1. GENERAL INFORMATION ABOUT THE KVK

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

Address	***Telephone***		***E mail***
	Office	***FAX***	
KRISHI VIGYAN KENDRA, CAZRI Campus PALI-MARWAR, PIN: 306 401 (Rajasthan)	02932-256771	02932-256771	cazri_kvkpali@yahoo.co.in

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

Address	***Telephone***		***E mail***
	Office	***FAX***	
Central Arid Zone Research Institute, Jodhpur	0291-2786584	0291-2788706	director@cazri.res.in

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

Name	***Telephone / Contact***		
	Residence	***Mobile***	***Email***
Dr. Dheeraj Singh	-	9414194005	dheerajthakurala@yahoo.com

1.4. Year of sanction: 1992

1.5. Staff Position (as on 31st March 2015)

S. No.	*Sanctioned post*	*Name of the incumbent*	*Designation*	*Discipline*	*Pay Scale (Rs.)*	*Present basic (Rs.)*	*Date of joining*	*Permanent / Temporary*	*Category (SC/ST/ OBC/ Others)*
1.	Programme Coordinator	Dr. Dheeraj Singh	Programme Coordinator	Horticulture	37400 - 67000 GP 9000	50720	19.9.2008	Permanent	Gen.
2.	Subject Matter Specialist	Dr. M. K. Chaudhary	T-7-8 (SMS)	Agronomy	15600 - 39100 GP 6600	36070	30.11.1996	Permanent	Gen.
3.	Subject Matter Specialist	Dr. M. L. Meena	T-6 (SMS)	Agril. Extn.	15600 - 39100 GP 5400	25840	28.4.2007	Permanent	ST
4.	Subject Matter Specialist	Dr. Aishwarya Dudi	T-6 (SMS)	Home Science	15600 - 39100 GP 5400	25840	9.8.2007	Permanent	OBC
5.	Subject Matter Specialist	Dr. S.C. Kachhawaha	T-6 (SMS)	Animal Science	15600 - 39100 GP 5400	31500	3.5.2008	Permanent	Gen.
6.	Subject Matter Specialist	Sh. L.P. Balai	T-6 (SMS)	Plant Pathology	15600 - 39100 GP 5400	21630	31.10.2013	Probation	SC
7.	Subject Matter Specialist	Sh. Chandan Kumar	T-6 (SMS)	Horticulture	15600 - 39100 GP 5400	21000	22.2.2014	Probation	OBC
8.	Programme Assistant	-	-	-	-	-	-	-	-
9.	Computer Programmer	Sh. P. K. Tomar	T-4 (Comp.)	Computer	9300-34800 GP 4200	16140	5.112008	Permanent	Gen.
10.	Farm Manager	-	-	-	-	-	-	-	-
11.	Assistant	Sh. Mangi Lal Meena	Assistant	Administrative	9300-34800 GP 4200	21670	19.12.2013	Permanent	ST
12.	Stenographer	-	-	-	-	-	-	-	-
13.	Driver	Sh. Tara Ram	T-5 (Driver)	-	9300-34800 GP 4600	23270	01.7.1994	Permanent	ST
14.	Driver	Mahendra Kumar	T-1 (Driver)	-	5200 -20200 GP 2000-	7200	19.01.2015	Probation	SC
15.	Supporting staff	Sh. Tara Ram	Cook	-	5200 -20200 GP 2000	11560	30.11.1996	Permanent	ST
16.	Supporting staff	Sh. Bhola Ram	R/ M	-	5200 - 20200 GP 1800	10730	30.11.1996	Permanent	ST

1.6. Total land with KVK (in ha)

S. No.	*Item*	*Area (ha)*
1	Under Buildings	00.5
2.	Under Demonstration Units	01.0
3.	Under Crops	20.0
4.	Orchard/Agro-forestry	03.0
5.	Others (specify)	15.5

