ANNUAL PROGRESS REPORT OF KVK,TAWANG FOR 2016-17

1. GENERAL INFORMATION ABOUT THE KVK

1.1. Name and address of KVK with phone, fax and e-mail

Address	Telephone		E mail
	Office	FAX	
KRISHI VIGYAN KENDRA,Vill. CHANGBU, TAWANG, DISTRICT-TAWANG, (A. P.) PIN 790 104	09485235364		kvktawang123@gmail.com

1.2 .Name and address of host organization with phone, fax and e-mail

Address	Telephone		E mail
	Office	FAX	
DIRECTORATE OF AGRICULTURE, GOVT. OF ARUNACHAL PRADESH, NAHARALAGUN, DISTRICT-PAPUMPARE, (A. P.) PIN 790 104	03602244252	03602244252	kvkosd@yahoo.co.in

1.3. Name of the Programme Coordinator with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr.D.S.Chhonkar	-	09485235364	

1.4. Year of sanction:2008

1.5. Staff Position **(As on 31st March, 2017)**

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST/ OBC/ Others)
1	Programme Coordinator	Dr.D.S.Chhonkar	Senior scientist and head	Agronomy	37400-67000			Temporary	Others
2	Subject Matter Specialist	Mr. C.K. Singh	SMS (Agronomy)	Agronomy	15600-39100	25840	10-12-08	Temporary	Others
3	Subject Matter Specialist	Ms. Lakshmipriya Borah	SMS(Pl.Prote.)	Entomology	15600-39100		19-9-11	Temporary	OBC
4	Subject Matter Specialist	Dr. N.K. Pandey	SMS (Agril.Extension)	Agri. Extn.	15600-39100		04-10-11	Temporary	Others
5	Subject Matter Specialist	Ms. Lovin Mingki	P A (Soil Sc.)	Soil Sc.	9300-34800		12-02-13	Temporary	ST

6	Computer Programmer	Ms. K D. Komu	P. A.(Comp.)	Computer	9300-34800		25-11-08	Temporary	ST
7	Farm Manager	Mr.SonamTsering Khumu	Farm Manager	B.Sc (Agri)	9300-34800		05-02-13	Temporary	ST
8	Accountant / Superintendent	Mr. Koj Richo	Assistant	M.COM	9300-34800		02-12-08	Temporary	ST
9	Stenographer	Ms. J. Wangmo	Stenographer		5200-20400		24.06.09	Temporary	ST
10	Driver	Mr. Lham Dorjee	Driver		5200-20400		18-8-09	Temporary	ST
11	Driver	Mr. Tashi Dorjee	Driver		5200-20400		18-8-09	Temporary	ST
12	Supporting staff	Mr. Tashi Dawa	Chowkidar		4440-7400		18-8-09	Temporary	ST
13	Supporting staff	Ms. Tashi Pema	Peon		4440-7400		18-8-09	Temporary	ST
	Total	**13**							

1.6. a. Total land with KVK (in ha) :**7 .0 ha**

b. Total cultivable land with KVK (in ha):6.929

c. Total cultivated land (in ha):NA

S. No.	**Item**	**Area (ha)**
1	Under Buildings (Administrative building+ Farmers' Hostel+ Staff Quarters)	0.055
2.	Under Demonstration Units	0.016
3.	Under Crops (Cereals, pulses, oilseeds etc.)	NA
4.	Under vegetables	NA
5.	Orchard/Agro-forestry	NA
6.	Others (specify)	NA

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building		31 Dec. 2012	326.84 sq m	88.0 Lac		223.16	NA
2.	Farmers Hostel							
3.	Staff Quarters (6)							
4.	Demonstration Units (2)		31 Dec. 2012		12.0 Lac			
5	Fencing		31 Dec. 2012		15.0 Lac			

B) Vehicles

Type of vehicle	**Regd. No.**	**Year of purchase**	**Cost (Rs.)**	**Total kms. Run**	**Present status**
TATA Sumo Victa	AR 03/1778	2010	4,95,669	44182 as on 30/04/14	Not in good condition

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Power Tiller	2010	2,03,000	Running in good condition
Fax Machine	2010	93,735	Running in good condition
Photocopier	2010	24,825	Running in good condition
LCD Projector	2010	99,788	Running in good condition
Digital Camera	2010	19,990	Running in good condition
Computer with accessories(Desk Top)	2009-10	45,063	Running in good condition
Computer(Lap Top)	2010	48,672	Running in good condition
Furniture	2010	2,00000	Running in good condition
Almiraha & Furniture	2011-12	200000	Running in good condition
Inverter	2013	23,000	Running in good condition

1.8. A). Details SAC meeting* conducted in the year 2016-17

Sl.No	Date	Name & Designation of Participants	Salient Recommendation	Action taken on last recommendation
1	15/12/2016	Shri Gombu Tsering, PD, DRDA	Suggested for the organic agriculture and appealed the farmers to take the benefits of KVK's training, awareness programme etc.	
2		Shri Tage Haniya,RFO	Appeal to work on the new technology suitable for this hilly district where livelihood is so tough and to keep emphasis on local varieties with new technology	
3		Shri L.P Singh, HFA		
4		Smti Tsering Dream, EO		
5		Smti C.Lowang, ADTH		
6		Shri G.K.Lobun, TREX (GGP)		
7		Shri Tamding Tsewang , Farmer	He wanted to know about the crop insurance i.e Pradhan Mantri-Fasal Bima Yojna to compensate the crop damage	
8		Shri Toka lama, Farmer		
9		Smti Chemi yuton , Farmer		
10		Smti Chemi, Farmer		
11		Shri K.B. Koyastha, ADO	He gave some information on crop insurance and different govt. Scheme.	
12		Shri Rinchin Norbu, Chairman LNCS		
13		Shri M.D. Panday, AFA(Sr)		
14		Shri A.k.Shukla		
15		Shri Nandu Ram Sharma, Chief Manager, SBI, Tawang	He briefed about the crop insurance and also told the farmers that they can insure their crops after the notification by govt. Arunachal Pradesh is not covered under crop insurance till date.	
16		Dr D.S.Chhonkar, P.C,KVK,Tawang		
17		Ms Lakshmipriya Borah, SMS (PP),KVK,Tawang		

PROCEEDINGS OF SCIENTIFIC ADVISORY COMMITTEE MEETING 2016-2017, KVK, TAWANG

A Scientific Advisory Committee meeting was held at Zomkhang hall, Tawang on 15/12/2016 which was chaired by Mr Tage Haniya, Range Forest officer, Department of Forest, Dist Tawang. The meeting was graced by Mr. Gombu Tsering, Project Director, DRDA as a chief guest and the officer of different allied department, NGO and beneficiaries famers of KVK, Tawang.

At the very outset, Programme Coordinator, KVK Tawang, Dr D.S.Chhonkar spoke about the mandates of KVK and importance of the meeting. Mr Tage Haniya, chairperson of the meeting appealed to work on the new technology suitalb efor this hilly district where livelihood is so tough and to keep emphasis on local varieties with new technology. He also advice to keep some pesticides, organic manure, fungicides etc in limited quantity for procurement of the farmers, so that they can easily avail the same. He further requested to take up scientific measures for protection of oak trees at Lhou village of Tawang.

Thereafter, Programme Coordinator, KVK Tawang presented the Progress report of the year 2016-17 and action plan for the year 2017-18. The action plan 2017-18 was discussed by all present in the meeting.

Shri Gombu Tsering chief guest of the meeting suggested for the organic agriculture and appealed the farmers to take the benefits of KVK's training, awareness programme etc.

Mr Tamding Tsewang, Progressive farmer from Poito village wanted to know about the crop insurance i.e Pradhan mantra Fasal Bima Yojna to compensate the crop damage.

Mr N.R.Sharma, Chief Manger, SBI Tawang described about the crop insurance and also told the famers that they can insure their crops after the notification by govt. Arunachal Pradesh is not covered under crop insurance till date.

Mr. K.B.Kayastha, ADO Tawang added more information on crop insurance and different govt. schemes.

The meeting was ended with the vote of thanks by SMS, Plant Protection Ms. L.Borah.

