

ICAR**Reporter**

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From the DG's Desk

Dear Readers,

The Frontline Demonstration in Agricultural Extension has been one of the prime drivers of accelerating agricultural growth in India. Acknowledging this fact, the extension system that is traditionally funded and governed by Public Sector is now hybridized witnessing pluralistic/multi-agency extension system catering to the wide range of demands of stakeholders. Notwithstanding, the extension education and technology delivery system has been dynamic to keep pace with the changing and growing needs of broad-based extension approaches. In the whole process of agricultural development, harnessing advances in frontiers of science in selected priority areas with larger spin-off benefits by focusing on basic and strategic research also assumes significance. Eventually, we continue to search for alternatives wherein innovation and incubation plays a vital role. Thus, there is a need for paradigm shift in extension research from predominant focus on diffusion and adoption and communication to multi-faceted cross thematic sectors.



- Renewed KVK Establishments
- Soil-and-Water Testing labs for 195 Krishi Vigyan Kendras (KVKs)
- Rainwater Harvesting Structures for 183 KVKs
- Minimal Processing Facilities for 221 KVKs
- Carp Hatchery for 85 KVKs
- Integrated Farming System for 509 KVKs
- Solar Panels for 100 KVKs
- Technology Information Units for 434 KVKs
- vKVK and KVK net for 555 KVKs
- 51 specialized KVKs
- Micronutrient Analysis Facilities for 60 KVKs
- Mini-Seed Processing Facility for 119 KVKs
- Four new ATICs

The Indian Council of Agricultural Research is strengthening the Extension Research and Education in the country through its new ventures including remodeling and equipping Krish Vigyan Kendras. Farm-led extension and market-led extension activities have been oriented to augment production with farmers' income. In this process, the role of institutional innovations would be critical in the context of changing agricultural scenario to reap the benefits of emerging opportunities. As the Frontline Extension System of ICAR, the KVKs (642) are striving to strengthen the technology adoption for climatic adaptation amongst farmers. The Union Cabinet recently approved ₹ 3,900 crore for strengthening agricultural extension in the country with a provision for new KVKs in remaining and newly created districts (121); establishment of Integrated Farming System Module; Technology Information Unit; Mini-seed Processing Facility; Rainwater harvesting Units; Soil-and-Water Testing Laboratories; Micronutrient Analysis Facilities; Minimal Processing Facility; Portable Carp Hatchery; Operation of e-Extension; e-Farmers; Specialized KVKs; ICT in agriculture including mobile and web platform, Farm Innovation and managing unforeseen calamities; infrastructure strengthening like boundary wall, power support and farm equipments.

Agriculture enterprise in the country is now becoming more diversified, technology intensive, knowledge intensive and more demand driven. This requires the extension personnel at the cutting edge level to be master of so many trades, which involves multi-faceted skills. Role of knowledge system and institutional mechanisms for input supply, credit, crop, livestock insurance etc., would therefore be important in reducing both risks and uncertainties to attain the much needed resilience in Indian agriculture. In this process, ICT-enabled extension is more effective in meeting the information needs of farmers and other stakeholders by ensuring timeliness and precision. ICAR Initiatives like agropedia, KVK-Net and vKVK, and Farmers Portal of Department of Agriculture and Cooperation and Farmers Welfare have proven effective in capacity building of farmers and extension professionals. With growing concerns on achieving climate resilience in agriculture, there is a need to provide growers with assistance and access to the latest in management practices that improve farm resilience. In these efforts, the KVKs implementing the Technology Demonstration Component of the National Initiative on Climate-Resilient Agriculture have registered success stories. Extension need to facilitate enhancing their access to inputs to improve efficient participation of women in agricultural activities while reducing drudgery and improving work efficiency. Skill development of rural youth is our target to help improve our confidence in transforming Indian

Agriculture, as not only as a profession, but also as a provider of employment opportunities through secondary agriculture and services in agriculture.

At household level, it is realized that direct feeding interventions for ensuring nutritional security may not be cost-effective and therefore may not be sustainable in the long run. As complementary to such interventions, there is growing emphasis on agriculture-based interventions in the form of bio-fortification and nutri-rich varieties to improve household nutrition. Incorporation of nutrition agenda in agricultural extension strategies is required to

frame nutrition-sensitive extension approaches and tools for efficient technology sharing.

Convergence among the partners of pluralistic extension is also a key issue for future extension perspective. ATMA provides the desired

convergence, but integration among the stakeholders like line departments, KVKs, NGOs and private players need to be synergized. More of 'Collegiate Participation' is important now-a-days, wherein the role of researchers is to facilitate the farmers to become planners, executors and evaluators. Ownership and responsibility are equally distributed among the partners, and decisions are made by agreement or consensus among all actors. KVKs emerged as unique frontline extension innovation in technology generation and dissemination. A few new programmes are being implemented such as 'Farmer FIRST', 'Student READY', 'ARYA' and 'Mera Gaon, Mera Gaurav' to effectively manage the human resources in agricultural sector. A recent and notable intervention i.e. KRISHI DAK (Postal Agri- Extension) Model has changed the face of agricultural extension for effective outreach. This model uses the village postmasters as change agents for information sharing and technology dissemination to the farmers that enabled 'farmer-to-farmer' seed sharing. KVKs in the respective region gives technology backstopping and necessary training.

Farmer Farm Innovation Resources in Science and Technology (FIRST): Extension coverage is important for effective technology dissemination. The ICAR is performing this role through nationwide network of Krishi Vigyan Kendras mandated for frontline demonstration of new technologies. In order to improve the technology dissemination 'Farmer FIRST' is contemplated to enrich farmers-scientists interface for technology development and application with the primary objective to take up technology development based on feedback with the participation of various stakeholders specially farmers. The initiative will focus on: (i) Enriching Farmers-Scientists interface, (ii) Technology Assemblage, Application and Feedback, (iii) Partnership and Institution Building, and (iv) Content Mobilization.

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Attracting and Retaining Youth in Agriculture (ARYA): To make agriculture and rural professions intellectually stimulating and economically rewarding to enable to attract and sustain rural youth in agriculture and allied sectors, ARYA programme of ICAR proposed in the XII Five- Year Plan is to build capacity of rural youth through special programmes and projects including 'Learn while You Earn' programme; develop a comprehensive policy for development of youth in rural areas and recognise the requirements of the new-age farmers and endeavour to fulfill the same. The KVKs will provide training to youth below 35 years of age in different professional skills related to agri-business, help them prepare their project reports and provide some seed money to help them start their own ventures. A total of 10,000 youth will be covered in the first phase.

Student Rural Entrepreneurship and Awareness Development Yojana (Student READY): It is a skill development initiative to strengthen students with skills, so as to enable them to tackle global challenges, and to improve both their employability as well as ability to set up a venture. The programme has been incorporated as an integral part of the undergraduate curriculum skill development in agriculture and its allied disciplines. This is an all-inclusive approach to strengthen the entrepreneurship development scenario in the country which will be competent, quality conscious, market savvy, innovative and with globally competitive entrepreneurs. The programme will attract youth towards agriculture and allied sector and such ventures, when established will help improve economic conditions in rural areas across the country. The Student READY programme consists of three components, namely, Experiential Learning, Rural Agricultural Work Experience, and In-plant Training.

The programme has been conceptualized for building skills in project development and execution, decision-making, individual and team coordination, approach to problem solving, accounting, quality control, marketing and resolving conflicts, etc. with end to end approach. About 25,000 students annually shall become ready after graduation in agriculture as skilled manpower, confident of nurturing the spirit of enterprise.

Mera Gaon Mera Gaurav: To have effective implementation of 'lab-to-land' programme in large scale for taking technologies to the villages, the agricultural scientists will visit at least one village every month and interact with the farmers to have solutions pertaining to farming practice. For this purpose, a central scheme named 'Mera Gaon Mera Gaurav' has been put in systematically.

Overall, agriculture in India will continue to play its traditional role of producing food, but also generate employment and income opportunities for a sizeable population in the foreseeable future. However, achieving zero hunger goal in future will be a daunting task due to changing demography, growing urbanization, rising incomes, changing food preferences, dwindling land and water resources; and above all, the impact of climate change. It is only through the application and outreach of new science and technology in agriculture that the country would be able to achieve its mission of a food- and nutritionally secure India.



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ANNOUNCEMENT

National Academy of Agricultural Sciences invites Nominations for different Awards for the Biennium 2015-16

I. MEMORIAL AWARDS (6 Nos.)

The nominee should be a distinguished scientist above 55 years in age. The period of assessing the contributions would be life time up to the year of nomination. Each award consists of a citation and a silver plaque.

II. ENDOWMENT AWARDS (2 Nos.)

The award will be given to outstanding scientists for their contributions towards ensuring (i) food and nutritional security, and (ii) over all contribution to agriculture. The nominees can be from any branch of science relevant to agriculture. The awards comprise a citation and a silver plaque.

III. RECOGNITION AWARDS (6 Nos.)

The awards would be given to distinguished scientists, in the age group of 35-55 years, who are Fellow of the National Academy of Agricultural Sciences. Each award consists of a citation and a silver plaque.

IV. YOUNG SCIENTISTS AWARDS (6 Nos.)

Scientists below the age of 35 years are eligible for this award. Each award consists of a citation and gold plated silver medal.

For details, please visit Academy web site at www.naasindia.org or write to
the Executive Secretary, National Academy of Agricultural Sciences, NASC, DPS Marg New Delhi 110 012.

Tel. (011) 25846051, Fax: (011) 25846054, E-mail: nass@vsnl.com

Last date for receipt of nominations in the Academy is 31 March, 2016

NOTE: Self Nominations are not acceptable.

WORKSHOPS, MEETINGS, SEMINARS, CONFERENCES, SYMPOSIA

Sustaining Hill Agriculture in Changing Climate

Agartala, 5 December 2015. Hon'ble Governor of Tripura, Shri Tathagata Roy, Inaugurated National Seminar on 'Sustaining Hill Agriculture In Changing Climate' at Pragna Bhawan. Shri Roy focused on agrarian economy in hill and mountains, forestry and agriculture and ecosystem of hills for producing more food grains with ensured supply to the people of hills. His Excellency, Governor of Tripura distributed Soil Health cards among the farmers of Tripura and Meghalaya. Dr S. V. Ngachan elaborated achievements of ICAR Research Complex for NEH Region in recent times and the proactive role undertaken by IAHF.

