313 blocks in the state will be made Nutrition Smart Village in the next one year by working in convergence with agriculture and allied departments in convergence mode.

Dr Anupam Mishra informed that Nutri- Smart Village is a scientific approach to provide nutrition using existing resources of farmers, farm labourers and other people living in the village through demonstration, training, awareness and input support.

Few KVKs from Madhya Pradesh presented the plan and progress of work in Nutri Smart villages of Madhya Pradesh.

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Potassium Research for Efficient Soil and Crop

New Delhi, 28 August 2017. An International Conference on Advances in Potassium Research for Efficient Soil and Crop management was held at NASC complex New Delhi. Inaugurating the events as Chief Guest, Dr Trilochan Mohapatra, Secretary, DARE and



DG, ICAR underlined the necessity of focussed research on potassium in balanced fertilizer use and enhancement of nutrients use efficiency. He also emphasized the need for improving fertilizer recommendations involving judicious use of potassium so as to meet crop demand and mitigate soil degradation by avoiding excessive mining from soil reserves.

Dr R S Paroda, Chairman, TAAS, chaired the Inaugural function and advocated giving priority to potassium research in view of increased response to its application. In-depth research is needed on use of indigenous low grade potassium minerals, split application of potassium and residue management in different cropping systems.

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Technological Intervention to improve productivity of natural fibre

Gandhinagar, Gujarat, 2 July 2017. Shri Radha Mohan Singh, Union Minister of Agriculture & Farmers Welfare, while addressing as chief guest in the International Conference on "Productivity and Product Diversification Challenges for Natural Fibres", organized as a part of international event "Textile India 2017" at Gandhinagar, Gujarat, stressed the importance of development of new technologies to



improve the productivity of natural fibre crops for doubling farmers income. He highlighted the adoption of the improved genotypes, integrated farming systems, precision agriculture, soil health, micro irrigation, disease and pest management and postharvest technology in fibre crops.

Smt Smriti Irani, Union Minister of Textiles, committed for creation of knowledge platform to harness the synergy of intellectuals in agriculture and textile ministries for mutual benefit to the farmers and industries. She emphasized on the development of commercial scale fibre extraction technology to harness underlying potential in crops like banana.

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Coming together of ICAR-IFAD

30 August 2017, New Delhi. An interaction meeting to refresh the excellent relationship between ICAR and International Fund for Agricultural Development (IFAD) and possible collaboration on research. development and capacity building, was held. Dr T Mohapatra, Secretary, DARE and DG, ICAR, Dr Perin L Saint Ange, Associate Vice President, International Fund for Agricultural Development, Rome, Italy and other officials discussed about need to move faster in strengthening collaboration in a specific time frame.



ICAR is in the advanced stage of developing a project. The Council is in process of extending facilities and support of KVKs to IFAD projects in Nagaland and Mizoram. Issues of climate change, youth and women empowerment, and capacity building need to be addressed to facilitate technological change and economic growth in stakeholder participatory mode.

A fruitful discussion on mutual interests for

developing a possible collaboration with several potential outcomes was held. The collaboration may also be extended towards international partnerships and replicated in Africa.

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Creation of Seed Hubs

Jodhpur, 26 August, 2017. A Review and Planning Meeting of DAC funded project "Creation of Seed Hubs for Production of Quality Seed of Indigenous Pulse Crops" was organised at ICAR-Agricultural Technology Application Research Institute, CAZRI Campus, Jodhpur.

Dr S K Singh, Director, ICAR-ATARI, Jodhpur presented the status, target and achievements of 16 Seed Hubs created in KVKs of Rajasthan, Gujarat and Haryana. He emphasised the genesis of seed hub project in respect to Kharif, Rabi and Summer pulse crops and to complete the seed certification process and the procurement and sale of seeds from partner farmers in an effective manner so that the TFL certified seed can be provided to farmers which is the first and foremost requirement.

Dr O P Yadav, Director, ICAR-CAZRI, Jodhpur, mentioned that the pulse seed production is easier in comparison to other crops. Dr N P Singh, Director, ICAR-IIPR, Kanpur, said that the country could achieve a record production of pulses due to upscaling of technology.

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Roadmap for Agricultural Knowledge Management in India

28 September 2017, New Delhi. The ICAR-DKMA organized a two day "National Workshop on Developing a Roadmap for Agricultural Knowledge Management in India" at NASC Complex, Pusa, New Delhi during 27-28 September 2017. While inaugurating the workshop, Minister of State, Ministry of Agriculture and



Farmers Welfare, Shri Gajendra Singh Shekhawat, stressed on the fact that knowledge has provided our country self-sufficiency in food production and there is a need to speed-up the process of knowledge management in agriculture in India. Dr Ajit Maru, Ex Senior Knowledge Officer, GFAR, FAO of the UN, while delivering keynote address emphasized that we are entering into a knowledge economy and knowledge management becomes imminent in this era. Prof. R. B. Singh, Ex Chairman, ASRB, Shri Gajendra Singh, Ex DDG, ICAR, Dr Rameshwar Singh, VC, BASU, Patna, Sh. Chhabilendra Roul, Additional Secretary (DARE) & Secretary, ICAR, Sh. S.N. Tripathi, Additional

Secretary (DARE) & Financial Advisor, ICAR and Dr. S. K. Singh, Director, ICAR-DKMA were present on the dais. The workshop had sessions on "Present Status and Future Prospects of Knowledge Management", "Managing Data, Information and Knowledge Banks for higher agricultural gains", "Role of Media and Industry in Knowledge Management" and "Restructuring the Infrastructure for Knowledge Management". Union Agriculture Minister Shri Radha Mohan Singh, Union Minister, Minister of Agriculture and Farmers Welfare and Dr T Mohapatra, Secreatry DARE and Director General, ICAR also addressed the delegates. The workshop concluded with the plenary session on second day under the chairmanship of Dr Rameshwar Singh, Vice Chancellor, Bihar Animal Science University.

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Annual group meeting of AICRP on Onion and Garlic

Durgapura, Jaipur, 1-2 July, 2017. ICAR-Directorate of Onion and Garlic Research, Rajgurunagar, Pune organized the VIII Annual Group meeting of All India Network Research Project on Onion and Garlic at Rajasthan Agricultural Research Institute, Durgapura, Jaipur. The inaugural session was chaired by Dr A K Singh, DDG (HS), New Delhi.

Dr Major Singh, Director, ICAR-DOGR, briefed about AINRPOG and its achievements, with the importance of this crop in day to day life. He laid emphasis on multiplication of seed of developed varieties for the farmers.

Sel. 153-1 (OSR-1347), a red onion variety from IARI was recommended for release in Zone II (Delhi, Rajasthan, Haryana, J&K Jammu and Punjab) for rabi season and Col. 819 (OSR-1344), red onion variety from NHRDF for release in Zone II (Delhi, Rajasthan, Haryana, J&K Jammu and Punjab) and Zone V (Gujarat and Maharashtra) for rabi season.

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'Stakeholders Meet'to promote fisheries in Islands

Kochi, 8 July 2017. A Stakeholders Meet on Development of Tuna Fisheries in Andaman and Nicobar Islands was held at ICAR-CIFT, Kochi on behest of Andaman and Nicobar Administration and ICAR-CIARI, Port Blair in association with ICAR-CIFT, Kochi and ICAR-CMFRI, Kochi.

