AGENDA NOTES

Agenda Item No. 01

Chairman's Opening Remarks about KVK

a) Establishment details

S. No	Particulars	Details
01	Name of the KVK	Tumkur-A
02	Postal address of the KVK	**KRISHI VIGYAN KENDRA**, HIREHALLI, NH-4, TUMKUR-572 104
03	Telephone number/Fax/email and Web site address of the KVK	**Phone**: 0816-2243175 **Fax** :0816-2243177 **Email:** iihrkvk@gmail.com **Website: www.iihr.ernet.in**
04	Name of the Host Organization	**INDIAN INSTITUTE OF HORTICULTURAL RESEARCH**
05	Postal address of the Host Organization	**INDIAN INSTITUTE OF HORTICULTURAL RESEARCH** Hessaraghatta Lake Post, Bangalore-560089
06	Telephone number/Fax/email and Web site address of Host Organization	**Phone :**080-28466420-423 **Fax : 080-28466291** **Email :director@iihr.ernet.in,iihrdirector@gmail.com** **Website:www.iihr.ernet.in**
07	Sanction Order Details	2009-10 (vide ref no. F.No.16(1)/2009-AE-I of Assistant Director General (AE), ICAR, New Delhi dt. 24.03.2009
08	Name of the Programme Coordinator	Dr. N.Loganandhan
09	Total land area with the KVK in ha.	**16.24 ha**

b) Mandate

The overall mandate of the KVK is to develop and disseminate location specific technological modules at district level through Technology Assessment, Refinement and Demonstration and to act as Knowledge and Resource Centre for agriculture and its allied activities. The specific activities to carry out this mandate are:

- Conducting on-farm testing to identify the location specificity of agricultural technologies under various farming systems

- Organizing frontline demonstrations to establish production potential of various crops and enterprises on the farmers' fields

- Organizing need based training of farmers to update their knowledge and skills in modern agricultural technologies related to technology assessment, refinement and demonstration, and training of extension personnel to orient them in the frontier areas of technology development.

- Creating awareness about improved technologies to larger masses through appropriate extension programmes

- Production and supply of good quality seeds and planting materials, livestock, poultry and fisheries breeds and products and various bio-products to the farming community.

- Work as resource and knowledge centre of agricultural technology for supporting initiatives of public, private and voluntary sector for improving the agricultural economy of the district.

c) Staff details

S. No	Sanctioned Post name	Name of the incumbent	Designation	Discipline	Qualification	Pay Scale	Date of joining	Permanent/ Temporary
01	Programme Co-ordinator	Dr. N.Loganandhan	PC	Agril. Extn	Ph.D. Agri.	37400-67000+9000	02.08.2013	Permanent
02	SMS	Sri K.N. Jagadish	SMS	Agril. Extn	M.Sc. Agri.	15600 - 39100+5400	17.11.2009	Permanent
03	SMS	Sri P.R.Ramesh	SMS	Soil Science	M.Sc. Agri.	15600 - 39100+5400	17.11.2009	Permanent
04	SMS	Sri Prasanth J.M	SMS	Horticulture	M.Sc. Horti.	15600 - 39100+5400	24.11.2009	Permanent
05	SMS	Sri B. HanumantheGowda	SMS	Plant Protection	M.Sc. Agri.	15600 - 39100+5400	02.12.2009	Permanent
06	SMS	SmtRadhaR.Banakar	SMS	Home Science	M.Sc. Home Science	15600 - 39100+5400	05.12.2009	Permanent
07	SMS	Dr. Somashekhar	SMS	Plant Breeding	Ph.D. Agri.	15600 - 39000+5400	07.12.2009	Permanent
08	Prog.Asst. Farm Manager	Sri Parashuram	Farm Manager	Horticulture	B.Sc.-Horti.	9300 - 34800+4200	25.7.2013	Permanent
09	Prog.Asst. (Computer)	Ms. JyotiAppuNaik	Prog.Asst. (Computer)	Information Science	B.E. (IS)	9300 - 34800+4200	30.09.2009	Permanent
10	Prog.Asst. (Lab Tech.)	Mr.Shashidhara K N	Prog.Asst. (Lab Tech.)	Crop Physiology	M.Sc. Agri.	9300 - 34800+4200	17.11.2012	Permanent
11	Assistant	Vacant	Assistant			9300 - 34800+4200		
12	Jr. Stenographer	SmtVedaKurnalli	Jr. Stenographer	Short Hand-120wpm	DCP	5200 - 20200+2400	17.02.2010	Permanent

13	Driver	Sri M.H.Ningappa	Driver	Tractor Driver	S.S.L.C.	5200 - 20200+ 2000	30.12. 2009	Permane nt
14	Driver	Sri Hemanth Kumar	Driver	Jeep Driver	P.U.C.	5200 - 20200+ 2000	04.01. 2010	Permane nt
15	Supporting staff	Sri G.Manjanna	Supporting Staff	Supporting Staff	S.S.L.C.	5200 - 20200+ 1800	01.11. 2011	Permane nt
16	Supporting staff	Vacant	Supporting Staff			5200 - 20200+ 1800		

Agenda Item No. 02

Constitution of SAC and self-introduction by SAC members and invitees

(Any change in the constitution to be specified by the Programme Coordinator in each SAC)

The following is the constitution of Scientific Advisory Committee Meeting

1) Vice Chancellor of SAU/Director of ICAR Institute/Chairman of the Host Organization of NGO - Chairman
2) Zonal Project Director Zone VIII Bangalore - Member
3) Director of Extension - do-
4) Director/Head of the nearest ICAR Institute - do-
5) Assistant Director of Research / Assistant Director of Extension of SAU - do-
6) Officials from Departments of Agriculture/Horticulture/ Agricultural Engineering/Animal Husbandry/Fisheries/ Sericulture/ Irrigation/Forestry/Soil Conservation/ Social Forestry/Agro-forestry/Small Scale Industries/DIC etc. Members
7) Project Director ATMA Member
8) Lead Bank Official - do-
9) Manager/AGM NABARD - do-
10) Official from AIR - do-
11) Official from Doordarshan - do-
12) Two representatives from farmers Members
13) Two representatives from farm women - do-
14) Programme Coordinator Member Secretary

Other invitees if any

(Accordingly the name and designation of the above listed committee members are given below)
The following is the constitution of Scientific Advisory Committee Meeting

1) Dr. A.S. Sidhu, Director of ICAR Institute - Chairman
2) Dr. PrabhukumarS.,Zonal Project Director, Zone VIII Bangalore - Member
3) Dr. N. Nagaraja,Director of Extension,UAS-B - Member
4) Dr. Abraham Verghese, Director, NBAII, Bangalore - Member
5) Dr. Nuthan,D., Assistant Director of Research, UAS-B - Member

