ANNUAL PROGRESS REPORT (2019 -2020)

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SUCCESS STORIES

1

Impact of Demonstration on Tractor Operated Automatic Potato Planter

Potato is cultivated at an area of 685 hectare area under East Siang District of Arunachal Pradesh where farmers practice conventional method. Potato is labour intensive and of fatigue and time consuming operation resulting very high cost of cultivation. Mechanization of potato reduce the input costs, increase work efficiency, augment cropping intensity.. In 2019-2020 under OFT programme, Tractor Operated Potato Planter was demonstrated at farmers fields of Jampani, Runne and Ngopok Villages. The crop yields ranged between 180-250 q/ha (Avg. yield of 215 q/ha). The field capacity of machine was 0.35 ha/h while the field efficiency was 70-82%. The planter saved labour upto 60-70% His yield increases upto 10-15%..

Mr. Harihar Singh 58 years, a large scale potato grower of Jampani witness the demonstration conducted during October,2019. He purchased the Semi automatic four row potato planter and planted potato at an area of 10 hectare. For harvesting of potato he hire potato harvester from KVK East Siang and able to saved 34 man days and Rs.7700/- per hectare. He was able to earn a net income of Rs.4,05000 per hectare from Potato cultivation and rupees 60,000/- per season through custom hiring services.

Particular	Mechanized	Traditional
Total cost of cultivation (Rs)/ha	95000	125000
Total yield (q)/ha	250	225
Gross income (Rs.) selling@ Rs 20/kg	500000	450000
Net Income (Rs.)/ha	405000	325000




PROTECTED CULTIVATION ENTERPRISE

For developing entrepreneurship, 30 youth were trained with appropriate knowledge and skills related to protected cultivation. 07 youth established the enterprise in the year 2019-20. Two groups comprising of 05 youths and 02 youths possessed 01 unit each with 120 sqm and 90 sqm area respectively on an average. From each unit, 194 kg and 110 kg king chili worth of Rs.1,06,920 and Rs.60,500 respectively were produced annually. Thus, a youth earned Rs.21,384 annually per youth. Besides, earning from king chili production, the youth could earn from other, through nursery production of king chili and vegetables nursery. Thus, the sale of nursery products was Rs.7000 per youth/annum. The products are sold out in the locality as well as at Pasighat market


3

Poultry production enterprise

Mr. Kaling Taki, 30 years, 8th passed youth from Runne village, a hard working youth devoting time in agriculture activities to support his family of 9 members. Initiated to rear few livestock, 2 nos. of pigs, 5 nos. of poultry bird's local breed but in cooperating live stock also he could able to earn a **Rs. 85,000** which never met the expenses of running the family. To increase his annual income and fulfil the needs of the family members he attended different skill development programme such as off campus, & Training programmes. In 2019-20, he attended Training programme on scientific poultry farming housing, feeding and health care management at KVK East Siang and started poultry farming with 20 birds under the guidance of KVK scientists. Consequently opportunity given GOI to the Kendra to run ARYA project. and assistance from the ARYA project he constructed a pucca poultry house (216 ft² size) and Vermi-compost unit. Also provided with 220 nos. of a day old Vanaraja chicks and 5 quintals of computed poultry feeds along with feed additives & vitamins was able to earn **rupees 1,50,000** as a total net income in **2019-20** which is **43.33% more** than the previous year. Expanded his poultry production from 220 chicks to 500 chicks in the upcoming year. Seeing his success, many educated unemployed youths in his village started earning.


SUCCESS STORIES

1

SUCCESS STORY - SESAME

Name of KVK	East Siang, CHF, CAU, Pasighat, A.P.
Crop and Variety	Sesamum, Variety ST-1683
Name of farmer & Address	Mr. Mingkeng Yomso, Village Kelek, Pasighat, East Siang, Arunachal Pradesh
Background information about farmer field	Farmers cultivated Potato in Rabi season followed by Summer Vegetables
Details of technology demonstrated	Improved Var. ST-1683, seed treatment with Trichoderma viride @ 10.0 g/kg seed; FYM @ 5-6 tonnes/ha.
Institutional Involvement	KVK East Siang, CHF, CAU, provided training, improved Var. ST-1683, seed treatment with Trichoderma viride@10g/kg seed .
Success Point	Higher yield of 6.0 q/ha was obtained during Kharif 2018 cropping season, less insect pest (Shoot webber 8%) and disease (Stem rot 7%) incidence was recorded.
Farmer Feedback	The technology is suitable for East Siang district, A.P., has got bold brown seeds with higher percentage of oil recovery and less susceptible to insect pest and diseases
Outcome Yield (q/ha) Demonstration, Potential yield of variety/technology, District / State average.	5.4 q/ha 6-8 q/ha 5.0 q/ha 4.7 q/ha

Specific Technology	Yield (q/ha)	Gross cost (Rs/ha)	Gross income (Rs/ha)	Net income (Rs/ha	B:C ratio
Farmer practices	4.2	15400	25200	9800	1.6
Demonstration	5.4	16000	32400	16400	2.02
% Increase	28.57	-	-	-	-