Shri Anindo Mazumdar, IAS, Chief Secretary, Andaman and Nicobar Administration said that Andaman and Nicobar islands being endowed with unexploited abundant marine fishery resources, is a virgin place for the investors and emerging entrepreneurs to come forward to take advantage of tuna and other fishery resources of the islands. He assured that Andaman and Nicobar Administration will provide single window clearance for interested entreprenuers.

Dr S Dam Roy, Director, ICAR-Central Island Agricultural Research Institute, Port Blair briefed about overall scenario of fisheries resources available in the Islands and in particular about the under exploited straddling tuna resources.

Dr Mohan Joseph Modayil, Former Member, ASRB and Director, ICAR- Central Marine Fisheries Research Institute, Kochi enlightened on the outlook required for tuna fisheries development in the islands in which context he pointed out the need for fisheries resource stock assessment and required infrastructure development in Andaman and Nicobar Islands.

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Agriculture in any climatic condition

Hyderabad, 13 July 2017. Second Stakeholders Consultation Meeting under Climate Resilient Agriculture was held at ICAR-National Academy of Agricultural Research Management, Hyderabad from 13 to 14 July 2017.

Dr Himanshu Pathak, Director, ICAR-National Rice Research Institute, Cuttack and Chairman, Global Technology Watch Group, TIFAC said, "Climate is the most important determinant of agriculture. If the monsoon is well distributed then production is good. If it is not then it leads to distress in agriculture although, technologies are available. We have to minimize the effects of climate changes by adapting these technologies".

Objectives of this meeting were: Technology scouting and its prioritization in Indian context to support the Government and industry in accelerating actions that can help in the early adoption of climate friendly technologies in agriculture and allied sectors; and Assessment of technology needs in the adaptation and mitigation areas dealt by other National Missions on climate change.

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Agriculture beyond climate

Jodhpur, 5 July 2017. One-day Zonal Meeting of National Innovations on Climate Resilient Agriculture (Technology Demonstration Component) of ICAR-Agricultural Technology Application Research Institute, Jodhpur was held at ICAR-ATARI, Jodhpur.

Dr S K Singh, Director, ICAR-ATARI Jodhpur, in his inaugural address, said that interventions under NICRA should be aligned with existing cropping practices of the region based on vulnerability. Deploy proven resilient practices for various production systems in the village by identifying the constraints for achieving resilience and by facilitating adoption of suitable technologies based on resource endowments. In addition, the scientific approaches for ensuring the resilience would be driven through capacity building and awareness in a participatory manner.

Dr J V N S Prasad, Coordinator-NICRA TDC, ICAR-CRIDA, Hyderabad advised participants to up-scale the most successful and scalable technologies in nearby villages. He further emphasized to take up new interventions model which have direct bearing with the climate changes. He also stressed upon improving the soil organic carbon status and efficient recycling of biomass and efficient use of the soil health cards.

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Success Story

Vanaraja and Srinidhi brings security to Nagaland Tribals







Educated unemployed youth in Nagaland undergo training on poultry farming at ICAR, Nagaland Centre and take up poultry farming on commercial basis

The per capita consumption of animal protein is the highest in Nagaland. However, there are major constraints like non-availability of good poultry germplasm and higher feed cost deters tribal farmers for going for poultry farming. The state is almost 40% deficient in animal meat and products. Vanaraja and

Srinidhi poultry, dual purpose poultry birds, were developed by ICAR-Directorate of Poultry Research, Hyderabad for backyard poultry farming in rural and tribal areas for meat and egg purpose, respectively. Owing to the similarity in phenotypical appearance of these birds with desi birds, they are well taken up by the tribal farmers of the Nagaland. These birds have higher

growth rate, less mortality, brown colour egg and higher egg production.

germplasm of poultry ICAR Research Complex for NEH Region, Nagaland Centre initiated the production of quality germplasm of Vanaraja and Srinidhi under Poultry Seed Project in collaboration with ICAR-DPR, Hyderabad.



commercial basis.

In 2016-17, with the help of Tribal Sub Plan (TSP) component of the project as well as TSP institute fund, ICAR Nagaland Centre adopted 17 villages throughout Nagaland for their development as poultry model village. The success of these villages motivated more farmers and educated unemployed youth in Nagaland to undergo training on poultry farming at ICAR, Nagaland Centre and take up poultry farming on

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To fulfill the deficiency and injecting the improved

Profit from backyard poultry in adopted villages

Beneficiary	No. of benefi ciaries	No. of chicks supplied	Mortality	Expenditure on feed and medicine (Rupees)	Gross income (Rs.)	Net income (Rs.)	Live weight(kgs)
17 villages	738	25319	1725	4255545	12499125	7131525	58985

Capacity Building

Skill Development Programme on farming of brackishwater fishes

Chennai, 11 July 2017. Brackishwater creeks and estuaries can be efficiently utilized by installing suitable cages for farming of fishes, which is the prudent strategy for doubling fish farmers' income and augmenting fish production. To achieve that, the

art and science of crafting low volume cages suitable for brackishwaters and farming techniques of fishes. need to be inculcated to the coastal fisher families and other interested farmers and entrepreneurs.

The ICAR-Central Institute of Brackishwater Aquaculture (ICAR-CIBA) conducted a four day skill development programme for the fisher youths and aquaculture graduates on "Crafting low volume cages



and farming of brackishwater fishes in cages". Trainees were provided hands-on training on cage fabrication and deployment in brackishwaters at Vennangupattu village, Kancheepuram district, Tamil Nadu, where CIBA is demonstrating cage farming of brackishwater fin fishes in collaboration with National Institute of Ocean Technology, Government of India, Chennai. Further, the fish health monitoring protocols and disease preventive measures were also taught to them. The social harmony with the local communities is the key for the viability and success of cage farming, therefore, skills on community handling were imparted using role-play techniques. Mobilising fisher families who have access and traditional right on the brackishwater resource is the better-fit model for cage farming. An interaction session was arranged with the members of APJ Abdul Kalam Fish Producers Group, Vennangupattu village who are presently involved in this cage farming intervention by CIBA.

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Focus on FOCARS

Hyderabad, 5 July 2017. "Innovative approaches are needed in agricultural research to achieve the goal of doubling farmers' income by 2022 through out-ofthe-box solutions, said Dr Trilochan Mohapatra, Secretary (DARE) & Director General (ICAR) while addressing ICAR Trainee Scientists undergoing the 106th Foundation Course for Agricultural Research Service (FOCARS) at ICAR-National Academy of Agricultural Research Management, Hyderabad. He called upon young scientists to focus on giving their best for the benefit of stakeholders and to build a system that fulfils the food and nutritional needs. He also shared the concept of ICAR to establish a 'Discovery Centre' where new innovative ideas could be discussed and new technologies developed for the farmers.

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Conserving depleting fish species of River Ganga

Allahabad, 1 August 2017. Awareness Programme on Conserving Depleting fish species of River Ganga was organised by ICAR-Central Inland Fisheries Research Institute, Regional Centre, Allahabad under National Mission for Clean Ganga project to restore and conserve the depleting fish species.

Shri Jai Prakash Nishad, Minister of State, Animal Husbandry and Fishery, Government of Uttar Pradesh emphasised on the importance of Ganga River and its biodiversity. He expressed great concern on low recruitment of fishes, over fishing of brooderstock

MoU

IISS and NTPC sign agreement for research on Use of Fly Ash in Agriculture



New Delhi, 30 August, 2017. ICAR- Indian Institute of Soil Science and NTPC Limited has signed a joint agreement for execution of a long-term research project "Use of Fly Ash in agriculture for sustainable crop production and environmental protection", at Krishi Bhavan, New Delhi in presence of Dr Trilochan Mohapatra, Secretary, DARE and DG, ICAR and Mr K K Sharma, Director (Operation), NTPC Limited, Noida.