6) Officials from State Department - Members
   a. Dr. Anoop, JDA, Department of Agriculture
   b. Dr. Savitha,DDH,Horticulture,Tumkur
   c. Dr. N.S.Parmeshwara, DD,Animal Husbandry,Tumkur
   d. Dr. Dayanand, SAD,Fisheries Dept, Tumkur
   e. SriPuttalingaiah, DD,Sericulture,Tumkur
   f. SriY.Dasappa,DWDO,Soil Conservation, Tumkur
   g. SriH. Gopal Singh DCF,Social Forestry and Agro-forestry, Tumkur
   h. SriD.Krishnamurthy,Small Scale Industries/DIC , Tumkur
   i. Smt. Sujata,Department of Women and Child Welfare , Tumkur
   j. SriC.S.Shivamurthy, Incharge , District Social Welfare Department, Tumkur
7) Sri Lakshmipathy, K., Project Director, ATMA, Tumkur - Member
8) Sri Jayaramaiah, Chief Manager, Lead Bank Official, Tumkur - Member
9) Sri J.S. Veerabhadran, DDM, NABARD,Tumkur - Member
10) Sri Jagadisha,Official from AIR, Tumkur - Member
11) Sri Suresh, DD Official from Doordarshan, Tumkur - Member
12) Two representatives from farmers - Members
   a. Sri Mahesh,N.M, D.Nagenahalli,KoratagereTaluk, Tumkur
   b. Sri Prabhakar, PanchvatiFarm,UdigereHobli, Tumkur
13) Two representatives from farm women - Members
   a. SmtMangalagowramma, Srirangabadavane,Tumkur
   b. SmtGowramma,Pemanahalli,Tumkur
14) Dr. Loganandhan,N., Programme Coordinator - Member Secretary

Other invitees:

   a. Sri KumarNagaraj, ICAR GB Member,Karnataka.
   b. Dr. A.B. Patil, Director of Extension, UHS, Bagalkote.
   c. Dr. Y.Basavaraju, Director ofExtension, KVAFSU,Bidar.
   d. Dr.A.Raizada, Head, CSWCRTI, RC, Bellary.
   e. Dr. L.G.K. Naidu,Head, NBSS&LUP, RC, Bangalore
   f. Dr. B.K. Ramachandrappa, Chief Scientist, AICRPDA, UAS, Bangalore
   g. Dr. D.M. Sujith, Programme Co-ordinator, KVK,Konehalli,Tiptur,Tumkur.
   h. Dr. P.C. Tripathi, Programme Co-ordinator, KVK,Gonikoppal, Coorg.
   i. SriVijaykumar T., KrisiPandit Awardee,Thovinakere,KoratagereTaluk
   j. Engg. N.V. Ramamurthy, AWARE,NGO,Tumkur.
   k. Sri Santosh Kumar, Project Director, SKRDP, NGO,Tumkur.
   l. Sri G.Raghu,Project Director, ORDER, NGO,Tumkur.

Agenda Item No. 03

Action Taken Report on the previous SAC meeting

Sl.No.	Recommendation	Proposed by	Action Taken (to be quantified)	Specific constraints in taking action / for not taking action
1.	Schemes like NHM, RKVY projects can be implemented effectively for farmers' progress.	Dr. A.S.Sidhu Director, IIHR,Bangalore	Projects sanctioned **NHM** 1. Leaf Tissue Analysis Lab – 20 Lakhs 2. Model Nursery -25 Lakhs 3. Plant Health Clinic -20 Lakhs 4. Seed Production – 4 Lakhs **RKVY** 1. Participatory Seed Production of Recently Released Cultivars – 40 Lakhs	Nil
2.	Emphasize should be given on cluster basis for implementation of the FLD in the farmers field.	Dr.V.S.Reddy , Principal Scientist, ZPD, Bangalore	During ensuing year FLD's &OFT'swere conducted in cluster villages in each taluk. 1. Aerobic Paddy Cultivation - 4 ha Duragadangenahalli, Hosapalya, BaichanahalliVaddrahalli, Bellibatahalli, Shetupalya 2.Drought tolerant Ragi (ML365) – 20 ha Hirehalli Cluster Sanagapura, Chikahalli, Kolihalli, Maskal	Nil
3.	Farmer expressed about the higher cost fixed by KVK for the products like *Pseudomonas*	Mr. Prabhakar, ProgressiveFarmer,Tumkur	New product of IIHR Arka Microbial Consortium is being produced at KVK and sold at affordable price of Rs 75/kg. It contains *Pseudomonas, Azotobacter, Bacillus* Microorganisms	Nil
4.	Soil testing is not being done and suggested the Mobile Testing	Mr. Puttalingaiah Deputy Director of Sericulture Department, Tumkur	New Soil Testing & Leaf Tissue Analysis Lab issetup at KVK and will be operational at the earliest	Nil

	Unit at least for testing major Nutrients especially whenever problematic soils prevail.		with the nominal charges. 200 soil samples were analyzed at IIHR under NICRA Project.	
5.	Drip irrigation is being given major emphasis.In spite of this, scientifically Drip Irrigation is not being utilized.For this he requested chalk out some programmes for scientific use of Drip Irrigation system.	Er. Rammurthy, AWARE, NGO, Tumkur	KVK farm is fully equipped with Drip irrigation &Fertigation system as 'Centralized irrigation system demonstration unit'.Six On campus and five Off campus training programmeswere conducted in collaboration with Department of Horticulture under Comprehensive Horticulture Development (CHD) programmes, Dept. of Agriculture, SKRDP and AWARE NGOs	Nil
6.	Importance of Small Scale Industries for getting employment and also income, especially during drought situation	Mrs. Renukadevi Progressive Farm woman, Arakere Tumkur	Two FLDs on processing and value addition ofAmla and Ragiwere taken up during 2013-14, with two SHGs. Eight Training programmes on mushroom cultivation for Rural Youth Farmer and Farm Women were organised	Nil
7.	Comprehensive Horticulture Development programme is being implemented through state Department of Horticulture.	Mr.N.Kumar GB Member ICAR, Tumkur	SMS (Horticulture) as member of CHDprogrammes in Tumkur and Siratalukshas involved in CHD programmeviz., High density planting in Banana and Mango	Nil
8.	Impact analysis should be carried out for training programmes& method demonstrations to be included during training programmes.	Mrs.RenuMukunad , Progressive Farm Women, DurgadahalliTumkur, Taluk	Mr. Mahesh N.M. Progressive farmer generated Rs. 2.3 Lakhs income from Amla processing as Juice with brand name DURGA with technology backstopping from KVK, Hirehalli Through training	Nil

	Neem Seeds are available and can be utilized for the Bio pesticide preparation encouraging& Mobilizing through community based organization.		progarmmes NSKE and other neem based products are being promoted in vegetable and Fruit crops	
9.	SRI method of Paddy cultivation in Tumkur needs to be promoted & group approach for various crop cultivation to tackle the labour problem	Mr.Veerabhadra ,DDM NABARD &Mr.Lavakumar, SKRDP, Tumkur	Under FLD, Aerobic Paddy cultivation (a method similar to SRI) has been implemented in 10 farmers fields in 4 ha. In collaboration withNGO-SKRDP, group approach has been implemented in Tumkurtaluk	Nil
10.	Suggested to give the generic name instead of the trade name of various Agriculture Chemicals. So that farmers also having choice to select his trade of interest.	Mr.N.Kumar**,** GB Member ICAR, Tumkur	Both generic as well as trade Names are being advised to farmers by the SMSs.	Farmers are unable to follow the generic name of chemicals
11.	Green peas - Magadi local is highly remunerative during festival & marriage season. It is susceptible to powdery mildew which needs to be addressed for new variety of peas with similar characteristics & resistant to powdery mildew.	Mrs.Gowaramma , Pemmanahalli, Progressive Farm Woman	ArkaAjith, variety tolerant to Powdery mildew was introduced inTumkur Area – 1 ha No of Farmers - 04	However the characters of local Magadiviz., taste and aroma could not be realized from the new variety
12.	Livestock components would have been included and also	Dr. R.S. Kulkarni , Director of Extension , UAS, Bangalore	IFS has been implemented at SangapuraGollarahatti, Maralukuntte,Tumkurtaluk and Baichenahalli of	Nil