2. DETAILS OF DISTRICT

2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

Sl. No	Farming system/enterprises
1.	Agriculture+Horticulture+Animal Husbandry+Pisciculture+Forestry
2.	Agriculture+ Horticulture+Animal Husbandry+ Forestry
3.	

2.2 Description of Agro-climatic Zone & major agro-ecological situations (based on soil and topography)

Sl. No	Agro-climatic Zone	Characteristics
	Eastern Himalayan Region (Zone II) Sub region-: Higher Himalayan region(Alpine) High altitudes mountainous belt from 6000 ft to 1100 ft (Temperate Alpine zone) Sub-Mountainous area.	Snow Covered Himalayan Peaks from 11,000 feet to 22,000 feet which mostly includes bare mountains and are mostly uninhabited. It contains plateau and narrow valley and is sparsely populated. Tropical to cool climate throughout the year. It ranges from 3000 ft to 6000 ft which covers valleys and slpoes. Sub-Tropical climate with hot humid summer and moderately cool climate.

2.3 Soil type/s

Sl. No	Soil type	Characteristics	Area in ha
	Sandy skeletal/loamy/fine loamy texture	Rocky and loamy skeletal with medium to deep depth.	7596

2.4. Area, Production and Productivity of major crops cultivated in the district

Sl. No	Crop	Area (ha)	Production (ton)	Productivity (Qtl /ha)
1.	Rice	760	11780	15.5
2.	Maize	695	6997	10.06
3.	Wheat	860	8991	10.45
4.	Finger Millet	1000	1000	10

5.	Burley	205	2134	10.41
6.	Buck Wheat	90	900	10
7.	Oil Seeds	155	1350	8.70
8	Pulses	152	1243	8.10
9.	Chilly	70	1540	22
10.	Garlic	15	375	25
11.	Ginger	26	650	25
12.	Turmeric	14	308	22
13.	Other Spices	08	84	10.5

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	
October	3.30	22.52	4.53	80.19
November	0.41	17.48	0.13	80.13
December	Snowfall(4mm)	13.53	-1.87	80.61
January	Snowfall (6 mm)	17.24	-2.18	74.92
February	Snowfall (10 mm)	11.25	-2.89	71.56
March	3.21	11.78	2.31	80.15

2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district

Category	Population	Production	Productivity
Cattle			
Crossbred	--	--	--
Indigenous	**25246**	**53900 ltrs milk,1395 qtls meat**	**1.5 lt/cow/day**
Buffalo	--	--	--
Sheep			
Crossbred	--	--	--
Indigenous	**9774**	**1500 kg meat**	**4 kg/sheep**

Goats	**4360**	**5328 kg meat**	**3.5 kg/goat**
Pigs			
Crossbred	**--**	**--**	**--**
Indigenous	**2850**	**6000kg**	**6 kg/pig**
Rabbits	**--**	**--**	**--**
Poultry			
Hens			
Desi	**9609**	**14409kg**	**1.25 kg/hen**
Improved	**--**	**--**	**--**
Ducks	**--**	**--**	**--**
Turkey and others	**--**	**--**	**--**

Category	**Area**	**Production**	**Productivity**
Fish	**140.85 ha**	**21517 kg**	**153 kg/ha**
Marine	**--**	**--**	**--**
Inland	**--**	**--**	**--**
Prawn	**--**	**--**	**--**
Scampi	**--**	**--**	**--**
Shrimp	**--**	**--**	**--**

Note: Pl. provide the appropriate Unit against each enterprise

2.6 Details of Operational area / Villages (2016-17)

Sl. No.	Taluk/ Eleka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified thrust area
	Tawang	Kitpi	Kitpi, Shernup,&Audung	Paddy (Transplanted)	1. Traditional mixed cropping 2. Poor soil fertility & lack of knowledge about fertility management. 3. Attack of stem borer, gall midge , gandhi bug, leaf folder, and leaf roller 4. Poor yield of local varieties 5. Lack of irrigation facility 6.Loss of nutrient through water erosion 7. Attack of khaira,Stem rot,blast and bacterial leaf blight 8. Acidity of soil.	1. Scientific cropping system 2. INM package 3. Varietal intervention 4. IPM against major pests and disease. 5. Scientific crop management 6. Spraying of water soluble fertilizer. 7. Application of organic manure 8. Soil acidity management

	Lumla	Lumla	**Poito,Shakti,Namtsering,Lumhang**	Paddy,Pea,Soyabean,Finger millet,Black gram,Groundnut	1. Traditional management 2. Poor soil fertility & lack of knowledge about fertility management. 3. Attack stem borer and top borer 4. Lack of awareness aboutmaize based cropping system 5. Lack of irrigation facility 6.Loss of nutrient through water erosion 7. Poor yield of local variety 8. Acidity of soil	1. Scientific cropping systems 2. INM package 3. IPM against major pests. 4. Scientific crop management 6. Spraying of water soluble fertilizer. 7. Application of organic manure 8. Varietal intervention 9. Soil acidity management
	Tawang	Lumla	Lumla,Sherbang	Paddy,Pea,Soyabean,Finger millet,Black gram,Groundnut	1. Traditional management 2. Poor yield of local varieties 3. Acidity of soil 4. Loss of nutrient through water erosion 5. Attack of Bihar hairy caterpillar and tobacco caterpillar 6. Attack of seedling rot and rust.	1. Scientific production technology 2. INM package 3. Varietal intervention 4. Soil acidity management 5. Spraying of water solublefertilizer 6. IPM against major pests. 7. Application of organic manure

	Tawang	Tawang	Audung,Soma	Blackgram	1. Traditional management 2. Poor soil fertility & lack of knowledge about fertility management. 3. Poor yield of local varieties 4. Acidity of soil 5. Attack of stem borer and Aphids 6. Lack of irrigation facility 7. Loss of nutrient through water erosion 8. Attack of seedling blight and blast	1. Scientific production technology 2. INM package 3. Varietal intervention 4. Soil acidity management 5. IPM against major pest and disease 6. Scientific crop management 7. Spraying of water soluble fertilizers 8.Application of organic manure

	Tawang	Kitpi	Kitpi, Shernup, Audung	Brinjal	1 Poor soil fertility & lack of knowledge about fertility management. 2. Poor yield of local varieties 3. Lack of irrigation facility 4.Loss of nutrient through water erosion 5. Attack of bacterial blight 6. Acidity of soil.	1. Scientific cropping system 2. INM package 3. Varietal intervention 4. IPM against major pests and disease. 5. Scientific crop management 6. Spraying of water soluble fertilizer. 7. Application of organic manure 8. Soil acidity management.

	Tawang	Tawang	Lamberdung	Cabbage	1. Traditional management 2. Poor soil fertility & lack of knowledge about fertility management. 3. Attack stem borer and top borer 5. Lack of irrigation facility 6.Loss of nutrient through water erosion 7. Poor yield of local variety 8. Acidity of soil	1. Scientific cropping systems 2. INM package 3. IPM against major pests. 4. Scientific crop management 6. Spraying of water soluble fertilizer. 7. Application of organic manure 8. Varietal intervention 9. Soil acidity management
	Tawang	Kitpi, Tawang	Kitpi, Audung, Seru	Fisheries	1.Lack of awareness on scientific fish farming 2.Low fish production 3.Unavailability of good quality fish seed 4.Fish disease	1.Composite fish farming 2.Integrated Fish farming systems 3.Good quality fish seed

3. TECHNICAL ACHIEVEMENTS

3. A. Details of target and achievements of mandatory activities by KVK during 2016-17

Discipline	OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Maize, Other Crops/Enterprises)			
	Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Agronomy	04	04	14	14	02	02	17	17
Horticulture	04	03	12	10	02	02	07	07
Plant Protection	03	03	09	09	03	03	36	36
Agril Extn.	02	02	120	120	03	03	212	212
Total	**13**	**12**	**155**	**153**	**10**	**10**	**262**	**262**

Note: Target must be as set during last Action Plan Workshop

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers								
Rural youth								

Extn. Functionaries								
Total								

Seed Production (ton.)		Planting material (Nos. in lakh)	
5		6	
Target	**Achievement**	**Target**	**Achievement**