The Research project will attempt to investigate on the impact of long-term fly ash application on soil, food and fodder quality under four major agrological zones and to make a firm recommendation for the purpose of formulating policy guidelines towards safe and maximum use in agriculture. Technical programme of the project will be carried out jointly by 5 Institutes/Universities including IARI, New Delhi; IGFRI, Jhansi; OUAT, Bhubaneswar; and BCKV, Mohanpur under the leadership of IISS, Bhopal with a project duration of 120 months.

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during the breeding season and over fishing of the fingerling during rainy season, which hampers the fish biodiversity and finally affecting the livelihood of fishermen community. He also released a publication "Ganga Ko Aviral Bahne Do" as a guiding principle to restore Ganga and livelihood of fishermen community. As part of ranching programme, fingerlings of rohu, catla and mrigal species were released by Shri Nishad.

Dr B K Das, Director, ICAR-CIFRI stressed that ranching of all the important depleting fish species is scheduled to be done in the entire stretch of the Ganga River. Students of Allahabad University, fishers of nearby villages, fish traders of Sadiapur, Daragani and Mehdauri and local people living on the bank of the Ganga and Yamuna benefitted from this awareness programme.

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Parthenium Eradication observed in **DWR**

Jabalpur, 16 August 2017. Parthenium hysterophorus (Family: Asteraceae), locally called gajar ghas or Congress grass, is an alien weed which entered into India along with wheat imported from USA in the early 1950s. Since then it has invaded about 35 million hectares of land throughout the country including Andaman & Nicobar and Lakshadweep. This weed causes many diseases like skin allergy, hay fever, breathing problems in human beings and animals besides reducing agricultural productivity and loss of biodiversity.

In view of the seriousness and magnitude of the threat posed by this weed, ICAR-Directorate of Weed Research (DWR), Jabalpur has been organizing mass awareness programmes since 2004 to educate the farmers and general public about the harmful effects of Parthenium and ways of its management. DWR organized a country-wide "Parthenium Awareness Week" from 16-22 August 2017 by involving all State Agricultural Universities (SAUs), Krishi Vigyan Kendra (KVKs), Institutes of ICAR, AICRP centres of Weed Management and many State Agricultural Departments, NGOs, municipalities, railway departments, schools and colleges etc. Awareness programmes were conducted at Divisional Railway Office, Municipality office involving their health and horticulture departments besides Rani Durgavati University involving NSS and NCC students. A trainingcum-awareness programme was conducted at the Directorate on 22 August 2017.

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AGRI UDAAN launched

New Delhi, 4 August 2017. Professor Ramesh Chand, Member NITI Aayog launched AGRI UDAAN: Food and



Agribusiness Accelerator 2.0 in New Delhi. The main objective of this programme is to scout for startups, who are ready for scaling up. A web application (www.aidea.naarm.org.in) was launched for this purpose.

Professor Ramesh Chand, Chief Guest emphasized that startups can really try to innovatively solve the problems faced by Indian agriculture in three different verticals (i) procurement of input, (ii) production and quality issues and (iii) marketing of output. He stressed the need for transition and disruptive changes in agriculture, which can come from startups.

Dr T Mohapatra, DG, ICAR, in his presidential address spoke about the ICAR initiative in transforming technology into business. He told that there are 25 Agribusiness Incubators (ABIs) including one in NAARM. He emphasized that the ABIs need to pursue the objectives more rigourously.

Shri H K Mittal, Advisor, Secretary of National Science and Technology Development Board (NSTEDB) of Department of Science and Technology (DST) said that to become an entrepreneur knowledge alone is not enough, action is also required. Two books "An Enchiridion on Agri-Startups in India" and "Startup Profile" were also released.

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Enhancing capacity development of Leh farmers

Leh, 14 July 2017. ICAR-Central Arid Zone Research Institute (CAZRI) Regional Research Station at Leh, is engaged in enhancing capacity development of farmers of cold arid region in six villages of Leh district of Ladakh region under Tribal Sub-Plan (TSP).

The interventions being implemented at more than 200 sites include diversification of farming through introduction of new crops like maize, rajmash, chickpea; use of quality seed of improved cultivars of local field and vegetable crops; improved agronomic production technologies of crops; and use of small manually operated tools.

Line sowing of crops and seeds of new varieties attracted farmers. Line sowing was found more appropriate for controlling weeds through handoperated hoeing implement that also helped in saving soil moisture resulting in good crop yields. Farmers also appreciated the better production potential of new vegetable seeds. These interventions are critically important for careful management of natural resources for sustainable livelihood in Ladakh region.

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Leadership Development at NAARM

Hyderabad, 28 July 2017. Eight ICAR Directors and two ICAR Joint Directors who were newly appointed in the Research Management Position (RMP) completed the 11th Executive Development Programme on 'Leadership Development' at the ICAR-National Academy of Agricultural Research Management from 28th July to 1 August 2017.

Dr Trilochan Mohapatra, Secretary (DARE) and Director General (ICAR) interacted with them on 1 Aug 2017. He said, "A Director has to inspire and motivate. Every Director has to evolve a functional system through self-study to provide direction and leadership. He has to lead from the front and set an example." Dr Mohapatra also spoke on charting new paths to face the current challenges facing agriculture.



Shri Sunil Kumar Singh, Additional Secretary and Financial Advisor (DARE/ICAR) gave an outline of the current policies on financial allocations for research. Shri Chhabilendra Roul, Additional Secretary (DARE) and Secretary (ICAR) spoke on "Institutional Management and Accountability and Conflict Management." He also distributed the certificates. Dr Ch. Srinivasa Rao, Director, ICAR-NAARM gave an overview of the EDP. The EDP on 'Leadership Development' at the ICAR-NAARM is designed for leadership development for transition of the National Agricultural Research System to the National Agricultural Innovation System.

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KVKs get together for skill development

Nasik, 24 July 2017. A three-day Annual Zonal Workshop involving 85 KVKs of Andhra Pradesh, Telangana and Maharashtra was inaugurated by Dr AK Singh, DDG (AE), ICAR at YCMOU, Nasik. Dr Singh urged KVKs to focus on skill and entrepreneurship development, soil health, seed production, integrated farming system models, agro-processing, value added agro-advisories and climate smart villages.

Dr Lakhan Singh, Director, ATARI, Pune emphasized on science-based frontline extension and skill oriented programs by KVKs in the Zone. Prof. E. Vayunandan, VC, YCMOU, Nasik shared his experiences on open distance learning especially in agriculture. Dr S.N. Puri, former VC, CAU, Imphal, exhorted the KVKs to spread their outreach activities in the district and laid special emphasis on processing, value addition and providing market linkage for better realization of prices.

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Winter School on Livestock

Bengaluru, 1 September 2017. NIANP, Bengaluru organized a 21 days Winter School on Livestock and Climate Change: Contributory Key Factors and Practical Strategies for Amelioration from 1-12 September 2017. The winter school was inaugurated on 1 September 2017 by Dr. Purnendu Biswas, Vice Chancellor, West Bengal University of Animal & Fishery Sciences. In his address, Dr. Biswas stressed upon the importance of inter-disciplinary efforts to curb the GHGs emissions from various sectors including the livestock. Twenty four participants from 9 states participated in the winter school.

Dr Raghavendra Bhatta, Director, ICAr-+NIANP & Course Director presented the overview of the relationship of climate change and livestock production.