Farmers-Scientists interaction was also organized under the chairmanship of Dr P. Das (Former DDG, ICAR) and Pheromone Traps were distributed among the farmers.

Recommendations

- 'Zero Carbon - Zero Poverty' goal should be the motto with special emphasis on resolving the socio-economic issues of the farmers, skill upgradation of the students, information delivery system to the remote localities through ICT tools, post-harvest management of perishable produce and arsenic toxicity in groundwater etc. related to the agriculture of the north-east hill region. Competition for allocation of scarce land resources between agriculture and forestry may be addressed with suitable complementary technologies to provide both food security and ecosystem services to the NE region.
- Fertilizer should be applied as per soil testing report. Control of fruit fly through fruit fly trap should be taken up in community scale instead of individual farmer's level to make it effective. Participatory seed production programme may be undertaken through farmers' participation to make the quality seed available to the farmers at cheaper price.
- To mitigate the untoward effects of climate change for conservation agriculture that will have an important role and needs to be promoted at every facets of agricultural activity.
- Contingency planning for modified cropping sequence and integrated crop and pest management needs to be undertaken on urgent basis.
- KYKs from both the state governments and ICAR should help in registration of farmers' varieties with PPV&FRA for economic benefits to the farmers.
- Proper phenotyping/screening facility should be followed for developing successful stress tolerant varieties.
- Development and demonstration of location specific integrated insect pest management should be developed with special emphasis on eco-friendly management solutions for the north east hill agriculture.
- Development of low cost and eco-friendly technologies for feed resources, feed conversion, housing and management of pasture. Explore the possibility of enhancing economic return from cow dung, draught ability and packaging.
- Package of practices for organic farming should come in to practice with agronomy practices, and integrated nutrient management be taken due attention.
- Multipurpose trees, agro-forestry intervention should be practice in theme areas for soil and water conservation and improving soil fertility.
- Climate resilient agriculture needs a holistic approach integrating different components like timely input support system, ITK based agricultural practices, ICT based weather forecasting, agro advisory service, maintaining gaps & standard in agriculture, conservation of indigenous germplasm, innovative (Innovation for Agriculture and Training), eco-specific demonstration of technologies and imparting knowledge intensive and skill oriented training programme for the stakeholders to make it more sustainable.
- Studies on honey bee as a pollinator as well as for honey production should be focused in NEH regions.
- Nanotechnology based herbal research needs to be



promoted and strategies pertaining to strengthening the immune system of animal and aquatic animals needs to be build-up.

- Studies on soil-plant-animal-human continuum should be continued.
- Minimum tillage during *kharif* followed by zero tillage in *rabi* should be followed for profitable production of green pea in rice-pea cropping system in Meghalaya.
- Intensification of rice based system with improved high yielding rice varieties and integration of pulses, oil seeds, vegetables, poultry, fish, pig etc. for food and nutritional security.
- There is a vast scope for farm mechanization in NEH states, which not only reduces labour cost but also increases farm income. Hence more efforts may be made for inclusion of more farm implements in hilly ecosystem.

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Road map for agriculture development in Agro-climatic zone IX

Indore, 4 November 2015. Dr K. Alagusundaram (DDG, Agriculture Engineering) chaired the workshop, organized by the ICAR, at Directorate of Soybean Research. Dr Alagusundaram elaborated the objective of the workshop for preparing road map for agriculture development in Agro-climatic Zone IX- Western Plateau and Hills. The Chairman emphasized on the need to develop post-harvest technology for primary processing and packaging of farm produce at farmers/ village level, and on tapping other sources of technology dissemination such as private television and radio channels.



Dr V. S. Bhatia (Director, Directorate of Soybean Research) expressed that the deliberations of the workshop will help devise strategies for agricultural development in the zone. Dr R. G. Dani (Vice-Chancellor, Dr Punjabrao Deshmukh Agricultural University, Akola) stressed that the accuracy of climate forecast for wider area often fails leading to policy issues and emphasized on local forecasts for the localized policy making. Dr B. Venkatswarulu (Vice-Chancellor, Vasant Rao Naik Marathwada Krishi

Vidyapeeth, Parbhani) emphasized on the need to develop technologies for diversified crops and cropping systems.

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Road map for agriculture and allied sectors in lower Gangetic plains

Barrackpore, 31 October 2015. The Indian Council of Agricultural Research organized a workshop to prepare Road Map for Agriculture and Allied Sectors in Lower Gangetic Plains Region', Agro-climatic Region-III, covering West Bengal (except hilly areas), eastern part of Bihar and Brahmaputra valley of Asom at Central Inland Fisheries Research Institute. Dr A.K. Singh (DDG, Agricultural Extension and Fisheries Science) focused on the objectives of workshop and said that on the basis of interactions with farmers and further deliberations with scientists, recommendations will be made for overall agricultural development of the region with primary focus on sustainable income to farmers. Dr S.D. Singh (ADG, Inland Fisheries) remarked that



enhancing income and ensuring livelihood security of the farmers, especially the small- and marginal-category is the major concern. The solutions were given to progressive farmers and entrepreneurs for their problems related to production systems, field technologies, marketing issues and extension mechanisms. Prof. G. Trivedi (former Vice-Chancellor, RAU) suggested farmers to adopt integrated farming system incorporating crop, horticulture, livestock, fisheries to safeguard their income. Prof. Trivedi added that agriculture diversification is always better in case of failure of some of the enterprises. Prof. S.K. Sanyal (former Vice-Chancellor, BCKV) emphasized the important role of soil and water management, seed replacement and input efficiency. Prof. Sanyal stressed the need to make available quality certified seeds of improved varieties. Prof. C.S. Chakraborty (former Vice-Chancellor, WBUAFS) elaborated on importance of green fodder, animal health management including vaccination, ornamental fishes and value addition for enhancing income of farmers and livestock owners. Prof. Arun Pathak (former

Director of Research, AAU, Jorhat) stressed that extension machinery need to be more efficient. Weather fluctuations, lack of water harvesting structures, recurrent floods, limited availability of quality seeds, costly inputs, limited availability of farm machines particularly for small farmers, need for location specific integrated farming systems modules, lack of green fodder for livestock, lack of wide scale vaccination, disease-pest outbreaks, stagnating productivity, lack of post-harvest infrastructure, non-remunerative market price for the farmers, low procurement by the government, were some of the important issues identified in the workshop.

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Road map for agricultural development in west coast plains and ghats agro-climatic zone

Goa, 16 October 2015. Dr K. K Singh [ADG (F. Engg.)] inaugurated the workshop on 'Development of Road Map for Agricultural Development in West Coast Plains and Ghats Agro-Climatic Zone' at Central Coastal Agricultural Research Institute. There were deliberations with recommendations on technologies, farming practices and processing and value addition of various crops, animal and fishery components.

The workshop came out with brief region-specific recommendations for the development of agriculture in the West Coast Plains and Ghats Agro Climatic Zone. The edited and refined recommendations from the workshop will be communicated to ICAR and it will be forwarded to Prime Minister's office through Director General, ICAR. This will be further considered for the development of region specific actions for the agricultural development.

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Road map for agriculture in Gujarat plains and hills region

Anand, 12 October 2015. Dr A.K. Sikka (DDG, NRM) inaugurated one-day workshop on 'Development of Road map for Agriculture in Gujarat Plains and Hills region' at Directorate of Medicinal and Aromatic Plants Research. Dr Sikka emphasized the need for land use diversification in Agriculture and Animal Husbandry. He also emphasized need for integration of solar and wind power generation system for efficient utilization of natural resources and convert waste into compost. Dr Jitendra Kumar (Director, DMAPR) emphasized need for integration of medicinal and aromatic plants (MAP) in farming systems especially in hilly/tribal areas of Gujarat. Dr Kumar also emphasized that the diversification of MAP crops in different cropping systems, problematic soils and wild animal (wild pig, nilgai, rabbit) affected areas. Dr P.P. Rohilla [Director

(Acting), ATARI Zone-VI] narrated the role of KVKs for farmers' social upliftment in this agro-climatic zone. Dr Shiva Prasad Kimothi (ADG, Coordination) said that there is need for development of producers' organizations involving cluster of farmers to address the marketing problems. The scientists emphasized the need for the

- skill development and entrepreneurship development;
- development of policy on sub-surface drainage management in salinity affected areas of Gujarat.

Dr Kimothi also said that emphasis should be given to farm mechanization, conservation agriculture and value addition in agriculture; and Dangl local cow breed improvement programme.

A road map for Agriculture in Gujarat Plains and Hills Region was decided to be developed based on the inputs received in the workshop.

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Road map for innovative extension system for farmers empowerment and welfare

New Delhi, 17 December 2015. The Union Minister of Agriculture and Farmers Welfare, Shri Radha Mohan Singh, recently launched *Pradhan Mantri Krishi Sinchai Yojana*, *Soil-Health Card Scheme*, *Prampragat Krishi Vikas Yojana*, proposed *National Agricultural Market Scheme* to revolutionize agriculture in years to come at National Dialogue on 'Innovative Extension System for Farmers Empowerment and Welfare', jointly organized by TAAS, ICAR, Department of Agriculture & Cooperation, National Academy of Agricultural Sciences, *Bharat Krishak Samaj*, Cereal Systems Initiative for South Asia and Bill and Melinda Gates Foundation. MoA & FW added that the government is strengthening the extension infrastructure for the benefit of small-and marginal farmers.

India is having a pluralistic extension system which is dominated by the public extension system which has two approaches: field extension pursued by the development departments and frontline extension



pursued by the ICAR and agricultural universities through Krishi Vigyan Kendras. Union Minister further added that our focus is on strengthening of both these arms of extension. Highlighting the role of private extension, Shri Radha Mohan Singh ji said, they have also displayed their role in extending commodity specific knowledge and advisory to the farmers but we expect that the corporate houses will come in a bigger way to serve the society especially marginal, poor and landless farmers.