Note: Target must be as set during last Action Plan Workshop

3. B. Abstract of interventions undertaken during 2016-17

Sl. No	Thrust area	Crop/ Enterprise	Identified problems	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
1	Varietal evaluation	Paddy-Pea	Low yield of local variety	Varietal evaluation of paddy var.CAU-R1		Scientific cultivation of CAU R-1			Seed
2	Varietal evaluation	Maize-Potato	Low yield of local variety	Varietal evaluation of Maize var.RCM-76		Scientific cultivation of RCM-76			Seed

3	Varietal evaluation	Soyabean-Wheat	Low yield of local variety	Varietal evaluation of Soyabean var.Js-335		Scientific cultivation of Js-335			Seed
4	Varietal evaluation	Potato Potato-Cole crop	Low yield of local variety	Varietal evaluation of Potato var.Kufri kanchan		Scientific cultivation of Kufri kanchan			Seed
5	Pest management	Rice Rice-Vegetables	Low yield due to infestation of stem borer	Management of stem borer in rice		IPM in rice	Integrated Disease and Pest Managem ent in rice		Plant protection materials
6	Disease management	Chilli Chilli-Pea	Low yield due to fruit rot dise	Management of fruit rot disease in chilli		Management of fruit rot disease in chilli			Plant protection materials
7	IPM	Cabbage Cabbage-Wheat	Low yield due to different pests	IPM in cabbage		Major pests and diseases of Cole crops	Major pests and diseases of vegetables in Tawang district and their managem ent	Field Day and Leaflet	Seeds,Plant protection materials

8	Varietal evaluation Var. Pusa drumhead	Cabbage - Pea	Poor yield of local variety and susceptibility to nematode	Varietal evaluation of cabbage for yield contributing characters					Seed
9	Varietal evaluation	Chilli -Pea	Poor yield	Varietal evaluation of chilli variety Kashi Anmol					Seed
10	Varietal evaluation Var. Palam Samridhi	Broccoli - Wheat	Poor yield of local variety	Varietal evaluation of broccoli Var. Palam Samridhi					Seed

OFT : Discipline of Agricultural Extension						
Crop	**Problem diagnosed**	**Technology/ Social concept**	**Title of OFT**	**No. Of Trials**	**Parameters on Assessment/Refined**	**Result**
Social Concept	Lack of technical knowledge		Assessment of Radio listeners about effectiveness grameen parsaran in dissemination of agricultural	8 groups (80farmers)	Listeners- Total no. of Farmers-80 Farmers feedback on parsaran to transfer of agricultural technology: High- 19%	After group study of farmers, it clear that grameen parsaran is efficient technology for disseminating the agricultural

			technology		Medium-73% Low-8% Non Listener- High- 0% Medium-37% Low-63%	technical knowledge.
Extension channel	Limited popularity of scientific cultivation	Extension channel used	Assessment of extension channel used by the Tawang farmers	8 groups(40 farmers)	a- Total no. of farmers quaries- 40 b- No. of quaries relevant toextension channel- 36 (90%) c- Need and time based discussion with scientist by farmers- 32(80%) d- Feedback of on the utility of extension channel to scientific technology – High- 11% Medium-61% Low-28% Farmers practices- High- 0% Medium-44% Low-56%	Hence it is found that extension channel is effective technology for enhance to the agricultural technical knowledge of the farmers.

3.1 Achievements on technologies assessed and refined during 2016-17

A.1 Abstract of the number of technologies **assessed*** in respect of crops/enterprises

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation	02	01			03				01	07
Seed / Plant production										
Weed Management										
Integrated Crop Management										
Integrated Nutrient Management										
Integrated Farming System										
Mushroom cultivation										
Cropping sequence										
Farm machineries										
Value addition										
Integrated Pest Management	01				01					02

Integrated Disease Management					01					01
Resource conservation technology										
Small Scale income generating enterprises										
TOTAL										

* *Any new technology, which may offer solution to a location specific problem but not tested earlier in a given micro farming situation.*

A.2. Abstract of the number of technologies **refined*** in respect of crops/enterprises :NIL

***** *Technology that is refined in collaboration with ICAR/SAU Scientists for improving its effectiveness.*

A.3. Abstract of the number of technologies **assessed** in respect of livestock / enterprises :NA

A.4. Abstract on the number of technologies **refined** in respect of livestock / enterprises :NA

5. Results of On Farm Testing

Sl. No.	Title of OFT	Problem Diagnosed	Name of Technology Assessed	Crop/Cropping system/ Enterprise	No. of Trials	Results of Assessment/ Refined (Data on the parameter should be provided)	Feedback from the farmer	Feedback to the Researcher	B.C . Ratio (if applicable)
01	Varietal evaluation of paddy var.CAU-R1	Low yield of local variety	Scientific cultivation of CAU R1	Rainfed	04	i. Paddy Plant height 90m. ii. No of effective tillers/m^2-213 iii. No.fo panicle/m^2-213 iv. Grain/panicle-83 v. 1000-grain weight 22 gm.	Farmers are interested for adopt ion of new variety of paddy	Technology is suitable for the District	1.9:1
02	Varietal evaluation of Maize var.RCM-76	Low yield of local variety	Scientific cultivation of RCM-76	Rainfed	03	i. Plant height(cm)-130 ii. Cob/plant-1.25 iii. Length of	Farmers are interested for adopt ion of new variety of	Technology is suitable for the District	2.2:1

						iv. cob(cm)-17 1000-grain weight(gm)-210	Maize		
03	Varietal evaluation of Soyabean var.Js-335	Low yield of local variety	Scientific cultivation of Js-335	Rainfed	03	i. Plant height(cm)-32 ii. Branches/plant-05 iii. Pod/plant-27 iv. Seed/pod-3.0 v. 100-Seed weight (gm)-15	Farmers are interested for adopt ion of new variety of Soyabean	Technology is suitable for the District	2.5:1
04	Varietal evaluation of Potato var.Kufri kanchan	Low yield of local variety	Scientific cultivation of Kufri kanchan	Rainfed	04	On going			
05	Management of stem borer in rice	Low yield due to infestation of stem borer	Chlorpyriphos 20 EC (.02%) when one egg mass/ sqm, Phorate 10 G @ 10g/ ha at active tillering stage Chlorpyriphos 20 EC (.02%) when 1 moth /sqm at heading stage.	Rainfed	03	Pre-treatment count of insects=18 Post treatment count of insects=01 Population of Natural Enemies before treatment =09 Population of NE after	Farmers are interested to adopt this technology	Technology is suitable for the District	1.8 :1

						treatment=03			
06	Management of fruit rot disease in chilli	Low yield due to fruit rot disease	Seed treatment with Captan @2g/kg seeds before sowing. Spray the crop with 2kg of Indofil M-45 in 625 ltr water/ ha at 10 days interval from 30DAT	Rainfed	03	% of infected plants =4% (Mean of observation taken in 10 days interval) Infestation of other pest =2% Yield=85q/ha	Farmers are interested to adopt this technology	Technology is suitable for the District	2.6 :1
07	IPM in cabbage	Low yield due to different pests	Summer ploughing,Use of Yellow Stickers, Spray with Neem pesticide @5ml/lit at every 10 days interval from 30 DAT.	Rainfed	03	Pre-treatment count of insects=26 Post-treatment count of insects=02 Population of natural enemies before treatment=07 Population of NE after treatment=06 Yield=275 q/ha	Farmers are interested to adopt this technology	Technology is suitable for the District	2.6 :1

8	Varietal evaluation of cabbage for yield contributing characters	Poor yield of local variety and susceptibility to nematode	Varietal evaluation Var. Pusa drumhead	Rainfed	04	1.Days to 50% head formation – 85 2. Days to first harvest – 95 3. N0. of leaves per head – 15 4. Av. Net head wt. – 1.1 Kg 5. Yield (Q/Ha) -282	Farmers are interested to adopt this technology	Technology is suitable for the District	2.1 :1
9	Varietal evaluation of chilli variety Kashi Anmol	Poor yield	Varietal evaluation	Rainfed	03	1. Plant height – 50cm 2. No. of branches – 3.6 3. Days to 50% flowering -56 4. Fruit circumference /girth – 2.5cm 5. Yield q/ha.-89	Farmers are interested to adopt this technology	Technology is suitable for the District	2.96:1

10	Varietal evaluation of broccoli Var. Palam Samridhi	Poor yield of local variety	Varietal evaluation Var. Palam Samridhi	Rainfed	03	1.Plant height-70.5cm 2. Head height-52.5cm 3. Head width-17.1cm 4. No. of leaf/plant-19 5.Net head wt.-0.42g 6. Yield (Q/Ha) -140	Farmers are interested to adopt this technology	Technology is suitable for the District	3.8 :1

Field crops – ton/ha, * for horticultural crops -= kg/t/ha, * milk and meat – litres or kg/animal, * for mushroom and vermi compost kg/unit area.