Dr AK Mishra, Former Vice Chancellor, MAFSU, Nagpur was the chief guest of the valedictory function held on 21st September.

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Implementation of Farmer FIRST

Bhopal, 18 September 2017. A four day training cum workshop on Methodologicl Farmework for Implementation of Farmer FIRST Project under capacity building program was organized by ICAR-NAARM Hyderabad in collaboration with ICAR-Indian Institute of Soil Science, Bhopal from 18 to 21 September 2017. Dr Ashok K Patra, Director ICAR-IISS highlighted the improtance of Farmer FIRST Project and its role in achieving the target of doubling farmers' income by 2022. Resource persons from project management team Dr Bharat S Sontakki and Dr P Vanketesan from NAARM, Dr Shiv Kumar and Dr Rajini Jain from NIAP, Dr Soumen Pal from IASRI, Dr Aruna T Kumar from DKMA, Dr SRK Singh from ATARI Zone IX and participants from 10 centres implementing Farmer FIRST Project from Madhya Pradesh, Chhattisgarh and Gujarat attended the program. Resource persons delivered the methodological farmework for implementation of FFP and need of data documentation, observation required to be taken for effective implementation and impact assessment of the project. On 20 September 2017 Director ATARI Zone IX Dr Anupam Mishra discussed various issues related to project implementation and execution of the project. The valedictory functio on 21 September 2017 was graced by Dr CL Acharya Ex. Director IISS, Bhopal. The overall report was presented by Dr P Venketesan, PI-project management team, NAARM.

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Automobile Maintenance, Road Safety and Behavioural Skills

For the first time in ICAR, in coordination with HRM Unit, ICAR HQs, ICAR-CIAE, Bhopal conducted a fivedays newly designed and developed Training Programme on "Automobile Maintenance, Road Safety and Behavioural Skills" for regular Drivers. ICAR- Institutes/HQ in four batches from February 20-24, March 06-10, July 18-22 and September 19-23, 2017. Drivers from different ICAR-Institutes and Headquarters were trained. The emphasis was on developing the skills on minor repair and maintenance of automobiles, basics of road safety guidelines and behavioural skills.

Trainees of the fourth batch also had an opportunity to interact with one special invitee Mr. Bhim Singh,

Staff Car Driver (Spl. Grade), ICAR who shared his vast experience in discharging the duty as staff car driver for many dignitaries.

Dr K K Singh, Director (ICAR-CIAE, Bhopal) distributed the certificates to the trainees.



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Celebrations

89th ICAR Foundation day and **Award Ceremony**

New Delhi, 16 July 2017. Shri Radha Mohan Singh, Union Agriculture and Farmers Welfare Minister, while addressing the 89th ICAR Foundation Day and ICAR Award Ceremony said that agricultural scientists have

played significant role in the development of agriculture in India by bringing green revolution and subsequently the by development of research and technology.

The agriculture minister said that since 1951, there

has been an increase of 5 times in foodgrain production in the country, 14.3 times in fish production, 9.6 times in milk production, and 47.5 times increase in egg production. In the horticulture sector, three times increase in fruits and vegetables production has been achieved as compared to 1991-92. This development had a direct effect on the

nation's food and nutritional security. Shri Radha Mohan Singh, launched the National Agricultural Higher Education Project

Shri Sudarshan Bhagat, Minister of State for Agriculture and Farmers Welfare also graced the ceremony. Chief Guest and dignitaries released ICAR publications, knowledge products and technologies on the occasion. Twenty-two awards were distributed for excellence in 19 different categories in





the award distribution function, which include 3 institutes; 2 AICRPs; 12 Krishi Vigyan Kendras; 19 farmers in which 3 were women farmers; 80 scientists including 30 women. The agriculture minister congratulated the three Best Ranked Universities and Official Language Awardees and other award winners for outstanding achievements and contributions.

Dr Trilochan Mohapatra, Secretary (DARE) and Director General (ICAR), in his welcome address briefed about the achievements of ICAR. Shri Chhabilendra Roul, Additional Secretary DARE and Secretary, ICAR, proposed vote of thanks. Directors of ICAR Institutes, awardees, and ICAR officials were present on the occasion.

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World Honey Bee Day

Varanasi, 19 August, 2017. Shri Kedar Nath Singh Member of Legislative Council, Varanasi, Government of Uttar Pradesh, inaugurated the "World Honey Bee Day" at ICAR-IIVR Varanasi. Shri Singh briefed about various Government of India schemes, like soil health card, beekeeping, crop insurance scheme, etc. for the benefit of farmers' community and doubling farmers' income. He stressed the need for dissemination of low-cost post-harvest technologies across the country to minimize losses. He also released extension folder, viz. Integrated Beekeeping: At a glance (Hindi).

Shri Surendra Singh, Ex Member of Legislative Assembly, Jaunpur encouraged farmers to harness the benefits of different schemes launched by Government of India in the interest of farming community and highlighted the medicinal importance of honey and other bee hive products.

Dr Bijendra Singh, Director, ICAR-IIVR, Varanasi briefed about the on-going activities of the institute including the aim of newly established Integrated Beekeeping Development Centre/Centre of Excellence at the institute.

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Intercropping of oilseeds, pulses, potatoes, and cucumber with sugarcane to increase income of sugarcane farmers

New Delhi, 29 August 2017. Union Agriculture and Farmers Welfare Minister, Shri Radha Mohan Singhji addressed a gathering at "100 years of Excellence in Sugarcane Research: variety 205 to Variety 0238" (sugarcane variety) and "New India Manthan - Sankalp Se Siddhi" events, organised by Sugarcane Breeding Institute, Regional Centre, Karnal. Shri Singh informed the gathering that with the help of Sir Dr Venkatraman, for the first time, hybrid clone variety 205 (Saccharum officinarum and Saccharum spontaneum) was developed for sub-tropical climate, which was launched in 1918 for commercial farming. The hybrid clone contributed to 50% increase in sugarcane production in North India and popular ones like Saccharum barberi and Saccharum sinensis were left far behind.

Shri Singh said that after developing variety 205, Sugarcane Breeding Institute developed several other hybrid clones for sub-tropical condition, which remained favourite for a long time. The institute developed variety 312, first amazing sugarcane variety for the subtropical climate in 1928, and in 1933 it developed variety 419 for tropical climate.

Shri Radha Mohan Singh said that a significant increase in sugarcane yield and sugar recoveries has been witnessed in northern states after expansion of variety 0238 in the region. In the last season, 0238 was cultivated in 36% sugarcane area in Uttar Pradesh, 63% in Punjab, 39% in Haryana, 17% in Uttarakhand and 16% in Bihar, Varieties 0238 and 0118 have become the first choice of sugar mills in north India and sugarcane farmers can make the best of intercropping technique and increase their income by growing oilseeds, pulses, potatoes, and cucumber with sugarcane.

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National Banana Celebrations 2017

Madurai, 21 July 2017. A three-day National festival was organized from 21-23 July 2017 at Agricultural College and Research Institute, TNAU, Madurai, Tamil Nadu by Confederation of Indian Industry, Chennai chapter in collaboration with TNAU, ICAR-NRCB, NHB, NABARD and other industry partners. The focus was on how to enhance export of banana from India and leap frogging to become a global leader in banana trade.



An exhibition was put up displaying technologies of research organizations, business opportunity stalls from private firms, farmers producers company, small and medium scale entrepreneurs. ICAR-NRCB displayed more than 100 varieties of banana which included commercial Indian and exotic varieties and rare, economically important varieties of the world and India in particular.

