OFT (All discipline) Conducted during 2024

OFT 1 Plant Breeding

• Thematic area: Vegetable Production

• Problem definition/Name of OFT: Evaluation of Onion varieties for Kharif season

1.	Title of On farm Trial (OFT)	Evaluation of Onion varieties for Kharif season
2.	Problem diagnosed	Low marketable yield in Kharif season
3.	Details of technologies selected for	FP: Nasik Red
	assessment/refinement	T 1: Agrifound Dark red
	(Mention either Assessed or Refined)	T 2: Bheema Dark Red
4.	Source of Technology (ICAR/ AICRP/SAU/other,	ICAR- Indian Institute of Horticultural Research, Bengaluru, Karnataka
	please specify)	ICAR- Directorate of Onion and Garlic Research, Pune, Maharashtra
		National Horticultural Research and Development Foundation, New Delhi
5.	Production system and thematic area	Paddy based production system and vegetable production
6.	Performance of the Technology with performance	Introduction of new improved high yielding variety Bheema Dark Red was was
	indicators	found very much fruitful for the farmers of target location. It was found
		superior in term of yield <i>i.e.</i> 20.27 % over Farmer's Practice (Nasik Red). This
		variety has high marketable value due to its attractive dark red flat globe bulbs.
		Further, Kharif cultivation of onion fetched higher price in the market.
7.	Final recommendation for micro level situation	Cultivation of high yielding variety Bheema Dark Red is recommended for
		Kharif cultivation in the Ranchi district. The final recommendation will be
		given after completion of the two years trial. Time of seed sowing for nursery
		raising may be started earlier.
8.	Constraints identified and feedback for research	Standardization of the package and practices of nursery raising is required to escape
		damage of open field onion nursery due to heavy rain in Kharif season.
9.	Process of farmers participation and their reaction	Problem was identified by KVK team after multiple visits of target area and
		thorough discussion with farmers and line departments. Accordingly, suitable
		varieties were selected to address the problem. Seven enthusiastic farmers of
		Gutru village, already practicing cultivation of Kharif Onion were selected for

OFT. Technical and input supports were provided to them. On field data was
recorded by beneficiary farmers in the presence of concerned subject matter
specialist. All recorded data was analyzed and results were discussed with all
beneficiary farmers. All farmers were satisfied with the outcome of the trial
particularly the yield of the Bhima Dark Red. However, all were of opinion that
protection measures for onion nursery against high temperature and uncertain
rainfall has to be adopted.

B. Results with Table and good quality photographs in jpg

As per the data recorded and presented in the following table, T 2 i.e.e Bheema Dark Red was found superior in term of yield *i.e.* 20.27 % over Farmer's Practice (Nasik Red). This variety has high marketable value due to its attractive dark red flat globe bulbs and fetched maximum net return i.e. Rs. 327813 per hectare which ultimately resulted highest B:C ratio (3.79).

Thematic	Technology options with detailed		Area ((ha)	Bulb	Bulb	Yield	Cost of	Gross	Net return	BC ratio		
area	treati	nents			Proposed	Actual	Diameter (cm)	weight (g)	(q/ha)	cultivation (Rs./ha)	return (Rs/ha)	(Rs./ha)	
Vegetable	FP	Nasik Red			0.84	0.84	4.94	81.2	148	113657.00	370000.0	256343.0	3.25
Production	T1	Agrifound (AFDR)	Dark	Red			5.31	87.4	160	114892.50	400000.0	285107.5	3.48
	T2	Bheema Dar	k Red				6.09	110.3	178	117187.00	445000.0	327813.0	3.79

Photographs of different activities and crops stages







Training on Kharif cultivation of onion



Distribution of seed and critical inputs



Nursery raising



Nursery raising in shade net

Seedling transplanted in main field







Scientist visit to farmer's field

Weeding and hoeing in OFT field

Overview of OFT field







Onion after 60 days of transplanting







Comparative Photographs of three varieties of onion showing bulb size







Comparative Photographs of three varieties of onion showing bulb diameter

OFT 2 Plant Breeding

• Thematic area: Crop Production

• Problem definition/Name of OFT: Assessment of climate resilient varieties in rice suitable for medium land of Ranchi district.

1.	Title of On farm Trial (OFT)	Assessment of climate resilient varieties in rice suitable for medium land of
		Ranchi district.
2.	Problem diagnosed	Yield loss in paddy crop due to water stress, reduction in number of rainy days
		and extreme temperature at critical growth stages.
3.	Details of technologies selected for	FP: Cultivation of drought tolerant variety IR 64 (DRT)
	assessment/refinement	T 1: Cultivation of drought tolerant variety CR Dhan 320
	(Mention either Assessed or Refined)	T 2: Cultivation of climate resilient variety CR Dhan 214
4.	Source of Technology (ICAR/ AICRP/SAU/other,	ICAR- NRRI- Central Rainfed Upland Rice Research Station, Hazaribagh,
	please specify)	Jharkhand
5.	Production system and thematic area	Paddy based production system and Crop Production
6.	Performance of the Technology with performance	Introduction of drought tolerant variety CR Dhan 320 was very much fruitful
	indicators	for the farmers in terms of yield performance <i>i.e.</i> 27.29 % higher than farmer's
		variety. T 2 (CR Dhan 214) was also superior over Farmers' selected variety IR
		64 and yielded 16.82% higher. These climate resilient varieties may be useful
		in addressing water stress problem or erratic rainfall during rainy season.
7.	Final recommendation for micro level situation	Cultivation of drought tolerant varieties CR Dhan 320 and 214 are
		recommended for mid land area of the district as it has good yield. The final
		recommendation would be given after 1 or 2 more trials as drought situation
		was not witnessed this year.
8.	Constraints identified and feedback for research	No constraint identified during the trial.
9.	Process of farmers participation and their reaction	After thorough discussion with farmers and different agencies of line
		department, the present problem was selected to be addressed through On Farm
		Trial. The variety IR 64 is popularly grown by farmers. However, farmers were
		not satisfied with its performance under water stress condition. Hence, as per
		discussion with ICAR NRRI CRURRS, Hazaribagh, Jharkhand, two promising
		high yielding drought tolerant varieties CR Dhan 320 and CR Dhan 214 were

	selected for trial. Farmers were supported with technical guidance and required inputs including seed of both varieties and trained for adoption of promising agro-techniques for paddy production. As per their response in different activities, 7 enthusiastic farmers of Gutru village of Burmu block were selected for the On Farm Trial. All were further trained for conducting OFT scientifically. As per the yield data recorded, all the beneficiary farmers of OFT were very much convinced that both the varieties performed very well under water stress condition and have potential to replace the presently popular IR 64. Taste of cooked rice of these two varieties was also liked very much by all beneficiaries.
--	--

Result

Introduction of drought tolerant variety CR Dhan 320 was very much fruitful for the farmers in terms of yield performance *i.e.* 27.29 % higher than farmer's variety. T 2 (CR Dhan 214) was also superior over Farmers' selected variety IR 64 and yielded 16.82% higher. These climate resilient varieties may be useful in addressing water stress problem or erratic rainfall during rainy season.