Dr S. Ayyappan, (Secretary, DARE and DG, ICAR) highlighted the objectives of three days National Dialogue on 'Innovative Agricultural Extension Systems' aimed at Farmers' Empowerment and Welfare. Dr R. S. Paroda [Chairman, Trust for Advancement of Agricultural Sciences (TAAS)], emphasized the importance of empowering of progressive farmers. Their farm-led innovations can be recognized and promoted for further up-scaling and out-scaling being often efficient, cost effective and well adapted to local situations. Dr Paroda further added that the information acquisition by small holders from other progressive farmers is invariably more effective. He also mentioned that information demand by the farmers is often changing as they intend to diversify and make farming more resilient. "The extension approach now has to be focused around the farming communities rather than the past individual farming households approach", said Dr Paroda. Dr A.K. Singh [DDG (Agric. Extn.)], hoped that three-day National Dialogue will help in development of a Roadmap for innovative agricultural extension systems for farmers' empowerment and welfare and make appropriate recommendations to the Government of India on agro-promotional policy.

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Road map for development of strategies for fish feed industries

Bhubaneswar, 19 November 2015. A two-day National Workshop on 'Feed and Feed Technologies for Responsible Aquaculture' was organized at Central Institute of Freshwater Aquaculture, from 18 to 19 November 2015 with the aim to prepare a road map and develop strategies for fish feed industries and researchers and also to enlighten and enrich the



knowledge on recent advances in fish nutrition and feed technology. Shri T. Prasad Rao Dora (Vice-President, FISHCOFED and President, FISHFED, Government of Odisha) inaugurated the National Workshop and highlighted the need of such an important programme for the country. Dr P. Jayasankar (Director, CIFA) emphasized the need for supplementary feeding based on sound technology and management for doubling fish production in about 5-year time. Dr Jayasankar also mentioned about the efforts initiated by CIFA in popularizing feed technology among fish farmers.

Dr S.S. Giri (Head, Fish Physiology and Nutrition Division) explained the fish feed scenario in the world as well as in the country and availability and demand for aquaculture production enhancement of fish from feed based aquaculture. An e-compendium of the lectures of the event and literature on fish as health food was released. Over 100 participants participated in the event. Prof. (Dr) K. Samantray [Director, College of Fisheries, OUAT, Bhubaneswar] and Dr V. Rajaram [Fish Nutritionist, Godrej Agrovet, Mumbai] were among the participants. Field exposure visit and hands-on-training on fish feed processing technology were also arranged.

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Pre-rabi kisan sammelan at KVK

Srikakulam, 29 October 2015. Member of Parliament (Srikakulam) Sri K. Rama Mohan Naidu (Chief Guest) highlighted the importance of participation of youth in agriculture, farm mechanization for higher productivity and profitability and allied sectors to lead the farming sector with new technologies at the pre-rabi kisan sammelan that was organized to prepare the farmers for the rabi with good crop plans for higher productivity. Sri Naidu emphasized the importance of organic agriculture in contributing major share in GDP.

Sri Kuna Ravi Kumar (MLA, Amadalavalasa and WHIP, Government of Andhra Pradesh), emphasized the importance of extension services in agriculture and allied sectors for increasing profits in farming sector. Sri Kumar highlighted the importance of floriculture, commercial agriculture and integrated farming systems model which includes agriculture, horticulture,

sericulture, animal husbandry and fisheries to make farming profitable. During Farmers, Scientist Interaction, scientists of the KVK and ANGRAU answered the farmers' questions regarding various crop technologies for *rabi* viz. maize, sweet corn, pulses, groundnut, sesame, sunflower etc. The officers of the line departments interacted with the farmers and explained the schemes and subsidies of concerned departments for the benefit of the farming community of Srikakulam district.

The *telugu* publications: *Rabi lo variki prathyanayanga Aruthadi Pantala sagu*, and *Vari Maganulalo Dunnakunda MokkaJonna mariyu chodi sagu* and *Vathavarana adaritha cheedapeedala yajamanyam* were released. An exhibition was organized depicting the exhibits related to *rabi* crop technologies of the district. Different demonstration units viz. *Azolla* mother culture unit, vermi- compost unit, Mushroom production unit, poultry unit, paddy- cum- fish farming, were explained at the demonstration farm of Krishi Vigyan Kendra.

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Rabi Kisan Sammellan at KVK

Jammikunta, 17 October 2015. *Rabi Kisan Sammellan* was organized at Krishi Vigyan Kendra to create awareness among the farming community on *rabi* crops and to showcase the improved production technologies of agricultural and allied fields in the KVK farm.

Shri Etela Rajender, Minister of Finance, Government of Telangana, inaugurated the Kisan call centre - Toll free help line (1800-425-3377) of the KVK and urged the scientists to enlighten the farming community on integrated farming system and cost reduction technologies in major crops in the district.

Shri B.Vinod Kumar, Member of Parliament, Karimnagar, stressed on the importance of sheep farming development in the district and requested the scientists to create awareness among the farming community on soil health management and judicious use of fertilizers based on soil-test. Brochures on *Aerobic Rice* and *Importance of Zinc in major crops* were released.

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Kissan Gosthi at Astarang

Astarang, 1 December 2015. The Central Institute of Freshwater Aquaculture, Bhubaneswar organized *Kissan Gosthi* at Barapada, Astarang, District Puri in collaboration with CMFRI, Puri Field Centre and District Administration, Puri. Shri Pradipta Kishore Satapathy (Project Director, DRDA, Puri) inaugurated the *Kissan Gosthi* and focused on practical problems of farmers in agriculture, horticulture, fisheries, livestock management etc.



Dr P. Jayasankar (Director, CIFA) focused on the importance of the programme '*Mera Gaon Mera Gaurav*', launched by the Prime Minister, to have a direct interaction of the scientists of ICAR and agricultural universities with farmers in the field. The concerned scientists would provide information on farming technologies, crop varieties, market price, weather forecast etc.

The CIFA, Bhubaneswar has adopted 75 villages in Khordha and Puri districts under the scheme. The scientists of CIFA have demonstrated liming, stocking of *Jayanti Rohu* seeds in community pond, feed preparation etc. and explained the farmers the benefit of scientific fish rearing.



Dr Reeta Jayasankar (Scientist-in-charge from CMFRI, Puri Field Centre) has taken some initiatives in community forestry in 700 acres flood affected village of Asana, inland aquaculture and cage farming in Devi river which is connected to the sea. Six progressive farmers were felicitated for their successful adoption of scientific farming practices.

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Farmers' meet and launch of FRP portable carp hatchery

Amarpur, 20 December 2015. Shri S. Adhikari (M.P.) inaugurated farmers' meet, organized by the Regional Research Centre of CIFA, for the Khariel tribal farmers of Amarapur village, Potaspur block of East Midnapur District, West Bengal.

Shri S Adhikari, stressed the need of tribal community of the area adopting the technologies and



assistances provided by the state and central government for their economic upliftment. He thanked CIFA for choosing Amarpur tribal area as a demonstration destination. Minister Shri J. Kar, focused on tribal beneficiaries and asked CIFA to support these poor farmers of the area with provision of fish feed, training and latest know how.

Dr P. Jayasankar (Director, CIFA) stressed that aquaculture can grow if quality seed, feed, medicine and market are available to the farmers. He requested the state government authorities to initiate establishing a fish brood bank in the region for which technical guidance would be provided by CIFA.

Shri J. Kar and Shri S. Adhikari jointly launched one FRP carp hatchery unit and dedicated it to the tribal community of the Block.

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Trends in harvest and post-harvest fisheries

Umiam, 20 November 2015. The CIFT (Kochi), ICAR Research Complex for North-Eastern Hills Region (Umiam, Meghalaya) and Department of Fisheries, Government of Meghalaya have jointly organized a Trainer's workshop on 'Trends in harvest and post-harvest fisheries' at ICAR Research Complex for North-Eastern Hills (NEH) Region.



Dr C.N. Ravishankar (Director, CIFT, Kochi) opined that one of the major hindrances for total utilization of fish is the post-harvest losses and wastes. Dr Ravishankar said that fish production is yet to reach the demand in Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. However, the fresh fish in iced condition and other means is being intra country imported from Andhra Pradesh to north-eastern hills region to meet the demand. Dr Ravishankar also said that CIFT is actively involved in development of harvest and post-harvest fisheries for the last one-and-half decades in the NEH region. Dr S.V. Ngachan (Director, ICAR Complex for NEH Region) opined that Meghalaya is predominantly a fish consuming state, and the annual production of fish from all sources is about 7,000 MT while the annual requirement is more than 30,000 MT. Therefore, to meet the local demand the state imports fresh as well as dry fish on a regular basis from different Indian states especially the Andhra Pradesh. Dr Ngachan felt extremely happy that as part of the NEH programme, the CIFT Visakhapatnam Research Centre is organizing a one day Workshop. Smt I.R. Sangma (Director, Department of Fisheries, Government of Meghalaya) said that in Meghalaya, fishery was given a major focus by the present Government and the Department of Fishery has been continuously striving to address different issues related to fish culture to ensure sustainable fish production and production of fish seeds.

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Workshop-cum-training for tribals at CIFA

Dahot, 26 October 2015. An Interactive workshop-cum-training programme on 'Scientific aquaculture by tribal fish farmers of Gujarat' was organized by Anand Regional Research Centre of Central Institute of Fisheries and Aquaculture (CIFA) at Krishi Vigyan Kendra (AAU), Muvaliya Farm, as a part of Tribal Sub-Plan Programme of CIFA. Dr P. Jayasankar (Director, CIFA) emphasized for improvement of livelihood conditions of tribal farmers through adoption of scientific aquaculture practices including good quality fish seed for stocking, providing supplementary feed



to fish and adopting better management practices. Dr B.C. Mohapatra (Chairman of Tribal Sub Plan) said that there is a huge demand of good quality seed in India which could be met through wider adoption of FRP hatcheries and focused for dissemination of location specific aquaculture technologies in the tribal areas of Gujarat. The Fisheries Officials of tribal districts Panchmahal, Mahisagar, Narmada, Dahod and Vadodara expressed for diversification of aquaculture practices in tribal districts with the latest information from research institutes such as CIFA and State Agricultural Universities. Dr G. J. Patel (Head, TRTC, AAU, Devagad Baria) expressed importance of aquaculture based integrated agricultural production in tribal areas of Gujarat. There were interactive discussions with the participants, technical deliberations on CIFA technologies, advances in fish seed production technologies, scientific aquaculture opportunities in village ponds, supplementary feed management, cage culture and ornamental fish culture. The event also showcased materials on different aspects of scientific aquaculture methods. Leaflets in Gujarati language on FRP carp hatchery and fish feed were released in the event for the benefit of tribal fish farmers of Gujarat. Genetically improved seeds of rohu, jayanti were distributed to the progressive tribal farmers of Gujarat.