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Goat Farmers honored on CIRG **Foundation Day**

Uttar Pradesh, 12 July, 2017, Makhdoom, ICAR-Central Institute for Research on Goats, Makhdoom celebrated its 38^{th} Foundation day in which Dr S M K Nagvi, ICAR-Central Sheep and Wool Research Institute, Avikanagar (Rajasthan) highlighted the role of small ruminants especially goats in the livelihood and nutritional security of the resource poor farmers of the country.

Dr M S Chauhan, Director, ICAR-CIRG apprised about the recent achievements and activities of the institute. He also elaborated the need of low cost implementable technologies for the goat rearing that can be adopted by the goat farmers. He stressed that low cost implementable technologies are going to double the goat farmer's income by 2022.



On this occasion, goat farmers from the institute's 'Mera Gaon Mera Gaurav' and 'Farmers First' programme, largely women goat rearers participated.

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Van Mahotsab celebrated at IIPR

Bhopal, 1 July 2017. Van Mahotsab week was celebrated at ICAR-Indian Institute of Pulses Research, Kanpur and its campuses at Dharwad and Bhopal. Van Mahotsab was initiated on 1 July, 2017.

The aim of this programme was starting awareness campaigns about benefits and protection of trees and the harm caused by cutting down of tress. Every citizen of India is expected to plant a sapling during Van Mahotsab Week.

The Van Mahotsab at ICAR-IIPR, Kanpur was marked

by a function on 7 July, 2017 organized for celebrating annual tree-planting movement in India.

Mr N Ravindra, IFS, Chief Guest, in his address stressed that sapling of a tree is like a child which needs care and maintenance. Every person should plant at least two plants so that we can maintain our forest at the requisite proportion of 33% of the land area for our sustenance.

In his address, Dr N P Singh, Director, IIPR emphasized the role of Van Mahotsab "the festival of trees" in our day to day life and protection of our own surrounding environment. The mahotsab has gained significant national importance and every year millions of saplings are planted across India. Van Mahotsab week was started by Shri K M Munshi, the then Union Minister for Agriculture and Food, to create enthusiasm among masses for forest conservation and planting trees in 1950, he added. It is celebrated as an annual tree-planting movement in India. He reiterated that it is our duty to plant and maintain it so as to protect and preserve our future generations.

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National Fish Farmers' Day

ICAR-CIFA, Bhubaneswar

Bhubaneswar. 10 July 2017. The ICAR-Central Institute of Freshwater Aquaculture observed the 17th National Fish Farmers' Day at its Kausalyaganga campus. The day is commemorated in remembrance of scientists Dr K H Alikunhi and Dr H L Chaudhury who had invented induced breeding technology on this day in 1957.

Swami Atmapriyananda, Vice Chancellor, Ramakrishna Mission Vivekananda University, Belur, West Bengal was the Chief Guest. Swamiji termed farmers' profession as a glorious one as a farmer never tries to mask his identity. Before a piece of steaming rice is served in plate a thousand invisible hands had contributed to this. Let us acknowledge and thank the providers of food. He urged the people assembled to celebrate fish farmer day-to-day to start giving



back to the society in whatever form it is possible for them. He quoted Albert Einstein "Every day I remind myself that my inner and outer life are based on the labors of other men, living and dead, and that I must exert myself in order to give in the same measure as I have received and am still receiving."

Swami Shivapurnananda, Academic Coordinator, RMVU, Belur, W B was the guest of honour on this occasion. He highlighted how fisheries can contribute to rural livelihood security especially for the people at the bottom of the pyramid.

Dr J K Sundaray, ICAR-CIFA, Director (Acting), said induced breeding technology is a landmark achievement in the history of fishery in India and abroad. During the last 3 decades the institute has contributed significantly toward development of breeding and culture of economically important fish and shellfish, use of plastics in aquaculture like FRP portable hatchery, feeds for different life stages of fish, disease diagnostics kits, improved rohu Jayanti, CIFABROODTM, Hybridization detection kit and other useful technologies for the farmers.

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ICAR-NBFGR, Lucknow

Lucknow, 10 July, 2017. ICAR-National Bureau of Fish Genetic Resources, Lucknow organized National Fish Farmers Day at Aquaculture Research and Training Unit, Chinhat, Lucknow, Uttar Pradesh.



Dr K K Lal, Director of the Institute highlighted the importance of National Fish Farmer Day celebration and informed the gathering that this day is observed every year throughout the country among the fisheries institutions and departments in the memory of scientific achievement of successful induced breeding of carp fishes, which was established by Dr H L Chaudhary and his colleagues in Odisha in 1957. He also distributed quality carp seed and fish medicine of Mera Gaon Mera Gaurav programme adopted by fish farmers.

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ICAR-CIBA, Chennai

Tamil Nadu, 10 July 2017. The ICAR-Central Institute Brackishwater Aquaculture, Chennai celebrated the



National Fish Farmers' Day along with shrimp farmers, fishers and women folk of Kokkilamedu village, Kanchipuram district, Tamil Nadu. Doubling fish farmers' income through diversification and adoption of innovative practices was the theme of this interaction.

CIBA scientists explained the production potential and farming practices of Indian white shrimp (Penaeus indicus) including the abilities of this desi white shrimp that can tolerate even higher salinities up to 40-45 ppt and its suitability for farming in high saline area. The nursery rearing in shrimp farming, diseases management, soil and water management and better management practices of shrimp farming were also discussed with farmers.

Womenfolk of Thiruvidanthai village who have successfully operated the ornamental fish farming unit using the technology developed by CIBA narrated their 'success story' to the fisher folk and explained the efforts taken by CIBA in promoting ornamental farming as a livelihood development activity for them.

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Fish Fair at CAU, Imphal

Tripura, 10 July 2017. The College of Fisheries, Central Agriculture University (Imphal), Lembucherra, in collaboration with the North East Society for Fisheries and Aquaculture (NESFA), observed the XVII National Fish Farmers' Day.

Chief Guest, Shri Tathagata Roy, Hon'ble Governor of Tripura laid special emphasis on further strengthening



of farmers' focused outreach activities to affect greater push for enhanced employability and income of the fish farmers of N-E region. He inaugurated an exhibition showcasing different technologies, farm publications, fish products, low cost fish feeds etc. developed by the college. Three extension publications on the areas of culture of indigenous minor carps, composite fish culture and fish health management were also released.

Dr Sudhir Raizada, Assistant Director General (Inland Fisheries), ICAR apprised on the 80% subsidy linked scheme now made available by the Centre especially for the fish farmers of the North-Eastern Region and stressed on having more and more of that benefit for furtherance of the process of blue revolution in the country.

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World Zoonoses Day

Hyderabad, 11 July 2017. ICAR-National Research Centre on Meat, Hyderabad celebrated the World Zoonoses Day. The theme of the celebrations was 'Towards a healthier life', in order to educate and create public awareness about the importance of zoonoses.

The World Zoonoses day is celebrated every year to bring the problem into people's consciousness, and remind them to take action. This day is the anniversary of the invention of rabies vaccine by the great scientist Louis Pasteur. The infectious diseases or their agents naturally transmissible between animals and human beings are collectively referred to as zoonoses.



Dr Ashok Kumar, ADG (Animal Health), ICAR, New Delhi, Chief Guest, called for intersectoral collaboration among veterinarians, medicos and biologists for creating awareness about the dreaded zoonotic infections. He also narrated the various activities and initiatives by ICAR and Government of India for control and prevention of zoonotic infections.