1.7. Infrastructural Development

A) Buildings

S. N.	*Name of building*	*Source of funding*	*Stage*					
			Complete			*Incomplete*		
			Completion Date	*Plinth area (Sq.m)*	*Expenditure (Rs.)*	*Starting Date*	*Plinth area (Sq.m)*	*Status of construction*
1.	Administrative Building	ICAR	9.8.1998	715.7	2200000	-	-	-
2.	Farmers Hostel	ICAR	9.8.1998	329.5	1150000	-	-	-
3.	Staff Quarters (6)	-	-					
4.	Demonstration Units (6)	External	-	-	-	-	-	-
5	Fencing	ICAR	50 yrs old	-	-	-	-	-
6	Rain Water harvesting system	NABARD	12.11.2010	118.81	1000000	-	-	-
7	Automatic Weather Station	NHM	2012		283950	-	-	-
8	Threshing floor	Nil	-	-	-	-	-	-
9	Farm godown	Nil	-	-	-	-	-	-

B) Vehicles

Type of vehicle	*Year of purchase*	*Cost (Rs.)*	*Total kms. Run*	*Present status*
Tractor	1994	1,87,801	2217 hrs	Need replacement
Jeep	2012	5,54,000		Working condition

C) Equipments & AV aids

Name of the equipment	*Year of purchase*	*Cost (Rs.)*	*Present status*
Computer with printer	1998	85754	Working condition
Overhead Projector	1998	31900	Not in working condition
LCD with Screen	2006	77500	Working condition
Laptop with multimedia	2006	52000	Working condition*
Multi-function photo copier	2008	74500	Working condition
Multi-function Fax machine	2009	15000	Working condition
Generator (Honda)	2010	42930	Working condition
Seed grading machine	2010	2400000	Working condition
Computer	2010	49500	Working condition
Laptop	2012	49675	Working condition
Printer	2013	14400	Working condition
Tablet	2013	14900	Working condition

1.8. A). Details of SAC meeting* conducted in the year 2013-14

Date	*Name and Designation of Participants*	*Salient Recommendations*	*Action taken*
March 10, 2015	1. **Dr. R.K. Bhatt,** Director, CAZRI, Jodhpur 2. **Dr. P.P. Rohila,** Zonal Project Director, Zone-VI, Jodhpur 3. **Dr. A.K. Shukla**, Head, RRS CAZRI, Pali 4. **Dr. B.L. Jangid**, Principal Scientist, RRS CAZRI, Pali 5. **Dr. Dheeraj Singh,** Programme Coordinator, KVK, Pali 6. **Dr. Dipak Gupta**, Scientist, RRS CAZRI, Pali 7. **Dr. M.K. Choudhary**, SMS (Agron.), KVK, Pali 8. **Dr. M.L. Meena**, SMS (Ag. Ext.), KVK, Pali 9. **Dr. Aishwarya Dudi**, SMS (Home Science), KVK, Pali 10. **Sh. L.P. Balai**, SMS (Plant Protection), KVK, Pali 11. **Sh. Chandan Kumar**, SMS (Horticulture), KVK, Pali 12. **Sh. P. K. Tomar**, Programme Assistant (Computer), KVK, Pali	1. Dr. R.K. Bhatt suggested holding the SAC meeting as early as possible to review the work during year and approve the Action Plan of next year for better implementation. He also suggested for making KVK presence more visible in the district and in ICAR by regular reporting. He also suggested conducting more vocational trainings and increasing the revenue generation through seed production programmes. 2. Dr. R.K. Bhatt stressed on expansion of azolla unit and planning for year round fodder crops for livestock of the district. He further stressed on getting new oat varieties from CAZRI, Jodhpur which can be booked in advance for coming season. He also stressed on expansion on sev and gola varieties of ber for small and marginal farmers. 3. Dr. P.P. Rohila suggested the adoption of kitchen gardening at farmers houses and in peri urban residences. He also suggested conduction of at least two OFTs per SMS and indicated the reduced off-campus trainings in Home Science. 4. Dr. A.K. Shukla, Head, RRS CAZRI, Pali suggested for a combine programme by KVK and RRS for expansion of horticulture crops in the area. He further stressed the need of availability of saplings of vegetables and fruit plants for the farmers of area. 5. Dr. Manoj Panwar, Deptt. of Animal Husbandry stressed on need for a big programme on small ruminant which should be taken up by CAZRI alongwith KVK, Pali for the animal rearers of this area. 6. Sh. H.S. Bundel, DDM, NABARD, Pali suggested for rural development programmes like seed village programme, vermin-composting and nursery	Actions has been taken on all the recommendations