***** Give details of the technology assessed or refined and farmer's practice***

3.2 Achievements of Frontline Demonstrations during 2016-17

a. Follow-up for results of FLDs implemented during previous years

List of technologies demonstrated during previous year and popularized during 2016-17 and recommended for large scale adoption in the district

Sl. No	Crop/ Enterprise	Technology demonstrated	Horizontal spread of technology		
			No. of villages	No. of farmers	Area in ha
01	Groundnut-Wheat	Varietal performance of groundnut var.chitra	04	10	5.0

02	Paddy-Toria	Broadcasting of toria at dough stage of paddy	03	10	1.5
03	Eco-friendly management of cabbage butterfly Cabbage-Wheat	Physical control by summer ploughing , hand picking,Yellow stickers,application of Neem pesticides at 30,45,60 DAT.	04	16	2.0
04	Management of Rhizome rot: Ginger-Pea	Application of Biofor-PF in the soil @ 10Kg/ha, Treatment of ginger Rhizome with Biofor –PF @ 1 Kg/10kg Rhizome	03	10	1.0
05	Integrated Disease Management of capsicum Capsicum-Pea	Seed treatment with Captan @2g/kg seeds before sowing. Spray the crop with 2kg of Indofil M-45 in 625 ltr water/ ha at 10 days interval	03	10	1.0
06	Tomato Tomato-Wheat	Varietal performance (var Megha-3, Transplanting 1st may for spacing 50x50cm N:P:K @ 120:80:50 kg/ha)	04	04	1.0
07	Apple	Canopy management	03	03	1.0

**** Thematic areas as given in Table 3.1 (A1 and A2)***

b. Details of FLDs conducted during reporting period (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement	Farming situation (Rainfed/ Irrigated, Soil type, altitude, etc)	Status of soil (Kg/ha)		
												N	P	K
					Proposed	Actual	SC/ST	Others	Total					
1.	Ground nut	Varietal performance	Varietal performance of groudnut var.chitra	Kharif, 2016	10	10	15	-	15		Rainfed			
2.	Paddy-Toria	Realy cropping	Broadcasting of toria at dough stage of paddy	Kharif& rabi 2016-17	10	10	16	-	15		Rainfed			
3	Cabbage	IPM	**Eco-friendly management of cabbage butterfly:** Physical control by summer ploughing , hand picking,Yellow stickers,application of Neem pesticides at	Kharif, 2016	02	02	16	-	16		Rain fed			

			30,45,60 DAT.											
4	Ginger	Disease management	Management of Rhizome rot: Application of Biofor-PF in the soil @ 10Kg/ha, Treatment of ginger rhizome with Biofor –PF @ 1 Kg/10kg Rhizome		01	01	10	-	10		Rain fed			
5	Capsicum	Disease management	Integrated Disease Management of capsicum: Seed treatment with Captan @2g/kg seeds before sowing. Spray the crop with 2kg of Indofil M-45 in 625 ltr water/ ha at 10 days interval		01	01	10	-	10		Rain fed			

6	Tomato	Varietal performance	Varietal performance (var Megha-3, Transplanting 1st may for spacing 50x50cm N:P:K @ 120:80:50 kg/ha)		01	01	04	-	04		Rainfed			
7	Apple	Canopy management	Scientific canopy management		01	01	03	-	03		Rainfed			

c. Performance of FLD on Crops

Sl. No.	Crop	Thematic area	Area (ha.)	Avg. yield (Q/ha.)		% increase in Avg. yield	Additional data on demo. yield (Q/ha.)		Data on parameters other than yield, e.g., disease incidence, pest incidence etc.		Econ. of demo. (Rs./ha.)				Econ. of check (Rs./Ha.)			
				Demo.	Check		H*	L*	Demo	Local	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR
1	**Groundn**	Varie	10	**18.5**	**11.5**	**52**	**22**	**15**			**52,000**	**140,000**	**88,000**	**2.6:1**				

	ut	tal perfo rman ce																
2	Paddy-Toria	Realy cropp ing	10															
3	Cabbage	I.P.M	02	276.5	190	45.52	279	274			89,000	2,54,00 0	1,65,0 00	2.8:1				
4	Ginger	Disea se mana geme nt	01	45	28	60	47	43			85,000	3,15,00 0	2,30,0 00	3.7:1				
5	Capsicum	Disea se mana gem	01	145.5	98	48	149	142			78,000	2,40,00 0	1,62,0 00	2:1				
6	Tomato	Varie tal perfo rman ce	01	197	117	68	218	176			1,45,000	394000	2,49,0 00	2.7:1				

FLD : Discipline of Agricultural Extension						
Crop	**Problem diagnosed**	**Technology/ Social concept**	**Title of FLD**	**No. of Trials**	**Parameters on Assessment/Refined**	**Result**
Cabbage	Lack of technical knowledge	Use of extension liturature	Assessment of knowledge gain by the farmers through extension literature	10 groups (90farmers)	a- Total no. of farmers quaries- 90 Total no. of Farmers- 80 (89%) Farmers feedback on parsaran to transfer of agricultural technology: High- 19% Medium-73% Low-8% Non Listener- High- 0% Medium-37% Low-63%	After group study of farmers, it clear that grameen parsaran is efficient technology for disseminating the agricultural technical knowledge.
Wheat	Lack of technical knowledge	KVK activities	Assessment of knowledge gain by the farmers through KVK activities	10 groups (90farmers)	Beneficiaries- a. Total no. of farmers quaries : 90 b. No. of farmers participated in kvk activities: 75 (83%) c. Farmers feed back on extension literature to scientific technology: High = 24%, Medium = 65% & Low = 11 % Non	It is clear that kvk activitiesis effectiv for disseminating the agricultural technical knowledge.

					Beneficiaries-High-0% Medium-45%& low - 55%	
Custom hire service	Use of inferior traditional farm implements due to lack of improve farm machinery ck of	Farmers run Custom Hire Service Centre	Assessment of farmers run custom hire service centre to introduce and popularize improved farm implements and equipments	4 group (32 farmers)	% of farmers benefitted K. sprayer : 35 – 40 % Weed Hoer-30-40% Spade: 20-25% Khurpi- 25-30%	It is clear that custom heir service is helpful for aware to the farmers about use of improve agricultural implements knowledge.

d. Extension and Training activities under FLD on Crops: Field day

e.

e. Details of FLD on Enterprises :NA

(i) Farm Implements

Name of the implement	Crop	No. of farmers	Area (ha)	Performance parameters / indicators	* Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		

**** Field efficiency, labour saving etc.***

(ii) Livestock Enterprises:NA

Sl. No.	Enterprise/ Category (e.g., Dairy, Poultry etc.)	Thematic area	Name of Technology	No. of farmers	No. of units	No. of animals, poultry birds etc.	Major Performance parameters / indicators		% change in the parameter	Other parameters (if any)		Econ. of demo. (Rs./Ha.)				Econ. of check (Rs./Ha.)				Remarks
							Demo	Check		Demo	Check	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR	

** GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio

Produce Sale Price must be as per MSP or Registered Marketing Society

Pl. apply the formula: Net Return= Gross Return-Gross Cost, BCR= GR/GC

Note: Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.

(iii) Fisheries:NA

Sl. No.	Category, e.g. Common carp, ornamental fish etc.	Thematic area	Name of Technology	No. of farmers	No. of units	No. of fish/ fingerlings	Major Performance parameters / indicators		% change in the parameter	Other parameters (if any)		Econ. of demo. (Rs./Ha.)				Econ. of check (Rs./Ha.)				Remarks
							Demo	Check		Demo	Check	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR	

***** GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio***

Note: Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.