	stressed.Integrated programme has to be implemented rather than Horticulture. Model Farmer has to be developed for dissemination of technologies. In KVKs Farmers have to be made aware of all the Govt. sponsored schemes. In OFT's and FLD's suggested to take the technologies of the other Agriculture related institutes rather than IIHR. Programmes on Value Addition are to be included in the next academic		Koratageretalukin which livestock components have been included. Mr.Mahesh, N.M, D. Nagenahalli,Mr. Ramamurthy, Nagarjunahalli, Mr. Vijayakumar, Thovinakere, Mr. Prabhakar, Bellibettadahalli were identified as Model farmers Visitors were informed about the different schemes available at line departments with the help of bulletin published by ZPD Bangalore. Apart from IIHR technologies many technologies like new varieties & improved practices of different agricultural crops are being demonstrated(Ragi ML-365, Regdram-BRG-1&2, Aerobic Paddy MAS-26, Green gram-KKM-3, Soyabean JS-335, Maize-NAH-1137. Two FLDs during 2013-14 on processing, value addition of Amla&Ragiwith branding were conducted. Veterinary Dr. Diwakarofficer of Hirehalli Panchayathobliwas involved in the related programmes	

	programme. District Officers of Animal Husbandry Department could be contacted and necessary suggestion may be taken to implement the programmes related to Animal Husbandry.			
13.	Tumkur District is receiving low rainfall, animal husbandry could be the potential & assured source of income rather than crop husbandry for the Farmer. In Sira promotion of Goat and Sheep rearing can be encouraged. For implementing the Livestock Demonstration programme, KUVASF will come forward for implementing the technical programme for the KVK. Joint Liability Groups approach could be a best option for promotion of rearing of animals like Goat, Sheep etc in the District. On Cost basis, Soil and Water Testing is being done at the	Dr. K.N.Prabhudeva, Director of Extension, KUVASF, Bidar	Under IFS-FLD programme Sheep and Goat rearing will be introduced Similar programmes will be tried in Sirataluk with the help of KUVASF, Bidar. Will be tried in forthcoming months of year 2013-14. Soil and water analysis was done at D.Nagenahalli with the facilities available at IIHR and NBSS& LUP Bangaloreand Soil Health Cards were distributed.	Suitable SMS from neighboring KVKs were not available. However, staff from state animal husbandry department, KUVASF, Bidar will be utilized.

	Hebbal Campus for identifying nutrient deficiency. This facility could be utilized by the farmers of the Tumkur District.			
14.	Demonstration of all kinds of crops & Livestock Component can be included in the programme. NBSS & LUP map could be utilized in broad to know the Soil Health Status of the district. IFS Model can be developed in each taluk, where a Model Farmer has to be in touch with the KVK.Every year, fund will be released and programmes can be implemented. Bigger projects funded by external agencies may hamper the regular activities of the KVK. So based on the availability of man power, various projects can be accepted and implemented by the KVK.	Dr. V.S.Reddy, Principal Scientist, ZPD, Bangalore	KVKfarm is presently having 52 demonstrations of crops & enterprises. The services of NBSS & LUP was utilized for mapping of soils of Tumkur district. IFS models were implemented in Tumkur&Koratageretaluks. One IFS with ARYA Concept is introduced inTumkurtaluk Due care in this regard has been taken during the implementation of projects and regular activities of KVK.	Nil

Agenda Item No.04

Overall progress report and action plan for forthcoming season

a) Agricultural scenario

i) Major farming systems/enterprises

Dry Land Agriculture

Dry Land Horticulture

Dairy

ii) Details of problems and thrust areas

S. No	Name of the Operational Village	Crop/ Enterprise	Major problems faced	Thrust areas identified to tackle the problems	Nature of interventions implemented *
1	**TumkurTaluk** Haralur, Kesaramadu, Beemasandra, Bairsandra, Gollarahatti, Neralapur, Pemmanahalli, Sangapura, Doddathimmnapalya, Chikahalli, Beeranakallu, G.H.Palya& Belagumba	Groundnut, Maize, Paddy, Ragi, Redgram, Tomato, Brinjal, Mango, Banana, Sapota, Arecanut, Coconut, Aster, Dairy etc.,	1. Use of local varieties and low yield. 2. No seed treatment 3.Poor soil and nutrient management 4. Tikka disease, root grub, Red and hairy caterpillar in Groundnut. 5. Zinc (Zn),Iron (Fe)deficiency in Maize and Zn in Paddy 6. Pod borer and sterile mosaic disease in red gram. 7.Shoot and fruit Borer in Brinjal 8. Powdery mildew and hoppers in Mango. 9. Lack of skill in nursery technique & management, 10.Lack of knowledge about importance of soil & water testing, 11. Lack of knowledge in pre and post harvest technology management. 12. Lack of knowledge for income generating activities, malnutrition and unhygienic practices. 13.Dropping and splitting of areca nuts	1.Popularization of HYV / hybrids 2. Seed production techniques in vegetables and field crops 3.Integrated Nutrient Management and Soil test based fertilizer application 4.Integrated Pest & Disease Management 5.Propagation techniques in fruits and vegetables 6.Income generating activities, 7.Value added products 8.Nutrition education and hygiene 9. Post harvest technology in vegetables and fruits	02-TAR 16 -FLD (71 Demos) 11-Trainings, 03-Field days
2.	**KoratagereTaluk** Chikavalli, Kymanhalli, Bidlot, Kodlahalli, D.Nagenahall	Maize, Paddy, Ragi, Redgram, Tomato, Sunflower, Banana, Groundnut,	1. Use of local varieties and low yield. 2. No seed treatment 3. Poor soil and nutrient management 4. Tikka disease, root grub, Red and hairy caterpillar in groundnut.	1.Popularization of HYV / hybrids 2.Seed Production Techniques in vegetables and field crops 3. Bud necrosis in sun flower	17 –FLD (53Demos) 1-Training, 04-Field days

	i, Chettanahalli,	Mango, Sapota, Arecanut, Coconut, Aster, Dairy, Frenchbean, Brinjal& Marigold.	5. Zn, Fe deficiency in Maize and Zinc in Paddy 6. Pod borer, and sterile mosaic disease in red gram. 7. Flower and Fruit dropping, Powdery mildew and hoppers in Mango. 8, Low yield in Banana 9. Dropping and splitting of areca nuts. 10. Lack of skill in nursery technique & management 11.Lack of knowledge about importance of soil & water testing, 12. Lack of knowledge regarding pre and post harvest technology management. 13. Lack of knowledge in income generating activities, malnutrition and unhygienic practices. 14.Drudgery 15. Shoot and fruit Borer, Bacterial blight in Brinjal.	4. Management of saline soil in Paddy. 5.Integrated Nutrient Management and Soil test based fertilizer application 6.Integrated Pest & disease Management 7.Propagation techniques and post harvest in fruits and vegetables 8.Income generating activities, 9.Value added products 10.Nutrition education and hygiene 11.Drudgery reduction	
3.	**MadugiriTaluk** Budavanhalli, Siddapur, Shridragallu, Vadderahalli				04 -FLD (12 Demos) 3-Trainings
4	**PavagadaTaluk** Aresikere Kotgudda, Shilapur, MugadalBetta, Arkyatanhalli Madde	Groundnut, Sunflower, Ragi, Maize, Paddy, Redgram, Tomato, Brinjal& Dairy	1. Use of local varieties and low yield. 2. Moisture stress 3. No seed treatment 4. Poor soil and nutrient management 5. Tikka disease, collar rot, root grub in Groundnut. 6. Insufficient water for paddy cultivation 7. Pod borer and sterile mosaic disease in red gram. 8. Shoot and fruit Borer Bacterial blight in Brinjal. 9.Lack of knowledge about importance of soil & water testing, 10. Lack of knowledge in pre and post harvest technology management. 11. Lack of knowledge for income generating	1. Popularization of HYV / hybrids 2. Soil and water conservation 3. Seed Production Techniques in field crops 3. Management of Bud necrosis in sun flower 4.Aerobic paddy cultivation 4.Integrated Nutrient Management and Soil test based fertilizer application 5.Integrated Pest & disease Management 6.Income generating activities,	TAR (03 trials) 01-FLD (03 Demos) 02-Trainings

