

KRISHI VIGYAN KENDRA BANKA

ACTION PLAN

(APRIL 2016-MARCH 2017)



**BIHAR AGRICULTURAL UNIVERSITY, SABOUR
BHAGALPUR-813102**

INTRODUCTION:

Krishi Vigyan Kendra, Banka was established in April 1983 vide ICAR Sanction number 15(22)/82 April Extn. /Jan 1983. The host institution of this centre was Rajendra Agricultural University, Pusa, Samastipur, Bihar. But this time it comes under Bihar Agricultural University after division of the university. This kendra is located at Banka, Katoriya road at the distance of 3 kms south from district headquarter. The nearest railway station is Banka. It is situated at 24° 30' to 25° 8' N latitude and 86° 30' to 87° 12' East latitude in the south west part of Bihar. It comprises of 11 blocks. The total area of this district is 3019.5sq.km. Out of which 74780 ha. area are irrigated. The climate is comprised of hot summer with hot waves the maximum temperature reaching upto 45°C in April- June and minimum temperature of 15°C in Dec-Jan and annual rainfall is 1200 MM of which 80% are received during June-September. The soil texture of this district is clay loam to Sandy loam having pH range from 7.12 to 7.8 Mostly the soils of this district are low to medium in nitrogen and high in phosphorous and medium to high in Potash; zinc deficiency is widely spread in the district. Good response of sulphur is usually visible especially in oilseeds crops.

Like other KVKs the purpose of establishing K.V.K in Banka district is to disseminate improved technologies in agriculture and allied field by organizing need based skill-oriented short and long-term vocational training course to the practicing farmer, rural youth and farm women. The ultimate objective of the Kendra is to increase the production of the area by adopting the following mandates.

❖ **Mandate of the KVK:**

1. Technology Assessment
2. Technology Refinement
3. Technology Demonstration

❖ **Thrust area:**

1. Seed village programme.
2. Organic based farming.
3. Integrated farming approach.
4. Income generating resources.
5. Self help group.

❖ **Major Activities:**

1. Conducting on farm testing for identifying technology in terms of location specific and sustainable land use systems.
2. Organizing training to update the extension personnel with emerging advances in agricultural research on regular basis.
3. Organizing short and long term vocational training courses in agriculture and allied sectors for the farmers and rural youths with emphasis on learning by doing for higher production and generating self-employment.
4. Conducting Front Line Demonstrations on oilseeds, pulses and other than Oilseed and Pulses.
5. Farm Advisory services, help line, diagnostic visit and other extension activities.
6. Seed production of cereals, Oilseeds and Pulses.
7. Celebration of Technology week.

❖ **Soil Type:**

The district broadly can be divided in northern region and southern region northern region consisting Amarpur, Shambhuganj, Rajoun, Dhoraiya, and part of Barahat, Belhar, Banka and Bounsi Block. It is alluvial plain which is very fertile having soil type is sandy loam to clay loam. The water holding capacity of clay loam is very sick.

The southern hilly plateau has laterite soil having blocks. Katoriya, Chandan, and part of Belhar, Banka and Bounsi. The water holding capacity of this region is very poor.

❖ DISTRICT PROFILE

1	Establishment (Portion of old Bhagalpur District)	Year 1983	
2	Geographical location		
	Latitude	24°30'N to 25°08'N	
	Longitude	86°30'E to 87°12'E	
3	Geographical Boundary		
	North	Bhagalpur	
	South	Deoghar (Jharkhad)	
	East	Godda (Jharkhand)	
	West	Munger	
4	Total geographical area	3,05,621(ha)	
5	Soil type	Clay loam to sandy loam	
6	Climate		
	Average annual rainfall	1170 mm	
	Temperature range	15° to 45° C	
7	Number of blocks/ Talukas	11	
8	Number of villages (inhabited)	1618	
9	Agro-climatic Region & Zone	III B-South Bihar Alluvial Plain	
10	Population		
	Male	1064307	
	Female	965032	
	Total	2029339	
	Population density/ Sq.km.	672/ Sq.km.	
	Sex ratio	1000 : 908	
11	Land Utilization		
	Geographical Area (Km.)	305621 ha	
	Net Sown Area (in ha.)	1,52,371.91 ha	
	Forest (in ha.)	43,310 ha	
	Current Fallow Land (in ha.)	3930.52 ha	
	Land not available for cultivation (in ha.)	41258 ha	
	Cropping intensity	112 %	
12	Size of Holdings	No.	Percentage (%)
	Less than 1 ha.	167570	81
	Between 1 ha. and 2 ha	18647	9
	Above 2 ha.	19517	10
	Total	205734	100
13	Irrigation (in ha.)		
	Net Irrigated Area	115698	
	By canals	90062	
	By Tube wells	23893	
	By other Sources	1743	
14	Agriculture support facilities		
	Seed/ Fertiliser/ Pesticide depots	1	

