

ANNUAL ZONAL WORKSHOP OF KVKs

(30th May-1st June, 2019)

Venue: ICAR-ATARI, Zone-VII, Umiam

Proceedings of Annual Zonal Workshop of KVKs, 2018-19, Zone-VII

Over 70 participants including Sr. Scientist & Heads/ In-charge of KVKs in the zone covering 5 states of Manipur, Meghalaya, Nagaland, Mizoram and Tripura, representatives of host institutes, Directors of Extension Education, CAU, Imphal, Director of ICAR-RC for NEH Region, Umiam, Subject experts from ICAR RC for NEH Region, Umiam as well as staff of ICAR-ATARI, Zone-VII besides invited guests participated in the programme. The programme of the workshop included critical review of the mandated activities and other achievements of KVKs during 2018-19 through ppt. presentation and submission of their Annual Progress Report (in prescribed format) etc. The workshop began with a brief inaugural programme where Director, ICAR-ATARI, Zone-VII appealed all concerned for taking up innovative and profitable technologies in agriculture and allied enterprises on participatory mode with farmers. The valedictory session of the workshop was held along side of the Inauguration Ceremony of new building of ICAR-ATARI, Umiam on 1st June, 2019 where Dr. Trilochan Mohapatra, Secretary, DARE & DG, ICAR was the Chief Guest. Dr. A.K. Singh, DDG (AE), ICAR, Dr. K.M. Bujarbaruah, Vice-Chancellor, AAU, Jorhat and Dr. M. Premjit Singh, Vice-Chancellor, CAU, Imphal besides other distinguished guests attended the programme.

The technical sessions were conducted in two groups. Detailed presentations on achievements for the year 2018-19 were made by individual Sr. Scientists & Heads of KVKs before a panel of experts including Chairman and Co-Chairman and other subject matter experts from ICAR to critically review the performance and achievements of the KVKs during the period. Dr H C Bhattacharryya, Former Director of Extension Education, AAU Jorhat, Dr. R.K. Saha, Director of Extension Education, CAU, Imphal, Dr. N. Prakash, Director, ICAR RC for NEH Region, Umiam, Dr. Bidyut C. Deka, Director, ICAR-ATARI, Zone-VII, Dr. A.K. Singha, Principal Scientist, ATARI, Zone-VII acted as Chairman and Co-Chairman in different technical sessions of the workshop.

Followings are the Points/ Specific recommendations to be taken up by KVKs as per approved guidelines-

Sl. No	Specific recommendation
1.	<ul style="list-style-type: none"> • The targeted number of Soil Health Card should be minimum of 1000 nos. • Quarter should be occupied as early as possible. • Under Groundnut + Maize cropping system, highlight only on cropping sequence mode not on varieties. • Under OFT on Raised and Sunken bed, it was suggested to focus on Cropping sequence throughout the year. • Suggested to mention about varieties/cultivar name in Local Check/Farmers practice in all the technologies. <p style="text-align: right;">(Action: KVK Chandel)</p>
2.	<ul style="list-style-type: none"> • Under FLD on Fisheries Division, recent investment should also be included for calculating the cost of cultivation as BC ratio was very high, it should be rechecked and rectified. <p style="text-align: right;">(Action: KVK East Garo Hills)</p>
3.	<ul style="list-style-type: none"> • OFT under Soil Science, pH value need to be rechecked. • Intervention on OFT / FLD under floriculture was suggested. <p style="text-align: right;">(Action: KVK Kolasib)</p>
4.	<ul style="list-style-type: none"> • Under FLD on Horticulture, local varieties should be mentioned. • Under FLD on Oyster Mushroom Production, suggested to ensure mushroom spawn production unit in KVK campus for sustainability. • Under FLD on Production of Srinidhi poultry bird, suggested to compare with backyard and captive feeding. Number of eggs under local check/farmer practice should also be checked. • Under FLD (Bamboo shoot) on Home Science, suggested to highlight the advantages of technology. • For VATIKA project, suggested for online submission to Ministry of Food Processing Industries. <p style="text-align: right;">(Action: KVK Longleng)</p>