	13. Dr. K.C. Mundra, Dy. Manager, Govt. Dairy, Pali **14. Sh. H.S. Bundel**, DDM, NABARD, Pali 15. **Sh. Shankar Lal**, PD, ATMA, Pali 16. **Sh. Ramavtar Choudhary**, Dy. Director, Horticulture, Pali 17. **Dr. Manoj Panwar**, Animal Husbandry Department, Pali 18. **Sh. Deda Ram Patel**, Farmer, village Gajangarh, Pali 19. **Sh. Bhanvar Singh**, Farmer, village Giradara, Pali 20. **Sh. Mala Ram,** Farmer, village Rampura, Pali 21. **Sh. Mangi Lal**, Farmer, village Artia, Pali	management for which financial assistance can be provided by NABARD. He also requested CAZRI to provide scientific help for Vadi programme implemented by NABARD in Sumerpur and Bali division. 7. Dr. K.C. Mundra, Dy. Manager, Pali Dairy suggested that some programmes should be taken for yearlong availability of fodder for the farmers of Pali district. 8. There was a general suggestion for stress on vegetable demonstrations, henna harvester and more FLDs on sorghum and pearlmillet. For sorghum dual purpose variety may be used in the different programmes. There were also suggestions for establishment of a photo gallery displaying the main activities of KVK, different crop varieties, etc. 9. Farmer Deda Ram Patel raised the issue of increase in the number of male bull in villages and requested the solution for this problem. 10. Farmer Raja Ram requested KVK to solve the issue of marketing of ber fruits in market.	

**** Attach a copy of SAC proceedings along with list of participants***

2. DETAILS OF DISTRICT (2014-15)

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

S. No	*Farming system/enterprise*
1.	Rainfed- Rohat and Pali tehsils
2.	Mainly canal command area and partially well irrigated- Sumerpur, Bali, Desuri
3.	Mainly well irrigated and partially canal command- Sojat, Raipur, Jaitaran and Marwar Jn. tehsils

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

S. No	*Agro-climatic Zone*	*Characteristics*
1.	Transitional Plain of Luni Basin	This area lies between the Aravalli ranges and western arid region. The region has semi-arid climate with an annual rainfall of 30 to 50 cm. It is drained by the river Luni which is seasonal and flows only during rainy season. A number of paleo-channels also exist in this area. The western part of this region is dotted with sand dunes, interspersed in alluvial soil. Luni and its several tributaries like Sukri, Mithri and Jawai have made this area productive. The climatic conditions are almost the same as in the western arid region except that the rainfall is slightly higher. Groundwater level is high in the river basins, and has been usefully taped for irrigation. Vegetation is xerophytic and sparse in the western part but in the east and on the slopes of the Aravalli ranges, there is mesophytic vegetation in the form of woodland, open forest and grasslands. The area produces bajra, maize, guar, sesame and pulses in the kharif season. In the rabi season wheat, barley and mustard are the dominant crops, specially in the irrigated area.
2.	Semi-arid transitional plain	The semi-arid transitional plain lies roughly between eastern margins of western desert and western foothills of Aravalli. It is formed of alluvium deposits laid by Luni, Gaggar, Saraswati, Chouthan and Sutlej river system. However, from western arid region the slop generally run from east to west and north to south. The north eastern part of the region has a general elevation of about 300 meters above M.S.L. but towards the south the elevation is about 150 meters except in Jalore, Sivana upland with lies above 300 meters. In eastern semi-arid plain, the topography is varied as a result, the region presents queer and confused amalgam of low land upland topography