(iv) Other enterprises:NA

Sl. No.	Category/ Enterprise, e.g., mushroom, vermicompost, apiculture etc.	Thematic area	Name of Technology	No. of farmers	No. of units	Major Performance parameters / indicators		% change in the parameter	Other parameters (if any)		Econ. of demo. (Rs./Ha.)				Econ. of check (Rs./Ha.)				Remarks
						Demo	Check		Demo	Check	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR	

***** GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio***

Note: Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.

(v) Farm Implements and Machinery:NA

Sl. No.	Name of implement	Crop	Name of Technology demonst	No. of farmers	Area (In ha.)	Field observation (Output/ man-hours)	% change in the paramet	Labour reduction (Man days)	Cost reduction (Rs. per ha. or Rs. per unit	Remarks

			rated			Demo	Check	er		etc.)	

f. Performance of FLD on Crop Hybrids:NA

Sl. No.	Crop	Name of hybrids	Area (ha.)	No. of farmers	Avg. yield (Q/ha.)		% increase in Avg. yield	Additional data on demo. yield (Q/ha.)		Econ. of demo. (Rs./Ha.)				Econ. of check (Rs./Ha.)			
					Demo.	Check		H*	L*	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR

****H-Highest recorded yield, L- Lowest recorded yield***

***** GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio***

Note: Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.

3.3. Achievements on Training

3.3.1. Farmers and Farm Women in On Campus including Sponsored On Campus Training Programmes (*Sp. On means On Campus training programmes sponsored by external agencies):NIL

3.3.2. Achievements on Training of Farmers and Farm Women in Off Campus including Sponsored Off Campus Training Programme (*Sp. Off means Off Campus training programmes sponsored by external agencies)

Thematic area	No. of Courses/ prg.			Participants																		Grand Total
				General						SC/ST						Total						
	Off	Sp Off *	Total	Male		Female		Total		Male		Female		Total		Male		Female		Total		
				Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	
I. Crop Production																						
Weed Management	02	-	02							23	-	33	-	56	-	23	-	33	-	56	-	56
Resource Conservation Technologies																						
Cropping Systems																						
Crop Diversification																						
Integrated Farming																						

Water management																						
Seed production	02	-	02							25	-	34		59	-	25	-	34	-	59	-	59
Nursery management	01		01							12	-	19	-	31	-	12	-	19	-	31	-	31
Integrated Crop Management																						
Fodder production	01		01							08	-	20	-	28	-	08	-	20	-	28	-	28
Production of organic inputs	04	-	04							38	-	69	-	107	-	38	-	69	-	107	-	107
II. Horticulture																						
a) Vegetable Crops																						
Production of low volume and high value crops	01	-	01							02	-	19		21		02	-	19		21		21
Off-season vegetables	02	-	02							10	-	48		58		10	-	48		58		58
Nursery raising	01	-	01							09	-	17		26		09	-	17		26		26
Exotic vegetables like	02	-	01							03	-	20		23		03	-	20		23		23

Broccoli																						
Export potential vegetables																						
Grading and standardizatio n																						
Protective cultivation (Green Houses, Shade Net etc.)																						
b) Fruits																						
Training and Pruning																						
Layout and Management of Orchards																						
Cultivation of Fruit																						
Management of young plants/orchard s																						
Rejuvenation																						

of old orchards																						
Export potential fruits																						
Micro irrigation systems of orchards																						
Plant propagation techniques																						
others																						
c) Ornamental Plants																						
Nursery Management																						
Management of potted plants																						
Export potential of ornamental plants																						
Propagation techniques of Ornamental Plants																						

d) Plantation crops																					
Production and Management technology																					
Processing and value addition																					
e) Tuber crops																					
Production and Management technology																					
Processing and value addition																					
f) Spices																					
Production and Management technology																					
Processing and value addition																					
g) Medicinal and Aromatic Plants																					
Nursery management																					

Production and management technology																						
Post harvest technology and value addition																						
III Soil Health and Fertility Management																						
Soil fertility management																						
Soil and Water Conservation																						
Integrated Nutrient Management																						
Production and use of organic inputs																						
Management of Problematic soils																						
Micro nutrient deficiency in crops																						

Nutrient Use Efficiency																						
Soil and Water Testing																						
VII Plant Protection																						
Integrated Pest Management	2	-	2							22	-	34	-	56	-	22	-	34	-	56	-	56
Integrated Disease Management	2	-	2							21	-	30	-	51	-	21	-	30	-	51	-	51
Bio-control of pests and diseases	2	-	2							20	-	27	-	47	-	20	-	27	-	47	-	47
Rodent pest management	2	-	2							25	-	16	-	41	-	25	-	16	-	41	-	41
Chemical control	2	-	2							16	-	36	-	52	-	16	-	36	-	52	-	52
Organic farming	1	-	1							5	-	15	-	20	-	5	-	15	-	20	-	20
Plant protection in fruit	1	-	1							14	-	12	-	26	-	14	-	12	-	26	-	26
X Capacity Building and Group Dynamics																						

Leadership development	02	-	02							**18**	-	**33**	-	51	-	18	-	33	-	51	-	51
Group dynamics	01	-	01							09	-	18	-	27	-	09	-	18	-	27	-	27
Formation and Management of SHGs	04	-	04							39	-	60	-	99	-	39	-	60	-	99	-	99
Mobilization of social capital	01	-	01							09	-	16	-	25	-	09	-	16	-	25	-	25
Entrepreneurial development of farmers/youths	03	-	03							28	-	47	-	75	-	28	-	47	-	75	-	75
WTO and IPR issues																						
Production technologies																						
Nursery management																						
Integrated Farming Systems																						

TOTAL																						

(B) RURAL YOUTH

3.3.3. Achievements on Training <u>Rural Youth</u> in <u>On Campus</u> including <u>Sponsored On Campus</u> Training Programmes

(*Sp. On means On Campus training programmes sponsored by external agencies):NIL

3.3.4. Achievements on Training of <u>Rural Youth</u> in <u>Off Campus</u> including <u>Sponsored Off Campus</u> Training Programmes

(*Sp. Off means Off Campus training programmes sponsored by external agencies)

Thematic area	No. of Courses/ Prog.			Participants																		Grand Total
				General						SC/ST						Total						
				Male		Female		Total		Male		Female		Total		Male		Female		Total		
	Off	Sp Off	Total	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	
Mushroom																						

Production																					
Bee-keeping																					
Integrated farming																					
Seed production																					
Production of organic inputs																					
Integrated Farming																					
Planting material production																					
Vermi-culture																					
Sericulture																					
Protected cultivation of vegetable crops																					
Commercial fruit production																					
Repair and maintenance of farm																					

machinery and implements																					
Nursery Management of Horticulture crops																					
Training and pruning of orchards																					
Value addition																					
Production of quality animal products																					
Dairying																					
Sheep and goat rearing																					
Quail farming																					
Piggery																					
Rabbit farming																					
Poultry production																					
Ornamental																					

fisheries																					
Para vets																					
Para extension workers																					
Composite fish culture																					
Freshwater prawn culture																					
Shrimp farming																					
Pearl culture																					
Cold water fisheries																					
Fish harvest and processing technology																					
Fry and fingerling rearing																					
Small scale processing																					
Post Harvest Technology																					

Tailoring and Stitching																						
Rural Crafts																						
TOTAL																						

C. Extension Personnel

3.3.5. Achievements on Training of Extension Personnel in On Campus including Sponsored On Campus Training Programmes

(*Sp. On means On Campus training programmes sponsored by external agencies): NIL

3.3.6. Achievements on Training of Extension Personnel in Off Campus including Sponsored Off Campus Training Programmes

(*Sp. Off means Off Campus training programmes sponsored by external agencies)

Thematic area	No. of Courses/ prog.			Participants																		Grand Total
				General						SC/ST						Total						
				Male		Female		Total		Male		Female		Total		Male		Female		Total		
	ON	Sp ON*	Total	ON	Sp ON*	ON	Sp ON*	ON	Sp ON*	ON	Sp ON*	ON f	Sp ON*	ON	Sp ON*	ON	Spv*	ON	Sp ON*	ON	Sp ON*	
Productivity enhancement in field crops	1		1	5		1		6		10		2		12		15		3		18		18
Integrated Pest Management	1		1	5		1		6		10		2		12		15		3		18		18

