

ATARI Kolkata NEWS



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From the Director's Desk

"Agriculture was the first occupation of man, and as it embraces the whole earth, it is the foundation of all other industries"- E. W. Stewart


Indian agriculture is major employment generator for the rural mass. However, the overarching concerns, some of which are natural while others are manmade, include small and fragmented land holdings, climate change, nutritional and livelihood security, poverty alleviation, profitability, gender equity, ecology and environment, and competitiveness in terms of cost and quality. These will continue to be major challenges before the agricultural research and extension in coming years. Priority issues including availability of water and its quality, soil health, genetic resource conservation, insulating farm production against increasing biotic and abiotic stresses, managing climate change, diversification, post-harvest management, enhancing input-use efficiency, energy management, increasing preparedness to match rapidly evolving trade regime, reducing knowledge lag, and congenial policy environment may be suitably attended by all the concerned stakeholders.



In making suitable addressal efforts in some of these prioritised issues, Agricultural Technology Application Research Institute Kolkata and Krishi Vigyan Kendras under its jurisdiction were actively involved in many farmers' friendly programmes e.g. *Krishi Kalyan Abhiyan-I, Doubling Farmers' Income, ASCI Skill Training, Input Dealers Training, Farm Innovator's Meet, Digital Agricultural Extension Services, Mahila Kisan Divas* and so on during this stipulated period which uplifted livelihood income of farmers through adopting sustainable / up-scalable agricultural technologies.

A substantial number of farmers are benefitted from trainings, demonstrations, soil and water sample testing, mobile agro-advisory services etc. organized by the KVKs as routine activities. In addition, from ten Aspirational Districts of Odisha state under *Krishi Kalyan Abhiyan-Phase I* programme, farmers got training, received soil health cards, mini kit seeds of pulses/oilseeds, horticultural / agroforestry plants, farm implements, NADEP pits along with insemination and vaccination of their livestock. Efforts were also made by the ATARI Kolkata scientists to refresh the knowledge of KVK personnel through conducting orientation training programme. One farm innovators meet was organized to inspire the farmers for their innovations in agriculture. Moreover, throughout the period ATARI Kolkata scientists and staff members were engaged in coordinating, monitoring and reporting of various central government sponsored schemes / programmes / projects conducted at the KVKs of this Zone.

I hope that you will be enjoying reading this issue of ICAR-ATARI Kolkata Newsletter which chronicles our activities in the last six months. The efforts of scientists and staff of this institute for bringing out this publication are also highly appreciated. There is always scope for betterment and I look forward to have your feedback and suggestions for improving our efforts.


(S. S. Singh)

Technologies applied successfully

Ridge and Furrow Cultivation: A new hope for farmers

Sri Radhakanta Mali is an enthusiastic and progressive farmer of Bongheri village of South 24 Parganas. He had 0.83 ha of low land which was only fit for cultivation of long duration traditional paddy varieties like Morishal, in Kharif. In absence of fresh water, he could not cultivate during winter or summer. He could hardly meet the annual requirement of food grains for his family through farming. After the “Aila” (cyclone), he was even ripped of this hope, as the entire land turned unfit for cultivation due to salinity. He turned into a regular labourer, moving in and out of the village in search of work. His family was unsecured at home. After the launch of NICRA project, Sri Mali was one of the leading farmers



who wanted to adapt to the various climatic vulnerabilities, witnessed by the village. He wanted to explore the village resources, so that he did not feel to go out of the village. He converted 0.13 ha of his lowland into broad ridges and furrows under NICRA project. The small piece of land was developed as a series of furrows (4 ft wide x 3 ft deep) alternating with ridges (4 ft wide x 3 ft deep) and started growing vegetables like tomato, bottle gourd etc. on the ridges. That modification helped him to save the vegetables from prolonged submergence in monsoon season. The stored water in the furrow could be used as lifesaving irrigation during dry spell. Simultaneously, he used stagnant water in the furrows to grow prawns and carps. The moisture retained in the land during winter season helped him to take a second crop like beans and bitter gourd. In rest of the 0.7 ha land, he continued to grow paddy. He excavated a small pond of 0.06 ha by his own cost and started fishery. He used vermicompost, bio-fertilizers, bio-pesticides, straw mulching and many other eco-friendly

technologies in his farm. He harvested 18 q bitter gourd of Rs. 27000/- and 15 q okra of Rs. 18000/- in kharif and 34 q tomato of Rs. 34000/- in rabi season. He got 2 q fish of Rs. 30000/- from the pond and the furrows during monsoon. His gross earning was Rs. 1.09 lakh. He got Rs. 71000/- as net profit with BC ratio of 2.87. Sri Radhakanta Mali is now a happy farmer as his land is well protected against prolonged water stagnation resulting from intensive precipitation in short time span as well as against dry spell in monsoon season. The increased soil moisture retention capacity of the land is allowing him to take a second crop in winter. He also knows that his village “Bongheri” is also protected against future climatic vulnerabilities.