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23rd Annual Conference of the Agricultural Economics Research Association

Mumbai, 2 December 2015. Dr Ramesh Chand (Member, NITI Ayog, Government of India) inaugurated 23rd Annual Conference of the Agricultural Economics Research Association on Inter- and Intra-Sectoral Dynamics for Transforming Indian Agriculture organized by Agricultural Economics Research Association (India) in association with Central Institute of Fisheries Education at CIFE. Dr Ramesh Chand emphasized that the association should serve as a platform for discussing new knowledge in the area and also to identify research priorities based on extreme social relevance. Dr Ramesh Chand stressed that the agriculture sector has many paradoxes and myths which require critical scrutiny so that scientific evidences and practical solutions can be evolved. He added that current sectoral scenario is complex with many new challenges and reality that require new approaches and economic tools with inter-disciplinary support which would help in achieving the national goals.

Dr Harsh Kumar Bhanwala (Chairman, NABARD) urged the delegates to make agricultural economics more broad-based with emphasis on rural development. Dr Bhanwala highlighted many areas such as IT application in agriculture, conservation of natural resources, agricultural exports, shifting of the small

and marginal farmers to other non-farm professions, priorities of investment and land leasing etc. In the sector which require attention of researchers, institutions and policy makers.

Dr P.K. Joshi (Director-South Asia, IFPRI, New Delhi) delivered the presidential address on 'Pathways to improve food security and reduce poverty in emerging India', and highlighted the challenges such as food and nutritional security, impact of climate change on agricultural production and emphasized that the economic growth should be more inclusive and nutrition sensitive. As a way forward for more inclusive growth, Dr Joshi outlined Food Security Framework with production, availability, access and affordability as core components within a larger circle of policies, institutions, governance, markets and infrastructure, besides best practices from all over the world such as direct cash transfers and transparent e-governance measures.

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Awareness-cum-training on rabi pulses

Ranipool, 27 October 2015. With the aim to make farmers aware of the benefits of pulses in terms of nutritional security and improving soil fertility under organic condition, the Krishi Vigyan Kendra East Sikkim organized awareness-cum-training on 'Rabi pulses' at KVK, East Sikkim, ICAR Sikkim Centre, Ranipool under National Food Security Mission (NFSM). Generally, pulses productivity in the state is lower than the national average. Progressive farmers from different villages of East Sikkim viz. Upper Nandok, Lower Nandok, Mangthang, Ranka, Patim, Tirikutam and Nazitam participated. The farmers were benefited with input support system with untreated seeds of viz. field pea, vegetable pea, spinach, coriander, onion, tomato, beet root, radish, fenugreek and carrot.

Dr R.K. Avasthe [Joint Director, ICAR Research Complex for NEH Region, Sikkim Centre] briefed on organic cultivation of vegetable pea under zero tillage technology in rice fallow. Dr Avasthe also encouraged the farmers to undertake production of quality seed for becoming self-dependent since treated seeds had been banned in the state. He encouraged the farmers towards establishing the sources of organic inputs



within the farm to reduce dependence on outside inputs.

Dr Raghavendra Singh (Sr. Scientist, Agronomy) highlighted the objectives of programme and briefed about the scientific cultivation of field pea in rice fallow. Dr Singh also focused on the importance of pulses in cereal based cropping system regarding soil fertility enhancement. He stressed to utilize their farm land which they keep fallow after rice so that cropping intensity would increase up to at least 200% and give livelihood security to the farming community. Shri K. D. Bhutia, (President, Farmer Produce Organization and Member, Sikkim Organic Mission Steering Committee) urged the farmers to adopt the technologies developed by ICAR scientists and demonstrated at KVK Farm as well as on farmers' field to enhance the production and productivity of various pulses in Sikkim.

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Farmers-scientist interface at NIBSM

Bilaspur, 31 October 2015. A scientists-farmers interface meet was organized by the National Institute of Biotic Stress Management (NIBSM) in collaboration with Bilaspur district Krishi Vigyan Kendra to manage the biotic stress factors. The interface conducted under the institute research project entitled 'On-farm evaluation, assessment of biotic stress management technologies for adoption and impact'.



Dr Anil Dixit (Principal Investigator of the project from NIBSM) explained the importance of weed management, biotic stress factors and its role in yields loss, herbicide usage, herbicide handling and safety measures, appropriate selection and methods of sprayers and nozzles usage. The recommended dose of appropriate herbicide was also emphasized. Dr V.K. Choudhary (Scientist) explained about scientific rodent management, live hole surveying principles, poison bait preparation, method of bait administration and safety disposal of poisoned baits. Dr P. Mooventhan (Scientist) collected the feedback and information need of the farmers in the biotic stress

management through focused group discussion. Farmers interacted with the scientists of NIBSM about integrated biotic stress management.

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Interaction on watershed plans at IISWC

Dehra Dun, 16 November 2015. Shri G. C. Pati, Chief Secretary (Government of Odisha) along with Shri Vinod Kumar (Director, IGFNA, Dehra Dun) visited Indian Institute of Soil and Water Conservation. Shri Pati said that empirical studies should be conducted for knowing the defects in watershed planning, implementation and after withdrawal of the project from the area. Why watershed plan fails, may be studied? He also assured to sponsor his personnel for training at the Institute. Shri Vinod Kumar (Director, IGFNA, Dehra Dun) gave attention on active involvement of village people in detailed project report preparation of the watershed. Dr Kumar said that integration of all the components should be ensured for getting the success and fruitful gain through watershed management.

Dr P. K. Mishra (Director, Indian Institute of Soil and water Conservation) focused on saving soil and water without any adverse effect on environment.

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Vertebrate pest management

Jodhpur, 17 October 2015. Dr J.S. Sandhu (DDG, Crop Science) inaugurated a three-day First Group Meeting of All India Network Project on Vertebrate Pest Management on 15 October 2015 at Central Arid Zone Research Institute. Dr Sandhu emphasized that the technology developed for rodent and bird management should be transferred to all the ICAR institutes and agricultural universities to spread them in the field



under lab-to-land programme. The progress made by different centres was discussed in the Technical Sessions. Special lectures on 'Rodent Diversity',

'Vertebrate Pest Problems in Non-Farm Sectors and Policy Issues' were delivered by Dr S. Talmale, Dr Malla Reddy and Dr A.M.K. Mohan Rao.

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Second interactive meet of regulator - animal vaccine manufactures

Izatnagar, 4 December 2015. Dr R.K. Singh (Director, IVRI) emphasized the need of co-operation among IVRI, Manufactures, DCGI and IPC for better functioning of quality assurance system for animal vaccines, at the second Interactive Meet of Regulators - Animal Vaccine Manufactures organized at Division of Biological Standardization, Indian Veterinary Research Institute. Dr (Ms) Kalaivani (Indian Pharmacopoeia Commission) informed regulators regarding incorporation of new monograph in *Indian Pharmacopoeia*. She informed that addendum of IP is available in the market. Various issues concerning vaccine quality control raised by Dr Ashok Kumar Tiwari (HD, Division of Biological Standardization) which were discussed at length and recommendation were drawn.

Delegates from vaccine manufacturing industry, vaccine importer and State Biological including Globion, Ventri Biological, Hester, Brilliant Biopharma, MSD Animal Health, Indian Immunologicals Ltd, Zoetis, State Biological Product Units of Punjab, Uttar Pradesh, Maharashtra, West Bengal etc. attended the meeting.

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Influenza: risk factors, massive impact and uncertain future

Izatnagar, 19 October 2015. Dr M. P. Yadav (Guest of Honour) inaugurated one-day National Workshop on 'Influenza: Risk Factors, Massive Impact and Uncertain Future' at Indian Veterinary Research Institute under the aegis of Indian Virological Society, and highlighted the public health importance and preparedness related to the Influenza in human beings and animals. Dr Singh emphasized the need for awareness on hand washing and personal hygiene in minimizing the risk of Influenza spread. Dr (Prof.) A. K. Prasad focused on the current status of Influenza in India and concerns about the disease world wide. Dr Y.P.S Malik (National Fellow) made a note that it was an initiative of its

own kind to gather the experts from different fields under one roof to share their knowledge and ideas about Influenza in humans and animals in order to meet the future challenges. Dr S.K. Saxena (Scientist from CSIR-Center for Cellular and Molecular Biology, Hyderabad) discussed about 'Pandemic Influenza A (H1N1) pdm09 virus (pH1N1): The Unseen and Unsaid. Dr Saxena elaborated about the origin of virus, its epidemiology, vectors and hosts, molecular mechanism of replication, treatment and management including control strategies.

Dr R. K. Singh (Director, IVRI) highlighted the public health importance and preparedness related to the Influenza in human beings and animals. Dr Singh focused on the importance of Influenza in the economy and public health. The eminent scientists of the country from medical, veterinary, life sciences etc. deliberated on recent updates on Influenza disease: challenges and perspectives for future. Dr J. M. Kataria (Director, Central Avian Research Institute) focused on Avian Influenza: Past, Present and Future (An Indian experience). Dr Kataria presented a glimpse of current perspectives of the disease, risk of silent infection with violent impact, diagnostic and control strategies including vaccination programme.

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Workshop on agriculture for the agro-climatic zone of the island region

Port Blair, 18 November 2015. Dr T. Janakiram [ADG (Horticultural Science)] inaugurated, a workshop for the Agro-Climatic Zone of the Island region at Central Island Agricultural Research Institute (CIARI). Dr Janakiram emphasized on the area expansion plan for oilpalm at Andaman and introduction of farmers friendly programme for overall development of agriculture in the region. Eco-tourism, value addition/floriculture, native fern and foliage plants should be given importance, he added. Besides linkages with other relevant institutions will strengthen the institute. Dr Janakiram flagged the idea of making CIARI as the Deemed University for Island Agriculture.