2.3 Soil type/s

S. No	*Soil type*	*Characteristics*	*Area (ha)*
1.	Typic Torripsamments *Ustochreptic Camborthids* (Map Unit 114)	Very deep, well drained, sandy soils on gently sloppy plains with sandy surface, severely eroded, associated with: Very deep, well drained coarse loamy soil, severely eroded, slightly saline	205900
2.	Typic Camborthids *Typic Camborthids* (Map Unit 122)	Very deep, well drained, coarse loamy soil on very gently slopping plain with sandy surface, moderately eroded, associated with: Shallow, well drained, fine loamy soil, slightly eroded, slightly saline	196300
3.	Typic Camborthids *Typic Camborthids*	Moderately shallow, well drained, fine loamy soils on nearly level plain with loamy surface, slightly eroded, associated	140200

	(Map Unit 129)	with: Moderately shallow, well drained, fine soils, moderately eroded, moderately saline.	
4.	Typic Camborthids *Typic Camborthids* (Map Unit 125)	Very deep, moderately well drained, coarse loamy soils, on very gently sloppy aeofluvial plains of luni basin with sandy surface, moderate erosion associated with: very deep, well drained, coarse loamy soils on very gently sloppy aeofluvial plains of luni basin with slight erosion slightly saline and sodic	132200

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

S. No	*Crop*	*Area (ha)*	*Production (Qtl)*	*Productivity (Qtl /ha)*
1.	Sorghum	107755	546660	5.07
2.	Pearl millet	95437	467610	4.90
3.	Maize	22589	147260	6.52
4.	Sesame	84716	458820	5.42
5.	Green gram	59262	303530	5.12
6.	Mothbean	7139	14170	1.95
7.	Clusterbean	50699	358740	7.08
8.	Cotton	3268	26410	8.08
9.	Mustard	65883	915990	13.90
10.	Wheat	77302	1382710	17.89
11.	Barley	4065	73110	17.99
12.	Gram	30065	293690	8.62
13.	Cumin	5797	25630	4.42

Source: Office of Deputy Director, Agriculture (Extension), District Pali

2.5. Weather data

Month	*Rainfall (mm)*	*Temperature ^{0} C*		*Relative Humidity (%)*	
		Maximum	*Minimum*	*I*	*II*
Apr.-14	1.5	39.5	22.4	36.5	20.0
May-14	60.1	41.0	26.1	48.3	22.7
June-14	1.5	42.1	29.7	57.0	31.1
July-14	167.3	36.3	27.6	75.6	57.5
Aug.-14	205.5	33.6	25.3	84.9	61.9
Sept.-14	122.8	33.3	23.7	85.0	64.3
Oct.-14	-	36.7	19.6	65.0	42.1
Nov.-14	-	33.1	13.8	62.7	40.2
Dec.-14	-	27.4	6.8	67.0	22.8
Jan.-15	33.0	24.5	5.8	75.6	32.0
Feb.-15	-	30.7	11.6	53.5	20.5
March-15	8.2	33.3	15.5	47.5	19.8

Source: Agromet Section, CAZRI, RRS, Pali

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

Category	*Population*	*Production*	*Productivity*
Cattle			
Crossbred	2485	N.A.	N.A.
Indigenous	413549	47000	2.79
Buffalo	313531	195000	4.29
Sheep	1360904	1848107*	1.358**
Goats	605755	29000	0.57
Pigs	13429	N.A.	N.A.
Rabbits	90	N.A.	N.A.
Poultry			
Hens	73467	N.A.	N.A.