Vanaraja: A suitable poultry strain for backyard farming

Backyard poultry rearing by the rural farm men and women plays a pivotal role in rural economy. But, the growth and productivity of indigenous birds, most commonly reared in the rural condition, were very poor. To mitigate that drawback, several improved birds were developed by various institutes. ‘Vanaraja’– a dual purpose strain was one of them which was developed by PDP, Hyderabad. The variety grows faster and lays more numbers of eggs than the indigenous birds with the same inputs and labour. Under FLD programme, North 24 Parganas KVK introduced that bird under the backyard rearing system in some villages. Beneficiaries were satisfied with



the performance of that new strain. At the beginning, 500 chicks were distributed among 50 women of different villages. At that point, KVK decided to take one step to act as a mother unit to brood the day old chicks up-to 21-30 days under the supervision of the KVK experts. It was sold to the willing farmers with a minimum profit. Verifying the performance of Vanaraja birds under rural condition and observing the interest among the farmers, ARD, State Agricultural Department started taking up different programmes on Vanaraja under ATMA in the district. They purchased 21–30 days old chicks from the KVK as it was the only source of germplasm in the district. A number of individual farmers with their own interest started rearing those birds according to their capacity varied from 50 to 500 birds. Most of them were keeping birds for around 2 months and used to sell when they were attaining body weight of around 2.0 kg. As the birds like green leaves or grasses, the feed cost for rearing these birds is comparatively lesser. At the beginning, the market price of these birds was lesser but after having the flavor of the meat of this variety, the price was increased. Now, some of the farmers have become small entrepreneurs in the district. The important thing is that majority of these farmers are rural women. The KVK is trying to increase the infrastructure so that it can supply more and more number of chicks to fulfil the demand.



Climate resilient gram variety proved to be a boon

Odisha, lying just south of the tropic of cancer, comes under tropical climate. It is warm almost throughout the year with maximum temperature hovering between 40-60°C and in winter, it is intolerably cool. Moisture content of the soil was only 7%. It was revealed that majority of the farmers was facing the problem of low

productivity in gram due to several factors viz. unavailability of heat tolerant varieties, imbalanced use to nutrients, moisture stress in growth stage and incidence of pests and diseases. After farmers participatory planning, it was decided to demonstrate high yielding short duration varieties (Prasad) and having heat tolerant capacity (TRAM-1, to avoid YMV incidence during



high temperature) along with balance doses of nutrients. Keeping this in view, intervention was planned with Prasad and TRAM-1 with foliar application of NPK (19:19:19) @ 10 g/lt at 20 and 35 DAS. The average productivity was recorded to be 510 kg/ha (Prasad) and 480 kg/ha (TRAM-1). The return per rupee spent was found to be 1.84 under Prasad and TRAM-1 varieties 1.75 under existing farmers' varieties and management. With the passage of time, large number of farmers of Odisha state



have started growing gram in their fields resulting a spectacular change in gram production scenario in the state.

Vermicompost: An additional source of income

Sk. Abdul Hanif, of Village-Konnamani, P.O.-Sarenga, District- Howrah, West Bengal, used to cultivate paddy in 0.5 acre land, and banana and vegetables in 0.36 acre land. In addition, he used to cultivate his upland (10 katha) for the consumption of his family i.e. his wife and seven children. But, it was very difficult to meet out all family needs from his small earnings. Earlier, he used to work in a jute mill which remained closed for two months in a year due to lock out. As his agriculture productivity was also decreasing and cost of cultivation was increasing, he went to meet ADO of his block for advices who told him to construct vermicompost unit in his land. But, due to financial problem, he could not start. After that, he participated in many capacity building programmes on vermicomposting and learned about benefits, uses,



composition and preparation of processes. He planned to compost organic wastes i.e. cow dung, green leaves, skin of vegetables, trunks of banana trees, water hyacinths etc. available with him. With the financial help of Ambuja Cement Foundation, Mr. Hanif started vermicomposting at one corner of his upland field using good quality tarpaulin in the pit. The pit was 10 ft long and 3.5 ft width. At a time one ton of vermicompost materials could be produced from his pit. At initial stage, he purchased 2000 number vermin worms at the cost of Rs. 500/- and also constructed a shade over the pit to protect compost from rain and sun. He produced 5 tons of compost and earned a net



profit of Rs. 16000/- from that produce. In next year, from 9 tonnes the earning was Rs. 25000/-. Ultimately, his production reached at the level of 15 tonnes/annum and it has become a very good source of income of Mr. Hanif. Now-a-days, the vermicompost production has become very popular in the district as farmers are routinely used in field of paddy, banana and vegetable cultivations.

Important activities of KVKs (Jan. to June, 2018)

Sl. No.	Activities	Achievements
1.	Number of on- farm trials conducted	1010
2.	Frontline demonstrations conducted (Number)	18736
3.	Farmers trained (in lakh)	0.75421
4.	Extension personnel trained (in lakh)	0.07371
5.	Participants in extension activities (in lakh)	3.07725
6.	Production of seed (in quintals)	14578.76
7.	Planting material produced (in lakh)	13.99945
8.	Livestock strains and finger lings produced (in lakh)	9.86870
9.	Soil, water, plant, manures samples tested (in lakh)	0.19177
10.	Mobile agro-advisory provided to farmers (in lakh)	20.55

News from KVKs

Visit of Parliamentary Standing Committee for Agriculture

The Parliamentary Standing Committee for Agriculture visited Darjeeling KVK on 18th April, 2018. Dr. C. Chattopadhyay, Hon'ble Vice-Chancellor of UBKV; Dr. S. S.