Integrated Disease management	1		1	3		1				17		5		22		20		6		26		26
Crop production	1		1	3		1				17		5		22		20		6		26		26
Capacity building	1		1	5		1		6		10		2		12		15		3		18		18
Formation and Management of SHGs	1		1	3		1				17		5		22		20		6		26		26
Group Dynamics and farmers organization																						
Information networking among farmers																						
Capacity building for ICT application																						
Care and maintenance of farm machinery and implements																						

WTO and IPR issues																					
Management in farm animals																					
Livestock feed and fodder production																					
Household food security																					
Women and Child care																					
Low cost and nutrient efficient diet designing																					
Production and use of organic inputs																					
Gender mainstreaming through SHGs																					
TOTAL																					

Note: Please furnish the details of above training programmes as Annexure in the proforma given below

Annexure 1: Details of Training Programme (On Campus including Sponsored On Campus) for Extension Personnel :

Discipline	Area of training	Title of the training programme	Date (From – to)	Duration in days	Venue	Please specify Beneficiary group (Farmer & Farm women/ RY/ EP and NGO Personnel)	General participants			SC/ST			Grand Total		
							M	F	T	M	F	T	M	F	T
Agronomy	Crop production	Scientific cultivation of Kharif pulse	20.7.2016	One day	KVK office	**Extension personnel**	3		3	3	2	5	6	2	8
		Scientific cultivation of Maize crop	4.8.2016	One day	Do	**Extension personnel**	5	1	6	10	4	14	15	5	20
	HRD training	Sustainable agriculture to enhance the soil health	18-20 march, 2016	3 days	KVK office	**Extension personnel**	5	1	6	15	5	20	20	6	26

Plant Protection	IPM	Major pest and disease of vegetables in Tawang district and their management	4.8.2016	One day	Do	**Extension personnel**	5	1	6	10	4	14	15	5	20
	IDM	Major pest and disease of rice in Tawang district and their management	5.9.2016	One day	do	**Extension personnel**	5	1	6	14	8	22	19	9	28
	HRD training	Livelihood security through IPM practices	27-29 march, 2016	3 days	KVK office	**Extension personnel**	5	1	6	15	5	20	20	6	26
Agri.Extension	Extension method	Oyster mushroom production	5.9.2016	One day	Do	**Extension personnel**	5	1	6	14	8	22	19	9	28

		technology													
		Entrepreneur ship development in agriculture	4.8.2016	One day	Do	**Extension personnel**	5	1	6	10	4	14	15	5	20
	HRD training	Improving livelihood through post harvest management	13-15 march, 2016	3 days	Do	**Extension personnel**	5	1	6	15	5	20	20	6	26

Annexure 2: Details of Training Programme (Off Campus including Sponsored Off Campus) for Farmers, Farm Women, Rural Youth and Extension Personnel

Discipline	**Area of training**	**Title of the training programme**	**Date (From – to)**	**Duration in days**	**Venue**	**Please specify Beneficiary group (Farmer & Farm women/ RY/ EP and NGO Personnel)**	**General participants**			**SC/ST**			**Grand Total**		
							M	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**
Agronomy	Weed Management	Integrated Weed Management in Maize	24.4.16	One day	Teli	**Farmer & Farm women**				12	17	29	12	17	29

	Weed Management	Integrated Weed Management in Potato	12.05.16	One day	Poito	**Farmer & Farm women**				11	16	27	11	16	27
	Seed Production	Seed Production of Wheat	16.06.16	One day	Khinmey	**Farmer & Farm women**				13	16	29	13	16	29
		Seed Production of Potato	10.07.16	One day	Gyanghar	**Farmer & Farm women**				12	18	30	12	18	30
	Fodder Production	Fodder Production of Berseem	28.09.16	One day	Teli	**Farmer & Farm women**				08	20	28	08	20	28
	Nursery Management	Scientific method of raising paddy seedlings	08.10.16	Noe days	Urgeling	**Farmer & Farm women**				12	19	31	12	19	31
	Production of	Production Of Organic	12.11.16	One day	Bomba	**Farmer & Farm women**				10	18	28	10	18	28

	Organic Inputs	Manure													
	Production of Organic Inputs	Production & use of Vermicompost	01.12.16	One day	Khinmey	**Farmer & Farm women**				09	17	26	09	17	26
	Production of Organic Inputs	Production Of Organic Manure	09.12.16	One day	Sernup	**Farmer & Farm women**				10	17	27	10	17	27
	Production of Organic Inputs	Production & use of Vermicompost	11.12.16	One day	Soma	**Farmer & Farm women**				10	17	27	10	17	27
	Soil testin	Method of Soil	2.01.17	One day	Khinm	**Farmer & Farm women**				10	18	28	10	18	28

	g	Sampling			ey										
	Soil testing	Method of Soil Sampling	27.1.17	One day	Soma	**Farmer & Farm women**				13	15	28	13	15	18
	Seed Production	Seed Production of Potato	18.02.17	One day	Khinmey	**Rural Youth**				16	15	31	16	15	31
	Production of Organic Inputs	Production & use of Vermicompost	28.02.17	One day	Lemberdung	**Rural Youth**				11	19	30	11	19	30
Horticulture	Exotic vegetable production	Production of exotic vegetable like Broccoli	12/04/16	One day	Changprong	**Farmer and Farm women**				01	23	24	01	23	24
	Exotic vegetable	Production of exotic vegetable like	24/04/16	One day	Sheru	**Farmer and Farm women**				02	22	24	02	22	24

	prod uctio n	Broccoli														
	Mana geme nt of youn g plant s/ orcha rd	Managem ent of Apple orchard	11/05/ 16	One day	Poito	**Farmer & farm women**				12	14	26	12	14	26
	Prod uctio n of low volu me high value crops	Productio n of low volume high value crops like Capsicum, Tomato& vegetable pea.	15/05/ 16	One day	lembe rdung	**Farmer and farm women**				02	19	21	02	19	21
	Nurs ery mana geme nt	Nursery managem ent of vegetable crops like Capsicum and	04/06/ 16	One day	Lhou	**Farmer and Farm women**				09	17	26	09	17	26

		Tomato														
Plant Protection	IPM	IPM in vegetables	13/4/16	One day	Changprong	**Farmer & Farm women**				12	10	22	12	10	22
	IDM	IDM in vegetables	25/4/16	One day	Seru	**Farmer & Farm women**				15	14	29	15	14	29
	IPM	IPM in vegetables	16/5/16	One day	Shajing	**Farmer & Farm women**				13	10	23	13	10	23
	IPM	IPM in fruits	3/6/16	One day	Kitpi	**Farmer & Farm women**				15	12	27	15	12	27
	IDM	IDM in fruits	25/6/16	One day	Khimney	**Farmer & Farm women**				10	12	22	10	12	22
	Chemical control	Management of rice pests.	21/7/16	One day	Teli	**Farmer & Farm women**				7	19	26	7	19	26
	Chemical control	Preparation of pesticidal solution	28/7/16	One day	Shyo	**Rural youth**				7	10	17	7	10	17
	Rodent manageme	Rodent management in rice	3/8/16	One day	Kitpi	**Farmer & Farm women**				18	11	29	18	11	29

	nt														
	Rodent management	Rodenticides and their uses	21/8/16	One day	Shajing	**Farmer & Farm women**				10	12	22	10	12	22
	Organic farming	Biopesticides:A measure for plant protection	4/9/16	One day	Lemberdung	**Farmer & Farm women**				16	14	30	16	14	30
	Organic farming	Management of tomato wilt using biopesticides	10/9/16	One day	Kitpi	**Farmer & Farm women**				5	16	21	5	16	21
	Biological Control	Use of trichocards in paddy.	9/10/16	One day	Soma	**Farmer & Farm women**				10	10	20	10	10	20
	Biological Control	Biocontrol of pests in cole crops	29/10/16	One day	Shernup	**Farmer & Farm women**				14	16	30	14	16	30