Note: * Wool production in kg
** Wool productivity in kg

Source: Office of Deputy Director (Animal Husbandry), District Pali

2.7 Details of Operational area / Villages (2014-15)

S. No	*Taluk*	*Name of block*	*Name of village*	*Major crops & enterprises*	*Major problems identified*	*Identified thrust area*
1	Rohat	Rohat	• Rampura • Mukanpura	• Pearl millet, • Green gram, • Mothbean, • Sorghum, • Sesame	• Weed management in rainfed crops • low yield of major crops • Fodder scarcity	Dry land farming
2	Pali	Pali	• Bagawas, • Nimbli kheda, • Dingai	• Gram, • Sorghum, • Sesame, • Green gram, • Pearl millet, • Wheat	• Saline/sodic land/ irrigation water • Poor fertility status of landlow yield of major crops	Dry land farming and Conserve moisture agriculture
3	Marwar Jn.	Marwar Jn.	• Dudod, • Jogdawas,	• Wheat, • Barley, • Mustard, • Green gram, • Clusterbean, • Sorghum, • Sesame	• Saline/sodic land/ irrigation water • Poor fertility status of landlow yield of major crops	Integrated crop management
4	Sojat	Sojat	• Naya gaon, • Nai dhani	• Wheat, • Mustard, • Barley, • Cumin, • Green gram, • Clusterbean, • Sorghum, • Sesame	• Saline/sodic land/ irrigation water • Poor fertility status of land • low yield of major crops	Integrated crop management
5	Raipur	Raipur	• Kushalpura • Haziwas	• Wheat, • Mustard,	• Saline/sodic land/ irrigation water	Integrated crop

				• Barley, • Cumin, • Green gram, • Clusterbean, • Sorghum, • Sesame	• Poor fertility status of land • low yield of major crops	management
6	Jaitarn	Jaitarn	• Nimaz	• Wheat, • Mustard, • Barley, • Cumin, • Clusterbean, • Sorghum, • Sesame • Ber • Aonla	• Saline/sodic land/ irrigation water • Poor fertility status of land • low yield of major crops	Integrated crop management

2.8 Priority/thrust areas

Thrust area
Management of limited, saline/ sodic water and soil
Dry land farming and integrated watershed management practices
Arid and semi arid horticultural practices
Pasture development
Livestock production and its management
Upliftment of rural communities through various vocations especially for socio-economically poor people

Crop/Enterprise	***Thrust area***
Wheat	Integrated nutrient management
Mustard	Integrated nutrient management
Cumin	Integrated pest management
Dhaman Grass	High yielding varieties
Moong	Integrated nutrient management
Til	Integrated nutrient management

3. TECHNICAL ACHIEVEMENTS

3.A Details of target and achievements of mandatory activities by KVK during 2014-15

OFT (Technology Assessment and Refinement)				*FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)*			
1				*2*			
Number of OFTs		*Number of Farmers*		*Number of FLDs*		*Number of Farmers*	
Targets	*Achievement*	*Targets*	*Achievement*	*Targets*	*Achievement*	*Targets*	*Achievement*
8	10	24	30	260	574	260	574

					Extension Activities			
3					*4*			
Number of Courses			*Number of Participants*		*Number of activities*		*Number of participants*	
Clientele	*Targets*	*Achievement*	*Targets*	*Achievement*	*Targets*	*Achievement*	*Targets*	*Achievement*
Farmers	50	85	2000	2284	200	348	5000	9220
Rural youth	5	8	150	273	25	50	360	2500
Extension functionaries	2	4	150	200	20	35	300	550

Seed Production (Qtl.)		*Planting material (Nos.)*	
5		*6*	
Target	*Achievement*	*Target*	*Achievement*
10	17.9	2000	3778

3.B Abstract of interventions undertaken

S. No	*Thrust area*	*Crop/ Enterprise*	*Identified Problem*	*Interventions*					
				Title of OFT if any	*Title of FLD if any*	*Title of Training if any*	*Title of training for extension personnel if any*	*Ext. activities*	*Supply of seeds, planting materials etc.*
1.	Management of limited, saline/ sodic water and soil	1. Wheat 2. Mustard 3. Cumin 4. Barley	Low yield due saline/sodic soil and water	1. Production maximization of wheat under saline/ sodic soil and irrigation water 2. Production of maximum mustard under rainfed condition 3. Production of cumin under IPM 4. Production maximization of barley under saline/ sodic soil and irrigation water	1. Production of wheat under saline and sodic soil 2. Production of mustard good quality of oil 3. Production of cumin good quality of seed 4. Production of barley under saline and sodic soil	-	-	-	1. Seeds of RAJ 4083 2. Urvashi/ BS2 /BS3 3. GC 4 4. RD 2035/ 2592/2715
2.	Dry land farming	Fodder Sorghum	Low yield	Improving quality and production of fodder Sorghum	-	-	-	-	Seeds of sorghum (Pratap 1430)
3.	Dry land farming	Moong	Low yield	Improving productivity of moong seed	-	-	-	-	G 4/RMG 492
4.	Dry land farming	Cluster bean	Low yield	Improving productivity of cluster bean seed	-	-	-	-	RGC 1002
5.	Dry land farming	Til	Low yield	Improving productivity of Til seed and oils	-	-	-	-	RT 346
6.	Arid and semi arid horticultural practices	Ber	Low yield	Yield improvement of ber orchards through vermi composting and organic manuring with water conservation techniques	-	-	-	-	FYM, Vermi-compost