5.	<ul style="list-style-type: none"> • Particular varieties for particular season should only be recommended • Under OFT, it was suggested to conduct not more than 3 varieties. • Under OFT on Watermelon, suggested to continue under FLD programme. • Under OFT on Fisheries, suggested to reduce the stocking density to 7000-8000 nos. and continue again in next year. • Under FLD on Fish and Prawn, suggested to follow the CAU released technology. • Under FLD on Lathyrus in Agronomy Division, suggested to go for relay cropping. • Under FLD on Mustard, suggested to record the data parameter for paddy and honey as cropping sequence mode. • Under FLD on IFS model (Duck cum Fish culture) in Fisheries Division, suggested to recheck the name of the breed. • Under Fisheries division, it was suggested to take up the latest technology which are suitable in the district. <p style="text-align: right;">(Action: KVK North Tripura)</p>
6.	<ul style="list-style-type: none"> • Under OFT on Broomgrass + Ricebean, suggested to transfer and continue in FLD program. • OFT on King chilli under PP, the house suggested to specified the local check. • Under OFT on Soybean, details of farmer practice should also be mentioned. Treatment under farmer practice cannot be given as T -3. It was suggested to change as T-0. • Under FLD on Ginger var. Nadia, recommended to discontinue the technology as the variety is already popularized in NE region. • Under FLD on Rejuvenation package of Mandarin, suggested to verify the details of technology. Unit given need to be checked and corrected. Later, it was suggested not to recommend the micronutrients like Fe, Mn, Cu and Secondary nutrient like S for NE region. • Based on priority basis, particular crops should be conducted under FLD program. • Under Other Activities, Production /unit should be mentioned. <p style="text-align: right;">(Action: KVK Tamenglong)</p>
7.	<ul style="list-style-type: none"> • Under FLD on Mushroom, need to be rechecked the yield/bag. • Photograph for all the activities must be clear and visible. • Impact study of technologies is to be carried out by Agril. Extension. <p style="text-align: right;">(Action: KVK Wokha)</p>
8.	<ul style="list-style-type: none"> • Suggested to increase the font size. <p style="text-align: right;">(Action: KVK South Garo Hills)</p>

9.	<ul style="list-style-type: none"> • OFT on rice varieties Bhalum-5 is to be cross-checked. • B, Zn & Mo application is essential for NE. Later, it was suggested not to recommend the micronutrients like Fe, Mn, Cu and Secondary nutrient like S for NE region. • Packaging of value added product must be good and attractive. • Suggested to mention the Source of technology in all the OFTs and FLDs. • Under OFT on value addition of Jaggery based products, suggested to recheck the details of technology. <p style="text-align: right;">(Action: KVK Aizwal)</p>
10.	<ul style="list-style-type: none"> • BC ratio of FLD on Mushroom is to be rechecked and verified <p style="text-align: right;">(Action: KVK West Tripura)</p>
11.	<ul style="list-style-type: none"> • Always select the farmers who are ready to listen, willing and accept our ideas and latest technology. • Under OFT on Home Science (Passion Fruit Nector), suggested to record the TSS % age. • BC ratio should be always more than 2:1 in Home Science technology. • Suggested to discontinue in OFT program and can be taken up in training programme. • Under Plant Protection Division, it was suggested to verify the details of technology with complete package of practices. <p style="text-align: right;">(Action: KVK Churachandpur)</p>
12.	<ul style="list-style-type: none"> • Moisture contain was required to study and record under OFT on preservation techniques of Fruits & vegetable under Home Sc. • FLD on dry flower is to be carried out and suggested to go directly to FLD program through a cluster model and training to SHG. • Blending /dry flower arrangement for bouquet need to be focused. • FLD on fodder conservation under Animal Sc., it is required to mention the name of the folder. • Under Agril Extension, suggested to conduct impact analysis of cabbage. • Scientific package of practices, source of technology need to mentioned. • Technology details should be specified under FLD on Chilli. • Unit should be calculated in terms of q/ha • In all the technology, title and details of technology should be specified. • Under FLD on PP, streptomycin need to be replaced as it is very old technology. • Deworming of Pig was suggested to conduct under training and awareness program also. <p style="text-align: right;">(Action: KVK Saiha)</p>
13.	<ul style="list-style-type: none"> • Suggested to develop the KVK campus farm as a model farm. • Under OFT on SRI, major problem and details of technology need to be properly redefined and described. • OFT under Agronomy on Performance on Intercropping, fertilizer dose of NM