Singh, Director of ICAR-ATARI Kolkata; Dr. R. Singh, ADG (Extn.), ICAR, New Delhi; Prof. P. K. Pal, DEE, UBKV; Dr. M. W. Moktan, Senior Scientist and Head of Darjeeling KVK, UBKV, Kalimpong; Dr. S. Gurung, In-charge of Regional Research

Station (HZ), UBKV, Kalimpong; Dr. B. Roy, Senior Scientist and Head, Cooch Behar KVK, UBKV, Cooch Behar and all technical staff of Darjeeling KVK attended the visit. The meeting was held under the Chairmanship of Sri H. N. Yadav, Hon'ble

MP and Chairman of the Parliamentary Standing Committee in presence of the representatives from other line departments of the state. The KVK activities undertaken by Darjeeling KVK were presented in front of the Committee. The discussion was based on the strategies to meet up the problems like low production and productivity of agriculture and its allied sectors in hill. The different strategies included certified



seed and seedling production; soil health and nutrient management; technologies for conservation and management of natural resources; utilization of rice fallow area; integrated farming system (IFS) approach; crop diversification; new and innovative technologies for crop husbandry practices; reduction of cost of production; application of climate resilient technologies to address challenges due to climate change; increase in farmers' income; strengthen capacity of the farmers through skill training, etc. Different initiatives taken for doubling the farmers' income in the district was also presented nicely before the Parliamentary Standing Committee.



Visit of Central Ministers

Shri M.J. Akbar, Hon'ble Minister of State for External Affairs, GoI visits ICAR-KVK, South Andaman, Sippighat and



ICAR-CIARI, Port Blair for reviewing the working of KVK South Andaman and N&M Andaman under CIARI on 20th June, 2018. During the meeting held at ICAR-CIARI, Port Blair, the Minister highlighted various welfare schemes/ yojana of the Central Government with the aim of doubling farmer's income by 2022 for uplifting farmers, who are the backbone of the country's economy. The Minister also highlighted about various self-employment schemes and opportunities available for



women and urged them to come forward and embrace these schemes. He urged the scientists to reach rural farmers to apprise them about various agricultural related schemes which are being implemented by the Government for the welfare of the people. Dr. Nagesh Ram, Head & Senior Scientist of KVK, South Andaman, and Dr. B.L Kashinath, Head & Senior Scientist of KVK, N&M Andaman highlighted the mission, vision, mandates and achievements of KVKs of their respective jurisdictions. Farmers from various parts of the Islands also raised issues related to availability of land, land mutation, irrigation, marketing support, cold storage, transportation challenges, proper implementation of insurance schemes for farmers, proper implementation of agricultural schemes for farmers, availability of bio fertilizers and pesticides etc.



Dr. A. Kundu, Director, ICAR-CIARI, Port Blair welcomed the gathering and pointed out mission, vision, objectives, activities, milestone achievements and the way forward of the Institute. Earlier, the Minister planted a sapling at Zero Point near library.

The Minister also visited the 'Dweep Krishi Darpan' at the administrative building. He also visited Instructional Farm on IFS at KVK Port Blair, Sippighat and planted a sapling in the campus.

Conducted Krishi Kalyan Abhiyan Phase I (KKA-I) programme

The Ministry of Ag. & FW, GOI launched the Krishi Kalyan Abhiyaan Phase I (KKA-I) programme w.e.f. 01.06.2018 to 15.08.2018 to aid, assist and advice farmers on how to improve their farming techniques and raise their incomes. It was implemented in 25 villages with more than 1000 population per village of each Aspiration District in this country. An action plan was framed



in consultation with all line departments of those districts. Ten districts in Odisha state were covered under Aspirational District for carrying out different activities under KKA-I. The salient achievements of the programme in this Zone have been presented as under-

- ◇ Total 24896 soil health cards were distributed among 24394 farmers.



- ◇ Total 55338 mini kits of oilseeds & pulses were demonstrated at 54381 farmers' field.

- ◇ More than 23566 horticultural/



agroforestry plants have been provided to 115130 farmers in 150 villages.

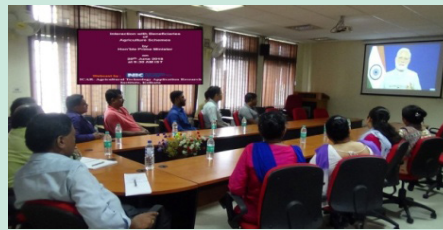
- ◇ Total 3951 NADEP pits by involving 150 villages have been established.
- ◇ More than 797 training programmes were organized and 42232 farmers took active part.
- ◇ Total 1193 farm implements have been provided to 1221 farmers in 120 villages.