Thematic	Technology	Area (ha)		Plant	No. of	Panicle	Grains/	Yield	Cost of	Gross	Net	BC ratio
area	options with detailed treatments	Proposed	Actual	Height (in cm)	tillers/hill	Length (in cm)	panicle	(q/ha)	cultivatio n (Rs./ha)	return (Rs/ha)	return (Rs./ha)	
Crop	FP: IR 64 (drt)	1.68	1.68	112.2	6.6	21.7	103.3	42.14	80963	96922	15959	1.20
Production	T1: CR Dhan 320			99.2	8.4	22.73	146	53.64	86260	123372	37112	1.43
	T2: CR Dhan 214			114	9.2	21.23	120.6	49.23	84495	113229	28734	1.34

Photographs of different activities and crops stages



Training on climate resilient varieties and cultivation methods



Seed and other critical input distribution







OFT field at Gutru village



FP: IR64 (drt) at vegetative stage



T1: CR Dhan 320 at vegetative stage



T2: CR Dhan 214 at vegetative stage







T1: CR Dhan 320 at maturity stage



T2: CR Dhan 214 at maturity stage







Scientist visit to farmer's field at maturity stage of rice crop under OFT program







Data Recording at OFT Field

Crop cutting of rice under OFT

OFT 3 Animal Husbandry

- Thematic area: Assessment of Concentrate ration feeding in pregnant does (Steaming Up)
- Problem definition/Name of OFT: Nutritional management

1.	Title of On farm Trial (OFT)	Assessment of Concentrate ration feeding in pregnant does
		(Steaming Up)
2.	Problem diagnosed	Lower birth weight of kids
3.	Details of technologies selected for assessment/refinement	F.P- Range grazing/browsing system
	(Mention either Assessed or Refined)	TO 1- Farmers practice plus supplementation of 150 gm

	1	/1 0
		concentrate/day from 60 days before expected day of kidding
		TO 2- Farmers practice plus supplementation of 250 gm
		concentrate/day from 60 days before expected day of kidding
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	ICAR-IVRI, Izzatnagar, Bareilly, UP
5.	Production system and thematic area	Semi- intensive farming system and Nutritional management
6.	Performance of the Technology with performance indicators	Both the technological options T1 (Farmers practice plus
		supplementation of 150 gm concentrate/day from 60 days
		before expected day of kidding) and T2 (Farmers practice plus
		supplementation of 250 gm concentrate/day from 60 days
		before expected day of kidding) have been found superior
		over Farmer's Practice in terms of birth weight of kids and
		overall growth rate of the kids.
7.	Final recommendation for micro level situation	On the basis of this assessment, steaming up concentrate
		ration may be recommended for pregnant goats without any
		adverse effect to increase the birth weight of kids and
		accelerate the growth rate of kids also.
8.	Constraints identified and feedback for research	Lack of awareness about feeding of steaming ration in free
		range goat rearing system and unavailability of feed
		ingredients in local markets.
9.	Process of farmers participation and their reaction	Progressive farmers were selected for technology assessment.
		All were participated very actively and agreed to adopt this
		technology.

B. Results

Based on the results obtained in present OFT, it is inferred that both the technological options T1 (Farmers practice plus supplementation of 150 gm concentrate/day from 60 days before expected day of kidding) and T2 (Farmers practice plus supplementation of 250 gm concentrate/day from 60 days before expected day of kidding) have been found superior over Farmer's Practice in terms of birth weight of kids and overall growth rate of the kids.

Technology Options	FP	TO1	TO2
Overall weight	1.10	1.22	1.36
Birth weight			

3 Month	4.06		5	5.37	6.35		
6 Month	7	7.31	8	3.06	8.44		
	M	F	M	F	M	F	
Birth weight	1.16	1.05	1.23	1.21	1.50	1.22	
3 Month	4.278	3.86	5.722	5.022	6.705	6.002	
6 Month	7.675	6.9625	8.147	7.996	8.642	8.28	
Cost of feed (Rs.)			270.00		450.00		
Extra wt. gain in 6 Month of age (kg)			0.75		1.13		
B:C ratio in respect steaming up ration only			1:	1.66		1:1.50	

Photographs of OFT 3 Animal Husbandry











Weighing of kids in different stages

OFT 4 Animal Husbandry

- Thematic area: Disease management
- Problem definition/Name of OFT: Assessment of Karanj oil to control external parasites in goats animals

1.	Title of On farm Trial (OFT)	Assessment of Karanj oil to control external parasites in goat
		animals
2.	Problem diagnosed	Transmission of diseases, poor growth rate, irritation etc.
3.	Details of technologies selected for assessment/refinement	F.P: Use of Karanj oil/ Neem oil
	(Mention either Assessed or Refined)	TO1: Amitraj 10ml/ lit of water, 2 alternative days.
		TO2: Karanj oil 100ml + sulpher 10g + camphore 5g, 3
		alternative days
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	Birsa Agricultural University, Ranchi
5.	Production system and thematic area	Semi- intensive farming system and disease management
6.	Performance of the Technology with performance indicators	Use of Karanj oil with sulphur and camphor (TO 2) was found
		most effective in terms of percentage efficacy i.e. 100 per cent
		on 15 days. It is also an economical treatment for the effective
		control of external parasites also in goats.
7.	Final recommendation for micro level situation	On the basis of this assessment, use of Karanj oil with sulphur and
		camphor is more economical & effective also, it may be
		recommended for farmers for treatment of mange in goats without
		any adverse effect.