			activities, malnutrition and unhygienic practices. 12.Drudgery	8.Value added Products 9.Nutrition education and hygiene 10. Drudgery reduction.	
5	**SiraTaluk** Kataveerana halli, Mudimadu, Chikkanahal li, Veerapura,K amagondana halli, Bevanahalli, Honnenahall i	Groundnut, Maize, Paddy, Ragi, Cotton, Redgram, Vegetables Mango, Sapota, Banana, Arecanut, Coconut, Aster, Brinjal Dairy	1. Use of local varieties and low yield. 2.No seed treatment 3.Poor soil and nutrient management 4. Tikka disease, root grub, Red and hairy caterpillar in Groundnut. 5. Zn, Fe deficiency in Maize and Zn in Paddy 6. Pod borer, and sterile mosaic disease in red gram. 7. Powdery mildew and hoppers in Mango. 8. Lack of skill in nursery technique & management, 9.Lack of knowledge about importance of soil & water testing, 10. Lack of knowledge regarding pre and post harvest technology management. 11. Lack of knowledge in income generating activities, malnutrition and unhygienic practices. 12.Dropping and splitting of areca nuts 13. Shoot and fruit Borer in Brinjal. 14. Leaf reddening, flower drop, Black arm, Sucking pest and Bollworms problem in cotton	1. Popularization of HYV / hybrids 2. Seed Production Techniques in vegetables and field crops 3.Integrated Nutrient Management and Soil test based fertilizer application 4.Integrated Pest & Disease Management 5.Propagation techniques and post harvest in fruits and vegetables 6.Income generating activities, 7.Value added Products 8.Nutrition education and hygiene 9. ICM in Cotton	02-TAR (04 Trials) 08-FLD (19 Demos) 05-Trainings

**Please mention TAR/FLD/Training/Extension Activities/or their combination*

b) Target and achievements of mandatory activities (2012-13)

OFT				**FLD**			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
03	03	11	11	19	19	207	210
Training				**Extension Programmes**			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	

Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
65	77	1950	2630	950	1068	6680	18581

Seed Production (Qtl.)		**Planting materials (Nos.)**	
Target	Achievement	Target	Achievement
10.00	12.47	100000	115850

Livestock, poultry strains and fingerlings (No.)		**Bio-products (Kg)**	
Target	Achievement	Target	Achievement
-	-	1500	2318

Value added products		**Foliar Micronutrients (Kg)**	
Target	Achievement	Target	Achievement
-	Ragi Malt – 104 kg	-	
-	Amla Juice – 500 litres	-	Banana Special -1450 kg
-	Amla Candy- 113 kg	-	Veg. Special -888 kg
-	AmlaSupari – 10 kg	-	

c) Major outcome of Technology Assessment and Refinement

- Effective control of collar rot disease in Groundnut:Seed Treatment with *Pseudomonas fluorescens* @ 4g/kg seeds & soil treatment with*Pseudomonas*@ 2.5kg /ha reduced disease incidence to the extent 11.49 per cent.
- In Groundnut, GPBD-4 (12.36 q/ha) has given more yield than TMV-2 (10.35 q/ha) and also tolerant to foliar diseases.
- In Banana, paired row planting system (1.2 m x1.2m x2.0 m) recorded higher yield of 746 q/ha (30 per cent more) than the conventional planting system (516 q/ha).

d) Major outcome of Frontline Demonstrations

- The yield of Drought tolerant Ragi ML -365 (24.3 q/ha) has increased to the extent of 30 percent.
- The performance of Aerobic paddy MAS-26 was found suitable for drought condition with an advantages like 50 per cent water saving, 80 per cent savings on seed material with no need of puddling and increased yield of 8.67 per cent.Farmers' feedback was that there was a drastic reduction of damage caused by rodents attack (due to dry field condition and free movement of cats).
- Foliar spray of Banana special increased the yield up to 11.2 per cent.
- Nut splitting and nut dropping in Arecanut was reduced by demonstrating CPCRI technology with increase in crop yieldto an extent of 10.66 per cent.
- Use of Arka Microbial Consortium in tomato reduced the Chemical Fertilizer upto 25 per cent and also increased the yield 15.07 per cent.
- Introduction of new Maize hybrid NAH-1137 which is tolerant to pests, increased the yield up to 19.24 per cent. Based on the colour, produces fetched more price.
- Demonstration of BRG-2 Red gram variety is recommended for delayed monsoon which increases yield up to 19.0 per cent.
- Demonstration on integrated crop management in Brinjal Arka Anand hybrid with root dipping with *Trichodermaharzianum* 20gm/litre +Using Neem cake 250kg/ha and Pheromone traps 12/ha resulted in 9.1 per cent increased yield over control with more number of fruits per plant(26) and fruit weight of 34.2 g compared to control (18 Nos.& 22g). Farmers' feedback was that harvesting the fruits at right maturity will retain the lush green colour to fetch better price in the market.

- Integrated crop management in Mango with application of FYM@25kg/plant + RDF 30:180:680 NPK gm/plant+ Mango Special Spray @5g/ litre in July, November and December + Spray during Flowering- Planofix @ 1ml/litre, Spray Dimethoate @1.7ml/litre& Fruit fly trap- 10 Nos. reduced incidence of the powdery mildew (3.99 per cent) compared to control (17.24 per cent)with less affected spongy tissue fruits per plant (08 Nos.) and increased in yield by 27.3 per centwith a B:C ratio of 4.9 over check (4.4).
- Integrated crop management in tomato Arka Ananya hybrid resulted in 16.5 per cent increased in yield over control with higher B:C ratio(3.12).
- Integrated Disease Management in Arecanut reduced the incidence of Anabe Roga (3.17 per cent) with increased yield of 13.8 q/ha compared to control (14.3 per cent).
- Integrated Crop Management in French bean Arka Suvidha resulted in higher yield of124.37 q/ha with increased yield of 28.77 per cent compared to farmers practice -96.58 q/ha.
- Demonstration of HYV Arka Jay resulted in 21per cent increased in yield compared to local check.
- Safe storage method of Red gram given by UAS Bangalore has shown negligible infestation on 6 months storage of Red gram grains.
- By using Groundnut decorticator of UAS-B model, 80 per centmore quantityof kernels wasdecorticated than farmers practice.
- Integrated Pest Management in Cabbage resulted in reduction (8.17 per cent) of DBM infestation compared to the check (27.11 per cent).
- Demonstration of Mucuna as intercrop in Mango recorded in higher dry matter yield of 64 q/ha compared to cowpea of 47 q/ha

e) i. Details of Training Programmes conducted (2012-13)