- ◇ Total 165982 animals have been vaccinated which benefitted 55112 farmers from 247 villages
- ◇ Total 4154 animals inseminated which benefitted 3976 farmers from 239 villages

Hon'ble Prime Minister of India interacted with farmers of West Bengal and Odisha

On 20.06.2018 at 09.30 AM, the Hon'ble Prime Minister of India interacted with some of the successful farmers of Odisha and West Bengal through video conferencing with the objective



of doubling of farmers' income using the courage, cooperation and hard work of farmers, government policy support, financial provisioning



and assured remunerative market for agricultural produces. He stressed on the adoption of new improved agricultural technologies by the farmers in order to double/ increase their farm income and listened to them on their activities related to fishery and land shaping technologies and the role of KVKs in making them capable of undertaking such activities. He invited the farmers to go for sea weed cultivation and ornamental fish rearing for the coastal regions while interacting with the farmers of South 24 Parganas, WB. During interaction with the farmers of Angul, Odisha on integrated farming system and formation of FPO, the Hon'ble Prime Minister enquired about the change in financial condition of farmers before and after adoption of the new technologies. The programme was also viewed by all staff members of ICAR-ATARI Kolkata.



Events

Kisan Kalyan Divas under Gram Swaraj Abhiyan organized

Gram Swaraj Abhiyaan was a campaign which was organised on the occasion of Ambedkar Jayanti during the period 14th April to 5th May 2018. The campaign was



undertaken under the name of "Sabka Sath, Sabka Gaon, Sabka Vikas" with the objective to promote social harmony, spread awareness about pro-poor initiatives of government, and reach out to poor households to enrol

them for getting their feedback. As part of this nation-wide celebration, KVKs organized Kisan Kalyan Divas on 2nd May, 2018 through conducting such campaign in agriculture and allied sectors having the direct impact on rural livelihood.



State/ UT	No. of KVKs	Name of blocks/ places where programme held	Total no. of farmer participants	Total no. of VIP(s) and other officials
A & N Islands	3	8	782	19
Odisha	27	122	26266	370
Total	30	130	27048	389

DAESI programme organized

Krishi Vigyan Kendra Jalpaiguri and Malda,



WB conducted training programme (one batch each) on 'Diploma in Agricultural Extension Service for Input-Dealers



(DAESI)' to educate Agri-Input Dealers in their concerned districts on agriculture, to facilitate them to serve farmers better and



to act as para-extension professionals. In each batch, 40 candidates were participated. The programme was implemented by MANAGE, Hyderabad through SAMETI, West Bengal.

“International Yoga Day” celebrated

The ‘International Yoga Day’ was celebrated at ICAR-ATARI Kolkata on 21st June, 2018. All staff members including Director assembled at seminar hall of the institute



to attend the programme. One resource person namely Sh. Kishnanlal Bajaj, a Yoga Expert, was invited for today’s programme. The expert demonstrated different *Yogasanas* and *Prayanams*, and briefed the positive effects and benefits on health. All the staff took active part in performing the various *Asanas* with zeal and zest. Dr. S. S. Singh, Director addressed the participants about the importance, expediency and advantage of practicing *Yoga* regularly.



“Farm Innovator’s Meet” organized

A Farm Innovators Meet was organized at this Institute on 24th March, 2018. Around 28 innovative farmers from Odisha and West Bengal participated in the meet with their innovations. The programme was inaugurated by Dr. S. S. Singh, Director ICAR-ATARI, Kolkata. The Meet was also attended by Dr. K. K. Satapathy, Former Director, NIRJAFT and Dr. D. C. Nayak, Head NBSS&LUP Regional Station, Kolkata. Dr. P. P. Pal, Principal Scientist, ICAR-ATARI, Kolkata elaborated the basic purpose of the meet, types of innovations



brought by the farmers and importance of such innovations in reducing the cost of cultivation in agriculture. Dr. D. C. Nayak pointed out the importance of interaction between farmer-scientist on agricultural development process. Dr. K. K. Satapathy stated that work in partnership was the need of the hour for better dissemination of technologies in the farmers’ field. Dr. S. S. Singh, Director, ICAR-ATARI Kolkata, while inaugurating the Meet, appreciated the farmers’ zeal towards flocking in good number. He observed that organizing such

meet is of immense importance in knowing the farmers innovative activities towards a better and drudgery free agricultural practices and elaborated the importance of innovations towards doubling farmers’



income. Marketing strategy to channelize the innovations for wider use by the farming community is necessary, he added. Participating innovators were awarded with certificate in recognition to their hard efforts in displaying various innovations in the form of farm tools, implements, organic and bio-pesticides, innovative shed net, off-season vegetable cultivation and various process demonstrations. The innovative farmers



demonstrated their innovations in the stall and interacted with visitors, scientists, KVK personnel and fellow farmers. Local media namely Dainik Jagaran and Bartaman newspaper covered the occasion.

Meeting/ workshop/ training programme organized/ conducted

Review Workshop of NICRA-TDC of ICAR-ATARI Kolkata & Patna organized

The review workshop of National Innovations in Climate Resilient Agriculture (Technology Demonstration Component) of ICAR-ATARI Kolkata and ICAR-ATARI



Patna was held at Ramkrishna Ashram Nimpith KVK during 13th-15th January, 2018. Dr. A. K. Singh, DDG(AE), ICAR,