	Rural Markets / Mandis	1(Barahat)
	Rural Godowns	50 Nos
	Cold Storages	NIL
15	Major Farming System	
	a) Rice - Wheat b) Rice - Linseed c) Rice – Gram / Lentil d) Rice – Maize e) Sugarcane – Ratooning of sugarcane f) Sugarcane + Bitter gourd /Cucumber g) Rice – Gram+ Rai h) Rice –Wheat+ Rai i) Rice –Rai –Moong j) Horsegram – k) Sorghum+Rice Bean l) Sweet Potato m) Tomato / Pea n) Brinjal- Spinach o) Cauliflower p) Spongegourd – Potato- Moong	

❖ **Name of the adopted village**

SN.	Name of the Village	Block	In-charge Scientist
1.	Dudhari	Banka	Dr. Raghubar Sahu
2.	Kolhasar	Katoria	All Scientists
3.	Madachak	Amarpur	Dr. Sunita Kushwaha
4.	Khirkitari	Banka	Dr. Dharmendra Kumar
5.	Kaniket	Bounsi	Sri Sanjay Kumar Mandal
6.	Laskari	Banka	Sri Sanjay Kumar Mandal
7.	Nonihari	Banka	Dr. Sunita Kushwaha
8.	Chutiya	Banka	Dr. Raghubar Sahu
9.	Nakti	Katoria	Dr. Dharmendra Kumar

❖ **Area, Production and Productivity of major crops cultivated in the district**

S.N.	Crop	Area (ha)	Production (Q)	Productivity (Qt./ha)
1	Rice	1,02,000	2785900.00	28.40
2	Wheat	36,000	874400.80	25.40
3	Maize			
	(a) Kharif	6790	203700	30.00
	(b) Rabi	4040	161600	40.00
4	Gram	4505	34238	7.60
5	Lentil	4030	26195	6.50
6	Arhar	2200	15840	7.20
7	Pea	1031	10670.85	10.35
8	Sugarcane	4101	2460600	600.00
9	Rai/Tori	2291	19931	8.70

Source: DAO Office, Banka

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

Category	Population In 2003	Production	Productivity
Cattle			
<i>Crossbred</i>	2214	N/A	N/A
<i>Indigenous</i>	472612	N/A	N/A
Buffalo			
<i>Crossbred</i>	371	N/A	N/A
<i>Indigenous</i>	120620	N/A	N/A
Sheep			
<i>Crossbred</i>	184	N/A	N/A
<i>Indigenous</i>	23915	N/A	N/A
Goats			
		N/A	N/A

Crossbred	95367	N/A	N/A
<i>Indigenous</i>	254841	N/A	N/A
Pigs		N/A	N/A
<i>Crossbred</i>	231	N/A	N/A
<i>Indigenous</i>	30538	N/A	N/A
Rabbits	106	N/A	N/A
Poultry			
Hens		N/A	N/A
<i>Improved</i>	193750	N/A	N/A
<i>Desi</i>	144481	N/A	N/A
Ducks		N/A	N/A
<i>Improved</i>	1859	N/A	N/A
<i>Desi</i>	18565	N/A	N/A
Turkey and others	789	N/A	N/A

Category	Area	Production	Productivity
Fish	-	-	-
<i>Marine</i>	-	-	-
<i>Inland</i>	5500 hac. (Approx)	3300 MT/Year (Approx)	6000Kg/hac. (Approx)
Prawn	-	-	-
Scampi	-	-	-

1. Details of Training Programme:

(A) Practicing Farmers and Farmwomen

Quarter / Month	Thematic Area	Course Title	No of course	Duration (days)	No. of Participants			
					SC	ST	Other	Total
Agronomy								
1st Quarter	Crop Production	Scientific cultivation of zaid crops with their disease and pest management.	1	2	3	2	20	25
	Resource Conservation Technology	Paddy sowing through zero tillage system and their importance.	1	2	3	2	20	25
	Cropping system	Scientific knowledge about cropping system and their importance in today's agriculture	1	2	3	2	20	25
	Nursery management	Raising nursery of paddy crop	1	2	3	2	20	25
2nd Quarter	Crop rotation	Crop rotation for better soil health.	1	2	3	2	20	25
	Integrated weed management	Integrated Weed management in kharif crop.	1	2	3	2	20	25
3rd Quarter	Integrated weed management	Integrated weed management on pulses and oil seed crops.	1	2	3	2	20	25
	Cropping system	Knowledge about Cropping system, Cropping pattern and Cropping scheme of the crops and their importance	1	2	3	2	20	25
	Integrated water management	Water management for Rabi crops	1	2	3	2	20	25
4th Quarter	Crop production	Management of timely and late sown wheat crop.	1	2	3	2	20	25
	Integrated Nutrient Management	Importance of essential nutrient for zaid crops	1	2	3	2	20	25
	Integrated	Introduction about	1	2	3	2	20	25