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Swachhta Hi Seva campaign at ICAR



New Delhi, 17 September 2017. As part of the implementation of the Swachh Bharat Mission, "Swachhta Hi Seva" day was organised on 17 September 2017 in ICAR Hgr, Agricultural Scientists Recruitment Board and ICAR-Directorate of Knowledge Management in Agriculture, New Delhi.

National Oilseeds Kisan Mela

Hyderabad, 10 September, 2017. National Oilseeds Kisan Mela-2017 was organized by ICAR-Indian Institute of Oilseeds Research (IIOR, formerly DOR) at Rajendranagar, Hyderabad, in collaboration with National Mission on Oilseeds and Oil Palm (NMOOP), Department of Agriculture, Cooperation and Farmers Welfare, Government of India.

Dr W R Reddy, IAS, Director General, National Institute of Rural Development and Panchayat Raj (NIRD and PR), Hyderabad inaugurated the exhibition. Around 100 exhibitors including companies dealing with agricultural inputs, machineries and credits, oilseed extractors and processors, NGOs, Farmers Organizations, Agricultural Research and Extension Institutions participated. More than 2000 farmers from 12 states participated in the programme.

Dr A Vishnuvardhan Reddy, Director, ICAR-Indian Institute of Oilseeds Research, Hyderabad, advised farmers to produce seeds in their own fields especially in self-pollinated crops by forming Farmers' association.

Dr Anupam Barik, Additional Commissioner, Department of Agriculture and Cooperation, Government of India, in his address as guest of honour, stressed the need for cutting down unhealthy level of 18 kg per capita edible oil consumption in the country to healthy level of 12-13 kg.

Dr V Praveen Rao, Vice-chancellor of Professor Jayashankar Telangana State Agricultural University, Hyderabad, insisted that cropping pattern should be based on market demand.

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Shramdaan—be the change you want to see

Hyderabad, 17 September, 2017. Smt Krishna Raj, Union Minister of State for Agriculture and Farmers Welfare participated and performed Shramdaan by cleaning and sweeping the premises in the "Seva Diwas" celebration at KVK, Ramnathapuram and Perakumbu village.

District Collector, Directors of Animal Husbandry and Fisheries along with 200 farmers, farm women, KVK and department officials performed Shramdaan.

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Sankalp se Siddhi

Indore

Indore, 29 August, 2017. Hon'ble Lok Sabha Speaker Mrs Sumitra Mahajan was the chief guest of the Naya Bharat Manthan: Sankalp Se Siddhi programme. The programme was conducted under the chairmanship of Dr Karunakara Trivedi, Chairman, Kasturba Gandhi National Memorial Trust. Ms. Kavita Patidar, Chairperson of Zila Panchayat, Dr Anupam Mishra, Director, ATARI, Jabalpur, Dr V S Bhatia, Director, IISR, Indore, Dr S K Srivastava, Director Extension Services, RVSKVV, Gwalior and Shri Purushottam Dhakad, Chairman, District Agriculture Standing Committee, Indore were also present as special guests.

"Let all of us resolve today that we will double the agriculture income by 2022", Hon'ble Lok Sabha Speaker and Chief Guest, Smt Sumitra Mahajan said. Emphasizing on the use of modern technology and information communication technology in agriculture, she said that their use will be helpful in increasing agricultural production.



Dr Anupam Mishra, Director, ATARI, Jabalpur, explained in detail about contributions made by KVKs for agriculture in the state and explained the strategy for doubling the income of agriculture by 2022.

Dr Karunakara Trivedi, Chairman of Kasturba Gandhi

National Memorial Trust informed that our Krishi Vigyan Kendra will continue transferring agricultural technologies among the farmers of the district with full efficiency.

Ms. Kavita Patidar, Chairperson of Jila Panchayat, talked about the work done for water conservation due to which the water level of the district has been increased.

An exhibition related to improved agriculture technologies was also organized by the 32 KVKs of Madhya Pradesh.

Scientists and officials of IISR, Indore, Regional Research Center for Wheat, College of Agriculture, Department of Farmers Welfare and Agricultural Development, Department of Agricultural Engineering, ATMA Indore, Department of Horticulture, IISS, Bhopal and KVKS of different districts participated along with around 1040 farmers of 22 villages.

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Patna

Patna, 26 August, 2017. ICAR-Research Complex for Eastern Region, Patna in collaboration with Agricultural Technology Application Research Institute (ATARI), Patna and KVK, Barh organized a one-day programme at Bihar Agricultural Management & Extension Training Institute (BAMETI), Patna for creating awareness among farmers and officials.

Chief Guest Shri Radha Mohan Singh, Union Minister of Agriculture and Farmers Welfare administrated oath for making New India and briefing the sevenpoint development strategies for doubling farmers income by 2022.

Dr Prem Kumar, Agriculture Minister, Government of Bihar briefed about various agricultural schemes of Bihar government and motivated farmers for adoption of new improved. Shri Sanjeev Chaurasia MLA, Digha constituency, Bihar appreciated efforts of the Government for agricultural development in Bihar.

Nearly 788 farmers including officials from ICAR institutes, State Department of Agriculture, Animal Husbandry, Fisheries, Coconut Board, Central Integrated Pest Management Centre, Patna participated.

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BHU, Varanasi

Varanasi, 27 August 2017. Shri Radha Mohan Singh, Union Minister of Agriculture and Farmers Welfare inaugurated "New India Manthan- SSS progamme jointly organized by Narendra Deva University of Agriculture and Technology, Faizabad; Krishi Vigyan



Kendra, Varanasi; ICAR-Agricultural Technology Application Research Institute, Kanpur and Banaras Hindu University, Varanasi.

Highlighting the historical link of SSS from the independence in 1947 to the commitments of Nation for farmers' development especially doubling their farm income by the year 2022, Shri Singh informed the audience about the aim of sankalp se Sidhi programme a dream project of Hon'ble Prime Minister.

A short film on "Sankalp se Sidddhi" was screened for the 4000 participants including 3000 farmers, farm women, rural youth besides the scientists from ICAR institutes, KVK scientists, officials of line departments, students and others.

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Jammu

Jammu, 26 August, 2017. Dr Jitendra Singh, Union Minister of State for Development of North Eastern Region (Independent Charge), PMO, Personnel, Public Grievances & Pensions, Atomic Energy and Space was the Chief Guest in Jammu SSS programme..



He informed that 'SSS' programme is being organised through country to fulfil the dream of PM for doubling the farmers' income. He suggested enhancing activities in villages for mobilization of farmers towards scientific agricultural practices and informed that the Government is working for doubling the farmers income by 2022.

Professor Pradeep K Sharma, VC, SKUAST, Jammu and Guest of Honour suggested that farmers should adopt the integrated farming system model developed and said that availability of proper market for farm produce would help a long way in achieving the goal of doubling the farmers' income.

Dr Gagan Bhagat, MLA, suggested that farmers must avail benefits of the state and centrally sponsored schemes to increase farm productivity and income. He urged all to work for overall development of agriculture and farmers. Dr R K Arora, Associate Director Extension and In-charge KVKs, Jammu Region suggested farmers to regularly visit and interact with scientists of the University and KVK for seeking information on latest technological products and practices.

More than 550 farmers, farm women and rural youth participated in the programme from all corners of the district.

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Bareilly

Bareilly, 26 August 2017. Shri Santosh Kumar Gangwar, Union Minister of State for Finance inaugurated a one day programme on New India Manthan "Sankalp se Siddhi" organized by Krishi Vigyan Kendra, Bareilly.