8.	Constraints identified and feedback for research	Lack of awareness about the use of sulpher and camphore with
		Karanj oil to control external parasites in livestock.
9.	Process of farmers participation and their reaction	Problem was identified through discussion with different farmers
		and technological options suitable for the socio-economic
		condition of farmers were selected. Progressive farmers were
		selected for the assessment of technologies as per their
		willingness. All participated very actively during all phases of trial
		and agreed to adopt this technology.

B. Results

As per the data presented in the following table, use of Karanj oil with sulphur and camphor (TO 2) was found most effective in terms of percentage efficacy i.e. 100 per cent on 15 days. Further, as per the result, TO 2 is an economical treatment of the external parasites also in goats.

Technology options with detailed treatments	Av. total mites count in 6 cm ² area on 0 day	Means post treatment mite count and percentage efficacy			Cost of treatment/goat
		3 rd day	7 th day	15 th day	(Rs.)
FP: Use of Karanj oil/ Neem oil	129.00	125.92	121.45	94.37	40.00
Percentage efficacy		2.38%	5.85%	26.84%	
TO ₁ - Amitraj 10ml/ lit of water, 2 alternative days	134.00	113.21	17.08	00.00	98.50
Percentage efficacy		15.72%	87.25%	100%	
TO2: Karanj oil 100 ml + sulphur 10g + camphor 5g , 3 alternative days	132.00	120.83	45.10	00.00	55.00
Percentage efficacy		8.46%	65.83%	100%	

Photographs of OFT 4 Animal Husbandry







Preparation of Karanj oil, Camphore and Sulpher mixture







OFT 5 Horticulture

• Thematic area: Crop regulation

• Problem definition/Name of OFT: Regulation of bearing potential in litchi (Litchi chinensis) through girdling of primary branches.

1.	Title of On farm Trial	Regulation of bearing potential in litchi (<i>Litchi chinensis</i>) through girdling of primary branches.
2.	Problem diagnosed	China cultivar of litchi shows the tendency of alternate bearing habit where good yield is obtained in one year and no or negligible yield is obtained in another year. Occurrence of late vegetative flushing in autumn or winter, with insufficient degree of dormancy has been attributed to this problem.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmer's Practice (FP): No girdling Technological Option (TO ₁): 2 mm Girdling on 50 % primary branches Technological Option (TO ₂): 3 mm Girdling on 50 % primary branches
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	ICAR-RCER, Research Centre, Ranchi
5.	Production system and thematic area	Upland Rain-fed system, Bearing regulation in litchi
6.	Performance of the technology with performance indicators	Among both the technological options, TO 2 (Circular girdling of 3 mm diameter on 50% primary branches during 1 st week of September) was found significantly superior over Farmer' Practice (No girdling) and TO 1 (Circular girdling of 2 mm on 50 % primary branches after emergence of second vegetative flush) in terms of flowering percentage (67.5), yield per plant (67.44 kg) and B:C ratio (4.9) in off season of litchi cv. China.
7.	Final recommendation for micro level situation	Circular girdling of 4 mm diameter on 50% primary branches during 1 st week of September is recommended as an essential practice for litchi cv. China.
8.	Constraints identified and feedback for research	No constraint was identified in the present OFT.
9.	Process of farmers participation and their reaction	The alternate bearing tendency of China var. of Litchi was observed to be a major problem of litchi growers of Ranchi district. Since, the variety is late maturing, thus escapes the fruit cracking issue which is a common problem of popular Shahi variety of litchi. Hence, many farmers were willing to grow this variety in their farm, however, need a solution for this alternate bearing tendency. Hence, in order to select suitable technology to address this problem a team of KVK experts visited different litchi growing sites and discussed with the farmers to understand the feasibility of different available technologies to address this issue. As per discussion with ICAR – RCER FSRCH&PR, Plandu, Namkom, Ranchi and ICAR NRC, Litchi the girdling technology was selected and

progressive litchi growers maintaining their plants properly, were selected for the trial. Total 8 beneficiaries of the trial were made aware about the technological options through on-site training. The girdling was done by the beneficiary farmer him-self in the presence of SMS Horticulture.
As per the yield plants selected for trial, all the beneficiary farmers were convinced to continue the technology in future also.

B. Results

As per the data recorded in the during the trial and presented in the following table, TO 2 (Circular girdling of 3 mm diameter on 50% primary branches during 1st week of September) was found superior over Farmer' Practice (No girdling) and TO 1 (Circular girdling of 2 mm on 50 % primary branches after emergence of second vegetative flush) in terms of flowering percentage (67.5), yield per plant (67.44 kg) and B:C ratio (4.9) in off season of litchi cv. China.

Thematic area	Technology options with detailed treatments	Percent Flowered Shoot	Fruit weight (g)	Yield (kg/plant)	Healing period (Days)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
Crop regulation	FP: No Girdling	45.6	19.5	49.4	-	43600	217328	173728	3.6
	TO 1: Circular girdling of 2 mm on 50 % primary branches	52.5	19.9	57.3	45-55	46750	253047	206297	4.0
	TO2: Circular girdling of 3 mm diameter on 50% primary branches	67.5	19.7	67.4	115-125	47200	298469	251269	4.9

Photographs of OFT 5 Horticutlure





Training on Girdling practice in Litchi cv. China





Girdling operation in Litchi





Effect of 2 mm girdling on fruiting

Effect of 3 mm girdling on fruiting









Data recording to assess the effect of girdling

OFT 6 Horticulture

- Thematic area: Plant protection
- Problem definition/Name of OFT: Assessment of microbial consortia against wilting in Solanaceous crops (Tomato)