	Nutrient Management	essential nutrient and their role in crops							
Home Science									
1st Quarter	Household food security by kitchen gardening and nutrition gardening	Importance and techniques of nutrition gardening and kitchen garden.	1	2	3	2	20	25	
	Value addition	Preservation of seasonal fruits & vegetables.	2	2	6	4	40	50	
2nd Quarter	Designing and development for high nutrient efficiency diet	Methodology for development of low cost diet for better health	2	2	6	4	40	50	
3rd Quarter	Mushroom production	Button mushroom production	1	2	3	2	20	25	
4th Quarter	Mushroom production	Oyster cultivation	2	2	3	2	20	25	
	Minimization of nutrient loss in processing.	Minimization of nutrient loss during processing.	2	2	3	2	20	25	
Horticulture									
1st Quarter	Vegetable production	Technique of vegetable production	1	2	6	4	15	25	
2nd Quarter	Planting material	Plan propagation technique in mango, guava and citrus	1	2	6	4	15	25	
	Bulb crops	Kharif onion production	1	2	6	4	15	15	
3rd Quarter	Entrepreneurship development	Technique and management of Horticulture gardening	1	3	6	4	15	25	
	Production of low volume high value crops	Production technique of tomato	1	2	6	4	15	25	

4th Quarter	Protected Cultivation	Nursery raising of vegetable crops in poly house and shed net house	1	2	6	4	25	25
Animal Science								
1st Quarter	Dairy management	Dairy management for self employment	1	2	3	2	20	25
	Poultry management	Care & management of poultry disease	2	1	3	2	20	25
2nd Quarter	Disease management	Knowledge about different disease of cattle & its prevention	1	1	3	2	20	25
	Feed & fodder management	Urea treatment of straw	1	1	3	2	20	25
3rd Quarter	Others	Goat farm Management	1	1	3	2	20	25
	Disease management	Care & management of viral disease of cattle and vaccination schedules	1	1	3	2	20	25
	Dairy management	Clean milk production	2	2	3	2	20	25
4th Quarter	Other/ Goatry	Care & management of disease of goat	1	1	3	2	20	25
	Feed & fodder management	Balanced ration formulation	1	1	3	2	20	25
Soil Science								
1st Quarter	Soil Test	Importance of soil testing	1	2	3	2	20	25
	Crop Production	Use of chemical fertilizer on the basis of soil test value	1	2	3	2	20	25
	Soil Fertility	Integrated nutrient management in Paddy crop	1	2	3	2	20	25
	Horticulture crop	Use of fertilizer in fruit crops(Mango)	1	2	3	2	20	25
2nd Quarter	Crop production	Use of BGA in paddy	1	2	3	2	20	25
		Use of green manuring in paddy crop	1	2	3	2	20	25
		Use of top dressing of urea in paddy crop	1	2	3	2	20	25

		Integration of nutrient through organic & inorganic fertilizer and their specific role in plant & soil	1	2	3	2	20	25
3rd Quarter	Crop production	Important of PSB in potato crops	1	2	3	2	20	25
		Production of vermicompost and their benefits	1	2	3	2	20	25
		Use of bio fertilizer in maize crop	1	2	3	2	20	25
	INM	Important of INM in vegetable crops	1	2	3	2	20	25
4th Quarter	Crop production	Important of micro nutrient in Rabi vegetables	1	2	3	2	20	25
		Use of bio fertilizer in vegetables crop	1	2	3	2	20	25
		Use of rhyzobium culture in pulses crops	1	2	3	2	20	25
	Soil Test	Important of soil testing	1	2	3	2	20	25
Total								

(B) Rural Youth

Quarter / Month	Thematic Area	Course Title	No of course	Duration (days)	No. of Participants			
					SC	ST	Other	Total
Agronomy								
1st Quarter	Vermiculture	Production of vermicompost for income generation.	1	5	3	2	20	25
	Crop production	Low cost technology for better returns.	1	5	3	2	20	25
2nd Quarter	Resource conservation technology	Use of zero tillage for sowing of rice crop under water stress condition.	1	5	3	2	20	25
	Crop diversification	Introduction, importance and value of crop	1	5	3	2	20	25

		diversification for better production and income.							
3rd Quarter	Crop production	Resource diversification for higher income generation.	1	5	3	2	20	25	
	Integrated nutrient management	Nutrient management in late sown and timely sown wheat crop.	1	5	3	2	20	25	
4th Quarter	Fodder production	Cultivation of cowpea, sorghum, Perennial grasses in zaid season.	1	5	3	2	20	25	
	Integrated weed management	Weed management in summer season crops.	1	5	3	2	20	25	
Home Science									
1st Quarter	Mushroom production	Mushroom production	1	5	3	2	20	25	
2nd Quarter	Household food security by kitchen gardening and nutrition gardening	Importance and technique of nutrition gardening and kitchen garden.	1	3	3	2	20	25	
	Small scale processing	Methodology for making chips.	1	5	3	2	20	25	
3rd Quarter	Mushroom production	Mushroom production	1	3	3	2	20	25	
4th Quarter	Tailoring and stitching	Tailoring and stitching for women & child garment for income generation.	1	15	3	2	20	25	
	Value addition	Preservation of Mushroom, Tomato & Seasonal fruits	1	15	3	2	20	25	
Horticulture									
1st Quarter	Medicinal plant cultivation	Medicinal plant cultivation techniques	1	5	6	4	15	25	