New Delhi was the Chief Guest of the programme. The workshop was attended by Swami Sadanand Maharaj, Secretary, Ramkrishna Ashram Nimpith; Dr. S. S. Singh, Director, ICAR-ATARI Kolkata; Dr. A. Kumar, Director, ICAR-ATARI Patna; Dr. J. V. N. S. Prasad, Coordinator, NICRA-TDC, CRIDA, Hyderabad; Dr. P. Pal, DEE, UBKV; Dr. P. K. Roul, DEE, OUAT; Dr. B. Sahi, Dr. RPCAU, Pusa; Dr. F. H. Rahman, Pr. Scientist-cum-NICRA Nodal Officer, ICAR-ATARI Kolkata; Dr. A. Haldar, Pr. Scientist, ICAR-ATARI Kolkata and all the Sr. Scientists and Heads of NICRA KVKs of Zone IV and V. Few publications like - CD on ‘Climate resilient agriculture and endeavour of KVK Nimpith’ and Bulletins-ATARI Kolkata News, Krishi Purbi Kiran, Kheti Bari, Flood Tolerant Rice Varieties, Insect Pest of Vegetable Crop etc. were released during

the workshop. Dr. F. H. Rahman presented the highlights of the salient achievements carried out by the 22 NICRA KVKs of the zone IV and Zone V. Dr. A. K. Singh, while addressing the inaugural speech, mentioned that the KVKs should give emphasize on documentation on the various climate resilient activities and transfer to the block and district administration for further dissemination. Dr. S. S. Singh mentioned that the intervention under NICRA should read vulnerability with existing cropping practices and preventing that vulnerability through NICRA intervention was to be a priority. Dr. A. Kumar urged to all NICRA-KVKs to prepare case studies/success stories based on the most successful and scalable technologies and those should be replicated in nearby areas. Dr. Prasad emphasized on interventions at farmers’ field based on the

variability of environmental conditions. All Heads of KVKs presented salient achievements of out scaled technologies during the last six years and also placed the next plan of work.



Annual Zonal Workshop of KVKs of ATARI Kolkata and Patna organized

The annual zonal workshop of KVKs of Zone IV and V was jointly organized by ICAR-ATARI Kolkata, ICAR-ATARI Patna and OUAT, Bhubaneswar during 26-27th May, 2018 at OUAT, Bhubaneswar. About 122 KVKs of A & N Islands (3),



Bihar (39), Jharkhand (24), Odisha (33) and West Bengal (23) participated and presented their progress report (2017-18) and action plan (2018-19). Dr. T. Mohapatra, Secretary, DARE, GoI and DG, ICAR and Chief Guest of the programme said that “our farmers are facing the problem of plenty”. Higher agricultural production in many cases had created market inequity and distressed to the farmers. In future days, post-harvest and value addition should be focussed.



The KVKs had to develop themselves as a ‘one stop shop’ at district level to cater every need of the farmers. While presiding over the function, Prof. S. Pasupalak, VC, OUAT emphasized on a system approach by inclusion of other vocations with crops for doubling farmers’ income (DFI). Besides, profitability, sustainability and nutritional security especially for women and children in tribal dominated areas are important. Dr. S. Garg, Principal Secretary, Dept. of Agriculture & F.E., Govt. of Odisha appreciated the efforts made by the agricultural universities for transfer of agricultural know-how to the farmers’ field. He stressed upon the support of KVK scientist in strengthening farm information



advisory centres (FIAC) operating at block levels for making the technology transfer system more meaningful.

Dr. S. S. Singh, Director, ICAR-ATARI Kolkata and Dr. Anjani Kumar, Director, ICAR-ATARI Patna presented the achievements of their respective zones for the year 2017-18. At the outset, Five publications relating to DFI published by OUAT and enhancing resilience in agriculture for climate change, enhancing pulse and oilseed production etc. published by ICAR-ATARIs were released during the occasion. The Vice-Chancellors of Bihar Agriculture University and West Bengal University of Animal & Fishery

Sciences; and Deans, Extension Education from all agricultural universities of Bihar, Jharkhand and West Bengal also attended the Workshop of KVKs. Among others, scientists of ATARI Kolkata, other nearby ICAR institutes, faculty members, registrar and comptroller of OUAT were also present in the inaugural session of the workshop. During the workshop, one special session was organized on 26th May, 2018 in which Dr. A. K. Singh, DDG (AE), ICAR, New Delhi delivered the key note address. He said that KVK are acting as knowledge and resource centre for agricultural technology, and they should showcase the frontier technologies for the farmers. Knowledge Systems and Homestead Agriculture Management in Tribal Areas (KSHAMTA) to achieve balanced growth and economic development, Nutri-sensitive Agricultural Research and Innovations (NARI), Value Addition and Technology Incubation Centers in Agriculture (VATICA) were the new programs to be implemented by KVKs, he added. Dr. R. Singh, ADG (AE), ICAR emphasized on soil health management through soil test based nutrient management. The story of successful farmers should be transmitted to other farmers so that they will be inspired. Earlier, the rapporteurs of various sessions presented the outcome of respective technical sessions.

Four days Refresher Course for KVK SMSs of ICAR-ATARI Kolkata organized

Four days Orientation Training-cum-Refresher course for 247 KVK personnel under ICAR-ATARI Kolkata (Zone-V) were organized by ATARI Kolkata from 30.01.2018 to 06.02.2018 at West Bengal University of Animal and Fishery Science, Belgachhia, Kolkata, West Bengal. The details of the training have been given in the following table.