	<p>was suggested to recommend for common crops.</p> <p style="text-align: right;">(Action: KVK Thoubal)</p>
14.	<ul style="list-style-type: none"> • OFT should be taken from third year under fruit crop Guava var. RCGH-1,4,7. • Canopy management should be done in Guava cultivation. • It was suggested to develop IFS model in farmers' field. • Paddy cum fish technology was suggested to discontinue as it is already popularized technology in the district. • In FLD on Turmeric var. Lakadong, spacing should be maintained. • In FLD under Horticulture on Pineapple var. Queen, it was suggested to change the title as action photograph and technology does not matched. • FLD under PP on white grub in Potato, the house suggested to discontinue the technology as it is already popularized in the district. <p style="text-align: right;">(Action: KVK Jaintia Hills)</p>
15.	<ul style="list-style-type: none"> • OFT under Soil Sc. on Nutrient management in Rice-Toria cropping system, details of nutrient management need to be highlighted and further suggested to record the result of Toria also. • OFT under Soil Sc. on NM in Rice-Pea cropping system, result of pea is missing and the committee suggested to give the results in details based on parameter for both Rice and Pea . • OFT under PP, suggested to specified the source and details of technology. • OFT under Home Sc. on Value addition in Papaya, details of technology should be specified. • FLD under Soil Sc on the title Furrow lime application in Maize was suggested to discontinue as the technology is very old. • FLD under Animal Sc. on Srinidhi bird was suggested to discontinue as the technology is already popularized in the district. • Under Home Sc. Division, the committee suggested to specify the details of technology in all the FLDs programmes. <p style="text-align: right;">(Action: KVK Dimapur)</p>
16.	<ul style="list-style-type: none"> • OFT should not be targeted on discipline wise. Further it was suggested to based on problem faced by the farmers in the specific areas. • Under Paddy var. CAU-R1, suggested to report the success story. • FLD on Maize Sheller, suggested for proper demonstration to the farmers, rural youth and further it was suggested to drop from FLD program. • Banner/flex should be visible in action photographs. • The committee suggested for uniform banner/flex in all the intervention. • The committee suggested to mention the farmers feedback in all the technologies. <p style="text-align: center;"><u>NICRA</u></p> <ul style="list-style-type: none"> • Technology should be relevant to NICRA project • In Hailstorm data, frequency & severity should be mentioned.