2nd Quarter	Planting material	Plant propagation technique in mango, guava and citrus	1	5	6	4	15	25
3rd Quarter	Entrepreneurship development	Technique and management of Horticulture gardening	1	5	6	4	15	25
4th Quarter	Nursery management	Growing of solaneceous vegetables	1	5	6	4	15	25
Animal Science								
1st Quarter	Dairying	Dairy management for self employment	1	5	3	2	20	25
2nd Quarter	Sheep & Goat rearing	Goat rearing for self employment	1	5	3	2	20	25
3rd Quarter	Poultry production	Poultry farming as a source of livelihood security.	2	5	2	2	21	25
Soil Science								
1st Quarter	Vermicompost	Production of Vermicompost for income generation	2	5	3	2	20	25
	Soil Test	Importance of soil testing and their benefits	1	5	3	2	20	25
2nd Quarter	INM	Nutrient management in paddy crop	1	5	3	2	20	25
3rd Quarter	Organic farming	Importance of organic farming in vegetable crops	1	5	3	2	20	25

**(C) Extension Functionaries:
Agronomy**

Quarter/ Month	Thematic Area	Course Title	No of Course	Durat ion (days)	No. of Participants			
					SC	ST	Other	Total
1st Quarter	Soil management	Management of problematic soils.	1	2	3	2	20	25
2nd Quarter	Crop production	Optimum plant population for better crop production	1	2	3	2	20	25
3rd Quarter	Post Harvest technology	Knowledge update about the storage of harvested grains.	1	2	3	2	20	25
4th Quarter	Organic culture	Knowledge update about organic inputs their uses and production.	1	2	3	2	20	25
Home Science								
1st Quarter	Low cost and nutrient efficient diet designing	Designing low cost nutrient rich diet for pregnant lady	1	3	3	2	20	25
2nd & 3rd Quarter	Household food security by kitchen gardening and nutrition gardening	Importance and techniques of nutrition gardening and kitchen garden.	1	3	3	2	20	25
4th Quarter	Gender mainstream through SHGS.	Gender mainstream through SHGS.	1	3	3	2	20	25
Horticulture								
1st Quarter	INM	Integrated nutrient management in vegetables crop.	1	2	3	2	20	25
2nd Quarter	Rejuvenation of old orchard	Rejuvenation of old mango & guava orchard	1	2	3	2	20	25
3rd Quarter	Seasonal vegetable	Growing of seasonal vegetables due to lack of improve variety in Banka district.	1	2	3	2	20	25

4th Quarter	Protected cultivation	cultivation of vegetable & flower in poly house, poly tunnel and shade net	1	2	3	2	20	25
Animal Science								
1st Quarter	Management in farm animals	Feed and disease management in farm animals.	1	2	3	2	20	25
Soil Science								
1st Quarter	Soil test	Process for collecting soil sample for testing	2	5	3	2	20	25
2nd Quarter	Soil fertility	Importance of essential nutrient for Soil fertility management	1	2	3	2	20	25
3rd Quarter	Organic farming	Importance of organic farming	1	2	3	2	20	25
4th Quarter	Micronutrient	Use of micronutrient in vegetable crops	1	2	3	2	20	25
Total								

(D) Vocational

Quarter / Month	Thematic Area	Course Title	No of Course	Durat ion (days)	No. of Participants			
					SC	ST	Oth er	Total
Agronomy								
1st Quarter	Nursery management	Raising healthy rice seedling for SRI method	1	5	3	2	20	25
	Weed management	Weed management in kharif, rabi and zaid crops	1	5	3	2	20	25
	Production of organic input	Crop residue management	1	5	3	2	20	25
Home Science								
1st Quarter	Mushroom spawn production	Mushroom spawn production	1	5	3	2	20	25
Total								

(E) Sponsored

Quarter / Month	Thematic Area	Course Title	Duration (days)	No. of Participants			
				SC	ST	Other	Total
1 st Quarter & 2 nd Quarter	Entrepreneurship development	Mali training programme	360	12	6	32	50
2 nd Quarter to 4 th Quarter	Integrated crop management	Skill improvement in Agriculture	240	12	4	104	120
1 st Quarter	Knowledge updating of extension functionaries	Skill improvement in agriculture	60	6	3	20	29
Total			660	30	13	156	199

2. Frontline Demonstration:

Season	Crop	Variety	No. of area (ha)
Kharif	Paddy	Sabour Aardhjal & Sahbhagi	10
	Brinjal	Pusa Hybrid-2	1
	Paddy	BGA	20
Rabi	Wheat	DBW-14	5
	Rai	Rajendra Suflam	20
	Gram	BG-256	5
	Pulses	Bio fertilizer	50
	Brinjal	Pusa Hybrid-6	1
	Tomato	Swarna lalima	2
Zaid	Cauliflower	Sabour Agrim	2
	Elephant Yam	Gajendra	1
	Moong	Pusa Vishal & HUM-16	10
	Onion	Agri found dark red	1