Category	Major thematic areas covered	No. of courses	No. of participants
1. Farmers & farm women	Cropping Systems	1	19
	Integrated Farming	4	86
	Integrated Crop Management	3	85
	Soil and Water Conservation	6	226
	Organic Farming	1	71
	Integrated water management	1	50
	Production of low value and high volume crop	1	17
	Cultivation of Fruit	7	195
	Commercial Fruit production	2	93
	Commercial Floriculture	1	59
	Production and Management technology	4	119
	IPM	3	199
	IDM	3	94
	IGA	1	21
	Value addition	5	245
	Soil Fertility management	1	61
	Nutrient Use Efficiency	2	100
	Soil and water testing	1	48
	Balance use of fertilizer	1	75
	Small tools & implements	1	13

	Post Harvest Technology	2	66
	Seed Production in vegetables	5	137
	Group dynamics	5	113
	ICT	4	174
	Nutritional Security	1	25
	Small tools and implements	1	19
	Women Empowerment	1	19
	Organic manure production	1	22
	Mushroom production	1	6
2. Rural youth	Natural Resources Management	1	50
3. Extension personnel	Mushroom production	2	44
	Productivity Enhancement in field crop	2	80
4.Sponsored programmes *	-	-	-
5.Vocational programmes	Bee keeping	1	19

*included in S. Nos 01 to 03

ii. Details of Training Programmes conducted 2013 (Apr - Aug)

Category	**Major thematic areas covered**	**No. of courses**	**No. of participants**
Farmers and farm women	Cropping Systems	2	42
	Integrated Farming	4	111
	Orchard Management	1	15
	Integrated Crop Management	1	17
	Soil and Water Conservation	4	185
	Integrated water management	-	
	Production of low value and high volume crop	1	64
	IDM	1	35
	Cultivation of Fruit	2	69
	Production and Management technology	1	76
	Value addition	1	25
	Small tools & implements		
	Post Harvest Technology	1	31
	Seed Production in vegetables	1	24
	Group dynamics	1	28
	INM	3	174
	ICT	3	79
	Mushroom production	1	28
Rural youth	Natural Resources Management	1	14
Extension personnel	Productivity Enhancement in field crop	2	52
Sponsored programmes *	Amla Processing	2	59
Vocational programmes	Coconut Friends	1	20

*included in S. Nos 01 to 03

f) Extension Programmes conducted (2012-13)

g) Major extension activities

Extension Activity	No. of activities	Participants		
		Farmers	Extension Functionaries	Total
Advisory Services	697	1585	-	1585
Agri mobile clinic	-	-	-	-
Animal Health Camp				
Awareness Campaign (Walkathon)	01	10320	25	10345
Celebration of important days	5	195		195
Diagnostic Visits	65	311	16	327
Exhibition	2	753		753
Exposure Visits	5	174		174
Ex-trainee Sammelan				
Farm Science Club				
Farmers rally				
Farmers Visit to KVK	164	692	-	692
Field Day	6	693		693
Film Show	1	27		27
Group discussion				
Group meeting				
KisanGhosthi	5	1629	133	1762
KisanMela				
Lecture delivered	33	1374	47	1421
MahilaMandal conveners' meeting				
Method Demonstration	15	166	4	170
Scientists' visit to farmers field	10	45		45
Seed treatment/replacement campaign				
Self Help Group Conveners meetings	3	55		55
Seminar	1	124		124
Soil health Camp				
Workshop				
Technology Week	1	200	13	213
Others if any (Pl. specify)				
Total	**1013**	**18023**	**238**	**18581**

h) Other extension activities

Particulars	Number
Animal health camps	-
Booklets	-
Books	-
Electronic media	-
Extension Literature	04
Leaflets/folders	04
News letter	02
News paper coverage	14
Popular articles	02
Radio Talks	16
Soil health camps	-

Technical Articles	-
Technical Bulletins	-
Technical Reports	06
TV talks	05
Women Health Camps	-
Others if any (Pl. specify)Publications Abstracts	02
Total	**55**

i) Production and supply of technology products

Category	**Major crops /livestock/fisheries strains / bio-products produced and supplied**	**Quantity**	**Value (Rs.)**	**Number of farmers**
Seed Materials –Varieties (Quintals)	ArkaVarieties and UAS B Varieties	204.68	5,85,735	129
Seed Materials –Hybrids (Kg)	Chilli- ArkaKyati	1.7	34,000	10
Planting Materials – Varieties (Number)	IIHR Varieties and UAS B	57122	11,41,132	574
Planting Materials – Hybrids (Number)	Nil	-	-	-
Livestock Materials (Number)	Nil	-	-	-
Fingerlings (Number)	Nil	-	-	-
Bio Products (Kg)	*Trichoderma*	76	7600	40
	Pseudomonous	98	24500	60
	Neem soap	1555	194375	98
	Pongamia soap	589	58900	84
Foliar Spray	Banana special	1450	217500	190
	Vegetable special	888	111000	210
Mushroom	Spawn (Kg)	20	1000	15
Value added products	Value added products (Ragi&Amla in Kg) Amla Juice (Litres)	227 500	51600 50000	300 225

j) Convergence and linkages

S. No.	**Organization**	**Type of linkages**
1	State Department of Horticulture, Tumkur district	Trainings, FLD, Joint Diagnostic Survey
2	State Department of Agriculture, Tumkur district	Trainings, FLD, Joint Diagnostic Survey
3	Watershed Department, Tumkur district	Training and Collaborative Activities
	Department of Animal Husbandry and Fisheries, Tumkur district	Trainings and Technical Information
4	Department of Women and Child Development, Tumkur district	Trainings
5	NBSS &LUP Bangalore	NRM and Survey
6	BAIF NGO, Tiptur	Trainings and Technical Information
7	ORDER NGO, Tumkur	Trainings, FLD's and Technical Information
8	AWARE NGO, Tumkur	Trainings
9	APART NGO Tumkur	Organic Farming and Group Approach

10	MOTHER NGO Tumkur	Seed Village Concept
11	UAS, Bangalore	Trainings and FLDs
12	UAS, Dharwad	Trainings and FLDs
13	UHS, Bagalkote	Trainings and FLDs
14	Veterinary University, Bidar	Trainings and FLDs

k) Soil Water and Plant Analysis

Category	No. of samples		No. of farmers	No. of villages	Amount realized (Rs.)
	Farmers in which OFT/FLD were implemented during the reported period	**Other Farmers**			
Soil	40	160 (NICRA Project)	200	03	40000
Water					
Plant					
Manure					
Others					
Total					**40000**

l) Human Resources Development

S. No.	Name of the Staff	Number of training programmes attended	Institutions under which trained	Major areas of knowledge gained	Programmes planned based on knowledge gained
1.	P.R.Ramesh	2	IIHR, Bangalore	Entrepreneurship on Institutional Technologies	Technologies purchased from IIHR
				Food Pollutant Evaluation for food safety & acidity	Imparted the technology during the Training
		1	CRIDA, Hyderabad	Automatic Weather station training programme	Weather based agro advisory services providing through ICT
		1	IIHR, Bangalore	Production of Arka Microbial Consortium	Technology has been purchased and production has been initiated
2.	K.N.Jagadish	1	IIHR, Bangalore	Entrepreneurship on Institutional Technologies	Technologies purchased from IIHR
		1	UHS, Bagalkote	Expert System in Agriculture	Coconut based experts system translation to Kannada led by KVK Hirehalli