1.	Title of On farm Trial	Assessment of microbial consortia against wilting in Solanaceous crops (Tomato)
2.	Problem diagnosed	Low productivity of tomato due to high incidence of wilt disease.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmers' practice: Chemical Pesticides T 1: IIHR Consortia (Arka Microbial Consortia) T 2: NRC Litchi Trichoderma
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	ICAR – IHR, Bangluru and ICAR – NRC on Litchi
5.	Production system and thematic area	Rice based production system and Crop Production
6.	Performance of the technology with performance indicators	Application of Arka Microbial Consortia (TO 1) most effectively controlled wilt disease. Significantly lowest value of wilting percentage was recorded with TO 1 i.e. 16.35 per cent only at 75 th day after transplanting following by TO 2 (18.30 per cent) while the highest value was recorded with farmers practice (26.69 per cent). Similarly, highest yield was also recorded with TO 1 i.e. 435 q/ha followed by TO 2 (380 q/ha.).
7.	Final recommendation for micro level situation	In order to control the incidence of wilt in tomato, pre transplanting application of FYM treated with Arka Microbial Consortia (@ 1 kg/q FYM) is recommended under field condition of Ranchi district.
8.	Constraints identified and feedback for research	No any constraints identified during the trial.
9.	Process of farmers participation and their reaction	Wilt has been a well-known field problem of solanaceous crops, particularly tomato. Different chemical inputs have been tried by farmers against this issue. However, no

organic method or technology had been tried against this issue. As per the discussion
with farmers it was identified that in present scenario of organic farming an organic
solution was needed to address this problem. Hence, 8 progressive farmers were
identified involved in commercial tomato cultivation. All were provided input and
technical support before the commencement as well as during the whole period of
trial. All farmers were doubtful about the effectiveness of organic inputs provided
against wilt in tomato, however, all were convinced as per the result observed in the
OFT.

B. Results

As per the data recorded in the trial, technology option 1 (application of Arka Microbial Consortia) most effectively controlled wilt disease. Significantly lowest value of wilting percentage was recorded with TO 1 i.e. 16.35 per cent only at 75th day after transplanting following by TO 2 (18.30 per cent) while the highest value was recorded with farmer's practice (26.69 per cent). Similarly, highest yield was also recorded with TO₁ i.e. 435 q/ha followed by TO₂ (380 q/ha.).

Thematic area	Technology options with	Initial plant population	First incidence	Wilting percentage (Days after transplanting)				Yield (q/ha.)	Cost of cultivat	Gross incom	Net income	B:C rati	
	detailed treatments	(nos.)	of wilting (DAT)	15.0	30.0	45.0	60.0	750.0		ion (Rs.)	e (Rs.)	(Rs.)	0
Plant protection	FP (Chemical Fungicide)	1081	133	3.2	11.1	16.9	21.4	26.6	256	87500	28160 0	194100	2.2
	TO 1 (Arka Microbial Consortia)	1081	25	-	4.9	8.5	12.3	16.3	435	88250	50460 0	416350	4.7
	TO 2 (NRC Litchi Trichoderma)	1081	21	-	6.7	9.2	14.4	18.3	380	88000	42940 0	341400	3.9
	CD at 5 %			-	1.2	1.7	1.3	1.5					

Please provide all the OFTs in same format Photographs in jpg. (Attach separately also with captions)

Photographs of OFT 6 Horticulture



Treatment of FYM with NRCL Trichoderma



Treatment of FYM with Arka Microbial Consortia



Tomato seedling raising



FP - Chemical fungicide



TO 1 - Arka Microbial Consortia



TO 2 - NRCL Trichoderma

OFT 7 Horticulture

- Thematic area: Crop regulation
- Problem definition/Name of OFT: Regulation of bearing potential in litchi (*Litchi chinensis*) through girdling of primary branches.

1.	Title of On farm Trial	Regulation of bearing potential in litchi (<i>Litchi chinensis</i>) through girdling of primary branches.
2.	Problem diagnosed	China cultivar of litchi shows the tendency of alternate bearing habit where good yield is obtained in one year and no or negligible yield is obtained in another year. Occurrence of late vegetative flushing in autumn or winter, with insufficient degree of dormancy has been attributed to this problem.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	Farmer's Practice (FP): No girdling Technological Option (TO ₁): 2 mm Girdling on 50 % primary branches Technological Option (TO ₂):3 mm Girdling on 50 % primary branches
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	ICAR-RCER, Research Centre, Ranchi
5.	Production system and thematic area	Upland Rain-fed system, Bearing regulation in litchi
6.	Performance of the technology with performance indicators	Result awaited
7.	Final recommendation for micro level situation	-
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Discussion with farmers

B. Results with Table and good quality photographs in jpg.

Thematic area	Technology options with detailed treatments	Area (ha in crop & Fodder)/ Nos. (in livestock)			Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Proposed	Actual					
Crop regulation	FP: No Girdling	-	-	-	-	-	-	-
	TO 1: Circular girdling of 2 mm on 50 % primary branches	-	-	-	-	-	-	-
	TO2: Circular girdling of 3 mm diameter on 50% primary branches	-	-	-	-	-	-	-

Please provide all the OFTs in same format Photographs in jpg. (Attach separately also with captions)

OFT 8 Horticulture

• Thematic area: Soil moisture conservation

• Problem definition/Name of OFT: Assessment of different types of mulches in young mango plants.

1.	Title of On farm Trial	Assessment of different types of mulches in young mango plants.
2.	Problem diagnosed	Low soil moisture particularly after fruit set affect the fruit development, quality
		and yield.
3.	Details of technologies selected for	Farmer's Practice (FP): No mulching/ Litter of tree
	assessment/refinement	Technological Option (TO₁): Plastic mulch (50 micron)
	(Mention either Assessed or Refined)	Technological Option (TO2):Locally available mulch (Rice/Wheat Straw or Grass
		15 cm thick)
4.	Source of Technology (ICAR/	ICAR CISH, Lucknow & ICAR IIHR, Bengaluru

	AICRP/SAU/other, please specify)	
5.	Production system and thematic area	Upland Rain-fed system, Bearing regulation in litchi
6.	Performance of the technology with performance indicators	Result awaited
7.	Final recommendation for micro level situation	-
8.	Constraints identified and feedback for research	-
9.	Process of farmers participation and their reaction	Discussion with farmers

B. Results with Table and good quality photographs in jpg.

Thematic area	Technology options with detailed treatments	Area (ha in crop & Fodder)/ Nos. (in livestock)		Yield (q/ha)	Cost of cultivation (Rs./ha)	Gross return (Rs/ha)	Net return (Rs./ha)	BC ratio
		Proposed	Actual	(1 ")				
Soil moisture conservation	Farmer's Practice (FP): No mulching/ Litter of tree	-	-	-	-	-	-	-
	Technological Option (TO ₁): Plastic mulch (50 micron)	-	-	-	-	-	-	-
	Technological Option (TO ₂): Locally available mulch (Rice/Wheat Straw or Grass 15 cm thick)	-	-	-	-	-	-	-