Animal Science

Season	Technology	Species	No. of demonstration (Farmers)	No. of Animals
Kharif (May-July)	PPR Vaccination	Goat	400	2000
Kharif	Green fodder	Stylo, Clitoria	40	80
Rabi (Oct-Nov)	RD and IBD vaccine	Poultry	400	10000
Rabi	Green fodder	Berseem	40	80
Rabi	Deworming (Ivermectin)	Dairy AnimalGoat	400	3000

3. On Farm Trial to conduct:

OFT 1(Agronomy)

1	Title of On farm Trial	Bio-efficacy of different herbicides against weed control in transplanted rice (<i>Oryza sativa</i> L.)
2	Problem diagnose	Rice is a major crop in Banka district, which grows maximum area of cultivable land in Kharif season. Weeds are major problem in rice cultivation, especially grasses and broad leaved weeds creates problem in paddy cultivation. Serious problem occurring in cultivation of paddy as given below. (i) Disease and pest infestation. (ii) Loss of yield through weed infestation as 20-50% (iii) Cost of cultivation is high. (iv) High nutrient requirement through organic and inorganic fertilizer
3	Details of technologies selected for assessment/refinement	Farmers practice- chemical for weed management To ₁ – Application of butachlor 1.50 kg a.i. / ha (pre emergence) followed by Bispyribac Na 10% SP @ 10 g a.i.ha at 25 DAT. To ₂ – Application of pretilachlor 0.75 kg a.i./ ha (pre emergence) followed by Bispyribac Na 10% SP @ 10 g a.i./ha at 25 DAT
4	Source of Technology	Rajendra Agricultural university,Pusa, Samastipur (Bihar).
5	Production system and thematic area	Weed management
6	Performance of the Technology with performance indicators	a. Plant height (cm.) b. Per metre ² weed population (species wise) c. Panicle length (cm). d. No. of grains/hill. e. No. of panicles/hill. f. Grain yield (qu/ ha). g. Cost of cultivation (Rs./ha.) h. Gross return (Rs./ha.) and Net return (Rs./ha.),B: C Ratio
7	Final recommendation for micro level situation	To screen out the most suitable technology option for minimizing the weed infestation in paddy crop.
8	No. of replication	10
9	Critical input-	Herbicides

OFT 2(Agronomy)

1	Title of On farm Trial	Performance of different herbicides to control weed flora in wheat (<i>Triticum aestivum</i> L.)
2	Problem diagnose	Wheat covers maximum area in rabi season in Banka district. Due to weed infestation farmers facing following problems: <ul style="list-style-type: none"> • Severe infestation of weeds named as <i>Chenopodium album</i>, <i>Rumex retroflexus</i>, <i>Vicia sativa</i>, <i>Anagalis arvensis</i> etc. • Requires high dose of nutrients. • Low filling of grains. • Reduction in yield as 20-50%. • High cost of cultivation.
3	Details of technologies selected for assessment/refinement	Farmers practice- No weeding To ₁ –Isoproturon 75% WP@1kg ai/ha at 30 days after sowing To ₂ – Sulfosulfuron 75% WG @ 50gm ai/ha at 30 days after sowing To ₃ – Metsulfuron methyl 20% WP @ 20gm ai/ha at 30 days after sowing. To ₄ – Sulfosulfuron 75% WG @ 25gm ai/ha+ Metsulfuron methyl 20% WP @ 10gm ai/ha at 30 days after sowing
4	Source of Technology	PAU, Ludhiana.
5	Production system and thematic area	Weed management
6	Performance of the Technology with performance indicators	a. Dry matter accumulation (g/m ²) b. No. of effective tillers/m row at 60 DAS. c. No. of effective tillers/m row at 90 DAS. d. No. of grains/spike. e. No. of spikes/m row. f. 1000-grain weight. g. Grain yield (qu/ ha) h. Cost of cultivation (Rs./ha.) i. Gross return (Rs./ha.) j. Net return (Rs./ha.) k. B: C Ratio
7	Final recommendation for micro level situation	To screen out the most effective herbicides/ herbicide combination to check out the weed problem in wheat crop.
8	No. of replication	10
9	Critical input	Herbicides

OFT 3 (Animal Science)

1	Title of On farm Trial	Effect of locally available feed resources (Paddy) on milk production and quality of dairy animals.
2	Problem diagnose	Banka is paddy and wheat grown area. Farmers are feeding paddy or wheat as grains and oil cakes in limited amount (100-250g) which is the main source of protein fat and minerals. Low productivity, anestrus and repeat breeding are because of deficient or excess of some nutrients. Therefore we formulate ration based on paddy or wheat including cakes to fulfill protein requirement providing a least cost balanced feed from locally available feed resources paddy and wheat.
3	Details of technologies selected for assessment/refinement	60 days trial excluding 15 days preliminary periods and 15 days postfeeding periods. All animals were dewormed before starting trial. Farmers practices. Wheat+Paddy+WB (MSC+Besan+Mineral 50g.) Technology Option I: Home made Concentrate mixture.* Technology Option II: Commercial compounded cattle feed
4	Source of Technology	NDDB, RBP Programme
5	Production system and thematic area	Feed Management
6	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> • Milk Yield & Fat%, SNF • Cost of milk production • Net return (Rs/kg milk production) • BC Ratio • Farmers Reaction
7	Final recommendation for micro level situation	
8	No. of replication	6
9	Critical input	Mineral mixture, Huller Rice bran, Commercial compounded cattle feed

Home made Concentrate mixture.