3.	RadhaR.Banakar	1	IIHR, Bangalore	Food Pollutant Evaluation for food safety & acidity	Imparted the technology during the Training
4.	J.M.Prashanth	1	UHS, Bagalkote	Expert System in Agriculture	Coconut based experts system translation to Kannada led by KVK Hirehalli
5.	JyotiAppuNaik	1	TNAU, Coimbatore	Expert System in Agriculture	Software skills for updating expert system
		1	UAS, Dharwad	Enhancement of Programming Skill Development	Development of data base for KVK system

m) Action Plan in brief for the next season(s):- 2013-14

S. No.	Name of the Operational Village	Crop/ Enterprise	Major problems faced	Thrust areas identified to tackle the problems	Nature of interventions proposed to be implemented *
1	Tumkur : Udigere, Kora Koratagere : D.Nagenahalli, Yallapura Sira : Honnagondanahalli, Anupanahalli	Arecanut	Monocropping & Low income	Cropping system	OFT, Trainings, Field visit &Group discussion
2	Koratagere : D.Nagenahalli, Hosapalya, Baichanahalli, Vaddarahalli Sira: Honnagundanahalli	Paddy	Water Scarcity and low yield	Natural resources management	FLD ,Trainings & Field days
3	Koratagere : D.Nagenahalli, Hosapalya, Baichanahalli, Vaddarahalli	Ragi	Use of local varieties and low yield	Popularization of HYV / hybrids	FLD ,Trainings & Field days
4	Tumkur : Oorkere, Sriranagabadavane, Hirehalli, Haraluru, Sangapura, Kolihalli, Chikkahalli Sira: Sakshihalli, Bukkapattana, Tuppadakona, Kumbarhalli,Ramalingapura	Ragi	Lack of Knowledge on Value Addition, Lower net income if sold as a grain without Value addition, Lack of awareness on Labeling & Branding	Income generating activities	FLD & Trainings
5	Sira:Tuppadkona, Sakshihalli Bukkapattana	Redgram	Use of local varieties	Popularization of HYV / hybrids	FLD ,Trainings & Field days
6	Tumkur: Belgumba, Hiregundagal, Chikkagundagal, Koratagere: D, Nagenahalli,	Tomato	Poor Soil and Nutrient Management, Water scarcity,	Integrated Nutrient Management	FLD, Trainings & Field days

	Hosapalya, Baichanahalli		Low keeping quality		
7	Tumkur: Belagumba, Hiregundagal, Chikkagundagal, Koratagere: D.Nagenahalli, Hosapalya, Baichanahalli	Tomato	Bacterial wilt, leaf curl & Low yield	Popularization of HYV / hybrids	FLD Trainings &Field day
8			Water Saving and Weed Control through Poly mulching technology in Tomato production	Natural Resources Management	FLD Trainings &Field day
9	Tumkur: Belgumba, Hiregundagal, ChikkagundagalKaratagere: D, Nagenahlli, Hosapalya, Baichanahalli	Brinjal	Bacterial wilt and low yield	Popularization of HYV / hybrids	FLD ,Trainings & Field days
10	Tumkur: Belgumba, Hiregundagal, ChikkagundagalKaratagere: D, Nagenahlli, Hosapalya, Baichanahalli	Brinjal	Shoot & fruit Borer in Brinjal	Integrated Pest & Disease Management	FLD ,Trainings & Field days
11	Tumkur: Kesarumadu, Siddapura, Honnudike, Nagasandra, Sira: Sakshihalli, Bukkapattana, Tuppadakona,Kumbarhalli, Ramalingapura	French bean	Non availability of quality seed of improved varieties, Market price fluctuation if grown as vegetable	Popularization of HYV / hybrids	FLD,Trainings & Field days
12	Tumkur: Nagarjunahalli, HebburuDoddahosuru, Nagavalli Koratagere: D.Nagenahalli, Eairaksandra, Harohalli	Mango	Stem Borer, Powdery mildew, Fruit fly and Hoppers in Mango	Integrated Pest & Disease Management	FLD, Trainings & Field days
13			Fruit damage due to improper harvesting, High cost of ripening, Improper packing	Post harvest technology	FLD, Trainings
14			Low soil fertility, Monocropping, Lower income	Cropping system	OFT & Field visit, Trainings
15	Tumkur: Hebburu,Nagavalli Koratagere: Yallapura, D, Nagenahalli, Eairaksandra, Harohalli	Jamoon	Monocropping, Drought prone areas	Alternate cropping systems	FLD, Trainings & field visits
16	Koratagere: D.Nagenahalli, Eairaksandra, Harohalli	Amla	Lack of knowledge on processing &	Post harvest technology	FLD, Trainings

			value addition		
17	Tumkur: Udigere, Hebbur, Anupanahalli Sira: Honnagundanahalli	Banana	Low plant Density, poor nutrient management.	Crop Management	FLD,Trainings & Field days
18	Tumkur: Hirehalli,Kolihalli, Harlur,Hebbur	Papaya	Low yield & low Total Soluble Solids	Popularization of HYV / hybrids	FLD, Trainings & Field days
19	Tumkur: Hebbur, Anupanahalli Sira: Honnagundanahalli, Kallambal	Arecanut	Monocropping, Nut splitting	Integrated Nutrient Management and Soil test based fertilizer application	FLD,Trainings & Field days
20			AnabeRoga	Integrated Pest & disease Management	FLD, Trainings & Field days
21	Tumkur : Udigere, KoraKesarmodu, Belavi, Bommanahalli, Mydala Koratagere : D.Nagenahalli Sira : Honnagondanahalli, Anupanahalli		Monocropping& Low income	Cropping system	OFT,Trainings, Field visit & Group discussion
22	Koratagere:D.Nagenahalli, Mallasandra, Balenahalli	Coconut	Severe incidence of Basal stem rot disease results in destroying the entire tree.	Integrated Pest & disease Management	FLD& Trainings

**Please mention TAR/FLD/Training/Extension Activities/or their combination*

n) Revolving Fund Status :-

Year	Opening balance as on 1st April of previous year (Rs.)	Income during the year (Rs.)	Expenditure during the year (Rs.)	Net balance in hand as on 1st April of current year (Rs.)
2012-13	19,88,675	9,53,535	1,24,370	28,17,840

o) Utilization of KVK funds during the Previous Year / Current Year (Upto Aug, 2013)

S. No.	Particulars	Sanctioned (Rs. In lakhs	Released (Rs.)	Expenditure (Rs.)
A. Recurring Contingencies				
1	**Pay & Allowances**	47.00		27,12,411
2	**Traveling allowances**	1.75		6,460
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of	2.30		53,381

	Newsletter and library maintenance (Purchase of News Paper & Magazines)			
B	POL, repair of vehicles, tractor and equipments	1.90		72,671
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	0.90		
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	0.80		
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	4.00		93,375
F	For Thane Relief	0		
G	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.50		
H	Training of extension functionaries	0.25		
I	Maintenance of buildings	0.50		
J	Establishment of Soil, Plant & Water Testing Laboratory(Extension Activities)	0		
K	Farmers Field School	0.30		
L	Library (Purchase of Journal, Newspaper& Magazines)	0.05		
M	Extension Activities	0.50		
	Total (Contingencies)	**12.00**		**2,19,427**
	TOTAL (A)	**60.75**	**30,37,127**	**29,38,298**
B. Non-Recurring Contingencies				
1	Furniture and furnishing			
a.	Plant Health Diagnostic Facility			
b	Laser Guided Land Leveler			
c	Power tiller			
d	Ground pod striper			
e	Power weeder			
f	Generator			
2	Works	77.71	77,71,000	
3	Library			
4	Soil Water Testing Lab			
	TOTAL (B)	77.71	77,71,000	
	GRAND TOTAL (A+B)	**138.46**	**1,08,08,127**	**29,38,298**

Agenda Item No.05

Salient achievements in detail

SMS (Plant Breeding)