	<ul style="list-style-type: none"> • The data on dry spell, drought, flood etc should be mentioned in rainfall data. • Off Season vegetable should be relevant to NICRA mandatory. • Title should be changed from HYV to Climate Resilient varieties. • In Solar Pump technology, it was suggested to change the title relevant to climate oriented. <p style="text-align: right;">(Action: KVK Mokokchung)</p>
17.	<ul style="list-style-type: none"> • Under Plant Protection division, rather than fruit and shoot borer, there must be focus on bacterial wilt of vegetable crops. • Suggested for good, clear and standing crops with high resolution photograph. • Under CFLD oilseeds, suggested to change the problem as timely unavailability and shortage of funds. • Under OFT on Fishery based IFS, suggested to change to fish based IFS. • Under FLD on Fisheries on Pabda farming, the committee suggested to change the title as “Performance of Pabda in composite fish culture system”.. • I. foetida was suggested to change as <i>E. foetida</i>. <p style="text-align: center;">NICRA</p> <ul style="list-style-type: none"> • The committee suggested to highlight the result, remarks and recommendation after the intervention of the technology. • Under Salient Achievement, suggested to change as lack of scientific knowledge. <p style="text-align: right;">(Action: KVK Khowai)</p>
18.	<ul style="list-style-type: none"> • Under Horticulture, suggested to change the title with suitable one. • Under Soil Sc. on assessment of Organic nutrient management in Ginger, suggested to specify the details of technology • Under Animal Sc., suggested to change the parameter as Rs/mithun or Rs/unit. Increase in growth rate and milk should also be recorded. • Under Animal Sc., suggested to record the body wt., growth rate and nos. of egg production. In data on parameter- both column should be 100%. <p style="text-align: center;">NICRA</p> <ul style="list-style-type: none"> • GPS reading should be recorded and mentioned in PPT slide. • Important column should be highlighted. • Under Crop Production in Potato varieties, suggested to recommend only one best variety suitable in the district. • All the banner/flex should be uniform in all the technologies. <p style="text-align: right;">(Action: KVK Phek)</p>

19.	<ul style="list-style-type: none"> • Local unit should be avoided, suggested to change the bigha as ha. • OFT under Animal Sc. on Low cost feeding management in piggery, it was suggested to mention the monthly body wt. gain at 1st, 2nd, 3rd etc. • Under Home Sc. division, it was suggested to focus more on value addition technology. • Under Animal Sc. on Srinidhi, number of eggs should be recorded • The banner, flex and units in all the technology should be uniform. • The committee suggested to increase the font size. <p style="text-align: center;">NICRA</p> <ul style="list-style-type: none"> • In rainfall graph, it was suggested to analyse the temperature , RH for the last five year. • NICRA model of housing system should be conducted. • Variety TS-36 should be replaced by TS-67. • Impact analysis of SHC should be conducted. • All the unit should be uniform. • Feedback from the farmer. <p style="text-align: right;">(Action: KVK West Garo Hills)</p>
20.	<p>Under Agronomy on Cultivation of Field Pea with Straw mulching, it was suggested to record the soil moisture also.</p> <p style="text-align: right;">(Action: KVK Dhalai)</p>
21.	<p style="text-align: center;">NICRA</p> <ul style="list-style-type: none"> • Under Crop Production Module, initial and residual soil status should be mentioned. • Acid soil management should be taken up in the next programme. <p style="text-align: right;">(Action :KVK-Lunglei)</p>
22.	<p style="text-align: center;">NICRA</p> <ul style="list-style-type: none"> • Quantify the weight of paddy bundles. • Reporting /documentation should also be conducted on grass hopper. • Depth should be mentioned in vegetable cum fish based (IFS) by using polythene lined water harvesting tank. Cost of tank construction of Rs 2200 is very less, it needs to recheck. <p style="text-align: right;">(Action :KVK-Imphal East)</p>
23.	<ul style="list-style-type: none"> • OFT in plant protection and animal science should be atleast two numbers each • In OFT for Black scented rice, title need to be changed and variety of local check need to be mentioned • In OFT 2 for Agronomy, seed rate need to be rechecked • In OFT1 for Horticulture, DAS etc should be specified • In OFT 2 for Horticulture, “No Mulch” should be mentioned in farmers practiced. 1st flowering not required, additional information on fruiting initiation, soil moisture, weed count need to be mentioned • In OFT1 for fishery, weight of <i>L. bata</i> need to be included