Ingredients	Price	CP% (Calculated)	Paddy based concentrate		
			Qty (%)	CPI	Cost/kg
Wheat	16	10	0	0	0
Paddy	11	8	20	1.6	2.2
W.Bran	20	14	10	1.4	2
R.Bran	4	10	12	1.2	0.48
Gram Besan	40	25	5	1.25	2

Mustard cake	25	35	31	10.85	7.75
Chuni	15	16	10	1.6	1.5
Molasses	20	3	10	0.3	2
Min Mix	150			0	0
CP% Concentrate				18.20	
Cost/kg					17.93

OFT 4 (Animal Science)

1.	Title of On farm Trial	Effect of sugarcane bagasse based TMR on milk production of Dairy Animals.
2.	Problem diagnose	In Banka district mainly paddy straw used as dry fodder Amarpur, Bounsi, Banka block of Banka district having more than 15 sugarcane mill for molasses production. Each mill produce at least 20T sugarcane bagasse and used as fuels. Due to lack of grazing grasses from the of month February to May More than One lakh Dairy cattle (ND) were migrated to west Bengal and others areas from Katoria, Chanan, Belhar and Shambhuganj block of Banka district. So, trail have designed to use of sugarcane bagasse for animal feed in Banka district.
3.	Details of technologies selected for assessment/refinement	60 days trial excluding 15 days preliminary periods and 15 days post feeding periods. All animals were dewormed before starting trial. Farmers practices. Farmers' practices Technology Option I: 50% Paddy/wheat straw + 50% sugarcane bagasse Technology Option II: 100% Sugarcane bagasse
4.	Source of Technology	AAU, Anand, Gujarat
5.	Production system and thematic area	Feed Management
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> • Milk Yield • Cost of milk production • Net return (Rs/kg milk production) • BC Ratio • Farmers Reaction
7.	Final recommendation for micro level situation	-
8.	No. of replication	6
9.	Critical input	Mineral Mixture, Molasses, Sugarcane bagasse (50% of ration)

T1=TMR for Productive Animals (50:50)				
	Quantity	CP%	CP Avail.	Cost/kg
Sugar cane bagasse	25	3	0.75	75
Paddy Straw	25	2.8	0.7	50
Mustard cake	18	35	6.3	450
Wheat	10	12	1.2	160
Rice bran	10	12	1.2	50
Molasses	10	3	0.3	200
Mineral Mixture	2	0	0	240
Total	100		9.7	1225
Ration CP%			10.4	12.25

T2=TMR for Productive Animals (100%)				
	Quantity	CP%	CP Available	Cost/kg
Sugar cane bagasse	50	2.8	1.4	100
Mustard cake	18	35	6.3	450
Wheat	10	12	1.2	160
Rice bran	10	12	1.2	50
Molasses	10	3	0.3	200
Mineral Mixture	2	0	0	240
Total	100		10.4	1200
Ration CP%			10.4	12

OFT 5 (Animal Science)

1.	Title of On farm Trial	Effect of feeding Palas (Butea monosperma) leaves as green fodder in Goats
2.	Problem diagnose	Unavailability of grasses in March-June. At that time Palas having new green leaves. Hilly area of Katoria, Chanan, Belhar, Fullidumar and some part of Banka block of Banka district having forest of Palas. Flowering of Palas is in February-April and Fruiting in May-July.
3.	Details of technologies selected for assessment/refinement	60 days trial excluding 15 days preliminary periods and 15 days post feeding periods. All Goats were dewormed before starting trial. Farmers practices: Farmers' practices Technology Option I: TMR having 25% Palas leaves. Technology Option II: TMR having 50% Palas leaves. Technology Option III: TMR having 75% Palas leaves.
4.	Source of Technology	
5.	Production system and thematic area	Feed Management
6.	Performance of the Technology with performance indicators	<ul style="list-style-type: none"> • Change in Body weight • Total Fecal Egg count • Cost of feeding • Net return • BC Ratio • Farmers Reaction
7.	Final recommendation for micro level situation	-
8.	No. of replication	10
9.	Critical input	TMR

TMR 1: 25% Palas Leaves

	Quantity (kg)	Cost/kg
Palas leaves	25	25
Sudan Grass	25	50
Wheat	20	300
Rice bran	18	90
Molasses	10	200
Mineral Mixture	2	200
Salt	1	5
Total	100	870
Cost/kg TMR		8.70

TMR 2: 50% Palas Leaves

	Quantity (kg)	Cost/kg
Palas leaves	50	50
Wheat	20	300
Rice bran	18	90
Molasses	10	200
Mineral Mixture	2	200
Salt	1	5
Total	100	845
Cost/kg TMR		8.45