- **Problem identified** : In groundnut, old variety, low yield and small size kernals
- **Technology Intervention Undertaken** : Assessment of TMV-2,GPBD-4 and GPBD-5 Varieties
- **Mode of Implementation** : On Farm Testing
- **Outcome**: In Groundnut, GPBD-4 (12.36 q/ha) has given more yield than TMV-2
- (10.35Q/ha) and also tolerant to foliar diseases.
- **Recommendation of the outcome** : GPBD-4 Variety performed better with more test weight compared to other two varieties

- **Problem identified :** Yellow mosaic problem Wilt incidence, Root rot problem & low yield in French Bean
- **Technology Intervention Undertaken :** ICM in French Bean
- **Mode of Implementation :** Front Line Demonstration
- **Outcome:** French bean ArkaSuvidha resulted in higher yield of 124.37 q/ha with increased in yield of 28.77 per cent compared to farmers practice 96.58 q/ha.
- **Action for up-scaling / Recommendation of the outcome :** Under NHM & RKVY scheme French bean seed production is being taken up for large quantity production

- **Problem identified :** Low yield in Dolichous
- **Technology Intervention Undertaken :** Cultivation of Arka Jay variety
- **Mode of Implementation :** Front Line Demonstration
- **Outcome:** HYV Arka Jay resulted in 21 per cent increased in yield compared to local check.
- **Recommendation of the outcome :** Farmers are advised to take up HYV Arka Jay

SMS (Plant Protection)

- **Problem identified**: Severe incidence of Collar rot in groundnut.
- **Technology Intervention Undertaken**:Management of collar rot disease in groundnut.
- **Mode of Implementation**: On Farm Testing
- **Outcome:**Effective control of color rot disease in Groundnut: Seed Treatment with *Pseudomonas fluorescens* @ 4g/kg seeds & soil treatment with *Pseudomonasfluorescens*@ 2.5kg /ha reduced disease incidence to the extent 11.5 per cent.
- **Action for up-scaling**: About 98 kg of *Pseudomonas* produced at KVK and supplied to 60 farmersin Tumkur district.
- **Recommendation of the outcome:**Seed treatment with *Pseudomonas fluorescens*@ 4g/kg seeds & soil treatment with *Pseudomonas* @ 2.5kg &Neemcake @ 2.5q / ha.

- **Problem identified :** Bacterial wilt and leaf curl and low yield
- **Technology Intervention Undertaken :** ICM in tomato ArkaAnanya
- **Mode of Implementation :** Front Line Demonstration
- **Outcome:**ArkaAnanya hybrid resulted in 16.5 per cent increased in yield over control with higher B:C ratio (3.12)
- **Recommendation of the outcome :** Using ArkaAnanya, *Tricodermaviridae*, Neem cake soil application, Imidacloprid, Neem Soap (eco-neem product)

- **Problem identified :**AnabeRoga in Arecanut
- **Technology Intervention Undertaken :** Integrated Management of AnabeRoga in Arecanut
- **Mode of Implementation :** Front Line Demonstration
- **Outcome:** Integrated Disease Management in Areca nut reduced the incidence of AnabeRoga (3.17 per cent) with increased yield of 13.8 q/ha compared to control (14.3 per cent).
- **Recommendation of the outcome:** Neem cake @2kg/plant,Drenching with Calixin @ 0.3 %,Root feeding Calixin 1.5% or 15 ml /litre, (125ml solution / plant),RDF, FYM 20kg/plant

SMS (Soil Science)

- **Problem identified** :Low water use efficiency & Low yield in Paddy.
- **Technology Intervention Undertaken** : Aerobic Paddy Cultivation MAS-26
- **Mode of Implementation** : Front Line Demonstration
- **Outcome** : The performance of Aerobic paddy MAS-26 was found suitable for drought

condition with advantages like 50 per cent water saving, 80 per cent savings on seed material with no need of puddling and increased yield of 8.67per cent.

- **Action for up-scaling /Recommendation of the outcome**: 11 qt of MAS -26 variety seeds were produced at farmers field of Hirehalli and supplied to 242 farmers.
- **Success Stories :**
  The demonstration was conducted at the field of farmer Mr. Dayananda, Hirehalli, Tumkurtaluk in 0.8 ha. The performance of the MAS-26 was found suitable for drought condition with yield of 35.1 q/ha compared to that of local 32.3 q/ha. The yield could be increased to an extent of average 8.67 per cent. The main advantage of the drought tolerant aerobic paddy MAS 26 are: direct sowing, no need of puddling, resistance to pest and diseases, reduces the pollution, medium duration, 48 - 60 tillering per seed with 50 per cent water saving along with 80 per cent seed saving.

- **Problem identified**: Delayed monsoon, Moisture stress, Use of low yielding, long duration varieties in Ragi
- **Technology Intervention Undertaken** : Drought resistance variety Ragi ML 365

  The detail characteristics of the variety are

  - Short duration (about 105 days)
  - Medium plant height
  - High yielding (Grain and fodder)
  - Resistant to leaf spot, neck blast disease and lodging
  - Good cooking quality
  - Suitable for dry land agriculture and late sowing

- **Mode of Implementation** : Front Line Demonstration
- **Outcome:** The yield of Drought tolerant Ragi ML -365 (24.3 Quintal/ha)has increased to the extent of 30per cent.
- **Action for up-scaling /Recommendation of the outcome**: 800kg of ML -365 seeds has produced and supplied to70 farmers.
- **Success Stories :**
  The finger millet Cv. ML365 is demonstrated at farmers' field in 20 ha. The performance of the variety is significantly superior over its local variety. While the local variety was wilting due to moisture stress, ML 365 was with fully developed fingers with grains in milky stage. Ragi ML365 showed maximum yield (24.3 Quintal/ha) compared to that of local gutteRagi (18.7 Quintal/ha). The yield of the Ragi ML365 could be increased to an extent of average 29.9 per cent.

- **Problem identified**: Long duration & Low yield in Redgram
- **Technology Intervention Undertaken** : ICM in Redgram – BRG -2
- **Mode of Implementation** : Front Line Demonstration
- **Outcome:** BRG-2 red gram resulted higher yield 15.8 q/ha (19 per cent) compared to local
- **Recommendation of the outcome**: BRG-2 can be taken up during delayed monsoon

- **Problem identified :**Low nutrient use efficiency, High cost of fertilizers in Tomato
- **Technology Intervention Undertaken :**Arka Microbial consortium for Tomato production
- **Mode of Implementation :** Front Line Demonstration
- **Outcome:**Arka Microbial consortium in tomato reduced the usage of Chemical Fertilizer up to 25 per cent and also increased the yield up to 15.07 per cent.
- **Action for up-scaling /Recommendation of the outcome:**Arka Microbial consortium technology was purchased from IIHR and being produced at KVK Hirehalli for supplying to farming community.

- **Problem identified :** Micronutrient deficiency leads to lower bunch size and yield in Banana
- **Technology Intervention Undertaken :** Micronutrient management in Banana
- **Mode of Implementation :** Front Line Demonstration
- **Outcome:** Foliar spray of Banana special increased the yield up to 11.2 per cent.
- **Action for up-scaling / Recommendation of the outcome :** Large scale of Banana Special is being produced and supplied to the farmers, Line departments, KVKs. Pamphlets are prepared & the information is being disseminated through Voice KrishiVigyan Kendra (ICRISAT)

- **Success stories :**
  Banana is second most important fruit crop of the district and it is grown mainly under tubewell irrigation. The Banana Grand-9 is demonstrated at the field (0.5 ha) of Progressive farmer Mr. Prakash, Beerakallu, Tumkurtaluk. The planting is done in the month of July. The availability of micronutrients is low in Tumkur areas due to coarse textured soil, low organic matter and high pH of soil. These result in predominant micronutrient disorders as observed in Banana crops.To overcome these problems and to get higher productivity in banana, KVK, Hirehalli Banana Special was recommended 5 sprays @ 5 g/lit at 30 days interval starting from 5th month onwards from the planting.