A Technical bulletin on *Weather Based Agricultural Practices for Island Ecosystem* was also released on the occasion. Smt R. Menaka [Secretary, Agric/AH/Fish, A&N Administration] stressed on the development strategies to be adopted for Agriculture, Animal

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Husbandry and Fisheries sectors. She emphasized on self-sufficiency, disease free status, National and International market, trained manpower, technologies for value addition in milk products. Besides, she also elaborated on the major programmes undertaken by the administration namely on soil-health card, increasing milk production and inland fisheries.

Dr S. Dam Roy (Director, CIARI) informed that the workshop has been organized with an aim to develop strategies for development of agriculture and its allied sectors in the Island region comprising Andaman & Nicobar and Lakshadweep group of Islands. It will also help formulate strategies and roadmap for providing technological backstopping towards sustainable development of agriculture and its allied sectors in the region for food, nutrition, livelihood and environmental securities. Dr S. Dixit (Director, ATARI, Bengaluru) informed on the purpose, the goal, review agenda and ground rules for formulating the strategies for the Island-Eco region.

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Workshop on Agro-climatic region, Zone 7 at CIFA



Bhubaneswar, 23 November 2015. ICAR, New Delhi has organized one-day workshop on Improving Technical Support, Extension and Demonstration Services to the Farmers for Eastern Plateau and Hill Agro-climatic Region at Central Institute of Freshwater Aquaculture (CIFA) in collaboration with Agriculture Technology Application Research Institute (ATARI), Jabalpur, Madhya Pradesh. The programme was organized with the direction from Prime Minister's office to develop strategies to improve technological services to the farmers of the region which consists of Odisha, Chhattisgarh and Jharkhand. All the stakeholders involved in the agriculture development i.e. Research Institutes, State Agricultural Universities, Departments of Agriculture, Horticultural Science, Soil Conservation, Forestry, Fisheries Science and Animal Husbandry participated.

Dr A. K. Singh (DDG, Agriculture Extension) stressed upon the areas related to agriculture and allied fields



where more intervention was required to improve farmers' condition in the region.

Prof. Manoranjan Kar (Vice-Chancellor, Orissa University of Agriculture Technology) laid emphasis on overall improvement of single window system where farmer would get all types of information and services. The issues and concerns of the region with respect to the fisheries and livestock sector were presented by Dr P. Jayasankar (Director, CIFA).

The state specific issues of the three states i.e. Chhattisgarh, Odisha and Jharkhand were raised by respective state departments. The Dean/Director Extension of four agricultural universities i.e. Indira Gandhi Krishi Vishwya Vidyalaya, Raipur, Chhattisgarh; Kamdhenu Vishwya Vidyalaya, Durg; Birsa Agriculture University, Ranchi and Orissa University of Agricultural Technology, Bhubaneswar, made their presentations on the technological and extension gaps in the agricultural development of the region. Experts in the area of climate change, Agronomy, Horticultural Science, Fisheries Science, Forestry, Animal Husbandry, Apiculture, Mushroom culture, Farm mechanization, and Natural Resource Management provided their input on the issues and technological options available for sorting out the problems.

Recommendations

- Improving the livelihood of farmers through farm mechanization .
- Developing crop waste management practices.
- Developing agro-forestry and specialty product market strategies.
- Management of soil-health is to be given utmost importance.
- Creating awareness about the drip irrigation in the farming community.
- Developing strategies for treating acidic soil is needed since nearly 70% soil of Odisha is acidic where crop diversification is a concern.
- Developing drought and disease-resistant crop varieties and crop diversification.
- Developing sustainable integrated farming system.
- Harnessing solar power for irrigation.

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Soil- and- Water Health cards distribution to brackishwater aquaculture farmers

Mamallapuram, 19 December 2015. The Central Institute of Brackishwater Aquaculture (CIBA), Chennai organised a Workshop on 'Soil-and-Water Health Cards' distribution to brackishwater aquaculture farmers. Dr K.K.Vijayan (Director, CIBA) highlighted the importance of the Soil Health Card Scheme (launched by Hon'ble Prime Minister, Shri Narendra Modi in February 2015). In Aquaculture sector this is for the first time in India that CIBA is issuing the 'soil-and-water health cards' to aquaculture farmers. Long-term sustainability in aquaculture depends on the maintenance of soil health and water quality for the generations and advised the farmers to have optimum stocking densities to preserve the soil quality. Dr Vijayan has impressed upon the farmers that CIBA will provide all technical support to the farmers and anyone can come to CIBA anytime for assistance.



Dr P. Ravichandran (Member Secretary, Coastal Aquaculture Authority and Chief Guest of the workshop) remarked that primarily it is the responsibility of the farmers to keep the soil and water quality within the optimum levels. Shri Ravichandran appreciated the initiative of CIBA in issuing the soil-and-water health cards to aquaculture farmers for the first time in the country. Dr Ravichandran emphasized the role of biosecurity in shrimp farms and advised all the farmers to follow strictly. The soil samples were collected from the farmers ponds of Tamil Nadu, Telangana, Andhra Pradesh, West Bengal and Gujarat. The Soil-Water Health cards were distributed to about 44 brackishwater aquaculture farmers from Kanchipuram, Nagapattinam and Tiruvallur Districts of Tamil Nadu. The information provided in the cards is useful to farmers in understanding the nutrients status of the soils and water quality which will help in managing the pond soil and water parameters in optimum levels. Dr S.V. Alavandi (HOD, CIBA) explained about the soil and water quality importance in relation to current scenario of diseases in *L. vannamei* farming.

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World Soil Health Day

Varanasi, 5 December 2015. Shri Virendra Singh (MP) inaugurated the World Soil Health Day Celebration at Bejwan village of Bhadohi District by KVK, Indian Institute of Vegetable Research. Shri Singh expressed his concern over declining soil health and advised the farmers of Bhadohi District to use vermi-composting and NADEP compost to maintain the soil fertility and use the cow urine based bio-fertilizer to maintain soil organic carbon. Besides Shri Singh emphasized on development of Langra variety based mango leather.



Looking into the scope of pulses and oilseeds in the district, Shri Singh advised the farmers to adopt hi-tech production system to increase the productivity of these commodities in the district. For the development of livestock he advised the farmers to join the Intensive Dairy Scheme of the Government to maximize the profit. Dr Bijendra Singh (Director, IIVR) counseled the farmers for the maximum utilization of nutrients from the soil. By the application of micro-nutrients, the deficiency can be minimized in all the crops, he said. Shri Singh emphasized on the adoption of organic farming to sustain the soil fertility and motivated the farmers for soil-testing. The KVK has analyzed 250 farmers' soil samples and the soil health card was distributed among the farmers by Shri Singh.

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Managing Soil-Health

New Delhi, 24 November 2015. Indian Council of Agricultural Research (ICAR) organized a two-day Brain Storming Session on 'Managing Soil-Health' on the occasion of International Year of Soils - 2015 at NASC Complex from 23 to 24 November 2015. Dr R. S. Paroda (Chair Person, TAAS) focused on different types of soils. Technical sessions were organized covering different areas of soil science namely status of soil research and future challenges, soil-health and quality, geo-informatics including space technology application, soil biology, soil pollutions and policy interventions. After presentation of invited lectures



by the eminent experts, the issues were discussed at length to develop future road maps with meaningful conclusions for effective monitoring, conservation, utilization and management of soil resource.

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World Soil Day

• Dehra Dun, 5 December 2015. The Indian Institute of Soil and Water Conservation organized World Soil Day in association with Indian Institute of Soil and Water Conservation.

Dr P.K. Mishra (Director, IISW) led the 'pledge on Save Soil Campaign'. Dr Rajender Dobhal (DG, UCOST) suggested farmers for applying manures and fertilizer on the basis of soil-test report and crop requirement. Dr Mishra highlighted the importance of soil micro-nutrients to vegetable and fruit crops with specific example of tomato and pomegranate.

The scientists discussed about assessment and management of soil health, and highlighted the importance of soil conservation in managing soil health.

Shri Rajkumar (Parliament Secretary, Uttarakhand) expressed his concern on shrinking farming land around Dehradun and migration from the hills.

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• Nagpur, 5 December 2015. The National Bureau of Soil Survey and Land Use Planning (Headquarters) distributed Soil-Health Cards (SHC) among the farmers of Warud Tehsil of Maharashtra, Seoni and Balaghat tehsils of Madhya Pradesh, besides farmers of regional centres at Bengaluru, New Delhi, Jorhat, Kolkata and Udaipur. The distribution programme of SHCs will continue to be undertaken for majority of farming community of the country.

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• Narayangaon, 5 December 2015. The Minister of State for Agriculture and Farmers welfare, Shri Mohanbhai K. Kundariya, distributed soil-health cards



to farmers on the 'World Soil Day' at Krishi Vigyan Kendra (KVK), Narayangaon in Pune district. Shri Kundariya elaborated the advantages and importance of soil-health cards in restoring and maximizing ecosystem services of soils, ensuring balanced use of fertilizers, enhancing crop productivity along with reduction in cost of cultivation. He directed all the 641 KVKs in the country to utilize the funding provided by the Ministry to conduct *Kishi Sammelan* meetings during *kharif* and *rabi* to disseminate location specific



technologies and create awareness on the scope of on-going schemes like 'PMSKY' among farmers and all stakeholders. Shri Kundariya informed about the Ministry's focus on transfer of technology from 'Lab-to-Land' for revitalizing agriculture in all the states. Shri Kundariya announced that a modernization drive for strengthening of KVKs is on the cards for more effective technology transfer and its reach to every farmer.