SUCCESS STORY - BLACKGRAM

Crop and Variety	Black gram, Variety PU-31
Name of farmer & Address	Mr. Jokut Modi, Village Napit, Pasighat block, East Siang.
Background information about farmer field	Potato in Rabi season followed by Maize & Summer Vegetables
Details of technology demonstrated	Improved Var.PU-31, seed treatment with Rhizobium culture & Trichoderma viride @ 10.0 g/kg seed; FYM @ 8-10 tonnes/ha
Institutional Involvement	Provided training, improved Var. PU-31, Rhizobium culture & Trichoderma viride for seed treatment @ 10.0 g/kg seed
Success Point	Higher yield upto 6.0 q/ha was obtained during Kharif 2018 cropping season, less insect pest (Leaf webber 7%) and disease (Powdery mildew 8%) incidence was recorded.
Farmer Feedback	The technology is suitable for East Siang district, A.P., has got bold seeds and less susceptible to insect pest and diseases
Outcome Yield (q/ha) •Demonstration •Potential yield •District average •State average	 5.4 q/ha 12-15 q/ha 4.4 q/ha 4.9 q/ha

3

SUCCESS STORY TORIA

Crop and Variety	Toria Var. TS-38
Name of farmer & Address	Mrs. Mumta Mitkong, Namsing Mebo block, East Siang, A.P.
Background information about farmer field	Farmers cultivated Toria Rabi season followed by Maize in summer Vegetables
Details of technology demonstrated	Cultivation of improved Variety of Toria TS-46,seed treatment with Trichoderma viriidi @ 10g/kg seed. @ in Namsing area
Institutional Involvement	KVK East Siang, CHF, CAU, Pasighat, A.P. provided training, improved Variety Toria var. TS-46
Success Point	Higher yield upto the tune of 8.2 q/ha was obtained during Rabi2018 cropping season.
Farmer Feedback	The technology is suitable for East Siang district, A.P., has got bold seeds and less susceptible to insect pest and diseases
Outcome Yield q/ha •Demonstration •Potential yield •District average •State average	 8.2 q/ha 10-12q/ha 8 q/ha 6.7 q/ha

Specific Technology	Yield q/ha	Gross cost (Rs/ha)	Gross income (Rs/ha)	Net income (Rs/ha	B:C ratio
Farmer practices	6.2	12000	18600	6600	1.5
Demo	8.2	12000	21000	9300	1.7
% Increase	17.3				

Action Taken Report (ATR)

Sl. No.	Recommendation	Action taken
1.	More initiatives to be taken for participatory seed production programme with the involvement of progressive farmers of East Siang to supply quality seeds to the farmers of State and other NEH states based on demand.	Associated with Farmers participatory Seed production of rice variety CAU R-1 in East Siang district. During *Kharif* 2019 Mr. Pumto Perme produced 61.0 quintal TFL seed.
2.	Emphasis should be given for expansion of area under rapeseed-mustard crop cultivation.	Farmers participatory Seed production of Toria Variety TS-38 in East Siang district.
3.	Youth of the Region should be attracted and encouraged for entrepreneurship development	Rural Youths are trained in Scientific Mushroom cultivation; Fruits & Vegetable Nursery Management; Preparation of Decorative material & Soft toys; Repair & Maintenance of Farm Equipments etc for entrepreneurship development.
4.	Providing quality materials to the farmers should be given paramount importance and our focus should be made on the local food habits while planning our research or extension works to the farmers of the Region.	Quality Seed and Planting material procured from CAU, AAU, ICAR Institutes are being provided to farmers by KVK East Siang. ✓Rice variety CAU R-1 seed from CAU Imphal, Manipur. ✓Toria variety TS-38 and TS-46 from AAU, Jorhat, Assam. ✓Seeds of Paddy (P-1612), Green gram (Pusa Vishal, Pusa-672 and Pusa-1371), Pigeonpea (P-991 and P-992) Vegetable seeds of Sponge gourd (Pusa Sneha), Bitter gourd (Pusa Naveen & Pusa Santusthi) Amaranth (PLC), Palak (All Green) and Garden Pea (Pusa Pragati) from IARI, New Delhi
5.		
6.		
7.		