  Performance indicators:

Area (ha)	Yield (t/ha)		% Increase
	Banana Special Treated Plants	Control	
0.5	32.24 t/ha	26.5 t/ha	21.6%

  The results have clearly indicated that by adopting Banana Special foliar application, the yield of the banana could be increased to an extent of average 21.6 per cent.

- **Problem identified :**Severe nut splitting, dropping and yield loss in Arecanut
- **Technology Intervention Undertaken :** Management of nut splitting in Arecanut
- **Mode of Implementation :** Front Line Demonstration
- **Outcome:** Nut splitting and nut dropping in Arecanut was reduced by demonstrating CPCRI technology and their crop yield increased to an extent of 10.66 per cent.
- **Recommendation of the outcome:** FYM 12 kg/tree, RDF 100: 40: 140 NPK g/tree, Borax -30 g/tree + Zinc Sulphate
- **Success stories**
  In Tumkur district Arecanut is considered as one of the important profitable plantation crops growing in an area of 22058 ha. It is grown under irrigated situation. The problem of crop is nut splitting and nut dropping. The demonstration was implemented at Progressive farmer Mr. Kumar, Kolihalli, Tumkurtaluk field in 0.4 ha. KVK Hirehalli made an effort to mitigate the problem by demonstrating the CPCRI technology Viz., RDF + Borax (30g/plant) + Zinc Sulphate. The technology increased their crop yield to an extent of 10.66 per cent with higher B:C ratio of 2.85 compared to control 1.9

  Performance indicators:

Treatments	Yield (q/ha)	% increase in yield
Demonstration Micro Nutrient Application	13.5	10.66
Control	12.2	-

SMS (Horticulture)

- **Problem identified** : Less population and low yield in Banana
- **Technology Intervention Undertaken** : Assessment of paired row and Pit method of planting
- **Mode of Implementation** : On Farm Testing

- **Outcome:**Inpaired row planting system (1.2 m x1.2m x2.0 m) recorded a yield of 746 q/ha (30 per cent) more than the conventional planting system (516 q/ha). This method accommodates more number of plants per unit area with high returns.
- **Recommendation of the outcome** :Spacing1.2 x 1.2x 2.0m with paired row ZigZag method.

- **Problem identified** : Shoot and fruit borer, Bacterial wilt and low yieldin Brinjal
- **Technology Intervention Undertaken** : ICM in Brinjal - ArkaAnand
- **Mode of Implementation** : Front Line Demonstration
- **Outcome:**BrinjalArkaAnand hybrid with Root dipping in *Trichodermaharzianum* 20gm/lt + Using Neem cake 250kg/ha and Pheromone traps 10 /ha resulted in 9.1 per cent increased yield over control with more number of fruits per plant(26) and fruit weight of 34.2 g compared to control (18 Nos. & 22g).
- **Recommendation of the outcome** : Root dipping in *Trichodermaharzianum* 20gm/lt + Using Neem cake 250kg/ha and Pheromone traps 10 /ha

- **Problem identified :** Flower& fruit dropping , Fruit fly & Powdery mildewin Mango
- **Technology Intervention Undertaken :** ICM in Mango
- **Mode of Implementation :** Front Line Demonstration
- **Outcome:** Mango with application of FYM@25kg/plant + RDF 30:180:680 NPK gm/plant+ Mango Special Spray @5g/ litre in July, November and December + Spray during Flowering- Planofix @ 1ml/litre , Spray Dimethoate @1.7ml/litre& Fruit fly trap- 10 Nos. reduced incidence of the powdery mildew (3.99 per cent) compared to control (17.24 per cent) with less affected spongy tissue fruits per plant (08 Nos.) and increased in yield by 27.3 per cent with a B:C ratio of 4.9 over check (4.4).
- **Recommendation of the outcome :** Application of FYM@25kg/plant + RDF 30:180:680 NPK gm/plant+ Mango Special Spray @5g/ litre in July, November and December + Spray during Flowering- Planofix @ 1ml/litre , Spray Dimethoate @1.7ml/litre& Fruit fly trap- 10 Nos.

SMS (Agri.Extension)

- **Problem identified:**Zinc deficiency, Downy mildew and TLB disease &Low yield in Maize
- **Technology Intervention Undertaken** : Enhancing productivity through ICM Maize NAH-1137
- **Mode of Implementation** : Front Line Demonstration
- **Outcome:**Maize hybrid NAH-1137 which is tolerant to pests, increased the yield 19.24 per cent, based on the colour produce fetched more price.
- **Recommendation of the outcome** : Farmers are advised to take up demonstratedMaize hybrid - NAH-1137

- **Problem identified :**DBM pest & Low yield in Cabbage
- **Technology Intervention Undertaken :**Integrated Pest Management in Cabbage
- **Mode of Implementation :** Front Line Demonstration
- **Outcome:**Integrated pest management in Cabbage resulted in reduction (12per cent) of DBM pest load.
- **Recommendation of the outcome :** Mustard as a trap crop,Bt Spray @1 ml /lit at 10 days after transplanting, Indauxicarb 0.5 ml/lit, Neem soap spray @ 7 g/ litre, Pongamia soap @7 g / litre

- **Problem identified :**Low soil fertility & yield in Mango
- **Technology Intervention Undertaken :**Mucuna (Medicinal plant) as Intercrop in Mango
- **Mode of Implementation :** Front Line Demonstration
- **Outcome:**Dry matter content in Mucunawas 64 q/ha compared to check (cowpea) of 47 q/ha
- **Action for up-scaling / Recommendation of the outcome:**Mucuna can be taken up as intercrop in mango orchard. About 800 kg of seed production is being taken up for large quantity production in Mucuna.

SMS (Home Science)

- **Problem identified :**High drudgery orientedtraditional methods, Labour scarcity andHigh cost of labour in Groundnut decortication
- **Technology Intervention Undertaken :**Drudgery reduction using Groundnut Decorticator
- **Mode of Implementation :** Front Line Demonstration
- **Outcome:**By using Groundnut decorticator of UAS-B model, 85 per centmore quantity of kernels decorticated than farmers practice. The quantity of pods decorticated was 22 kg/hr in decorticator compared to manual practice (3 kg/hr).
- **Recommendation of the outcome:**Hand operated groundnut decorticator with grades
- and Sieves (Hiriyur Model, UAS-B)

- **Problem identified :**Storage pestsin Redgram
- **Technology Intervention Undertaken :**Safe storage method for pulses -Red gram
- **Mode of Implementation :** Front Line Demonstration
- **Outcome:** Safe storage method of Redgram given by UAS Bangalore has shown negligible infestation(0.2 per cent) on 6 months storage of redgram grains compared to control (7.2 per cent)
- **Recommendation of the outcome:**Safe storage of pulses - 25 hours drying onconcrete threshing yard for 5 days.Storing Red gram seeds in a bucket, Spreading 3 cm depth medium fine sand on seeds covering with lid.

Agenda Item No.06
Interactions and discussions

Agenda Item No.07
Finalization of action points

Agenda Item No.08
Any other agenda with the permission from the Chairman