OFT 9 Agronomy

• Thematic area: Crop Management

• Problem definition/Name of OFT: Assessment of efficacy of Nitrogen use efficiency in rice

	Title of On farm Trial (OFT)	Assessment of efficacy of Nitrogen use efficiency in rice
1.		
2.	Problem diagnosed	Excessive use of chemical fertilizer and Spiraling price of urea leads to increase in cost of cultivation
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	FP – 68:58:15: N:P:K kg/ha TO 1: 50% of RDN(80kg/ha) & 100% PK (40:30kg/ha) + Nano urea @4ml/lt water (Single spray at flowering stage) TO 2: 50% of RDN(80kg/ha) & 100%PK (40:30kg/ha) + 2 sprays of Nano Urea at (25 to 30 days) and (60 to 65 Days) @4ml/ltr water
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	ICAR-IARI Jharkhand, TNAU Tamil Nadu, Assam Agriculture University Jorhat, And ICAR-IISR Kozhikode Kerala
5.	Production system and thematic area	Paddy- fallow/ Gram/Mustard Integrated Nutrients Management Irrigated crop production and management
6.	Performance of the Technology with performance indicators	The technological option TO 2 was found better than Farmer's practice in terms of yield (37.45 q/ha), Net Return (43753) and B:C ratio (2.15). were recorded with Technological Option 2 i.e. application of 50% of RDN & 100% P & K + 2 sprays of Nano Urea

		(at 25-30 Days and 60-65 Days) @ 4 ml/ltr water.
7.	Final recommendation for micro level situation	In order to reduce nitrogen consumption in rice, application of 50 % of RDN (80 kg/ha) & 100 % PK (40:30kg/ha.) + Nano Urea @ 4ml/lt water (Single spray at flowering stage) is recommended for Ranchi condition.
8.	Constraints identified and feedback for research	No constraint was identified.
9.	Process of farmers participation and their reaction	Farmers were involved in participatory approach they are satisfied the testing and very much enthusiastic about the findings

B. Results

The technological option TO 2 were found better than Farmer's practice in terms of yield, Net Return and B:C ratio. However, the maximum yield (37.45 q/ha), Net Return (43753) and B:C ratio (2.15) were recorded with Technological Option 2 i.e. application of 50% of RDN & 100% P & K + 2 sprays of Nano Urea (at 25-30 Days and 60-65 Days) @ 4 ml/ltr water.

Table 1: Effect of nano-urea application on different growth parameters of wheat production

Thematic	Technology options	Area (l	ha)	Yield	Cost of	Gross	Net	B:C ratio
area	with detailed treatments	Proposed	Actual	(q/ha)	cultivation (Rs./ha)	return (Rs/ha)	return (Rs./ha)	
Crop production and management	FP: 68:58:15::N:P:K kg/ha.	0.40	0.40	35.25	38500	81075	42575	2.10
	TO 1: 50 % of RDN (80 kg/ha) & 100 % PK (40:30kg/ha.) +	0.40	0.40	34.05	39072	78315	39242	2.00

Nano Urea @ 4ml/lt							
water (Single spray							
at flowering stage)							
TO 2: 50 % of RDN							
(80 kg/ha) & 100%							
PK (40:30 kg/ha) + 2							
sprays of Nano Urea	0.40	0.40	37.45	40034	86135	43753	2.15
at 25 to 30 days and							
60 to 65 Days @ 4							
ml/ltr water							

Table 2: Effect of nano-urea application on different growth parameters of wheat production

Thematic area	Treatment	Plant height (cm)	Number of panicles	Total no. of grains panicale	Number of filled grains	Panicles length	Test weight (g)	Grain yield (q ha ⁻¹)	Straw yield (q ha ⁻¹)	Biological yield
		(6111)	M ⁻²		panicale ⁻	(cm)	(5)	(q na)	(411111)	(q ha ⁻¹)
Crop production and management	FP – 68:58:15::N:P:K kg/hac	93.98	276.84	164.23	153.86	24.9	25.90	35.25	43.35	78.35
	TO 1: 50% of RDN(80kg/ha) & 100%PK (40:30kg/ha) + Nano urea @ 4ml/lt water (Single spray at flowering stage)	81.37	285.46	175.64	167.64	24.85	24.61	34.05	41.20	75.25
	TO 2: 50% of RDN (80kg/ha) & 100% PK (40:30 kg/ha) + 2 sprays of Nano Urea at (25 to 30 days) and (60 to 65 Days) @4ml/ltr water	89.75	296.79	196.22Ph	184.65	25.23	26.13	37.45	44.98	82.35

Photographs of OFT 9 Agronomy



Training on OFT Agronomy



Critical input Support



OFT Paddy Field



FP



TO - 1



TO - 2

OFT 10 Agronomy

• Thematic area: Crop Management
Problem definition/Name of OFT: Assessment of different microbial sources in Mustard

1.	Title of on farm Trial (OFT)	Assessment of different microbial sources in Mustard
2.	Problem diagnosed	Imbalanced use of fertilizers low yield due to flower dropping and imbalanced nutrient application.
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	FP: 60:46:20::N:P:K Kg/ha TO 1: FP + NPK Liquid Consortia @500ml/50 kg FYM/ha and foliar application of consortia @ 5-10 ml/ lit water at pre-flowering stage TO 2: FP + seed treatment with Beejamrit + Four time foliar application of Jeevamrit) @100ml/ litre water (200 lit/acre for 1 time
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	RKMVERI Ranchi, and TNAU Tamil Nadu
5.	Production system and thematic area	Paddy- gram/mustard Integrated nutrients management, irrigated crop production and management
6.	Performance of the Technology with performance indicators	Trial is ongoing and result is awaited
7.	Final recommendation for micro level situation	Trial is ongoing
8.	Constraints identified and feedback for research	Trial is ongoing
9.	Process of farmers participation and their reaction	-