The Minister briefed about the purpose of the New India Making. He narrated the commitment of Central Government for the welfare of farmers and talked about various schemes and programmes initiated by the Government and urged scientists and agricultural department officers to work hard to transfer the new scientific technologies to the fields in participatory mode.

Sri Dharmendra Kashyap, MP, Aonla spoke about importance of Sankalp for the development of the country. Dr Rajkumar Singh, Director, ICAR-IVRI, Bareilly spoke about various burning issues in agricultural sector including ways and means of increasing the farm income. Dr P V Jaganmohan, Commissioner of the Bareilly Division briefed about agricultural development programmes being implemented for agricultural development and welfare of farmers on directives of the central and state government. Over 1200 farmers and farm women participated in the event.

Scientists and KVK specialists deliberated technical lectures on different aspects of crop and livestock management.

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Tripura

Tripura, 24 August 2017. The New India Manthan: SSS was organized by the College of Fisheries, Central Agricultural University (I), Lembucherra, Tripura in collaboration with ICAR Research Complex for NEH Region, Tripura Centre, Lembucherra, Tripura.

Shri Ratan Lal Nat, MLA, Mohanpur constituency and chief guest urged for co-operation from all the stakeholders including academic and research institutions to realize the pledge. Shri Haricharan Sarkar, MLA, Bamutia constitutency, Special guest called for greater cooperation and coordination between government functionaries and academia to fulfil.

Dr Pramod Kumar Pandey, Dean, College of Fisheries, CAU, Lembucherra stressed on the importance of the comprehensive seven point strategy of the Ministry of Agriculture and Farmers' Welfare that would bring the visionary idea into reality by the year 2022.

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Hoshiarpur, Punjab

Hoshiarpur, 24 August 2017. Sh. Vijay Sampla, Union Minister of State for Social Justice and Empowerment inaugurated SSS programme-New India Manthan organised by KVK, Hoshiarpur, Punjab and informed farmers about Central Government schemes to double the farmers' income by 2022.



Experts delivered lectures on various aspects and farmers were made aware about latest technical know-how for doubling their income. A short film on Kisan was also screened and literature was also distributed. Exhibitions were put up by KVK, Department of Agriculture, Department of Horticulture, Department of Animal Husbandry and various SHGs on the occasion to display the latest technologies for the benefit of farmers. More than 500 farmers, farm women and rural youth participated in the programme from different villages of the district.

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Bilaspur, Himachal Pradesh

Bilaspur 20 August 2017. Shri Jagat Parkash Nadda, Union Minister for Health and Family Welfare inaugurated New India Manthan - SSS programme organised by KVK Bilaspur, Himachal Pradesh.

The minister stressed upon use of organic manure and neem coated urea in fields and urged the scientific community to prepare a road map for "per drop more crop." He also gave away certificates of Skill Development training imparted on "Quality Seed Grower" and "Mushroom Growers" by the KVK and administered the New India Pledge to the participants.

A 'Farmers-Scientists interaction' was also conducted in which the latest developments and technologies in the field of agriculture were discussed in length and breadth. An exhibition was put up by ATMA, JICA, KVK and different SHGs to display the latest technologies to the farmers. More than 850 farmers, farm women and rural youth participated in the programme.

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Bhatinda

Bhatinda, 17 August 2017. Krishi Vigyan Kendra, Bhatinda organized a one day programme on New India Manthan "Sankalp se Siddhi" here in which Smt Harsimrat Kaur Badal, Union Minister of Food Processing Industries was the chief guest.



The Minister showed her concern for problems faced by the farmers of the region in general and whitefly attack in cotton in particular. She briefed about Kisan Sampada Yojana initiated by her ministry and stressed upon the need of women empowerment and participation of rural youth in agriculture for higher income and employment generation.

Dr Rajbir Singh, Director, ICAR-ATARI, Ludhiana informed the farmers on various burning issues in agricultural sector. More than 800 farmers and farm women participated in the event. .

An exhibition was also organised to display the products developed by the beneficiaries from ARYA (Attracting and Retaining Youth in Agriculture) project.

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Trainings

Raipur, 11 September, 2017. A 10-days short course

training programme on "New Frontiers of biotic stress management for doubling the farmer's income" was inaugurated at ICAR-National institute of



Biotic Stress management.

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Leh, 23 August, 2017. ICAR-Central Institute of Temperate Horticulture, Srinagar in collaboration

with ICAR-CPRI, Shimla, ICAR-IIVR, Varanasi, ICAR-IIHR, Banglore, ICAR-CAZRI RS Leh and HMAARI, SKUAST-K. Leh



organised two days workshop on "Development of horticulture under cold arid region of Ladakh for enhancing quality production and improving livelihood" at SKUAST-K Campus Leh. Honble Executive Councillor (Agriculture) Sh. Tsering Wangdus was the chief guest.

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Kochi, 8 August 2017. Tuticorin Research Centre of ICAR-Central Marine Fisheries Research Institute

organised a one-day training programme on 'Identification marine fauna with special reference to Endangered, Threatened and Protected



Species (ETPs)' to post-graduate students from colleges around Thoothukudi district.

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Lucknow, 25 July, 2017. A two day training workshop on "Applications of Single Molecule Real Time (SMRT)

Sequencing and Bioinformatics Analysis" is organised at ICAR-National Bureau of Fish Genetic Resources, Lucknow in collabo-



ration with Imperial Life Sciences Pvt Ltd, Gurugram India, & Pacifc Bio-sciences, California USA.

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Varanasi, 26 July, 2017. A training and awareness programme on riverbed cultivation of cucurbitaceous vegetables was organized by ICAR-Indian Institute of Vegetable Research, Varanasi for improving the cultivation practices and increasing the yield of cucurbits grown on riverbeds.

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Jodhpur, 8 August 2017. Two-day Training on Production Technology of Kharif Oilseeds for Nodal Officers of Krishi Vigyan Kendras (KVKs) of Rajasthan and Haryana under National Mission on Oilseed and Oil palm (NMOOP) was inaugurated at ICAR-Agricultural Technology Application Research Institute (ATARI), Jodhpur (Rajasthan).

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Imphal, 7 August, 2017. A five-day Special National

Training Programme on "Advancement of Seed Testing" was inaugurated at ICAR Research Complex for NEH Region, Manipur Centre, Imphal. The aim of the training was



to impart advance knowledge in the field of seed testing.

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Jammu, 24 July, 2017. ICAR-Directorate of Cold Water Fisheries Research, Bhimtal, Nainital and State Agricultural Management & Extension Training Institute (SAMETI), Jammu jointly organized threeday training programme on Fish Breeding Techniques during 24 to 26 July, 2017 at Sher-e-Kashmir University of Agricultural Sciences and Technology (SKUAST).

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Kolkata 24 July, 2017. A 3-day National Level Training on "Production and retting technology of Jute/

Mesta/Ramie/Sunnhemp including other related aspects" sponsored by National Food Security Mission (NFSM) at ICAR-National Institute of Research on Jute &



Allied Fibre Techno-logy, Kolkata.

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Lucknow, 1 July, 2017. A 15-day National training on Sugarcane Management and Development was organized at ICAR-Indian Institute of Sugarcane Research, Lucknow from July 01-15, 2017.

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Cuttack, 11 September 2017. ICAR-National Rice Research Institute, Cuttack organised an orientation

programme on Public Financial Management (PFMS), System General Financial Rules (GFR) and Goods and Services Tax (GST) for administrative



personnel of ICAR institutes.