Target : 10 numbers

SUMMARY OF OFT

Achievement : 07 numbers

Sl. No.	Title of OFTs
1	Assessment of Bio-llium Verticellium *lecanii*) against aphids infestation in king chilli under protected cultivation
2	Performance of Bio-META *Metarhizium anisopliae against* red ant of potato *Dorylus orientalis*
3	Feasibility and Assessment of Performance of Automatic Potato Transplanter
4	Assessment on Rooftop Rainwater Harvesting for homestead farming
5	Preparation of products from banana (leather, Jam, RTS)
6	Preparation of powder from moringa to supplement anaemic women
7	Assessment of cross breed goat, (Assam hill goat X Beetal)

OFT – 1

(2nd Year)

Title of OFT- Assessment of Bio-llium Verticellium *lecanii*) against aphids infestation in king chilli under protected cultivation

Prioritised Problem- High incidence of aphids

Details of technology:

Assessment of BIO-LLIUM (*Verticillium lecanii*)

1.Soil application of Biollium @1% (1kg/1qt Fym)

2.Repeated spray of Bioillium @ 0.5%
(5g/ litre water) at 15 days interval starting from 30 DAT

No. of trials-05, Area: 5 units (60 Sqm)

Source: AAU Jorhat 2013

Parameters on Assessment	Results on selected Parameters	
Technology / methodology	Demo	Farmer Practice :
Aphids Infestation	7 %	35 %
Yield/ ha	19.9 qt/ha	11.6 qt/ha
B.C Ratio	6	3.5

OFT – 2

(1st Year)

Title of OFT- Assessment of Red ant *Dorylus orientalis*

Prioritised Problem- High incidence of red and infestation in potato grown in hill and forest area.

Details of technology:

1. Seed Tuber treatment @10% Bio-META paste (100g / 1lt water and shade dry fo12 hr before sowing.

2. Soil Application@1% Bio-Meta before sowing along with FYM.(1 kg Bio Meta with 100 kg FYM)

Parameters on Assessment	Results on selected Parameters	
Technology / methodology	Demo	Farmer Practice :
1. Red Ant Infestation of tuber	8.2%	42.3 %
2. Yield/ ha	152.0 qt/ha	112.0 qt/ha
3. B.C Ratio	2.5	2.0

Source : Assam Agricultural University, Jorhat, 2013


Tuber Treatment with Bio-META

Demonstration field


Treated tuber


Non treated tuber

OFT – 3

(1st Year)

Title of OFT : Preparation of powder from Moringa to supplement anaemic women

Prioritised Problem: High prevalence of Anaemia amongst women (18 -35 years)

Technology details:

No. of trials-20

- The leaves after harvest is stripped off the stems, washed and dried in shade.
- The dried leaves are made into fine powder which can be stored in a air-tight containers.
- Moringa leaf powder can be stored for up to 6 months when protected from light and humidity.
- 1 tablespoon (15g) is taken daily as supplement by women who are anaemic.
- The leaves can also crushed and packed into teabags to used as tea leaves

Source: TNAU, 2017

Parameters on Assessment	Results on selected Parameters
1. Haemoglobin estimation at 3 months interval	Observation needed for longer period
2. Acceptability (Hedonic scale)	3
3. Shelf life	6 months

OFT – 4

(1st Year)

Title of OFT : Preparation of products from banana (leather, Jam, RTS)

Prioritised Problem: Post harvest loss, lack of storage facility

Technology details:

No. of trials-03

Banana Jam

- Banana is peeled and pureed (1kg)
- 600g of sugar is added along with 20 g of citric acid
- Cooked till the end point is reached
- Fill hot into sterilized bottle

Banana Leather

- Banana is pureed and poured into tray for drying in oven
- Thinly spread the puree on butter paper and place in tray
- The puree is dried at 60^0C for 6-8 hours in dehydrator, or can be sun dried for 1-2 days.
- Roll the leather once dried and cut into desired size.

Source: National Research Centre for Banana, 2016

Parameters on Assessment	Results on selected Parameters	
	Jam	Leather
1. Recovering %	94%	
2. Acceptability (Hedonic scale)	4	5
3. B.C Ratio	1.5	

Feasibility and Assessment of Performance of Automatic Potato Transplanter

Situation: Rainfed, *Villages*: Jampani , Rune & Ngopok No. of trials: 3 No. of farmers: 15

Problem: High drudgery, more time consumption, labour scarcity, high labour wages and high cost of transplanting

Name of technology assessed: Automatic potato transplanter for transplanting potato bulb

Technology & Source	Parameters							
	Field Efficiency %	Field capacity (ha/hr)	Labour requirement (man days/ha)	Cost of transplanting by machine(Rs/ha)	Saving in cost (Rs./ha)	Yield (kg ha^{-1})	Net Return (Rs ha^{-1})	B:C Ratio
Technology option-1 Manual transplanting with spade & khurpi	40	0.05	25	10000	-	248	386000	3.50
Technology option-2 Automatic potato transplanter	82	0.35	05	3000	7000	250	405000	4.26




Assessment on Rooftop Rainwater Harvesting for homestead farming

Situation: Rainfed, *Villages*: Bodak , Ayeng No. of trials: 02 No. of farmers: 07

Problem: Extreme water scarcity during post and pre monsoon season (Nov-March)

Name of technology assessed: Rooftop Rainwater Harvesting for homestead farming. (L=12m x W=10m: 120m² roof area)

Technology & Source	Parameters					
	Annual rain water yield (Ltrs)	Rain water use efficiency (kg/ ha/mm)	Water saving efficiency (%)	Yield (kg ha^{-1})	Net Return (Rs ha^{-1})	B:C Ratio
Technology option-1 Farmer practice	-	0.25	-	700 (Field pea & French bean at 0.4 ha)	18,000	1.8
Technology option-2 Rooftop Rainwater Harvesting with Jalkund collection tank (12 x11)m	4,67.760	1.92	57.28	7500 (Potato & field pea at 0.8 ha area)	1,13,000	3.05





FLD –

Year

Title of OFT- Introduction of cross bred goat, (Assam hill goat X Beetal)

Prioritised Problem- Non-availability of good performance goat

Details of technology

Rearing of cross bred (Assam hill goat x Beetal) with scientific inputs.