TMR 3: 75% Palas Leaves

	Quantity (kg)	Cost/kg
Palas leaves	75	50
Wheat	5	75
Gram besan	5	200
Rice bran	2	10
Molasses	10	200
Mineral Mixture	2	200
Salt	1	5
Total	100	740
Cost/kg TMR		7.40

OFT 6 (Horticulture)

1	Title of On farm Trial	Effect of mulching on the yield of tomato.
2	Problem diagnose	The emerging problem for tomato production is weeds. Its losses 30-40 % production and reduce the quality product with high cost & low yield.
3	Details of technologies selected for assessment/refinement	Farmer practice (without mulch control) TO1- Use of paddy straw mulch TO2- Use of black plastic mulch
4	Source of Technology	BAU, Ranchi
5	Production system and thematic area	Weed management.
6	Performance of the Technology with performance indicators	(a) Plant height (cm) 30 & 60 days after transplanting (Randomly). (b) No. of weeds per ft ² (c) No. of irrigation (d) No. of fruits/ plant (e) No. of branches / plant (f) Yield (Q/ha). (g) Gross return. (h) Cost of cultivation (Rs/ha). (i) Net return (Rs/ha) (j) B:C ratio
7	Final recommendation for micro level situation	
8	No. of replication	10
9	Critical input	Black polythene mulch material

OFT 7 (Horticulture)

1	Title of on farm trial	Management of late blight of potato through fungicides
2	Problem diagnose	
3	Details of technologies selected for assessment/refinement.	<p>PROPHYLACTIC SPRAY</p> <p>Farmers Practice- <i>1st spray of Metalaxyl 8%+Mancozeb 64% @ 0.4% at 70-75 DAS</i></p> <p>TO 1- <i>1st spray of Mancozeb 75% @ 0.2% at 50DAS+ 2nd spray 60 DAS and 3rd spray at 70 DAS</i></p> <p>TO 2 - <i>1st sprays of Mancozeb 75% @ 0.2% at 50 DAS +2nd sprays of Carbendazim 12%+ Mancozeb 63% @ 0.3% at 60 DAS and 3rd spray at 70 DAS of 2nd combination.</i></p> <p>TO 3 - <i>1st spray of Mancozeb 75% @ 0.2% at 50 DAS+ 2nd spray of Mancozeb 64%+Metalyxl 8% WP @ 0.3% 60 DAS+ 3rd spray with Mancozeb @ 0.2% at 70 DAS.</i></p>
4	Source of technology	Assam Agricultural University, Jorahat Assam & CPRI, Shimla, HP
5	Production system and thematic area	Tuber crops, Disease management
6	Performance of the technology with performance indicator	<ol style="list-style-type: none"> 1. Disease severity% on plant 2. Disease severity % on tubers 3. Days to appear 1st incidence of disease on plant 4. No. of infected plants 5. No of infected tubers /plant 6. Healthy Tuber yield (q/ha) 7. Gross return 8. Cost of cultivation (Rs/ha) 9. Net return (Rs/ha) 10. B:C ratio
7	Final recommendation for micro level situation	
8	No. of replication	8
9	Critical input	Fungicides

OFT 8 (Horticulture)

1	Title of on farm trial	Title: Assessment of effect of Oxytocin on growth, quality and yield of bottle gourd.
2	Problem diagnose	Bottle gourd is the most important crop grown during rabi and summer season in Banka district, but now a days it is observed in practice some of the farmers are injecting animal hormone for rapid growth and attractive prices of crop. There is concept among farmers this hormone enhance the size of fruit rapidly.
3	Details of technologies selected for assessment/ refinement.	Farmers Practice= Use of Oxytocin T1= 0.25 ml per fruit T2= 0.50 ml per fruit T3= 1.0 ml per fruit T4= 1ml per 1 lit of water foliar spray on plants
4	Source of technology	Punjab agriculture University, Ludhiana Panjab
5	Production system and thematic area	Yield increment
6	Performance of the technology with performance indicator	1. Plant height (cm) 2. Fruit length (cm) 3. Fruit diameter (cm) 4. Fruit weight (g) 5. No of flowers per plant 6. No of fruits per plant
7	Final recommendation for micro level situation	
8	No. of replication	8
9	Critical input	Hormone, injection, measuring scale

OFT 9 (Home Science)

1	Title of On farm Trial	Assessment of shelf life of cold drink(Sprite) with addition of different levels of mango pulp concentration.
2	Problem diagnose	Mango is found in plenty during summer season and farmers are not getting it as different preserved products
3	Details of technologies selected for assessment/refinement	Farmers practices- New introduction of mango pulp To ₁ – Sprite+2.5% mango pulp+KMS(0.1%) To ₂ – Sprite+5% mango pulp+KMS(0.1%) To ₃ – Sprite+7.5% mango pulp+KMS(0.1%)
4	Source of Technology	
5	Production system and thematic area	Value addition
6	Performance of the Technology with performance indicators	a color of product b Shelf life c Palatability test
7	Final recommendation for micro level situation	-
8	No. of replication	5
9	Critical input	0.1% KMS

OFT 10 (Soil Science)