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Visits

Shri Radha Mohan Singh visits CITH, Srinagar

Srinagar, 4 July, 2017. Shri Radha Mohan Singh, Union Minister of Agriculture and Farmers Welfare visited ICAR-Central Institute of Temperate Horticulture, Srinagar. In his address Shri Singh emphasized on the need of cooperation and collaboration of the Institute with state Horticulture Department and SKUAST for better research and extension work. He urged that technologies like intercropping, rejuvenation, elite varieties of onion, garlic, apricot, walnut etc. to be demonstrated through Front Line Demonstrations.

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Union Agriculture Minister inaugurates **Exhibition in Srinagar**

Srinagar, 3 July 2017. Shri Radha Mohan Singh, Union Minister of Agriculture and Farmers' Welfare inaugurated the Rising Kashmir 2017, a 4-day

exhibition at SKICC, Srinagar. Speaking on the occasion, he said that horticulture sector is playing pivotal role in boosting the economy of country the with dedicated efforts of



scientists and farmers who are working in close coordination by adopting new techniques and hybrid varieties of fruits which have great market demand. email: cpro.icar@gmail.com

Secretary, DAHDF visits ICAR Institutes at Kochi

Kochi, 22 July 2017. Shri Devendra Choudhary IAS, Secretary, the Department of Animal Husbandry, Dairying and Fisheries (DAHDF), Government of India



the **ICAR** visited institutes at Kochi. At Central Marine Fisheries Research Institute (CMFRI) he urged that micro-level planning is required to promote the

sea cage farming across coastal belts of the country and assured that the Department would look into considering the annual marine fish landing estimates being carried out by the CMFRI as the authenticated data for country's policy formulations.

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Shri Devendra Choudhary, Secretary (DAHDF) also visited ICAR-Central Institute of Fisheries Technology (CIFT). While interacting with scientists Shri Choudhary, urged the scientists to bridge the gap between science and its users. He emphasized to work on the economics of technology before formulating perspective plan for technology dissemination.

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DG, ICAR stressed on goal oriented results

Ranchi, 23 July 2017. Dr Trilochan Mohapatra, Secretary (DARE) and Director General (ICAR) visited ICAR-Indian Institute of Natural Resins and Gums, Ranchi and ICAR-Indian Institute of Agricultural Biotechnology, Ranchi. He urged researchers to prioritize work to provide goal oriented results as intensive and aggregated efforts always lead to better performance.

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DG, ICAR visits ICAR-Central Potato Research Station, Gwalior

Gwalior, 29 July 2017. Dr Trilochan Mohapatra, Secretary (DARE) and Director General (ICAR) visited, ICAR-Central Potato Research Station, Gwalior. He appreciated the efforts of the station for breeder seed production, especially for catering the need of Madhya Pradesh as well as other states.

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DG, ICAR visits CIBA, Chennai

Chennai, 6 August 2017. Dr Trilochan Mohapatra, Secretary (DARE) and Director General (ICAR) visited the ICAR-CIBA, Chennai. Dr Mohapatra emphasized on how to consolidate the impact of technologies transferred to the sector, and also to document the startups established based on the CIBA's technologies. He also released a DNA based diagnostic kit for the screening of EHP disease in shrimp.

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DG, ICAR visits ATARI, Jodhpur

Jodhpur, 13 August 2017. Dr Trilochan Mohapatra, Secretary (DARE) and Director General (ICAR) visited ICAR-Agricultural Technology Application Research Institute, Jodhpur. Dr Mohapatra urged that KVKs

should take initiatives for meeting the requirements of their districts in respect of livestock, planting materials, seeds, bioproducts, etc. He also said that success stories



of innovative farmers should be documented and farmers should visit farms of innovative farmers so that the same can be replicated in other adjacent districts. He emphasized upon commodity-wise mapping of the district by each KVK for significant contribution for the benefit of farming community in respect of seeds of crops, vegetables, fodders and planting materials of vegetables, fruits, forestry plants, livestock (cattle, sheep, goat, etc.) and poultry.

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DG, IRRI, visits IIVR at Varanasi

Varanasi, 5 August, 2017. Dr Matthew Morell, Director General, International Rice Research Institute, Philippines visited ICAR-Indian Institute of Vegetable Research, Varanasi. During an interaction meeting with scientists of the institute, Dr Morell briefed about the goals of the Regional Centre of IRRI for South Asia to be established at Varanasi for enhancing nutritional and livelihood security of the farmers'



along with employment generation by developing value added rice and promoting quality rice. He also mentioned that this

regional centre is mainly aimed at training the people engaged in rice production. He stressed for more focussed attention towards development of rice cultivars for heat, drought and waterlogging tolerance. While visiting experimental fields, Technology Park and waste management unit of the institute, he appreciated the team IIIVR for their contribution. He also visited the low energy gene bank and saw the live demonstration of latest vegetable technologies.

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Secretary ICAR visits ICAR-Research Complex for Eastern Region

Patna, 17 July 2017. Shri Chhabilendra Roul, Additional Secretary (DARE) and Secretary (ICAR) visited ICAR- Research Complex for Eastern Region, Patna. In his interaction with scientists and staffs of the institute, he emphasized on validation of the technology develop by the institute. He emphasised on study of socio- cultural limitations for adaptation of the technologies developed by ICAR. Secretary, ICAR briefed about the policy reform and the transparent transfer policy of ICAR. Shri Roul also visited institute farms located at the main campus as well as at Sabazpura and WALMI of ICAR RCER; CPRS, Patna and the ATARI, Zone IV, Patna.

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Secretary, ICAR visits ICAR institutes at Bhopal

Bhopal, 18 August 2017. Shri Chhabilendra Roul, Additional Secretary (DARE) and Secretary (ICAR) visited ICAR-Central Institute of Agricultural Engineering, Bhopal to conduct meeting of administrative, finance and vigilance officers of selected local ICAR institutes.

He urged that institutes may conduct a scientific survey / study to assess direct as well as indirect impact of



the technologies developed or knowledge generated by them and advised that the institutes should look for opportunities to create public awareness about their achievements using appropriate platform(s) and media. He informed that ICAR is in process to resolve the distortion posting of scientists and administrative staffs which would result in effective utilization of resources including manpower.

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Shri Satpal Maharaj visits IISWC, Dehradun

Dehradun, 22 August, 2017. Shri Satpal Maharaj, Minister for Tourism, Culture, Irrigation and Minor Irrigation, State of Uttarakhand, visited the ICAR-Indian Institute of Soil and Water Conservation, Dehradun.

He proposed development of ecotourism or "Herbal tourism", herbal gardens etc in Uttarakhand, and suggested the use of medicinal plants for rehabilitation of the degraded land. He urged the scientists to collectively address the problems of water scarcity in Neelang valley on way to Gangotri and introduce more fodder plants in the villages as the Government proposed to distribute 30,000 cows in Uttarakhand villages.

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Personnel

Appointments - Nil

Superannuation

Name, Designation and Address	Date, superannuation
Dr VN Sharda, Member ASRB	11 July 2017
Dr JS Sandhu DDG (CS) ICAR HQ	31 July 2017
Dr UC Sud, Director, ICAR-IASRI, New Delhi	31 July 2017
Dr SMK Naqvi, Director, ICAR-CSWRI, Avikanagar	07 August 2017
Dr PK Ghosh, Director, ICAR-IGFRI, Jhansi	15 August 2017
Dr S Dam Roy, Director, ICAR-CIARI, Port Blair	17 August 2017
Dr VV Kulkarni, Director, ICAR-NRC on Meat, Hyderabad	28 September 2017

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