Agri.Extension	Entrepreneurial development of farmers	Agripeneurship through production of Biopesticide	24.4.16	One day	Teli	**Farmer & Farm women**				12	17	29	12	17	29
	Entrepreneurial development of farmers	Agripeneurship through production of Biopesticide	12.05.16	One day	Poito	**Farmer & Farm women**				11	16	27	11	16	27
	Entrepeneurial development of farmers	Enterpeneurship development through SHG	16.06.16	One day	Khinmey	**Farmer & Farm women**				13	16	29	13	16	29
	Entrepeneurial development of farme	Enterpeneurship development through	10.07.16	One day	Gyanghar	**Farmer & Farm women**				12	18	30	12	18	30

	rs	SHG														
	Formation and Management of SHGs	Formation of SHG	28.09.16	One day	Teli	**Farmer & Farm women**				08	20	28	08	20	28
	Formation and Management of SHGs	Formation of SHG	08.10.16	Noe days	Urgeling	**Farmer & Farm women**				12	19	31	12	19	31
	Production technologies	Production of Vermicompost	16/5/16	One day	Shajing	**Farmer & Farm women**				13	10	23	13	10	23
	Production technologies	Vegetable seed production	09.12.16	One day	Sernup	**Farmer & Farm women**				10	17	27	10	17	27
	Production technologie	Seed production of Cereal	11.12.16	One day	Soma	**Farmer & Farm women**				10	17	27	10	17	27

	s	crops														
	Marketing	Marketing of Agri.Products	12.10.16	One day	Teli	**Farmer & Farm women**				08	20	28	08	20	28
	Marketing	Marketing of Agri.Products	28.10.16	Noe days	Urgeling	**Farmer & Farm women**				12	19	31	12	19	31
	Formation and Management of SHGs	Formation of SHG	18.03.17	One day	Khinmey	**Rural Youth**				16	15	31	16	15	31

(D) Vocational training programmes for Rural Youth :NIL

Crop / Enterprise	Date (From – To)	Duration (days	Area of training	Training title*	No. of Participants			Impact of training in terms of Self employment after training	Whether Sponsored by external funding agencies (Please Specify with amount of fund in Rs.)
					General	SC/ST	Total		

					M	F	T	M	F	T	M	F	T	Type of enterprise ventured into	Number of units	Number of persons employed	Avg. Annual income in Rs. generated through the enterprise	

*training title should specify the major technology /skill transferred

Annexure 3: Only Sponsored Training Programmes (On, Off and Vocational):NIL

On/ Off/ Vocational	Beneficiary group (F/ FW/ RY/ EP)	Date (From-To)	Duration (days)	Discipline	Area of training	Title	No. of Participants									Sponsoring Agency	Amount of fund received (Rs.)
							General			SC/ST			Total				
							M	F	T	M	F	T	M	F	T		
Total																	

3.4. Extension Activities (including activities of FLD programmes) (Please mention specific Extension Activity conducted by the KVK such as Field Day, Kisan Mela, Exhibition, Diagnostic Visit, etc) during 2016-17

Sl. No.	Extension Activity	Topic	Date and duration	No. of activities	Participants											
					General (1)			SC/ST (2)			Extension Officials (3)			Grand Total (1+2)		
					M	F	T	M	F	T	M	F	T	M	F	T
1.	**Advisory services**		**Apr 16– Mar 17**	**82**				**35**	**78**	**113**	**-**	**-**	**-**	**35**	**78**	**113**
2.	Diagnostic visit		**Apr 16– Mar 17**	**131**				**96**	**131**	**227**				**96**	**131**	**227**
3.	Field day			**02**				**30**	**51**	**81**				**30**	**51**	**81**
4.	Group Discussion		**Apr 16– Mar 17**	**61**				**76**	**156**	**232**				**76**	**156**	**232**
5.	Kishan Gosthi															
	Kishan Mela			**01**				**53**	**92**	**145**				**53**	**92**	**145**
6.	Film show		**Apr 16– Mar 17**	10				20	30	50				20	30	50
7.	SHG formation		Sep, Dec.													
8.	Exhibition		Aug , Jan.	03												
9.	Scientists visit to farmers fields		**Apr 16 – Mar 17**	72				185	250	435				185	250	435
10.	Plant/ Animal Health camp			-												

11.	Farm science club			-													
12.	Ex-trainee Sammelan			-													
13.	Farmers seminar/ workshop			-													
14.	Method demonstration			12				60	95	155				60	95	155	
15.	Celebration of important days		Jan , Feb.	02													
16.	Exposure visits			-													
17.	Electronic media (CD/DVD)			03													
18.	Extension literature			05													
19.	Newspaper coverage			08													
20.	Popular articles			08													
21.	Radio talk			06													
22.	TV talk			-													
23.	Training manual			-													
24.	Soil health camp			01													
25.	Awareness camp			01													
26.	Lecture delivered as resource person			12				79	140	219				79	140	219	
27.	PRA			-				23	77	100				23	77	100	
28.	Farmer-Scientist interaction			20													
29.	Soil test campaign																
30.	Mahila Mandal Convener meet																

31.	Any other (Please specify)															
32.																
	Grand Total															

3.5 Production and supply of Technological products during 2016-17

A. SEED MATERIALS:NIL

A1. SUMMARY of Production and supply of Seed Materials during 2016-17:NIL

B. Production of Planting Materials : Cabbage -1000 seedlings, Cauliflower-1500 seedlings, Broccoli-1000 seedlings.

B1. SUMMARY of Production and supply of Planting Materials (In Lakh) during 2016-17:

C. Production of Bio-Products during 2016-17: Vermicompost-3quintal

C1. SUMMARY of production of bio-products during 2016-17:NIL

D. Production of livestock during 2016-17:NIL

D1. SUMMARY of production of livestock during 2016-17:NIL

3.6. Literature Developed/Published (with full title, author & reference) during 2016-17:

(A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.):Periodicity –Annual, No of Copies-1000

(B) Articles/ Literature developed/published: Folder- 6, Technical bulletin-1,

Title of Folder:

1. Oyster Mushroom production technology
2. Package of practices of onion cultivation.
3. Package of practices of cabbage cultivation.
4. Formation of SHG and its Function
5. Cultivation of finger millets.
6. Cultivation of Groundnut.

Title of Technical Bulletin:Improved method of onion production technology and its transfer to farmers.

N.B. Please enclose a copy of each. In case of literature prepared in local language, please indicate the title in English

(C) Details of Electronic Media Produced:NIL

3.7. Success stories/Case studies, if any (two or three pages write-up on each case with suitable action photographs):

Subject: Agronomy

Comparative Advantages of growing Groundnut in Tawang district- A Success story-

Tawang is district of the Eastern Himalayan Region which is situated between latitude of 91^0 33'E to92^0 26'E and longitude of 27^0 29'N to27^o 52'N.The Tawang has temperate and sub-tropical climate.

The cultivation of groundnut in tawang district under 73.5 ha. but productivity is very low (7.0 qt/ha.) due to the farmers are grow local variety of groundnut without scientific method of cultivation.

Krishi vigyan Kendra, tawang introduce the Kaushal (high yielding) variety of groundnut with scientific method of cultivation in the farmer's field to obtain higher yield comparison to farmer's practices.

Table: Comparative Advantage of growing groundnut

Particulars	Scientific practices	Farmer practices
variety	Kaushal	Local
Planting distance	30x15cm.	Broadcasting
manures	8-10 tonnes/ha.	4-5 tonnes/ha.
Yield(qt/ha)	13.0	7.0
Gross return	78,000	42,000
Net profit	48,000	22,000
B:C ratio	2.6:1	1.8:1

Subject: Horticulture

Success story of Tomato variety Megha – 3 in Tawang

Tomato is one of the most popular solanaceous crop, grown in Tawang and adjoining areas. But serious incidence of blight disease, with heavy rainfall, during growing period, causes heavy loss to the farmer. Keeping in mind, Tomato variety Megha – 3 was introduced in the area, with a predetermined schedule to spray fungicide like Ridomil and Dithane M 45 alternatively along with other chemicals to control and check the development and spread of blight disease resulted in bumper harvest of Tomato fruit. Input to the farmers were provided by the KVK, under direct supervision of KVK – Scientist, seeing the good crop in their neighbor, people are coming forward, and shown eagerness, to grow this variety.

Sowing of Nursery in first week of March and Transplanting in 2Nd fortnight of april, may escape heavy rainfall resulted in bumper crop by the farmer and transformed the lives of farmers. The good performanceof the crops brings success to the farmers, though the technical support and guidance were provided to the farmers time to time by the KVK scientist.