1	Title of On farm Trial	Assessment of fertilizer dose in paddy under paddy based system in Banka district
2	Problem diagnose	Awareness of right dose and right time of fertilizer of application against land situation for enhancing productivity of paddy in different variety of paddy
3	Details of technologies selected for assessment/refinement	1. FP- Farmer practice traditional method 2. TO1- Application of 100% RDF(100:40:20) 3. TO2- SSNM(site specific nutrient management) based on CMRS(crop manager of rice base system developed by IRRI, Philiphines
4	Source of Technology	IRRI and SAU, Bihar
5	Production system and thematic area	Nutrient Management
6	Performance of the Technology with performance indicators	a. Yield attributed characters b. Economics
7	Final recommendation for micro level situation	-
8	No. of replication	7
9	Critical input	Seed and fertilizer

OFT 11 (Soil Science)

1	Title of On farm Trial	Assessment of co-inoculation of Rhyzobium with PSB in chickpea
2	Problem diagnose	Address to the low yield of chickpea and low phosphrous availability
3	Details of technologies selected for assessment/refinement	FP – Farmers practices To1- 100% RDF To2- 80% of RDF +PSB+Rhyzobium
4	Source of Technology	BAU, Sabour
5	Production system and thematic area	Nutrient management
6	Performance of the Technology with performance indicators	a) Yield attributed characters b) Economics
7	Final recommendation for micro level situation	-
8	No. of replication	7
9	Critical input	Seed, Bio-fertilizers & chemical fertilizer

4. Seed and planting material production:

S. No.	Crop	Variety	Quantity (q)	Value (Rs.)	Area (ha)
1	Elephant Foot Yam	Gajendra	30	45000.00	0.3
2	Turmeric	R. Sonia	-		0.2
3	Guava	L-49	-	-	1.0

5. Extension Activities:

Activities	No.	Participants
Kisan gosthi	15	800
Field Day	10	400
Kisan Mela	10	10000
Diagnostic survey	60	400
Scientist visit to farmers field	86	344
Farmers advisory service	10000	10000
Technical bulletin	10	16000
Radio/TV Talk	12	Mass approach
SAC meeting	2	
Kisan Choupal	50	2000
Technology Week	1	2500
Animal Health Camp	10	1000

6. Revolving Fund:

Open balance (2015-16)	Amount to be invested (Rs. In lakh)	Return (Rs. In lakh)
6.12	23.47	-

7. Expected fund utilization:

Project	Source	Amount to be received (Rs. In lakh)
Establishment of Goatry & Poultry demonstration unit at KVK, Banka	RKVY, BAU, Sabour	10

8. List of Projects to be implemented:

Name of the project	Fund expected (Rs.)
NICRA	15.75

9. No. of success stories to be developed : 03**10. Scientific Advisory Committee:**

Date of SAC meeting held during 2014-15	Proposed date
Proposed date of SAC meeting	18.10.2016

11. Soil and water testing:

	No. of samples to be analysed
Soil	4000
Plant	-
Manure	-

12. Staff position:

Designation	Name of the staff	Discipline	Date of the joining	Reason of vacancy
Programme Coordinator	Dr. Kumari Sharda	Home Science	07.05.2012	
Subject Matter Specialist	Dr. Sunita Kushwah	Horticulture	13.08.2007	
Subject Matter Specialist	Dr. Dharmendra Kr.	Animal Science	21.04.2012	
Subject Matter Specialist	Sri Raghubar Sahu	Agronomy	02.05.2012	
Subject Matter Specialist	Sri Sanjay Mandal	Soil Science	03.05.2013	
Subject Matter Specialist	Vacant			
Subject Matter Specialist	Vacant			
Prog. Asstt. (Lab)	Vacant			
Computer Programmer	Sri Rajiv Ranjan	Computer Applications	15.05.2013	
Farm Manager	Sri C.N. Prasad	Agriculture	05.11.2012	
Assistant (Accountant)	Sri Rahul Kumar	Account	15.04.2013	
Stenographer	Sri Devendra Kr. Singh	Stenography	22.06.2013	
Driver	Sri Kishori Mandal	Driver	11.05.2015	
Driver	Sri Shekhar kumar Pathak	Driver	18.05.2015	
Supporting staff	Sri K. P. Yadav	Peon	01.01.1999	
Supporting staff	Sri Lal mohan yadav	peon	20.08.1986	

13. Status of infrastructure

Infrastructure	Complete	Under construction	Not started	Reasons, if not started
Administrative building	Yes	-	-	-
Trainees' hostel	Yes	-	-	-
Staff quarter	-	-	Yes	No fund
Demonstrations: Unit	Yes	-	-	-
i) Vermicompost unit				
ii) Mushroom Spawn production				
iii) Mushroom production				

14. Fund requirement and expenditure (Rs.)

	Expenditure (last year) (Rs. in Lakhs) Up to 31st March 2016	Expected requirement (Rs.)
Recurring		
Pay & allowance	69.70	
Contingency	13.0	
TA	1.0	
Non-recurring (specify)		
Vehicle (Motorcycle-2)	1.20	
Total	84.95	

**Programme Co-ordinator
KVK, Banka**