B. Results

Thematic	Technology options	Area (ha in crop &		Yield	Cost of	Gross	Net	BC ratio
area	with detailed	Fodder)/ Nos (in			cultivation	return	return	
	treatments	livestock)		(q/ha)	(Rs./ha)	(Rs/ha)	(Rs./ha)	
		Proposed	Actual					
		_						

RESULT AWAITED								

Please provide all the OFTs in same format Photographs in jpg. (Attach separately also with captions)

OFT 11 HOME SCIENCE

- Thematic area: Value addition
- Problem definition/Name of OFT: Value addition of tamarind in the form of candy

1.	Title of on farm Trial (OFT)	Preparation of Candy from tamarind
2.	Problem diagnosed	Due to lack of processing, it remains under-exploited to
		meet growing domestic and commercial needs.
3.	Details of technologies selected for assessment/refinement	FP: Consumption of raw pulp
	(Mention either Assessed or Refined)	TO1: Formulation of tamarind candy with sugar
		TO2: Formulation of tamarind candy with jaggery
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	College of Agriculture, UAS Dharwad, Karnataka
5.	Production system and thematic area	Value addition
6.	Performance of the Technology with performance indicators	 Organoleptic evaluation of formulated product on
		a nine-
		point hedonic scale
		Appearance
		> Colour
		> Flavour
		> Taste
		> Texture
		Consistency
		And overall acceptability

7.	Final recommendation for micro level situation	The The developed tamarind candy was highly acceptable by persons from different age groups especially kids. Developed product improves the consumption rate of tamarind and reduces the losses of fruit thus such type of product should be developed by the farm women either for self consumption or for commercial purpose.
8.	Constraints identified and feedback for research	No any constraints identified during the trial
9.	Process of farmers participation and their reaction	The problem was identified after PRA, Kisan Goathi & Farmer Scientist Interaction. All ingredients for development making tamerind candy was distributed among 2 group (10 women in each group) of gutru villages of burmu block, ranchi. Training for candy making was provided to the selected beneficiaries. The farm women were very happy and satisfied by easy preparation and consumption, its good sensory quality such as taste, flavor, and its higher acceptability by person from every age group. They decided to prepare tamarind candy at regular basis as its quick, easy production cost is very less and acceptability is high.

B. Results with Table and good quality photographs in jpg.

Technology option	No. of trials			Org	ganoleptic	assessment		
option	uriais	Appearance	Colour	Flavour	Taste	Texture	Consistency	Over all acceptability
FP: Consume pulp in raw form		6	5	7	6	6	4	5
TO1: Formulation of		8	8	9	9	7	8	8

tamarind candy with	10							
sugar								
TO2: Formulation of		8	9	9	9	8	9	9
tamarind candy with								
jaggery								

OFT 11 Home Science



Input distribution under OFT on Preparation of Candy from tamarind



Preparation of tamarind candy under OFT on Preparation of Candy from tamarind



Developed product of To1 and To2 under OFT on Preparation of Candy from tamarind



Developed product of To1 and To2 under OFT on Preparation of Candy from tamarind

OFT 12 HOME SCIENCE

- Thematic area: Value addition
- **Problem definition/Name of OFT:** Assessment of value addition technology of futkal leaf (*Ficus virens*) in the form of instant soup mix for increasing the consumption span

1.	Title of on farm Trial (OFT)	Assessment of value addition technology of futkal leaf (Ficus
		virens) in the form of instant soup mix for increasing the
		consumption span.
2.	Problem diagnosed	Low utilization of futkal leaf due to only seasonal availability and
		lack of utilization technologies.
3.	Details of technologies selected for assessment/refinement	FP: Sag preparation from fresh leaf of futkal
	(Mention either Assessed or Refined)	TO1: Preparation of Futkal leaf based Instant Soup Mix
		(Ingredients : Futkal leaf powder, roasted lentil flour, corn flour,
		black paper powder, salt, red chilli powder, garlic powder, onion
		powder, cumin powder, sugar – 10:2:7:0.4:0.4:0.2:1:1.5:0.2;0.5)
		TO2: Preparation of Futkal leaf and Moringa oleifera leaf based
		Instant Soup Mix
		(Ingredients : Futkal leaf powder , Moringa leaf powder, roasted
		lentil flour, corn flour, black paper powder, salt, red chilli powder,
		garlic powder, onion powder, cumin powder, sugar –
4	G CT 1 1 (IGAD/AIGDD/GAIL/ 1 1 10)	6:4:2:7:0.4:0.4:0.2:1:1.5:0.2;0.5)
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	College of community science, OUAT, Bhubaneswar
5.	Production system and thematic area	Value addition
6.	Performance of the Technology with performance indicators	Organoleptic evaluation of formulated product on a nine-
		point hedonic scale
		> Appearance
		Colour
		Flavour
		> Taste
		> Texture
		Consistency

		And overall acceptability
7.	Final recommendation for micro level situation	The developed soup mix was highly acceptable by persons from different age groups. Developed product improves the consumption rate of futkal leaf and ensure the therapeutic security from its medicinal property.thus such type of product should be developed by the farm women either for self-consumption or for commercial purpose.
8.	Constraints identified and feedback for research	No any constraints identified during the trial
9.	Process of farmers participation and their reaction	PRA, Kisan Goathi & Farmer Scientist Interaction

B. Results

Technology	No. of	Organoleptic assessment									
option	trials	Appearance	Colour	Flavour	Taste	Texture	Consistency	Over all acceptability			
FP: Sag preparation from fresh leaf of futkal		5	6	5	5	6	6	6			
TO1: Preparation of Futkal leaf based Instant Soup Mix	10	9	9	9	9	8	8	9			
TO2: Preparation of Futkal leaf and Moringa oleifera leaf based Instant Soup Mix		9	9	8	7	8	7	8			

Photographs of OFT 12 Home Science



Input support for OFT



Input distribution under OFT on Assessment of value addition technology of futkal leaf (Ficus virens) in the form of instant soup mix for increasing the consumption span



Preparation of instant futkal leaf soup mix under OFT on Assessment of value addition technology of futkal leaf (Ficus virens) in the form of instant soup mix for increasing the consumption span



Developed product of To1 and To2 under OFT on
Assessment of value addition technology of futkal leaf (Ficus virens) in the form of instant soup mix for increasing the consumption span

OFT 13 Plant Protection

Thematic area: Crop Protection

Problem definition/ Name of OFT: High incidence of Brown Plant Hopper (Nilaparvata lugen) results in significant yield reduction in paddy.