1. Average birth weight (2kg)
2. Average weight gain at 12months (22kg)
3. First kidding (14-15 months)
4. Litter size (1-2)

Parameters on Assessment	Results/ observation	
	Technology	Local
1. Average birth weight	Under Trial	
2. Average weight gain at 12months		
3. First kidding		
4. Litter size		
5. Adaptability & Mortality		

FARMER PRACTICE:

Local Goat breeds with average body weight gain at twelve months: 15kg

No health care

Unscientific management systems

Source: Goat Research Center, Assam Agricultural University, Byrnihat

***Villages*: Runne** **No. of trials: 3** **No. of farmers: 3**

Target :28 numbers

SUMMARY OF FLD

Achievement : 24 numbers

Sl. No.	Title of FLDs	Year
1	Popularization of rice var.CAU-R1	5th
2	Popularization of rice var.CAU-R2 (Upland rice)	2nd
3	Farmers Participatory seed production of Rice Variety CAU-R1	4th
4	**Performance of aromatic rice var. Pusa- 1612**	1st
5	Popularization of IPM in rice	4th
6	**Performance of Maize var. Vivek**	1st
7	**Up scaling of hybrid maize cultivation in the East Siang District. Var. Bio- 9637 (IARI)**	1st
8	**Popularization of potato cultivation amongst SHGs (NEH Programme)Var. K.Bahar, K.Pukraj, K.garima, K.Khayati (NEH Programme)**	1st
9	Popularization of IPM in potato (NCIPM Programme)	3rd
10	**Performance of French bean var. NSC French (NEH Programme)**	1st
11	Popularization of IPM Brinjal (NCIPM programme)	2nd
12	Popularization of IPM Tomato (NCIPM programme)	2nd
13	Popularization of IPM Cabbage (NCIPM programme)	2nd
14	**Self-propelled walk behind type 4 row paddy transplanter for transplanting mat type paddy nursery**	**1st**
15	**Potato harvester for harvesting of potato**	**1st**
16	Tractor operated Multi-crop Thresher for threshing of cereals and pulses crops	3rd
17	Turmeric and ginger Peeler cum washing machine for turmeric	2nd
18	Biomass heat generated dryer for drying of turmeric	2nd
19	**Performance of hermetic storage system (grain pro's super bags) on quality of grains/seeds**	1st
20	**Popularization of value added product from Jackfruit**	1st
21	**Instant Ginger Candy**	1st
22	Popularization of soy products for nutritional security and doubling income	2nd
23	**Salt and mineral licking block for Mithun**	1st
24	Popularization of Dual purpose Vanaraja Bird	

FLD –

FLD on CEREAL CROPS

(1st Year)

Crop	Technology demonstrated	Area (ha)	No. of farmers/Demonstration	Yield		B:C
				Demo.	Check	
Rice	Performance of aromatic Rice var. Pusa -1612	2	4	4.1	51.4	1.9
Maize	Performance of Maize var. Vivek	10	25	52.2	41.4	2.32
Maize	Upscaling of hybrid maize cultivation in the East Siang District. Var. Bio-9637 (IARI)	300	355	DOS Feb-March 2020: Crop standing IARI programme		

FLD –

FLD on VEGETABLE CROPS

(1st Year)

Source: IARI, New Delhi

Crop	Technology demonstrated	Area (ha)	No. of farmers/Demonstration	Yield		B:C
				Demo.	Check	
Potato	Popularization of potato cultivation amongst SHGs (NEH Programme) Var.K.Bahar, K.Pukraj, K.garima, K.Khayati, K.Chipsona (NEH Programme)	**12**	**293**	152	125	2.25

Crop	Technology demonstrated	Area (ha)	No. of farmers/Demonstration	Yield		B:C
				Demo.	Check	
French bean	Performance of French bean var. NSC French (NEH Programme)	10	25	68	59	2.4

FLD –

(1st Year)

Performance of hermetic storage system (grain pro's super bags) on quality of grains/seeds

Source : Pest Control of India, 2015

Technology details:

EVOH (ethylene-venyl alcohol) incorporated as a barrier structure with a 7 to 9 layers structures packing and storing material

Details of Demonstration		
No. of Demonstration	**Units**	**No. of farmers**
03	100	40