<i>Date of training</i>	<i>Subject of training</i>	<i>No. of participants</i>
30.01.2018	Agriculture Engineering, Soil Science and Agronomy	64
01.02.2018	Plant protection and Horticulture	79
03.02.2018	Animal Science	30
03.02.2018	Fishery Science	18
06.02.2018	Home Science and Agriculture Extension	56

Zonal Review Workshop of Farmer FIRST project under ICAR-ATARI, Kolkata and Patna

The fourth zonal programme management committee (ZPMC) meeting of Farmer FIRST Programme (FFP) for eight institutes from Bihar, Jharkhand and Odisha state under ICAR-ATARI Kolkata and Patna was held in the conference hall of ICAR-ATARI Kolkata today under the Chairmanship of Dr. V. P. Chahal, ADG (AE), ICAR, New Delhi to review the progress during the year 2017-18 and to finalize the action plan for



the next two years considering the doubling farmers' income against the benchmark of 2016-17. Dr. S.K. Roy, In-Charge, Director, ICAR-ATARI Kolkata; expert members of ZPMC- Dr. R. K. Malik and Dr. A. N. Tiwari, and progressive farmer member (Sh. D. Mondal) from Nadia, WB were present. The meeting was also attended by Scientists of ICAR-ATARI Kolkata and Patna, PIs / Co-PIs of concerned Institutes of Zone IV and Zone V and other staff members of ATARI Kolkata. Dr. S. K. Roy highlighted the importance of the workshop. Dr. K. S. Das, Member Secretary of FFP, ICAR-ATARI Kolkata briefed the status of FFP for two zones. In the Chairman's remark, Dr. V. P. Chahal expressed that the national thrust on DFI should also be reflected in the achievements as well as future action plan of this programme. The progress of all eight projects was critically reviewed in addition to fine tuning of the future action plan (2018-2020) during the workshop. A specially developed brochure on FFP by ICAR-CIFA, Bhubaneswar was released during the occasion.



Annual Zonal Workshop of NICRA-TDC organized

The annual zonal workshop of NICRA-TDC of KVKs of Zone IV and V was jointly organized by ICAR-ATARI Kolkata and Patna during 27th - 28th June, 2018 at WBUAFS, Kolkata. In this program, all 22 KVKs from A & N Islands (1), Bihar



(07), Jharkhand (06), Odisha (05) and West Bengal (03) participated and presented their progress report and action plan. While addressing the inaugural speech, Dr. J. S. Samra, Former DDG (NRM), ICAR and former CEO, National Rainfed Area Authority, Government of India, New Delhi and Chief Guest of the programme, emphasized upon 'waste to wealth' to produce bio-CNG from crop residues which is cheaper than the fossil fuels etc. He had made one presentation on 'Management of paddy straw for Bio-CNG manure, employment and Swachh Bharat'. Dr. S. S. Singh, Director, ICAR-ATARI Kolkata mentioned that the intervention should read vulnerability with existing cropping practices and scalable technologies must be replicated in nearby areas. Dr. A. Kumar, Director, ICAR-ATARI Patna asked to prepare case studies/success stories based on successful and scalable technologies carried out. Dr. Md. Osman, Coordinator, NICRA-TDC, CRIDA, Hyderabad stressed upon up-scaling of low cost promising technologies to neighbouring villages and documentation of success stories. Few publications e.g. 'Effect of heat stress on livestock and their remedies', 'Crop cultivation during flood through land management' and 'Mung ki Kheti' etc. were released during the workshop. Dr. F. H. Rahman, Pr. Scientist-cum-NICRA Nodal Officer, ICAR-ATARI Kolkata highlighted the salient achievements of NICRA KVKs. In Head of KVKs also presented the salient achievements of the project and action plan of 2018-19. The DEEs of SAUs of Zone IV and V, State Govt. representatives and scientists from other ICAR Institute also attended the workshop.

Meeting of Institute Management Committee conducted

The eleventh Institute Management Committee (IMC) Meeting was held on 26.02.2018 at ICAR-ATARI Kolkata.



Meeting of selection committee for selecting "Young Scientist for CFLD Pulse and Oilseed programme" conducted

The meeting of "Best Scientist Award" for CFLD on pulses and oilseeds was held on 19.05.2018 at ICAR- ATARI Kolkata. Eight applications were received from different KVKs for this category from CFLD on pulses. Finally, Dr. Krishnendu Roy, SMS Agromogy of SSKVK, Narendrapur was selected for "Best Scientist Award" for CFLD on pulses. On the other hand, seven applications were received from different KVKs from CFLD on oilseeds. Mr. Abu Taleb, SMS Soil Science of KVK Murshidabad was selected for "Best Scientist Award" for CFLD on oilseeds.

Digital Farming Initiative in Agriculture

During the month of January, 2018, Indian Council of Agricultural Research (ICAR), New Delhi in collaboration with Tata Consultancy Services (TCS) has undertaken a new initiatives to develop a digital agricultural extension services using Krishi Vigyan Kendra (KVK) network across the Nation. In this project, ICAR will provide the technical input and advisory through KVK network and TCS will provide its digital platform *mKRISHI* offering two way interactive digital extension services. It will provide one stop digital platform to bring farmers, KVK experts and researchers/experts from SAUs, and/ or other ICAR Institutes together. At least 10 farmers from every village under each KVK have been targeted to be connected with ICAR by 15.08.2018 using *mKRISHI* platform. The details of each farmer are being collected in a prescribed format of Agriculture Extension Division (AE), ICAR, New Delhi in different phases. Under phase I, data of more than 86,000 farmers were collected and submitted to the Council. Under phase II, more than

two lakh data were collected and submitted to the Council. The process of data collection is still being continued to cover the target within the stipulated period of time. Dr. K. S. Das, Pr. Scientist has been involved in this programme as Nodal Officer of ATARI Kolkata.