3.1 Achievements on technologies assessed and refined

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

Thematic areas	*Cereals*	*Oilseeds*	*Pulses*	*Commercial Crops*	*Vege-tables*	*Fruits*	*Flower*	*Plantation crops*	*Tuber Crops*	*TOTAL*
Varietal Evaluation	12	2	2	2	4	1	0	0	0	23
TOTAL	12	2	2	2	4	1	0	0	0	23

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

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

Thematic areas	*Cereals*	*Oilseeds*	*Pulses*	*Commercial Crops*	*Vege-tables*	*Fruits*	*Flower*	*Plantation crops*	*Tuber Crops*	*TOTAL*
Varietal Evaluation	3	3	3	3	3	1	0	0	0	16
TOTAL	3	3	3	3	3	1	0	0	0	16

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

B. Details of each On Farm Trial

A. Technology Assessment

Trial 1: Wheat

1.	**Title**	**:**	Production maximization of wheat under saline/ sodic soil and irrigation water
2.	**Problem diagnose/defined**	**:**	Low yield due saline/sodic soil and water
3.	**Details of technologies selected for assessment/ refinement**	**:**	High yielding variety for saline/sodic conditions (RAJ 4037)
4.	**Source of technology**	**:**	RAU, Bikaner
5.	**Production system thematic area**	**:**	Irrigated, Varietal evaluation
6.	**Performance of the Technology with performance indicators**	**:**	Higher yield than farmers' practice
7.	**Final recommendation for micro level situation**	**:**	High production
8.	**Constraints identified and feedback for research**	**:**	Nil
9.	**Process of farmers participation and their reaction**	**:**	Good quality seed and high production

Trial 2: Mustard

1.	**Title**	**:**	Optimum plant population for mustard for getting higher yield./ Low productivity of mustard
2.	**Problem diagnose/defined**	**:**	Low yield due to low rainfall
3.	**Details of technologies selected for assessment/ refinement**	**:**	High plant population
4.	**Source of technology**	**:**	NRC Mustard, Bharatpur
5.	**Production system thematic area**	**:**	Irrigated
6.	**Performance of the Technology with performance indicators**	**:**	High yield than farmers' practice
7.	**Final recommendation for micro level situation**	**:**	High production
8.	**Constraints identified and feedback for research**	**:**	Nil
9.	**Process of farmers participation and their reaction**	**:**	High production and good quality of mustard oil

Trial 3: Cumin

1.	**Title**	**:**	Reduction in cumin area in the district due to wilt
2.	**Problem diagnose/defined**	**:**	Wilt
3.	**Details of technologies selected for assessment/ refinement**	**:**	Cumin wilt disease, bio-agent and Bavistin
4.	**Source of technology**	**:**	NRCSS, Ajmer
5.	**Production system thematic area**	**:**	Disease management
6.	**Performance of the Technology with performance indicators**	**:**	High yield of cumin seed after control of wilt
7.	**Final recommendation for micro level situation**	**:**	In progress
8.	**Constraints identified and feedback for research**	**:**	In progress
9.	**Process of farmers participation and their reaction**	**:**	In progress

Trial 4: Sorghum

1.	**Title**	**:**	Improving quality and production of fodder Sorghum
2.	**Problem diagnose/defined**	**:**	Low yield
3.	**Details of technologies selected for assessment/ refinement**	**:**	High yielding variety (CSV 15)
4.	**Source of technology**	**:**	NRC for Sorghum, Hyderabad
5.	**Production system thematic area**	**:**	Rainfed, Varietal evaluation
6.	**Performance of the Technology with**	**:**	Higher fodder yield than farmers' practice

	performance indicators		
7.	**Final recommendation for micro level situation**	**:**	In progress
8.	**Constraints identified and feedback for research**	**:**	In progress
9.	**Process of farmers participation and their reaction**	**:**	In progress