Data on parameters in relation to technology demonstrated		Remarks
Demo (Hermatic Storage)	**Local (Gunny Bag)**	
➢ Relative humidity : Before : 86-89%, After : 93-95% ➢ Pest infestation : Before : No incidence till now and still ongoing ➢ Germination percentage : Result will be validated before sowing during *kharif* season.	86-89% 88-90% No incidence and still ongoing	The technology has been implemented among the progressive Farmers.of East Siang District, Arunachal Pradesh

FLD –

(1st Year)

Popularization of value added product from Jackfruit

Source : TNAU, 2015

Technology details (Chips):

- Cutting of fully matured, unripe jackfruit deseeded bulbs into longitudinal finger like pieces
- Blanched in hot water with 1% KMS for 5 minutes
- Dried in dryer @ 40-50º for 10-15 minutes
- Deep fry into oil till golden brown colour
- Packing in a tight material

Technology details (Pickle):

- Cutting of fruit (unripe) into desired size
- Cooking until Soft
- Drain water and run under cold water
- Surface dry
- Mix with spices and condiments , Oil
- Packing in sterilized bottle

Performance parameters/ indicators	Data on parameters in relation to technology demonstrated		Remarks
	Demo	Local	
Acceptability by Hedonic scale	Like a lot with a hedonic scale of 5	New Introduction	Product well accepted, needs to popularize further
BC ratio	2.24		

Details of Demonstration	
No. of Demonstration	No. of farmers
03	49

FLD –

(1st Year)

Instant Ginger Candy

Source : Technology Mission (MM-I) Division of Horticulture, ICAR, Umiam, 2016

Technology details:

- ❖ Tender Fibreless rhizomes are taken, washing and cleaning.
- ❖Scrap the ginger and slicing into 10-15 mm thickness
- ❖Blanching for 25 mins with 2.0% Citric acid
- ❖Dipping in 40% Brix Sugary syrup with 2.0% Citric Acid (for 1 hour at 95^0C)
- ❖Dipping in 75% Brix Sugary syrup with 2.0% Citric Acid (for 2 hours at 95^0C)
- ❖Draining and drying at 60^0C for 1-2 hours
- ❖Cooling and Packing

Performance parameters/ indicators	Data on parameters in relation to technology demonstrated	Remarks
Candy recovery/Kg	150%	Product well accepted and can be popularized further for doubling farmers income
Acceptability by Hedonic scale	Like a lot with a hedonic scale of 5	
Shelf Life	4 months	
BC ratio	2.24	

Details of Demonstration	
No. of Demonstration	No. of farmers
02	41

FLD –

(1st Year)

Mechanical Paddy Transplanter

Source : Pest Control of India, 2015

Technology Demonstrated	No. of demo.	Area (ha)	Performance parameters/ indicators	Data on parameters in relation to technology demonstrated		Labour reduction (Man days)	Cost reduction (Rs. Per ha. Or Rs. Per unit etc.)
				Demo	Check		
. Self-propelled walk behind type 4 row paddy transplanter for transplanting mat type paddy nursery.	05	06	Efficiency (%) Field capacity (ha/hr) Labour requirement (man-hr/ha) Cost of transplanting (Rs/ha)	75 0.19 24 (3 man days) 4000	48 0.018 256 (32 man days) 9000	29 man days /ha	5000

Economics of demonstration (Rs ha^{-1})				Economics of local check (Rs ha^{-1})			
Gross cost	Gross return	Net return	BCR	Gross cost	Gross return	Net return	B:C
41,000	88,500	47,500	2.14	47,500	75,000	27,500	1.57





FLD –

(1st Year)

Potato Digger (Tractor Drawn)

Technology Demonstrated	No. of demo.	Area (ha)	Performance parameters/ indicators	Data on parameters in relation to technology demonstrated		Labour reduction (Man days)	Cost reduction (Rs. Per ha. Or Rs. Per unit etc.)
				Demo	Check		
Potato digger for harvesting of potato.	05	04	Field efficiency%	70	40	34	7,700
			Field capacity (ha/hr)	0.3	0.008		
			Labour requirement (man-hr/ha)	30 (4 man days)	300 (38 man days)		
			Labour saving (%),	70	-		
			Expose bulb (%)	98	70		
			Cost of harvesting (Rs/ha)	1800	9500		

FLD –

(1st Year)

. . . on Salt Mineral Licking Block(SMLB) for Mithun

Details of technology demonstrated:

Salt Minerals Licking block prepared at site suitable for Mithun for licking the block.
To monitor numbers of Mithun visiting to lick the blocks and time of its visiting.

Major Performance parameters / indicators	Demo.	Local Check	% change in the parameter
1. Numbers of Mithun turn over to leak SMLB	7-10	1-2	400%
2. Time of Mithun visit to lick :	Morning & Evening	No definite time	>100%
3. Digital monitoring through CCTV:	Applicable	Not Applicable	>100%
4. Mineral supplement to Mithun :	Yes	No	>100%
5. Monitoring Mithun health :	Easy	Difficult	>100%
6. Acceptability of farmers	**100%**		

No. of Demonstration: 2unit Village: Runne

Source: KVK Anjaw, ICAR Barapani, 2017

FLD –

(1st Year)

Popularization of dual purpose Vanaraja Bird in backyard systems

Details of technology demonstrated:

Rearing of vanaraja in backyard with scientific inputs(vaccination, feeding of minerals and vitamins).