ASCI ToT programme at Raipur

In order to impart Skill Development Training in Agriculture and Allied Sectors, a Training of Trainers (ToT) programme of



three days duration was conducted at Indira Gandhi Krishi Viswavidyalaya, Raipur jointly by ICAR-ATARI and ASCI during 6-8th January, 2018. Out of 4 KVKs of West Bengal and Odisha, two KVK persons, one each from Odisha (Jajpur) and West Bengal (Purulia) attended the programme and were

subsequently certified by the National body for undertaking the training at KVK.



Workshop-cum-training of CSISA organized (05.06.2018-07.06.2018)

A workshop-cum-training programme on 'Landscape diagnostic and crop cutting under various technologies Cereal Systems Initiative for South Asia (CSISA)' for KVKs of Andhra Pradesh, Chhattisgarh, Odisha and West Bengal was conducted at ICAR-ATARI Kolkata from 5-7th June, 2018.



The main objective was to aggregate the perception of farmers towards different

technologies and prioritize them as a part of feedback mechanism for the research institutes. The meeting was chaired by Dr. S. S. Singh, Director, ATARI, Kolkata. In welcome address, Dr. S. K. Roy, PI, ICAR-



CSISA project, ATARI Kolkata briefed the outline of workshop. The meeting was also attended by Dr. R. K. Malik; Scientists of ATARI Kolkata; Sh. A. Samaddar, MLE Lead, CSISA; Sh. A. Ajay, M&E Specialist, CSISA-CIMMYT India; Sh. A. Rai, RA, CSISA-CIMMYT; Mr. V.M. Dakshinamurthy, CSISA-CIMMYT India; Heads / SMSs of KVKs of above mentioned states and many others. Undertaking landscape diagnostic survey, digital data collection, sampling methodology, questionnaire development and feedback/suggestions from participants were the main issues of discussion in the workshop.

Meetings/workshops/symposia etc. attended by scientists/ staff

Sl. No.	Name of the programme(s)	No. of scientist(s)/staff attended
1	Annual Function of Joygopalpur Gram Vikash Kendra, Sundarban as Chief Guest at Basanti, S 24-Pgs, WB	1
2	Annual Review NICRA Workshop at Nimpith KVK	1
3	Meeting for collaboration with ICAR and TCS for Digital Agricultural Extension Services and the Expert Group Meeting to discuss draft report on 'Performance Indicators of KVKs' at New Delhi	1
4	First International Extension Congress at ICAR- CIWA, Bhubaneswar	1
5	Directors' Conference at NASC, N. Delhi	1
6	Farmer-Scientist Interaction Meet on Resource Conservation Technology in Rice-wheat system organized by IISR KVK Lucknow in different villages of Lucknow	1
7	CGIAR Institutes and Agril. Extension Division Interface meeting for one day workshop of NICRA Project	1
8	Various meetings/ conferences/ seminars etc. as Chairman/ Co-chairman/ special guest etc.	7
9	National Symposium on "Role of Veterinarian in improving food safety through One World-One Health-One Medicine approach in India" at WBUAFS, Belgachhia	3
10	Annual Zonal Review Workshop for Zone V and IV at OUAT, Bhubaneswar	7
11	Review Workshop of CFLD on Pulses and Oilseeds for the KVKs of West Bengal state at ICAR-ATARI Kolkata	7
12	Review Workshop of CFLD on Pulses and Oilseeds for the KVKs of Odisha state at Narendrapur	2
13	Annual Review Workshop of Farmer FIRST Programme as Nodal Officer	2
14	DPC Meeting of AAO post of ICAR-ATARI Kolkata	6
15	FET programme of Scientist Probationers at Gopalpur village, Distt.-Coochbehar	1
16	Field visit of Uttar and Dakshin Gopalpur village, Coochbehar to monitor the progress of CFLD programme	1

Sl. No.	Name of the programme(s)	No. of scientist(s)/staff attended
17	Field visit of Kamarhat village, Jalpaiguri to monitor the progress of CFLD programme	1
18	Visit for Parliamentary Standing Committee visit to Darjeeling KVK at Kalimpong and Darjeeling	3
19	Meeting with staff of KVK Jalpaiguri and farmers relating to CFLD on pulses and oilseeds and other related programmes at KVK Jalpaiguri	1
20	Biannual National Conference of KVKs-cum-Krishi Unnati Mela 2018 at ICAR-IARI, New Delhi	7
21	Meeting with Staff of Darjeeling KVK to monitor preparedness of KVK on Parliamentary Standing Committee visit	3
22	Meeting on ICAR-ERP at ATARI Kolkata	14
23	Review meeting of CFLD on Oilseeds and Pulses at CPRS Campus, Patna	1
24	Viva-voce/ synopsis submission meeting of post graduate students	7
25	Scientific Advisory Committee Meeting at KVKs	7
26	Farm Innovator's Meet 2018 of innovative farmers of Odisha and West Bengal at ICAR-ATARI, Kolkata	7
27	Zonal Programme Management Committee (ZPMC) meeting of Farmer FIRST Programme at ICAR-ATARI, Kolkata	7
28	Regional Committee – II Meeting at ICAR-CIFA, Bhubaneswar	1
29	Meeting on Action Plan of OFTs for 2018- 19 for KVKs of Jharkhan under Zone IV at BAU, Ranchi	1
30	Interaction of Hon'ble PM with the farmers of Nimpith KVK, West Bengal at NIC, Alipore, Kolkata and Angul KVK at NALCO Auditorium, Angul, Odisha	4
31	DAESI programme, krishi mela, technology week etc. at KVKs	7
32	Various administrative and financial assignments of ATARI Patna	6