1.	Title of On farm Trial (OFT)	Management of Brown plant hopper (Nilaparvata lugen) in paddy
2.	Problem diagnosed	Low yield of Rice

3.	Details of technologies selected for	FP: Imidacloprid 17.8 SL @ 100 ml/ha/ Thiamethoxam 25 WG					
	assessment/refinement (Mention either Assessed or Refined)	@ 100g/ha					
	(Wendon etaler Assessed of Refined)	TO 1: 1 st Application with Azadirachtin 1500 ppm					
		@ 2.5 ml/lit. at 3-5 insect/hill followed by 2 nd application with					
		Thiamethoxam 25 WG @ 100 g/ha					
		TO 2: 1 st and 2 nd application with Buprofezin 25 EC					
		@ 800 ml/ha at 10 days' interval.					
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	DPPQS, Faridabad					
5.	Production system and thematic area	Rice based production system and Pest management					
6.	Performance of the Technology with performance indicators	Minimum no. of BPH/hill 4.10 was found in the TO 2 i.e. Two spray of Buprofezin 25 EC @ 800 ml /ha at 10 days interval, however, TO 1 i.e. at par with the TO-I. Maximum yield and B:C ratio were recorded with TO 2 i.e. 38.2 q/ha and 2.27:1, respectively.					
7.	Final recommendation for micro level situation	In order to control the incidence of brown plant hopper in paddy two applications of Buprofezin 25 EC @ 800 ml/ha at 10 days interval is recommended under field condition of Ranchi district.					
8.	Constraints identified and feedback for research	No constraint in the trial observed. From farmers point of view, application of Buprofezin 25 EC is very much effective to control Brown Leaf Hopper in paddy.					
9.	Process of farmers participation and their reaction	Farmers were selected for OFT on the basis of information received from survey and discussion with farmers. After that, Pesticide of paddy was distributed among 10 farmers of village Loahatu, Sonahatu Block of Ranchi on pilot basis. Then they were motivated and trained in pesticide and fungicide application methods.					

B. Results

As per the data recorded and presented in the following table, minimum no. of BPH/hill (4.10) was found in the Technological option 2 i.e. Two spray of Buprofezin 25 EC @ 800 ml /ha at 10 days interval, however, Technological option 1 i.e. 1st application with Azadirachtin (1500 ppm, 2.5 ml/lit.) at 3-5 insect/hill @ 800 ml/ha was found at par in this context. The maximum yield (38.2 q/ha) and BC ratio (2.27:1) was also recorded with Technological Option 2.

Th	Technology options with	Area (ha in crop & Fodder)/nos. (in livestock)		No. of insect/hill (Average of 5 hills)				A	Yield	Cost of	Gross	Net return	B:C	
Themati c area	detailed treatments	Cost of cultivation (Rs./ha.) Cost of cultivation (Rs./ha.	return	return (Rs./ha	B:C ratio									
Carca	treatments		Actua 1	ment		-		I -	rage		_	(Rs./ha.)	(Ks. /IIa	Tatio
Crop Protectio n	FP: Imidacloprid 17.8 SL @ 100 ml/ha / Thiamethoxam 25 WG @100g/ha	1.2	1.2	11.3	8.6	10.3	11.1	13.3	10.8	31.5	35600	72450	36850	2.03:1
	Application with Azadirachtin 1500 ppm @ 2.5 ml/lit. at 3-5 insect/hill followed by 2 nd application with Thiamethoxam 25 WG, (100 g/ha)	1.2	1.2	9.6	5.6	5.3	5.1	4.1	5.0	35.6	37300	81880	44580	2.19:1
	TO 2: Two applications of Buprofezin 25 EC @ 800 ml/ha at 10 days CD (P=0.05)	1.2	1.2	10.9	5.1	4.9	3.3	2.9	4.1	38.2	38700	87860	49160	2.27:1

Photographs of OFT 13 Plant Protection



Training and Input distribution



FP: Imidacloprid 17.8 SL (100 ml/ha)/ Thiamethoxam 25 WG (100g/ha)



TO 1: 1st Application with Azadirachtin 1500 ppm @ 2.5 ml/lit. at 3-5 insect/hill followed by 2nd application with Thiamethoxam 25 WG @100 g/ha



TO 2: 1st and 2nd Application with Buprofezin 25 EC (800 ml/ha) at an interval of 10 days.



Application of insecticide on paddy field



OFT field over view



OFT field over view



BPH in paddy field

OFT 14 Plant Protection

- Thematic area: Plant Protection
- Problem definition/ Name of OFT: Management of Pod borer complex in pigeon pea.

1.	Title of On farm Trial (OFT)	Management of Pod borer complex in pigeon pea.
2.	Problem diagnosed	Yield loss (30-60 %) in pigeon pea due to infestation of pod borer (<i>Helicoverpa armigera</i>) and pod fly (<i>Melanagromyza obtusa</i>).
3.	Details of technologies selected for assessment/refinement (Mention either Assessed or Refined)	FP – Spray of Chlorpyriphos 50 EC. TO 1 – Application of Chlorantraniliprole 18.5 SC @ 150 ml /ha at pod formation stage. TO 2 – Two spray 1 st spray Indoxacarb 14.5 SC @ 250 ml/hat 50% flowering and 2 nd spray Imidacloprid 17.8 SL @ 400 ml/ha 15 days after 1 st spray.
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	BAU, Sabour

5.	Production system and thematic area	Pest management
6.	Performance of the Technology with performance indicators	The minimum pod and grain infestation was recorded in TO 2 i.e. 13.0 and 12.6, respectively. The positive impact of this Technological Option resulted maximum yield (12.1 q/ha.) also.
7.	Final recommendation for micro level situation	In order to control the incidence of pod borer complex in pigeon pea, application of Indoxacarb 14.5 SC @ 250 ml/ha at 50% flowering stage (1st spray) followed by application of Imidacloprid 17.8 SL @ 400 ml/ha, 15 days after the 1st spray is recommended under field condition of Ranchi district.
8.	Constraints identified and feedback for research	No constraint was observed in the trial conducted. As per the overall impact of the technological options on crop yield, farmers are satisfied and convinced to apply these technologies in future.
9.	Process of farmers participation and their reaction	Problem was identified through survey of different locations and discussion with the farmers. Based on the information received, 10 farmers of Siramtoli village of Burmu block of Ranchi district were selected for OFT. They were then motivated and trained for pesticide and fungicide application methods. After that, all the necessary inputs and technical support was provided. The progress of the trial was monitored through time to time scientist visit to trial plots and required suggestions were provided to farmers. All the data of the trial was recorded by beneficiary farmers and concerned scientist. The final findings of the trial along with the interpretation was shared and discussed with the beneficiary farmers as well as other farmers of the target village. All farmers were convinced with the findings of the trial in order to control pod borer in pigeon pea.