Body wt.gain at sexual maturity: 2.5kg
Age at first laying: 180days
Egg production : 120
Survivality % (upto 6weeks): 98%

Major Performance parameters / indicators	Demo	Check	% change in the parameter
1.Average body wt. gain in 06 months: 2.Average Age at first laying: 3.Average annual egg production: 4. Disease Susceptibility	2.7kg 22.5wks 120nos Prone to Ranikhet	1.5kg 23wks 60 no's Prone to Ranikhet	1. Body wt gain: 86% 2.Annual.egg production:100%

Economics of demonstration				Economics of local check			
Gross cost	Gross return	Net return	BCR	Gross cost	Gross return	Net return	B:C
10000/-	28, 659/-	18,659/-	2.8	7000	14325/-	7325/-	2.0

No. of Demonstration: 30unit Village: Sigar & Runne

Source: ICAR RC or NEH Region, Jharnapani, Nagaland.




EXTENSION ACTIVITIES (KVK EAST SIANG)















Publications	
Popular Article	:03
Research Paper	:06
Leaflets/folders	:06
Abstract	:02
Book Chapter	:02
Conference/Workshop Proceedings	:02
Newsletter	:01

Field day, Kishan Mela, Diagnostic visit, Scientist visit to farmer's field , Farmer visit to KVK farm, Method demonstration, Exhibition, Group Discussion, Exposure visit, Advisory/helpline, Lecture delivered, Mass awareness, Farmer Scientist Interaction, Jal Shakti Abhiyan, Technology showcasing, Radio Talk, World Environment Day Celebration, Research publication, Parthenium week, Popular article, Article, Newspaper coverage, Web Casting Program, Vaccination Camp, Film Show, Esxposure Visit, Mushroom day, Kishan Diwas & Rabi Campaign, Kharif Krishak Sammelan, World Soil Day, Swachhta Pakwada, Awareness Programme, World Honey Bee Day, International Women's Day etc.

Total activities - 1669

Total beneficiary - 26245

TRAINING PROGRAMMES

Type of Beneficiaries	No. of course	Number of beneficiaries On Campus								
		Male			Female			Total		Grand Total
		On	Sp. (On)	Voc.	On	Sp. (On)	Voc.	On	Sp.On	
Farmer/Farm Women	29	374	50	-	652	45	-	1026	95	1121
Rural Youth	06	37	06	-	97	10	15	134	16	165
Extension personal	05	95	-	-	39	-	-	134	-	134
Total	**40**	**506**	**56**	**-**	**788**	**55**	**15**	**1294**	**111**	**1420**

Type of Beneficiaries	No. of course	Number of beneficiaries Off Campus								
		Male			Female			Total		Grand Total
		On	Sp. On	Voc.	On	Sp. On	Voc.	On	Sp. On	
Farmer/Farm Women	33	670	36	-	876	42	-	1546	78	1624
Rural Youth	01	04	-	-	22	-	-	26	-	26
Total	**34**	**674**	**36**	**-**	**898**	**42**	**-**	**1572**	**78**	**1650**
Grand Total	**74**	**1180**	**92**	**-**	**1686**	**97**	**-**	**2866**	**189**	**3070**

Name of KVK: East Siang, Arunachal Pradesh

Name of DFI Village: 1. Bodak; Number of farmers in existing village: 35

2. Runne; Number of farmers in additional village: 42

Interventions taken up in both DFI Villages (Bodak village and Runne Village)

2017-18	2018-19	2019-20
❖Popularization of high yielding rice variety CAU R-1 ❖Introduction of Vegetables (French bean and Cowpea) in Rice fallows ❖Low cost protected cultivation of King Chili ❖Introduction of Vermi composting ❖Low cost Oyster mushroom cultivation	❖Popularization of high yielding Maize variety RCM 1-75 ❖Integrated Pest Management in Citrus with need based application of insecticides, fungicides and hormones ❖Introduction of dual purpose Vanaraja poultry bird ❖ Introduction of Large White Yorkshire pig breed ❖Scaling up of Vegetables in Rice fallows ❖Scaling up of Vermi composting ❖Scaling up Low cost protected cultivation of high value crops.	❖ Scaling up of high yielding rice variety CAU R-1 ❖ Scaling up of Vegetables in Rice fallows ❖ Scaling up Low cost protected cultivation of King Chili ❖ Scaling up of Vermi composting ❖ Scaling up Low cost Oyster mushroom cultivation ❖ Scaling up of high yielding Maize variety RCM 1-75 and Maharaja ❖ Scaling up Integrated Pest Management in Citrus ❖ Scaling up of dual purpose Vanaraja poultry bird ❖ Scaling up of Large White Yorkshire pig breed . ❖ Roof top rain water harvesting with Jalkund system for irrigating winter crops sown after rice. ❖ Poultry, Vermicompost and poly house unit created under ARYA project. ❖ Implemented CFLD oilseed (sesame) programme. ❖ Distributed Orange, Litchi, lime seedlings and potato seed