Subject: Plant Protection

Success story on Eco friendly management of Cabbage butterfly

Farmers in Tawang district grow cole crops, especially cabbage during spring season. Pest infestation is found to be more at that time resulting in threat of loss of income. Usually farmers use chemical pesticides available in the market to get rid of pest which is not Eco friendly and cost effective. Hence, an OFT on Ecofriendly management of cabbage butterfly was conducted during the year 2014-15 in Tawang district to observe its effectiveness and further adoption of the same by the farming community of the district.

Sri Toka Lama of Ketchenga village of Tawang district is a progressive farmer and he has been growing Cabbage commercially in his crop field for last few years. He was selected as one of the host farmers for conducting the OFT on Ecofriendly management of cabbage butterfly under the guidance of SMS (Plant Protection) and PC, KVK, Tawang. He adopted the Ecofriendly technologies viz. Physical control by summer ploughing and hand picking,blue & yellow stickers, and application of neem pesticides at 30,45,60 days after transplanting and found tremendous result in controlling Cabbage butterfly. The crop production was found to be satisfactorily high compared to previous years. He got an yield of 125 qtl/ha and earned net return of Rs. 38,000/- from a plot of .2 ha size. He further revealed that the shelf life of the cabbage after harvest was more. After observing the performance of this ecofriendly technology other farmers of the locality are also encouraged to adopt the technology in their crop fields in ensuing seasons.

Subject: Agril. Extension

Innovation of onion cultivation: A Case study

Back Ground- In India, 64 percent population is depend on agriculture for their livelihood. Tawang district is stream cold place of Arunachal Pradesh. This district is fully depend on agriculture. The major crops are rice, maize, mandua, kiwi, apple, cabbage, spring onion, carrot, raddish account for the most of the area under cultivation. Its place is very important for the off season vegetable cultivation. Cultivation of off vegetable is more benefitted compared to cereals crop.

Onion is one of the most important commercial vegetable crop grown in India. It is called as '"Queen of kitchen". It is grown in many parts of india. India is second largest producer of onion next only to china.

Kitpi is one of the blocks in the district where agriculture are major source of farming community. More than 85 percent of the village population is depend on agriculture sector for their livelihood.This district is fully rainfed .

Problem- Onion is commercial vegetable in India. Due to lack of knowledgefarmers used traditional practices in farming. Untimely rainfall, snowfall and lack of agriculture inputs like High Yielding vegetable Varieties, fertilizers, pesticide, good quality seed and scientific cultivation practices is more effective reason of this district.

Intervention and process- Scientist from Krishi vigyan Kendra, Tawan g Arunachal Pradesh visited khirmu village of the kitpi block. He conducted a training programme in the village and discussed about the onion cultivation to the villagers but they are disagree to conduct on farm trial of onion cultivation. They are fully unknown to onion bulb production technology. After motivation came to know about the interest of the Mss. Tsering Lhamu 40 years old farm woman agree to conduct OFT of onion bulb production. They faced to many problems to conuct on farm trail on onion, but were helped by KVK scientist in getting a knowledge about scientific cultivation of onion. The farmer conducted OFT on .25 acre land.

Benefits and Impact- Onion were grown by this farmer with the help of technical guidance provide by the KVK, Tawang, there was a good production of onion crop which resulted in 45 quintal production from only. 25 acre land. Requierd inputs provide by the KVK, office. Onion were sold a local market. There was a got a total benefit of rupees 135000/. She is very happy. Onion bulb production is introduced by KVK, Tawang at khirmu village. Tserin Lhamu Deliverd talk on onion bulb production technology at All India Radio Tawang. She advised to farmers of the district the start onion cultivation through scientific method for more benefits. More farmer started onion cultivation in the district.

3.8 Give details of innovative methodology/technology developed and used for Transfer of Technology during the year:NIL

3.9 Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Vegetables	Application of soap water around the plant	To get rid of cut worm
2	Vegetables	Application of wood ash	To manage nursery pest

3	**Potato**	**Apply cut banana@ periphery of the field**	**To control red ant**

3.10 Indicate the specific training need analysis tools/methodology followed for

- Identification of courses for farmers/farm women
- Rural Youth
- Extension personnel

3.11 Field activities

i. Number of villages adopted-

ii. No. of farm families selected-

iii. No. of survey/PRA conducted-

3.12. Activities of Soil and Water Testing Laboratory:NA

Status of establishment of Lab :

1. Year of establishment :
2. List of equipments purchased with amount :

Sl. No	Name of the Equipment	Qty.	Cost
1			
2			
3			
Total			

3. Details of samples analyzed so far : No of sample analyzed 51
No of Survey:12 villages

3.13. Details of SMS/ Voice Calls sent on various priority areas:NA

3.14 Contingency planning for 2016-17

a. Crop based Contingency planning

Contingency (Drought/ Flood/ Cyclone/ Any other please specify)	Proposed Measure	Proposed Area (In ha.) to be covered	Number of beneficiaries proposed to be covered		
			General	SC/ST	Total
Drought	Paddy var:Satva, Basundhra	10		62	62
	Water harvesting	10		62	62
	Finger millets var: VL Mandua 146,	12		69	69
	-				
	Any other (Please specify)				

a. Livestock based Contingency planning :NA

Contingency (Drought/ Flood/ Cyclone/ Any other please specify)	Number of birds/ animals to be distributed	No. of programmes to be undertaken	No. of camps to be organized	Proposed number of animals/ birds to be covered through camps	Number of beneficiaries proposed to be covered		
					General	SC/ST	Total

4.0. IMPACT

4.1. Impact of KVK activities (Not to be restricted for reporting period only)

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Onion production technology	10	68	Nil	25000/-
Eco-friendly management of cabbage butterfly	10	70	75000/-	112000/-

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

4.2. Cases of large scale adoption:NIL

(Please furnish detailed information for each case)

4.3 Details of impact analysis of KVK activities carried out during the reporting period

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Varietal evaluation of Paddy Var:CAU R1	05	65	7000/-	11000/-
Varietal evaluation of Maize Var:RCM-76	05	69	7700/-	12000/-

1.0. LINKAGES ESTABLISHED

5.1 Functional linkage with different organizations

Name of organization	Nature of linkage
ATMA	As a resource person, method demonstration
PMFBY	Awareness programme

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

5.2 List special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies during 2016-17:

Name of the Programme	Organization
Skill development training	Agriculture Skill Council of India (ASCI)
PMFBY	Ministry of Agriculture

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district

Sl. No.	Programme	Nature of linkage	Remarks
01	Training	As a resource person	
02	Method demonstration	Financial	

5.4 Give details of programmes implemented under National Horticultural Mission:NA

5.5 Nature of linkage with National Fisheries Development Board :NA

6. PERFORMANCE OF INFRASTRUCTURE IN KVK DURING 2016-17

6.1 Performance of demonstration units (other than instructional farm):NIL

6.2 Performance of instructional farm (Crops) including seed production :NIL

6.3 Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.,) :NIL

6.4 Performance of instructional farm (livestock and fisheries production) :NA

6.5 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Demonstration Unit:NA

6.6. Utilization of hostel facilities (Month-Wise) during 2016-17

Accommodation available (No. of beds) :NIL

Note: (Duration of the training course X No. of trainees)=Trainee days

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location/ Branch	Account Number

7.2 Utilization of funds under FLD on Maize *(Rs. In Lakhs) if applicable Nil*

7.3 Utilization of KVK funds during the year 2016 -17

S. No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure (in Lakh)
A. Recurring Contingencies				
1	**Pay & Allowances**			
2	**Traveling allowances**			
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			

I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
TOTAL (A)				
B. Non-Recurring Contingencies				
1	**Works**			
2	**Equipments including SWTL & Furniture**			
3	**Vehicle** (Four wheeler/Two wheeler, please specify)			
4	**Library** (Purchase of assets like books & journals)			
TOTAL (B)				
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)				

7.4 Status of Revolving Fund (Rs. in lakhs) for last three years

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year

Note: No KVK must leave this table blank

8.0 Please include information which has not been reflected above.

(Write in detail)

8.1 Constraints

(a) Administrative

(b) Financial

(c) Technical

(Signature)
Programme Coordinator