Distinguished visitors

- ▶ Dr. P. Das, Former Deputy Director General (AE), ICAR, New Delhi
- ▶ Dr. J. S. Samra, Former DDG (NRM), ICAR, New Delhi
- ▶ Dr. V. P. Chahal, ADG (AE), ICAR, New Delhi
- ▶ Dr. K.K. Satapathy, Former Director, ICAR-NIRJAFT, Kolkata
- ▶ Dr. A. N. Tiwari, Former Dean (Ag.), CSAU&T, Kanpur
- ▶ Dr. R. K. Malik, Former DEE, CCSHAU, Hisar
- ▶ Dr. A. V. Reddy, Director, ICAR-IIOR, Hyderabad
- ▶ Dr. Anjani Kumar, Director, ICAR-ATARI Patna
- ▶ Dr. K. K. Singh, Head, AAS Division, IMD, New Delhi
- ▶ Dr. G. Debnath, IMD, Kolkata
- ▶ Dr. S. Bandyopadhyay, RMC, Kolkata
- ▶ Dr. A. Upadhyay, Head, ICAR Research Complex, Patna



Publications

Research articles

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- Biswas S, Das G, Rahman F H, Sarkar S, Sarkar S, Saha S, Das S, Saha A and Roy B. 2018. Impact of NICRA project through analysis of different success point, *International Journal of Agriculture Sciences* ISSN: 0975-3710 & E-ISSN: 0975-9107, Volume 10, Issue 8, pp-5863-5866.
- Haldar A, De S, Singh V, Datta M, Pal P, Prakash B S. 2018. Age-specific peripheral anti-müllerian hormone concentrations in goats (*Capra hircus*). *Indian Journal Animal Research*, DOI: 10.18805/ijar.B-3569.
- Kumar S, Kumar R, Mishra J S, Dwivedi S K, Ved Prakash, Rao K K, Singh A K, Bhatt B P, Singh S S, Haris A, Kumar V, Srivastava A K, Singh S and Yadav A. 2018. Productivity and profitability of rice (*Oryza sativa*) genotypes as influenced by crop management practices under middle Indo-Gangetic Plains, *Indian Journal of Agronomy*, 63 (1): 45-49.
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- Nandan R, Singh S S, Kumar V, Singh V, Hazra K K, Nath C P, Malik R K, Poonia S P, Solanki C H. 2018. Crop establishment with conservation tillage and crop residue retention in rice-based cropping systems of Eastern India: yield advantage and economic benefit. *Paddy and Water Environment*. 1-16. doi.org/10.1007/10333-018-0641-3 (online version)
- Nandan R, Singh V, Singh S S, Kumar V, Hazra K K, Nath C P, Poonia S P and Malik R K. 2018. Comparative assessment of the relative proportion of weed morphology, diversity, and growth under new generation tillage and crop establishment techniques in rice-based cropping systems. *Crop Protection*, 111: 23–32.
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- Technical article**
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- Abstracts presented in national/ international seminars etc.**
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Nath S and Rahman F H. 2018. Addressing climate vulnerability through natural... in selected villages of eastern India. Abstract of National Seminar on Agro-chemicals for Benign Environment held at BCKV, Kalyani on March 29, 2018, pp: 11.

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Taleb A, Rahman F H, Roy U, Pathak P and Roy A. 2018. Efficient nutrient management of wheat through nutrient

expert based fertilizer recommendation in alluvial soil of Murshidabad district of West Bengal. Abstract of National Seminar on Agro-chemicals for Benign Environment held at BCKV, Kalyani on March 29, 2018, pp: 65.

Invited lecture

Haldar A. 2018. Technological Options to Address Few Reproductive Problems in Livestock. In: Orientation Training -cum- Refresher Course for Subject Matter Specialists of KVKs under Zone V, ICAR-ATARI, Kolkata at WBUAFS, Kolkata on 3rd February, 2018.

Personalia

Joining/relieving/ promotion

Mr. Nirnoy Dutta has joined this office as Young Professional-II on 16.05.2018.

Retirement

Dr. A. K. Singh, Former Director, ICAR-ATARI Kolkata and present Vice-Chancellor, BAU, Sabour has retired from this office on 31.01.2018.

Mr. S. Ghosh, AAO has retired from this office on 31.01.2018.

Promotion

Mr. A. D. Banik, UDC has been promoted to Assistant on 10.04.2018.

A PDF version of the Newsletter is also available at: <http://www.atarikolkata.org/publications>



ICAR-ATARI Kolkata News

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