Impact of the Interventions in existing village (Bodak village)

Sl. no.	Activities undertaken on crops/enterprises	Average yearly income (Rs.) in the village				
		Before intervention (Rs.)	After interventions (Rs.)			% Increase in Income (Rs.)
		2016-17	2017-18	2018-19	2019-20	
1	Popularization of high yielding rice variety CAU R-1	20160	23660	23970	24760	22.81
2	Introduction of Vegetables in Rice fallows	0	25000	21720	38000	100
3	Low cost protected cultivation of King Chilli	0	30000	35400	36000	100
4	Introduction of Vermi composting	0	2140 /tank	3200/tank	3480	100
5	Low cost Oyster mushroom cultivation	0	14380	21000	23 000	100
6	Introduction of dual purpose Vanaraja poultry under backyard farming bird.	12500	22500	27400	29000	132
7	Introduction of Large White Yorkshire cross pig breed	19500	38000	42100	43000	120.5
8	Popularization of high yielding Maize variety RCM 1-75	30400	-	36200	38000	25
9	Distributed Orange, Litchi and lime seedlings	-	-	-	-	Gestation
10	Scaling up Integrated Pest Management in Citrus	86500	99500	96500	112500	30.05
11	Roof top rain water harvesting with Jalkund system for irrigating crops sown after rice.	0	0	0	18,000	100
TOTAL		**169060**	**253040**	**304290**	**342740**	**102.73**










Impact of the Interventions in additional village (Runne village)

Sl. no.	Activities undertaken on crops/enterprises	Average yearly income (Rs.) in the village		
		Before intervention (Rs.)	After interventions (Rs.)	% Increase in Income (Rs.)
		2018-19	2019-20	
1	Scaling up of mustard toria Var. TS46	45000	78000	73.33
2	Scaling up of maize Var. Maharaja	3000	25000	733.33
3	Distribution of potato Var. Pukhri Pukharaj	-	35000	100
4	Scaling up of Black gram	-	20000	100
5	Implemented CFLD oilseed (sesame) programme	29000	65000	124.13
6	Distributed Orange, Litchi and lime seedlings	-	-	Gestation
7	Poultry production unit created under ARYA project	-	28400	100
8	Poly house unit created under ARYA project	-	22742	100
9	Vermi-composting unit	-	5000	100
10	Scaling up of dual purpose Vanaraja poultry bird	35000	55000	57.14
11	Low cost poly house	-	38000	100
TOTAL		**112000**	**372142**	**232.26**








ARYA ACTIVITIES

Enterprise	2019-20		
	No. of youths covered	Total rural youths trained	Inputs supported
Poultry Production	15	40	1320 chicks, standard feeds, medicine and construction materials for poultry house
Protected Cultivation	07	30	Construction material for polyhouse, water cane, small tools, drip system, planting materials etc.
Total	22	70	-







Achievements

INDICATORS	Poultry production	Protected Cultivation
Year of Initiation:	2019	2019
Training Programs Conducted (No.)	04	02
Rural youth trained (No.)	40	30
Groups formed (No.)	03	02
Number of youths associated with each group	05	05 & 02
Entrepreneurial units Established (No.)	03	02
Total quantity of products produced (No)	2100 kg meat (live)	357 kg vegetables
Total value of products produced(Rs.)	5,46,000	1,96,410
No. of units established in the village/ nearby areas after success of this unit	02	01

INDICATORS	POULTRY PRODUCTION	PROTECTED CULTIVATION
Av. economic gains from the entrepreneurial units Rs/unit/year	1,50,240	1,06,920
Employment generated due to establishing entrepreneurial units: No. of youths who got employment for how many days in a year	15 youths; 780 man days per year	7 youths ; 336 man days per year
Average Employment Generation (No. of days): Per person/ Year	52	48
Av. Income Generation (Rs): Per person/Year	28,400	22,742

06 DAYS SKILL TRAINING OF RURAL YOUTH (STRY)
ON
"PROTECTED CULTIVATION OF HIGH VALUE VEGETABLE CROPS"






Name of Sponsoring agency	Date	No. of Participants		Total
SAMETI Pasighat and Manage Hyderabad	24th -29th Feb,2020	Male	Female	16
		06	10	

CFLDs Achievements 2019-20

Crop	Technology demonstrated	Area (ha)	No. of farmers/Demonstration	Yield			B:C
				Demo	Check	% Yield Increase	
			PULSES				
Blackgram	Performance of Var. PU-31	20	70	5.2	4.3	20	1.56
Pea	Performance of Var. Pusa praghati	08	30	8.2	7.6	08	1.5
OILSEEDS							
Toria	Performance of Toria var.TS-46	20	70	7.1	6.2	14	1.7
Sesame	Varietal Evaluation of Sesame var. Nagaon Till	20	75	4.8	4.2	14	1.92