B. Results

The data of the trial indicates that application of Indoxacarb 14.5 SC @ 250 ml/ha at 50% flowering stage (1st spray) followed by application of Imidacloprid 17.8 SL @ 400 ml/ha, 15 days after the 1st spray, is most effective, in order to control the incidence of pod borer complex in pigeon pea. The minimum percent grain infestation i.e. only 12.6 per cent resulted maximum yield (12.1 q/ha) and net return (Rs. 42935 per hectare).

Them	Technology options with	Per cent pod and grain	Yield	Cost of	Gross	Net	BC ratio
------	-------------------------	------------------------	-------	---------	-------	-----	----------

atic area	detailed treatments	infestation (%)		(q/ha)	cultivation (Rs./ha)	return (Rs/ha)	return (Rs./ha)	
		Pod damage (%)	Grain damage (%)				, ,	
	FP – Spray of chlorpyriphos 50 EC.	24.2 (29.47)	27.8 (31.82)	7.9	27324.00	47400.00	20076.00	1.73:1
	TO 1: Application of chlorantraniliprole 18.5 SC @ 150 ml /ha at pod formation stage.	15.6 (23.26)	17.6 (24.80)	10.4	28935.00	62400.00	33465.00	2.15:1
	TO 2: Two spray 1 st spray Indoxacarb 14.5 SC @ 250 ml/hat 50% flowering and 2 nd spray Imidacloprid 17.8 SL @ 400 ml/ha 15 days after 1 st spray.	13.0 (21.13)	12.6 (20.79)	12.1	29665.00	72600.00	42935.00	2.44:1
	CD (P=0.05)	2.09	2.58	1.94				

Photographs of OFT 14 Plant Protection





TO 1: Application of chlorantraniliprole 18.5 SC @ 150 ml /ha at pod formation stage.



TO 2: Two spray 1st spray Indoxacarb 14.5 SC @ 250 ml/hat 50% flowering and 2nd spray Imidacloprid 17.8 SL @ 400 ml/ha 15 days after 1st spray.



Over view OFT plot



Pod fly infestation on Pigeon pea

OFT-15 (Home science)

Thematic area: Value addition

Problem definition/Name of OFT: Value addition of jackfruit in the form of candy

1.	Title of On farm Trial (OFT)	Formulation of Jackfruit Candy
2.	Problem diagnosed	Due to lack of processing, it remains under-exploited to meet growing domestic and commercial needs.

3.	Details of technologies selected for assessment/refinement	FP: Fresh unripe and ripped fruits consumed
	(Mention either Assessed or Refined)	TO1: Development of Jackfruit based product with the
		sweet flavor.
		TO2: Development of Jackfruit based product with spicy
		flavor.
4.	Source of Technology (ICAR/ AICRP/SAU/other, please specify)	CIPHET, Ludhiana
		AAU, Assam
5.	Production system and thematic area	Value addition
6.	Performance of the Technology with performance indicators	Organoleptic evaluation of formulated product on
		a nine-
		point hedonic scale
		Appearance
		Colour
		➤ Flavour
		> Taste
		Texture
		Consistency
		And overall acceptability
7.	Final recommendation for micro level situation	Result awaited
8.	Constraints identified and feedback for research	
9.	Process of farmers participation and their reaction	

B. Results with Table and good quality photographs in jpg.

-	Technology	No. of	Organoleptic assessment
	1		

option	trials	Appearance	Colour	Flavou r	Taste	Texture	Consistency	Over all acceptability
FP: Consume pulp in raw form								·
TO1: Formulation of tamarind candy with sugar								
TO2: Formulation of tamarind candy with jaggery								

OFT-16 (Home Science)

Thematic area: Value addition

Problem definition/Name of OFT: Assessment of value addition technology of millet in the form of poshtik atta for reducing the iron deficiency anemia

1.	Title of On farm Trial (OFT)	Development of Poshtik atta to reduce iron deficiency anemia
2.	Problem diagnosed	Lack of access to nutritious and sufficient food is a major reason for anemia in Jharkhand. A
		convenient way to improve the nutritional level, and better prevention and management of
		anemia by including millets in the diet as these are very rich in Iron, protein which
		ultimately able to eliminate diseases. But Limitation of millet consumption was found
		among school going children due to unawareness of processing technology of millet
3.	Details of technologies selected for	FP: Only rice consumption as staple food
	assessment/refinement (Mention either Assessed or Refined)	T01: Development of poshtic atta with cereal and millet
		T02: Development of poshtic atta with cereal, millet and legume
4.	Source of Technology (ICAR/	Chandra Shekhar Azad University of Agriculture and Technology, Kanpur, Uttar Pradesh
	AICRP/SAU/other, please specify)	
		Tamil Nadu Agricultural University Coimbatore, Tamil Nadu

5.	Production system and thematic area	Value addition
6.	Performance of the Technology with performance indicators	 Organoleptic evaluation of formulated product on a nine- point hedonic scale Appearance Colour Flavour Taste Texture Consistency And overall acceptability

B. Results with Table and good quality photographs in jpg.

Technology option	No. of trials	Organoleptic assessment				
ορεισιι						
FP: Sag preparation from fresh leaf of futkal						
TO1: Preparation of Futkal leaf based Instant Soup Mix	10		Result Awaited			
TO2: Preparation of Futkal leaf and Moringa oleifera leaf based Instant Soup Mix						