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'Mera Gaon Mera Gaurav' at NRC on Camel

Bikaner. National Research Centre on Camel, Bikaner launched the programme activities for *Mera Gaon, Mera Gaurav* (MGMG), one of the 15 villages selected by the Centre. To create awareness among the farmers who also practice various other allied agricultural activities like, animal husbandry, horticulture or value addition to agriculture produce, all 4 institutes located in Bikaner namely NRC on Equine, CSWRI ARC, CIAH and CAZRI RS also participated and elaborated various

technologies developed by their respective institutes and interacted with farmers. More than 250 farmers from one village cluster - from Kalasar, Lakhisar, Tehar Jogana, Barju and Motigarh actively interacted with the experts and received technical know-how regarding technologies developed and displayed by all ICAR institutes. NRC on Camel displayed various utility products out of camel leather, skin, bones and also demonstrated the technology of processing of camel milk for preparation of edible products like flavoured milk, kulfi and lassi. The technologies like complete feed blocks and feed pallets were also displayed in the exhibition. In order to create interest of farmers in camel production the competitions for best growing animal in male and female categories, best male stud and best lactating she camel based on milk yield were organized. The farmers having best animals in above categories were suitably awarded.

Dr Amar Singh Faroda, Chief Guest stressed about importance of such programmes for the benefit of the farmers in the region. Dr Faroda stressed that the farmer now has to look towards agriculture as a business enterprise and learn important techniques and methods by which production for agricultural commodity would be increased. Dr P.P. Rohilla (Zonal Project Director, Zonal Project Directorate, Zone-VI, Jodhpur) described the programme details of MGGG and lauded the efforts of NRC on Camel in bringing together the experts of all disciplines of agriculture to address the issues being faced by arid region farmers. The NRC on Camel in its health-cum-treatment camp diagnosed and treated nearly 450 animals including 50 camels, 45 cattle and rest small ruminants for different ailments. The village heads of Kalasar, Lakhisar and Jogana were appreciative of this initiative of ICAR and assured active cooperation of the villages in this endeavour.

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Benefitting yak rearers of Ladakh

Dirang, 6 October 2015. The Director (NRC on Yak) disseminated the technologies and products developed by the National Research Centre on Yak among the yak farmers of Ladakh during farmers' training-cum-yak health camps conducted at Zanskar and Khurdong



under Tribal Sub-Plan scheme. The programmes were conducted in collaboration with Animal Husbandry Department, Ladakh Autonomous Hill Development Council, Kargil at Abran - Zanskar and with Central Arid Zone Research Institute, Regional Research Station Leh, and Animal Husbandry Department, Leh at Khardong village.

In Kargil, the programme was conducted in Abran Zanskar Sub-division involving Kushool, Lungmar, Chibra, Jangchung and Abran villages: The yak herders were distributed basic amenities like tarpaulin, milk cream separator, gumboots, solar lantern and basic veterinary medicines containing anthelmintics, mineral supplements, general animal health tonics, anti-diarrhoeals, wound healing sprays and ointments, uterine tonics etc. Yak rearers were also apprised with various ailments in yak and their control measures along with general health and reproductive management of yaks for better productivity. Dr Mohd. Iqbal (CAHO, Kargil) informed about the present status



of yak husbandry in Ladakh and asked for the support of NRC on Yak for upgradation of yak germplasm in Kargil through application of artificial insemination. Similar activity was carried out at Khardong village, Nubra, Sub-division of Leh District. During the interaction at Spangchenmo pastureland near Khurdungla, the yak herders revealed their difficulty of grazing yaks due to attack and killing of young calves by stray dogs; and intervention of local administration and Animal Husbandry Department, Leh and CAZRI, RRS, Leh was suggested.

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Development of Fisheries vis-à-vis Blue Revolution and Value Addition

Bilaspur, 13 December 2015. Shri Takur Singh Bharmouri, Minister of Forest and Fisheries, Himachal Pradesh, inaugurated a two-day National Workshop on 'Development of Fisheries vis-à-vis Blue Revolution and Value Addition in Himachal Pradesh', jointly organized by Central Institute of Fisheries Technology, Kochi and Department of Fisheries, Himachal Pradesh



on 12 December 2015. The technical sessions were on 'Recent environment challenges in sustaining and developing open water fisheries', 'Recent advances in packaging, preservation and value addition of fish', 'Research needs for developing fisheries in high altitude areas of the state', and 'Major standing issues and ways of circumspection for fostering aquaculture in hill states'. A detailed discussion was held on value addition prospects in Himachal Pradesh and setting up of a small scale value added product unit. A display of value added products and by-products developed by Central Institute of Fisheries Technology was arranged for the benefit of the participants.

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Pulses Production Technology under National Food Security Mission

Jodhpur, 11 December 2015. Dr C. B. Pandey (Director, CAZRI) inaugurated a two days Zonal Workshop, organized by the Agricultural Technology Application Research Institute, for Krishi Vigyan Kendras (KVKs) of Rajasthan and Gujarat at Central Arid Zone Research Institute. Dr Pandey emphasized that Krishi Vigyan Kendras are the mirror of any institute for display of latest agricultural technologies. He stressed visits of the farmers at crop museums in KVKs. Dr Pandey opined that the implementation of the programmes must be carried out through Panchayat level for addressing the problems of downtrodden. He appealed to adopt the social apps for the faster diffusion of innovations in changing climate situation.



Dr S.J. Singh (Director, Rajasthan Agricultural Research Institute, Durgapura, Jaipur) narrated for the adoption of seed village concept to fulfill the improved seed requirement at village level. Dr Singh suggested various techniques like convergent diversion selection method for seeds; adoption of appropriate seed rate as per the size of seeds; adoption of linseed as trap crop in gram against pod borer, reducing the cost of cultivation, storage techniques, etc. He appealed to researchers to develop the genotypes which enhance the nodulation 15 days earlier before flowering. Dr V.K. Pandey (Joint Director, Extension, Jodhpur) opined that pulses are mostly grown by the marginal farmers with lower productivity where the availability of certified seed is also scarce in relation to demand. Hence, it is a timely initiative for enhancing the pulse productivity in the zone. He also viewed that the losses due to yellow mosaic virus in the pulse production is a matter of concern. Dr P.P. Rohilla (Director, ATARI) informed that 2,825 demonstrations on pulse crops covering an area of 1,130 ha have been allocated under National Food Security Mission in Rajasthan and Gujarat for enhancing the productivity and appealed KVKs to implement the program effectively.

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Launch workshop of CIFE-Academic Management System

Mumbai, 18 December 2015. Dr N.S. Rathore (DDG, Education) inaugurated a launch workshop on Central Institute of Fisheries Education (CIFE)-Academic Management System (AMS), organized by Central Institute of Fisheries Education in collaboration with Division of Computer Applications, IASRI, New Delhi, which is working on 'CIFE-Academic Management System' to strengthen the academic activities of the institute. Dr Rathore, appreciated the initiative taken by the CIFE to develop CIFE-AMS and advised to keep in place the essential infrastructure for implementing the CIFE-AMS. He also



stressed the need to conduct the training for staff and students periodically to keep them up-to-date of the system. A total of five modules were initiated to cater the needs of the students, faculty, Dean, Registrar and Administrators for performing assigned duties.

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Workshop on Fisheries and aquaculture response in emergencies

Mumbai, 18 December 2015. Dr Narendra Singh Rathore (DDG, Education) inaugurated a Workshop on 'Fisheries and Aquaculture Response in Emergencies', organized by the Central Institute of Fisheries Education (CIFE), to raise awareness within the diverse stakeholders about the vulnerability of the sector, current frameworks for response and the need to be better prepared through appropriate trainings. Dr Rathore stressed the importance of judicious use of resources to circumvent disasters occurring due to climate change.

Dr Gopal Krishna (Director, CIFE) emphasized on responding to emergencies and disasters on urgent basis. Other deliberations were on the Role of MCGM in Disaster Management, Role of Indian Coast Guards, and live demonstrations were about the sea safety device for fishers.

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Kissan Gosthi at CIFA

Bhubaneswar, 1 December 2015. Shri Pradipta Kishore Satapathy (Project Director, DRDA, Puri) inaugurated the *Kissan Gosthi* at Central Institute of Freshwater Aquaculture (CIFA), Barapada, Astarang, Puri in collaboration with Central Marine Fisheries Research Institute, Puri Field Centre and District Administration, Puri. Dr P. Jayasankar (Director, CIFA) in his presidential address mentioned the importance of the programme "*Mera Gaon Mera Gaurav*" launched by our Hon'ble Prime Minister of India to have a direct



interaction of the scientists of ICAR and agricultural universities with farmers in the field. The concerned scientists would provide information on farming technologies, crop varieties, market price, weather forecast etc. The CIFA, Bhubaneswar has adopted 75 villages in Khordha and Puri districts under the scheme. The scientists of CIFA have demonstrated liming, stocking of *Jayanti Rohu* seeds in community pond, feed preparation etc. and explained the farmers the benefit of scientific fish rearing. Practical problems of farmers in agriculture, horticulture, fisheries, livestock management etc. were addressed by the resource persons from CIFA, and Central Marine Fisheries Research Institute, district officials of Puri and other line departments, banks, agencies and other stakeholders.

Dr Reeta Jayasankar (In-charge, CMFRI, Puri Field Centre) has given some initiatives in community forestry in 700 acres flood affected village of Asana, inland aquaculture and cage farming in Devi river which is connected to the sea. More than 340 participants including 250 farmers and farm women from Asana, Naiguan, Barapada, Derunia, Athatira, Astarang and Alasahi participated in the '*Kissan Gosthi*' programme. Six progressive farmers were felicitated for their successful adoption of scientific farming practices.

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Capacity Building

Traditional disease-resistant varieties developed at VPKAS

Haldwani tal, 25 October 2015. Shri Harish Rawat, Chief Minister of Uttara khand, inaugurated *Krish Mahotsav Rabi 2015* and said that Vivekananda Parvatiya Krishi Anusandhan Sansthan (VPKAS) has developed high-yielding disease-resistant varieties and package of practices to increase the overall productivity of traditional crops like, finger millet (*mandua*), barnyard millet (*madira*), horse gram (*gahat*), black soybean (*bhat*), amaranthus (*chua*) and buckwheat (*Kuttu/fafer*) in the hill region. Besides, many small-farm tools and implements have been designed and developed for sowing, intercultural as well as post-harvest operations and value addition to these crops. The value-added products were developed in crops like, finger millet, barnyard millet, soybean and black soybean. Value addition options to the

traditional crops like, finger millet (*mandua*) and black soybean (*bhat*) can help the farmers to generate employment as well as additional income. The nutritional value of finger millet is well known now, and the *namkeen* prepared by finger millet is very delicious. The tofu (cheese) prepared from black soybean (*bhat*) and soybean is nutritious as well as very tasty. The Institute has developed the technologies for the efficient, cost-effective and house hold production. These products were prepared and displayed at the stall.