PKVY Project: 3.7 lakh

Clusters	Activity	Area (ha)	No. of farmers	Input support
Cluster –I Sigar Village	1.Training Demonstration on Blackgram 2. Exposure visit of framers	10 ha Jarkong vegetable area	35 25	PSB,PROM, Bacterial Consortia, Rhizobium
Cluster-II MotumVillage	1.Training Demonstration on Green gram	10 ha	32	PSB,PROM, Bacterial Consortia. Rhizobium
Cluster –III Remi Village	1.Training and Demonstration on Vermicomposting 2. Green manuring Demonstration	20 unit HDPE Vermi Bed under procurement 1. ha	20 10	HDPE Vermi Bed yet to provide Sesbania seeds
Other Demonstration : Azola farming, Vermi wash preparation , Green manuring				




NCIPM project on IPM rice and horticultural crops in NE : 10.Lakh

Crop	Technology demonstrated	Area (ha)	No. of farmers/Demonstration	Yield		B:C
				Demo.	Check	
Potato	Popularization of IPM in potato	3	10	158.3	125.5	2.70
Brinjal	Popularization of IPM Brinjal	3	10	131.9	109.7	2.11
Tomato	Popularization of IPM Tomato	3	10	151.8	119.4	2.76
Cabbage	Popularization of IPM Tomato	3	10	152.3	125.5	2.70
Rice	Popularization IPM in rice	10	20	53.4	50.2	1.4

Training and Demonstration: **: 5.Nos covering 125 farmers**
Kharif Krishek Sammelan at Namsing Village **: 80 farmers**
Exposure Visit ; **: 1 nos.**

INPUT support : Bio- pesticides, traps, lure, light traps, seeds.

NEH Components :

NEH Components	Activity	Area (ha)	No. of farmers	Input support
NEH- IARI component , ATARI	1.FLD Programme on Toria Var.TS- 46 2. Training programme on IPM in Maize and Pormition of SHG through maize cultivation Var.BIO- 9637	20 ha 300 ha	20 335	1. Seeds and fertilizer for maize 2. Seeds for Toria 3. Litchi Saplings
NEH -VPKAS component, ATARI	1.Demonstration and Training on French bean cultivation 2.Field day	10ha -	25 17	1.Seeds 2.Citrus seedlings
NEH-Component, CAU	1. FLD programme on maize Var. Vivek Hybrid 2. Pre Rabi Krishek Sammelan 3. Three (3)days training programme on IFS for Extension functionaries.	10 ha - -	25 59 27	1. Litchi saplings 2. Lime Saplings 3. Orange Saplings 4. Sesame seeds




Other Major Programmes

Clusters	Activity	Area (ha)	No. of farmers	Input support
NABIR sponsored	1. Demonstration on potato ,Brinjal and tomato 2. 3 days training programme on Biological control of crop pest	20	40 30	Bio pesticides, Traps ,lures. Seeds and plant protection implements and sprayers
CIH, Nagaland	1. 3 days training programme on IPM for Horticultural crops of NE Region	-	30	Vegetable seeds, 2000 nos .of Arecanut saplings

Bio-Products, Seed Materials, Planting Materials, Livestocks & Soil Sample Analysis

Bio-Products	
Product Name	Quantity produced
Trichoderma Viridi	

Soil Sample Analysis		
Samples tested/ Analysed	Nos.	SHCs issued to farmers (Nos.)
Soil sample (110 collected)	110	27
Total :	110	27

Seed Material		
Crop	**Variety**	**Quantity produced**
Rice	CAU-R1	10
	CAU-R2	2
Black gram	PU-31	6
Toria	TS -46	7
Potato	K. Pukhraj, K.	240
Sesame	Nagoan Til	2.4
Maize		67

Livestock		
Category	Breed	Qty (No.)
Goat		
Poultry	Vanaraja	

Planting Material		
Crop	Variety	Quantity produced
Onion	Arka Lalima	
Cabbage	Rare Ball	
Tomato	Arka Rakshak	
Pea	Arkel	
Garden Pea	Makhyatmubi	
Frenchbean	MZFB 48	
Brinjal	Bholanath	

Status of Mobile Advisory

Message type sent	Crop		Livestock		Weather		Marketing		Awareness		Other Enterprise		Total	
	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary
Text only	126	212	37	64	50	97	32	58	48	91	32	79	325	601
Voice only	180	326	60	96	71	120	64	86	59	110	67	102	501	840
Voice and text both	56	104	32	33	26	35	35	42	46	58	49	59	244	331
Total	362	642	129	193	147	252	131	186	153	259	148	240	1070	1772

Revolving Fund Status

Sl. No.	Activity/ Enterprise	Source(s)/ Funding Agency	Revenue (Rs.)
1.	Sale of horticultural crops, Livestocks,	ATARI, Zone VI	5,84,400
		Total :	**5,84,400**

THANK YOU

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