	<ul style="list-style-type: none"> • In OFT for plant protection, “incidence” should be changed with “infestation” • In FLD1 for Agronomy, HUL57 should be replaced • In FLD2 for Agronomy, Rice equivalent yield should be mentioned • In FLD1 for Horticulture, Pusa rare ball should be stopped • In FLD1 for Fishery, for Pengba, it should be converted to method demonstration • New varieties of planting materials and seeds should be distributed <p style="text-align: right;">(Action :KVK- Bishnupur)</p>
24.	<ul style="list-style-type: none"> • OFT1 Horticulture, Farmers practices should be specified properly. Pusa Rareball need to be changed • In OFT for plant protection, button mushroom should be compared with oyster mushroom • In OFT for fisheries, Economics for IFS should be verified • In OFT for horticulture in Megha-3, protective house should be specified properly • In IFS for fishery, proportion of stocking density need to be maintained • Seed money for revolving fund should be asked through the parent department immediately <p style="text-align: right;">(Action :KVK- West Khasi Hills)</p>
25.	<ul style="list-style-type: none"> • Title of OFT should be rechecked • In OFT, the problem diagnosed should be rectified • In OFT for horticulture, round the year cultivation should be practiced • In OFT for animal science, pre-weaning mortality should be kept • OFT with Ahina Kochu in colacassia should be initiated • New variety of Tomato need to be taken in next OFT • In FLD of agronomy, REY should be mentioned • Kufri pukhraj should be used instead of kufri jyoti • Use new variety of Cabbage • In FLD of Animal Science, comparison should be made with local breeds • FLD on INM of cabbage, package of practised need to be verified <p style="text-align: right;">(Action :KVK- Mon)</p>
26.	<ul style="list-style-type: none"> • OFT of turkey should be converted to demonstration • FLD on garlic should be with new varieties also • Training to extension functionaries should be emphasized <p style="text-align: right;">(Action :KVK- Champhai)</p>
27.	<ul style="list-style-type: none"> • ATR need to be specified • In OFT for plant breeding in mustard use of PM-28, NRCHB-101 should be done keeping M-27 as control • In plant protection OFT, check should be rectified with Indofil M-45 <p style="text-align: right;">(Action :KVK- Senapati)</p>

28.	<ul style="list-style-type: none"> • In OFT for GPB, economics for rice should be mentioned • Low yield of rice should implied to some reasons • Training for extension functionaries need to be done • Linkage with CVSc, Peren should be made • Village for DFI may be changed as per convenience <p style="text-align: right;">(Action :KVK- Peren)</p>
29.	<ul style="list-style-type: none"> • In OFT for Agronomy, technological details should be corrected • REY should be depicted also • Beet root OFT should be dropped • New varieties of Okra should be trailed • Yellow sticky traps should be introduced <p style="text-align: right;">(Action :KVK- Kohima)</p>
30.	<ul style="list-style-type: none"> • More parameters should be incorporated with THI in OFT of animal science • Technology should be change in FLD1 <p style="text-align: right;">(Action :KVK- West Tripura)</p>
31.	<ul style="list-style-type: none"> • OFT of home science should be rechecked for shelf life period • Ergonomics data is less and more inputs should be made • OFT in soil science of dhaincha, 75 days is too long <p style="text-align: right;">(Action :KVK- Lunglei)</p>
32.	<ul style="list-style-type: none"> • In OFT2, pod yield should be incorporated • Kachai lemon should be more popularized and production should be increased • FLD of plant protection, fruit fly should be changed with trunk borer • Paper publication need to be specified <p style="text-align: right;">(Action :KVK- Ukhrul)</p>
33.	<ul style="list-style-type: none"> • Signboards should be made properly and permanent • Season of boro rice should be changed • Turkey should be demonstrated • New varieties of field pea should be introduced • OFT on home science should reflect empowerment of farm women <p style="text-align: right;">(Action :KVK- Zunheboto)</p>
34.	<ul style="list-style-type: none"> • Signboards need to be made • Potato OFT should be incorporated with Indofil M-45 treatments <p style="text-align: right;">(Action :KVK East Khasi Hills)</p>
35.	<ul style="list-style-type: none"> • Introduce legumes for rice based cropping system in OFT1 • New varieties of linseed should be introduced • Kamrupa birds should be compared with local breeds • In SWSC1 OFT, economics should be rechecked • Local varieties of pea should bnot be encouraged for seed production <p style="text-align: right;">(Action :KVK Imphal West)</p>