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VPKAS technologies show-cased under TSP

Munsyari, 6 October 2015. Dr J.K. Bisht (Director, VPKAS) along with scientists attended *Sri Hari Singh*

Jangpangi Smarak Krishi va Jodi-booti Pradarshani organized by Sri Hari Smarak Samiti and Malla Johar Vikas Samiti at Munsyari Block in district Pithoragarh. The farmers were acquainted with the Institute's technologies and were apprised of the work being carried out by the institute in the Johar area under Tribal Sub-Plan (TSP). The technologies were also showcased in the Institute's exhibition stall. With a view to further extend the reach of Institute's activities in the area, two farmers each from 12 villages of Malla Johar were identified for imparting training on the technological interventions identified for introduction in their area. These trained farmers would serve as nodal persons in their respective villages for dissemination of Institute's technologies and implementation of technological interventions.

As part of *rabi* 2015-16 technology demonstration programme, seed of improved varieties of wheat (VL Gehun 907, VL Gehun 829 and VL Gehun 892) and barley (VL Jau 118) were distributed to farmers in village Patet and Ghatgad (Didihat block); and Bala (Munsyari block) of the Johar area for on-farm demonstrations. The broader idea underlying this programme is to train some of these farmers for undertaking seed production of improved varieties, which in the longer term is envisaged to lead towards achieving the larger objective of making quality seed available at farmers' doorsteps in these remote tribal areas.

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Plant Phenomics National Facility at IIHR



Bengaluru, 1 November 2015. Dr S. Ayyappan (Secretary, DARE and DG ICAR) inaugurated the high throughput Plant Phenomics facility at the Indian Institute of Horticultural Research (IIHR), and highlighted the importance of such State-of-the-Art facilities for addressing the climate change issues. Dr Ayyappan emphasized the need for high throughput plant phenotyping research approaches for identifying crop genotypes tolerant to adverse impacts of abiotic stresses under climate change scenario. This facility will also support the research activities involved in



non-destructive identification of tolerant genotypes under the adaptation strategies to manage climate change impacts on horticultural crops.

Dr N. K. Krishna Kumar (DDG, Horticultural Science) emphasized the importance of the Phenomics facility for phenotyping of horticultural crops for excess and limited moisture and high temperature stresses. Dr A.K. Sikka (DDG, Natural Resource Management) emphasized the need to extend the utility of Phenomics facility to the partner Institutes under NICRA and other Institutes working on horticultural crops. Dr Ch. Srinivasa Rao (Director, CRIDA) also highlighted the importance of Phenomics facility for identifying the tolerant genotypes.

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Protected cultivation of vegetables under TSP

Srinagar. Keeping in view the need for protected and off-season cultivation of vegetables which can be utilized during winter during which Gurez road remains completely closed the Central Institute of Temperate Horticulture, constructed polyhouses at four different locations under Tribal Sub-Plan Scheme (TSP). During winter, these polyhouses were used for vegetable production and raising of nursery seedlings. The low cost polyhouses were made with PVC pipes covered with UV stabilized polythene sheets. Well decomposed and sieved farmyard manure in combination of farmyard manure: sand: soil in ratio of 2:1:1 by volume was recommended as growing media for nursery raising and the same performed very well. Dawar, Markote, Wanpora and Mastan were selected for construction of low-cost polyhouses and at all the four locations performance with respect to nursery raising and off-season vegetable production was significantly very good. Vegetables like kale, tomato, cucumber, bottlegourd, pumpkin, brinjal etc. were successfully raised under protected conditions at Gurez. Since Gurez remains under snow cover till late May-June and therefore nursery raising and transplanting of vegetable seedlings is done in late summer which delays the cropping season. Therefore utilization of low cost polyhouses for nursery raising

under protected cultivation will save time and increase the duration of vegetable availability in the region.

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New grape products

Pune, 8 December 2015. Dr S. Ayyappan [Secretary (DARE) and Director General (ICAR)] interacted with the scientists and discussed about new grape products, developed at the National Research Centre on Grapes, such as anthocyanin powder from variety Medilka, cookies made from grape pomace and dehydrated wine lees powder as food additive. Dr Ayyappan visited newly constructed extension of National Referral



Laboratory, new Biotechnology laboratory, experimental vineyard and recently commissioned guest-house.

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Celebrations

61st Foundation Day of Regional Centre, IISWC

Udhagamandalam, 20 October 2015. The Indian Institute of Soil and Water Conservation (IISWC), Regional Centre, celebrated 61 Foundation Day at Rees Corner, Ooty, Tamil Nadu. Shri C. Bathrasamy (District Forest Officer, The Nilgiris) chaired the function and focused on soil and water conservation, watershed management and forest hydrology research for southern region and pointed out that the soil and water management is crucial and the impact of conservation structures/ measures will reflect in other regions also. Shri Bathrasamy stressed upon the importance of evergreen and deciduous forest on reducing the climate change impact on national and global level.

Dr O.P.S. Khola (Head, IISWC Regional Centre) said that the soil and water conservation technologies and watershed concept developed by the Institute is adopted all over India. Dr Khola also highlighted the policy recommendation on banning of eucalyptus tree plantation in Nilgiris as the research output of the hydrological studies conducted over the period of 16 years which was implemented by the Government of Tamil Nadu. Dr Khola also emphasized that the Nilgiris being an ecologically sensitive region has to be conserved as this region is supporting for water and electricity needs of adjoining districts of Tamil Nadu, Kerala and Karnataka.

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Vigilance Awareness Week 2015

Jabalpur, 31 October 2015. The vigilance awareness week was celebrated from 26 to 31 October 2015, with administering of the pledge to all the staff by Director at the Directorate of Weed Science Research. During the week long programme, various events like display



of slogan/poster at different places, essay writing and debate competitions were organized by vigilance wing of the Directorate in which staff from all categories of Directorate of Weed Science Research participated.

Shri M.V. Surti (Superintendent of Police, CBI, Jabalpur) delivered an invited lecture on 'Preventive vigilance as a tool of good governance'. The importance of prevention of corruption act was made clear through presentation. Purpose, measures, sources etc. of preventive vigilance were also described while describing the characteristics of good governance and use of e-governance.

Dr A.R. Sharma (Director, DWR) urged about punctuality and speedy movement of files at all stages following prescribed rules/regulation and procedures.

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Yak Mela 2015

Zemithang, 15 November 2015. Shri Jambey Tashi, (MLA, Lumla and Parliamentary Secretary (RWD), Government of Arunachal Pradesh) inaugurated 'Yak Mela 2015' held at Lumpo and General Ground Zemithang of Twang district. It was organized by the National Research Centre on Yak, Dirang in



collaboration with 190 Mountain Brigade, Indian Army and Government of Arunachal Pradesh. Shri Tashi said that inbreeding depression is the major concern for yak husbandry and appealed the scientists to find out the ways to reduce inbreeding. He focused on yak husbandry as a profitable venture. Dr Abhijit Mitra (Director, NRC Mithun) was also present to encourage yak rearing community to adopt scientific practices to make yak husbandry sustainable. Dr Mitra emphasized that yak and mithun are the integral part of livestock production system of Arunachal Pradesh and need to be promoted. Exhibition stall of Lumpo village was awarded the best exhibition stall.

Dr S. M. Deb (Director, NRC Yak) highlighted the objective of the Yak Mela to promote scientific yak husbandry practices in Tawang District. Dr Deb assured to provide six genetically superior bulls from Nyukmadung Yak Farm of NRC on Yak in Pangchen area of Tawang district to reduce inbreeding depression, which is causing lower body weight and productivity.

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IRCTC's Kisan Yatra at IVRI

Izatnagar, 16 October 2015. The Indian Veterinary Research Institute received a batch of 500 farmers sponsored by the IRCTC (Ministry of Railways, Government of India) under the newly launched scheme *Kisan Yatra*. This was jointly organized by Indian Railway Catering and Tourism Corporation Ltd (IRCTC), Indian Veterinary Research Institute and Indian Farmers Fertilizers Cooperative Ltd. (IFFCO). The farmers were oriented on organic farming, vermiculture and commercial livestock farming through lectures and demonstrations. They were shown various



facilities available at IVRI like Agricultural Technology Information Centre, Krishi Vigyan Kendra, cattle and buffalo farm, piggery and vermi-composting units etc. The farmers were also enlightened on value addition in animal products by making a variety of milk and meat products. The farmers were also explained about the theme, 'Social Protection and Agriculture: breaking the circle of poverty' of World Food Day. The IRCTC and IFFCO for partnering with this novel scheme which could help the institute in sharing information on various technologies developed by the institute with the farming community.

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Jai Kisan Jai Vigyan under Mera Gaon Mera Gaurav

To commemorate the birth anniversaries of two former Prime Ministers of India, Shri Atal Behari Bajpayee ji and late Shri Chaudhury Charan Singh ji in view of their enormous and valuable contributions towards promoting the application of science and technology for the development of agriculture so as to bring a sustainable livelihood among the farming community of the country the ICAR institutes celebrated this week as *Jai Kisan Jai Vigyan* (between 23 and 29 December 2015) by organizing various technology demonstration-cum- training programmes and distribution of improved agricultural inputs among farmers along with farmers- scientists interactions etc.

at CRIDA

Hyderabad, 26 December, 2015. A four-day programme *Jai Kisan Jai Vigyan* under *Mera Gaon Mera Gaurav* was celebrated at Gunegal Research Farm, CRIDA. There was farmer-scientist interaction on design and construction of farm ponds for efficient utilization of rainwater for different cropping systems, importance of feed and health management of livestock, housing/shelter for animals, need and prospects of farm mechanization in rainfed agriculture, advantages of green manuring and the necessary machinery available for incorporation and use of solar energy for lifting the water from farm ponds. Importance of Soil-Health Management including appropriate method for collecting soil samples for analysis and hands-on training session in Telugu for assessing soil health qualitatively was given. This was followed by visit to on-station trials/demonstrations. Demonstrations on dryland implements such as seeders, weeders and harvesters, a quiz programmes on awareness and knowledge on crop production practices, livestock production, management, government schemes implemented, farm machinery and implements, wherein the farmers from Chowdarpally, Yacharam and



Gunegal villages of Yacharam mandal and Rangapuram village of Manchal mandal, of Ranga Reddy district actively participated.

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at CIFA

Kakdwip, 29 December 2015. To sensitize the fish seed grower, farmers and other stakeholders on the importance of quality seed to increase the production and to improve hatchery practices to avoid inbreeding Farmer-Scientist Interaction Meet on 'Importance of quality fish seed in Aquaculture' was organized by Central Institute of Freshwater Aquaculture in collaboration with National Fisheries Development Board, during *Jai Kisan Jai Vigyan* week between 23 and 29 December 2015. Dr P. Jayasankar (Director, CIFA) felicitated 15 progressive farmers on 29 December 2015. Availability of quality fish seed including that of Jayanti rohu in 24 Paragana district,



prevention of inbreeding in hatcheries, technology package for low saline aquaculture of freshwater fish species, availability of quality fish feed and disease and health management during grow out were some of the issues raised by the farmers. The Institute also showcased its technologies and noticeable publications. During scientist farmer interaction, scientists of the institute and KVK addressed queries from farmers in local language.

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at ICAR Research Complex for NEH Region

Umiam, 29 December 2015. Dr S.V. Ngachan (Director, ICAR Research Complex for NEH Region) emphasized upon the importance of scientific approach in agriculture and the potentialities of horticultural crops like ginger, turmeric, drumstick, vegetables and Muga Silk in the region. Dr Ngachan stressed upon the conservation of valuable Indigenous germplasms, resource conservation technologies, enhancing oilseed and pulses production in NEH region and technology led improved farming to bring second green revolution in this region. A Farmers'- Scientists Interaction was organised at ICAR Research Complex for NEH Region, Umiam. During the week, a technology demonstration-cum- training programme was organized at Smit Village in East Khasi Hills district, and Margnar area of Nongpoh in Ri Bhoi district of Meghalaya.



Dr N.S. Azad Thakur (Director) highlighted the Importance of '*Jai Kisan Jai Vigyan Week*' and urged the farmers for application of science led technologies in agriculture to bring Second Green Revolution in North-Eastern Hills Region of the country. Dr Thakur stressed upon the need for the adoption of improved technologies like Integrated farming System (IFS), Integrated Pest management (IPM), Integrated Nutrient Management (INM), Integrated Water Management (IWM), Organic farming system, Climate smart technologies, mechanization in agriculture and post harvesting technologies etc. for a better tomorrow. A Farmers- Scientists interaction was held discussing various agriculture related problems like availability of quality inputs, disease and pest management, marketing issues etc. faced by the farmers for which instant solutions were provided by the expert scientists on a common platform. This was followed by distribution of seeds of different vegetables namely Radish, Coriander, Spinach, Garden pea etc., among the farmers along with their technology know-how.

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at IVRI

Izatnagar, 29 December 2015. Dr A.K. Garg (Joint Director, Extension Education) chaired the *Gosthi* organized in village Rehpura Jagir for the farmers. The Indian Veterinary Research Institute celebrated '*Jai Kisan Jai Vigyan Week*' between 23 and 29 December 2015 by organizing various programmes for the farmers and students of schools and colleges. The students were taken around the various divisions of the institute such as Agriculture Technology Information Centre, IVRI Polyclinic, National Biotechnology center, Central Instrumentation facility etc. and explained about the various advancements in the veterinary science and the benefit of the veterinary research to the farming community. They were also given a small orientation lecture on the 'Scope of veterinary education in India'. The Division of Bacteriology and Mycology also organized a 'Scientists-Students Interaction-cum-Talk on Johne's disease' on 29 December 2015 under '*Jai Kisan Jai Vigyan* programme. A talk-cum-lecture was delivered on 'Johne's disease: a bird's eye view'. The importance and significance of zoonotic diseases and strategies for prevention and control were discussed.

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at KVK in West Garo Hills

Tura, 23 December, 2015. The Tura In Dingok-Chenggalma village under North Garo Hills of Meghalaya was adopted by Mr P.A. Sangma, an MP of Tura, under *Sansad Adarsh Gram Yojana*. Sri A. S. Singh (SMS, Horticulture, KVK, ICAR, West Garo Hills) briefed the farmers about the concept of 'Jai Kisan Jai Vigyan', organized by Kishi Vigyan Kendra, ICAR, Tura In Dingok- Chenggalma village under North Garo Hills of Meghalaya, and promised the farmers that new technological interventions will be taken up in the adopted village for their benefit. Sri Singh also focused on technologies and interventions available with the KVK and how it will help them to attain sustainable livelihood. A farmer-scientist interaction was also organized during the occasion and seeds of watermelon and dolicos bean were distributed among the participants.



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at Bhubaneswar

Bhubaneswar, 29 December 2015. Dr S. K. Srivastava (Director, CIWA) briefed the importance of celebrating 'Jai Kisan Jai Vigyan Week' and gave elaborative deliberation on role of Central Institute of Women in Agriculture (CIWA) in gender mainstreaming and women empowerment. The scientists emphasized on linkage between farmers and scientists for effective transfer of technologies and briefed about the activities organised during celebration. The scientist-farmer interface, debate competition for farm-women and quiz competition for children were organized. In the outreach programmes, the importance of having closer linkage between farmers and scientists for effective transfer of technologies were highlighted. As the part of celebration, three outreach programmes were organized in three villages namely Kadua, Charnapada and Bandhahata of Puri and Cuttack district of Odisha.



Dr P. C. Mohanty (Vice-president, Bharat Krishak Samaj, New Delhi and President, Orissa Krishak Samaj, Bhubaneswar) Chief Guest, stressed upon the role of farmers to make India self reliant in food production

and emphasized that the innovations in science and technology should reach to the farmers for increasing productivity and income. The programme was attended by more than 80 farmwomen and other stakeholders of different villages from the Puri and Cuttack districts of Odisha.

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at National Rice Research Institute

Cuttack, 29 December 2015. Dr A.K. Nayak (Director, NRI) inaugurated a *Krishak Goshti*, organized by National Rice Research Institute, at the *Sansad Adarsh Gram "Urali"*, Cuttack on 23 December 2015 and said that policy on minimum support prices, input management and creation of buffer stock are the result of scientific and policy researches. The scientists and KVK



personnel visited three villages on 28 December 2015 and organized awareness meeting on 'Jai Kisan Jai Vigyan' week and three farmers were chosen for their opinion leadership using sociometry method. The celebration was also organized at the Institute on 29 December 2015 and farmers and farm women of these villages participated in the programme and the leaders so selected were felicitated.

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Sports Day

Izatnagar, 31 October 2015. Under the aegis of Indian Council of Agricultural Research (ICAR), four days Zonal Tournament (Eastern Zone) began on 28 October 2015 at Indian Veterinary Research Institute for developing sports quality. Sixteen teams of different ICAR institutes participated and around 30 games were organized for the staff (men and women).

Major General VPS Bhakuni (VSM, Garud Division) inaugurated the Zonal Tournament and expressed happiness over his participation and emphasized the importance of games and sports to maintain physical as well as mental health. He stressed that all the staff should take part in this tournament with great sportsmanship. Shri Bhakuni urged the participating team not to compromise with strength, honesty and integrity in life.

Dr V.K. Gupta (Joint Director (CADRAD) and Officiating Director) highlighted the glorious track record of the Institute. He appreciated the discipline and commitment of the scientists and staff.

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CIFT wins Best Poster Award in 5th International Symposium on Cage Aquaculture in Asia



Kochi, 28 November 2015. Smt P. Jeyanthi (Scientist, Central Institute of Fisheries Technology) has been awarded 'Best Poster Award' in the 5th International Symposium on Cage Aquaculture in Asia (CAA5), held from 25 to 28 November 2015, at Kochi. The paper was on 'Comparative assessment of conventional and cage culture fish farming in Emakulam district, Kerala, India' authored by P. Jeyanthi, V. Chandrasekar and Nikita Gopal.

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Personnel

Trainings

- Umiam 5 October 2015. Under Prime Minister *Krishji Sinchayee Yojana* (PMHSY) a 5-days capacity building programme on 'Preparation of District Irrigation Plan for All India Service Officers ((IAS & IFS) of North-East India' was organized at ICAR Research Complex for NEH Region.
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- Dehra Dun, 8 October 2015. The Indian Institute of Soil and Water Conservation, started 113rd batch of 4-month regular training programme 'Certificate Course on Soil and Water Conservation, and Watershed Management'.
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- Dehra Dun, 12 October 2015. To address the issues related to natural resource degradation in the forest areas of the country, 10-day training programme on 'Preparation of Micro-Watershed Management Plan' was held at Indian Institute of Soil and Water Conservation.
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- Dehra Dun, 30 October 2015. The Indian Institute of Soil and Water Conservation (IISWC), organized a five-day short training programme on 'Advanced Engineering Measures for Drainage Line Treatment' from 26 to 30 October 2015.
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- Bhopal, 27 October 2015. A Model Training Course on Improved Agricultural Machinery for Farm Mechanization and Entrepreneurship through Custom Hiring for Self-Employment Opportunities, sponsored by Department of Agriculture and

Cooperation, Ministry of Agriculture & Farmers Welfare, Govt. of India, was organized from 27 October to 3 November 2015.

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- Chennai, 5 December 2015. A six days training programme on 'Aquatic Animal Health Management in Brackishwater Aquaculture' was organized at Central Institute of Brackishwater Aquaculture, Chennai from 30 November to 5 December 2015.
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- Mumbai, 18 December 2015. Dr S.D. Singh (ADG, Fy.) inaugurated a eleven-day CAFT training programme on 'Nutrigenomic Approaches in fish Nutritional Research' on 8 December 2015 at Central Institute of Fisheries Education.
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