36.	<ul style="list-style-type: none"> • OFT of Agril. Engg. Technology should be changed • OFT for Hort2, vermicompost dose need to be changed • OFT for Hort3 fertilizer dose need to be rechecked • OFT for plant protection, false smut should not be repeated • In FLD, PU31 should not be repeated • Aman variety should be replaced • Height of low tunnel should be increased and number of farmers should be increased <p style="text-align: right;">(Action :KVK Imphal East)</p>
37.	<ol style="list-style-type: none"> 1. OFT on Potato- Title should be modified 2. OFT on Tomato three treatment should be there <ol style="list-style-type: none"> i. Organic ii. Resistant Var. iii. Streptomycin 3. Extension <ol style="list-style-type: none"> i. Repeat both the OFTs with the following recommendation ii. Problem should be specific and simple iii. For assessment they should study the horizontal spread on <ol style="list-style-type: none"> a. Educational level b. Level of perception c. Category of farmer iv. Identify the 10 available channel in district and select 4-5 important channels - analyse and recast it 4. Animal Science Mention details of farmers practice 5. H.Sc <ol style="list-style-type: none"> I. Value addition with proper branding to be done II. Regarding nutritional status age to be define, gap to be specify and continue for two years 6. Take new var. of Okra for popularization and address the problem of morer concern – paddy or maize <ul style="list-style-type: none"> • Demonstration on proper housing of pig should be incorporated <p style="text-align: right;">(Action :KVK Lawngtlai)</p>
38.	<ol style="list-style-type: none"> i. CO 31 should compare with Dishang in OFT <ul style="list-style-type: none"> • Swarna sub -1 compare with Ranjit Sub-1 and period of submergence to be reported <p style="text-align: right;">(Action :KVK Dhalai)</p>
39.	<ol style="list-style-type: none"> i. Papaya var. swapna to be tested ii. Local var. Cotton to compare with short duration cotton var iii. OFT on silver carp to be shifted to FLD iv. Weaning wt of piglet to be recorded <ol style="list-style-type: none"> ii. Turkey farming to go for FLD iii. Newsletter and ext. Bulletin to be published <p style="text-align: right;">(Action :KVK Mamit)</p>

40.	<ul style="list-style-type: none"> • Sale proceed to be deposit in revolving Fund to generate income at KVK and provide share to Host Institute at the end of financial year for all KVKs. <p style="text-align: right;">(Action :KVK RiBhoi)</p>
41.	<ul style="list-style-type: none"> i. To adjust time of sowing of Pusa Sugandh with other var. ii. Farmer practice to be specify for maize iii. Instead of rose , tube rose , summer marigold var. seracole can be taken iv. Regarding potato, Azobacter can be used as biofertilizer v. For Apiculture instead of Kiwi to go for oilseed vi. FLD on Soyabean 400kg/ha of lime to apply in farrow instead of 1000kg/ha <p style="text-align: right;">(Action :KVK Tuenshang)</p>
42.	<ul style="list-style-type: none"> i. Introduce good var. of sugarcane instead of using hormone and good management practice ii. Regarding OFT on lentil economics on Rice-Lentil should compare with lentil monocrop iii. All title should be simplified iv. Paddy cutter for FLD to be taken up v. Antioxidant property of maize silk tea to check vi. For soy milk packing and pasteurization to be done <p style="text-align: right;">(Action :KVK Serchhip)</p>

GENERAL RECOMMENDATIONS

- Under Horticulture Division, atleast one or two technology should be conducted in fruit crops, medicinal and aromatic plants.
- Care must be taken for maintaining uniformity in units such as quintal, tons, rupee, units, nos. etc
- Impact analysis of soil health Cards (SHCs) should be conducted.
- Seed storage bag may be purchased by all the KVKs in combined manner.
- Farmers' feedback should be mentioned in all the technologies.
- Banner /flex should be uniform, attractive and meaningful.