Trial 5: Low milk yield in bovine

	Title	**:**	Low milk yield in bovine
2.	**Problem diagnose/defined**	**:**	Low nutrition status, Poor economic condition for supplement feeding, Lack of knowledge of supplementary feeding
3.	**Details of technologies selected for assessment/ refinement**	**:**	1. Multi nutrient feed blocks 2. Oral calcium
4.	**Source of technology**	**:**	CAZRI, Jodhpur
5.	**Production system thematic area**	**:**	Milk production evaluation
6.	**Performance of the Technology with performance indicators**	**:**	Increased milk production and minimize the calving interval
7.	**Final recommendation for micro level situation**	**:**	Necessary supplementary feeding for lactating animals
8.	**Constraints identified and feedback for research**	**:**	Nil
9.	**Process of farmers participation and their reaction**	**:**	Increased the digestibility of roughage and rumen microbes, low priced source of protein

B. Results of On Farm Trials

Crop/ enterprise	*Farming situation*	*Problem Diagnosed*	*Title of OFT*	*No. of trials**	*Technology Assessed*	*Parameters of assessment*	*Data on the parameter*	*Results of assessment*	*Feedback from the farmer*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Wheat	Irrigated	Low yield due saline/sodic soil and water	Production maximization of wheat under saline/ sodic soil and irrigation water	3	High yielding variety for saline/sodic conditions (RAJ 4037)	Grain yield and straw	-	Conti.	Conti.
Cumin	Irrigated	Low yield due to saline/sodic soil and water	Low productivity of cumin	3	High yielding variety for saline/sodic conditions (RZ 223)	Seed yield	-	Conti.	Conti.
Mustard	Irrigated	Low yield due to high plant population	Low productivity of mustard	3	Spacing row to row and plant to plant	Seed yield	-	Conti.	Conti.
Sorghum	Unirrigated	Low yield due to saline/sodic soil and water	Low productivity of fodder sorghum	3	High yielding variety for saline/sodic conditions (CSV 15)	Fodder yield	-	Conti.	Conti.
Animal Science	-	Low nutrition status, Poor economic condition for supplement feeding, Lack of knowledge of supplementary feeding	Low milk yield in bovine	3	Multi nutrient feed blocks, Oral calcium	Milk yield	-	Increased milk production	Increased the milk production and animal calving at right time
Cumin	Irrigated	Wilt	Reduction in cumin area in the district due to wilt	3	CAZRI	Cumin wilt disease, bio-agent and Bavistin	-	Cont.	Cont.

Tomato	Irrigated	Fruit borer	Low yield of tomato due to fruit borer	3	IIVR, Varanasi	Fruit borer damage and IPM through management	-	Cont.	Cont.
Tomato	Irrigated	Low yield and high insect, pest and disease due to high weed infestation and improper irrigation system	Product maximization of tomato under drip irrigation with mulch	5	• Drip irrigation technology • Mulch technology	Fruit yield	-	Cont.	Cont.

** No. of farmers*

Technology Assessed			****Production per unit***			***Net Return (Profit) in Rs. / unit***			***BC Ratio***		
11			***12***			***13***			***14***		
T_1	T_2	T_3	T_1	T_2	T_3	T_1	T_2	T_3	T_1	T_2	T_3
Local var.	Raj 3077	Raj 4037	1975	2840	3120	15220	19600	23300	1.3	2.8	3.4
Local var.	RZ 19	RZ 223	450	625	820	27400	44300	66900	1.9	2.6	3.1
Farmer practice	Recommended practice	Row spacing at 45 cm.	1225	1475	1860	11400	20150	22275	1.4	2.8	3.6
Local var.	Merta jowar	CSV 15	5202	6075	7055	6350	9555	13900	1.5	2.9	3.8
Farmer practice	MNFB + Galog bolus	MNFB + Galog bolus + Oral calcium	1100 litre per lactation	1450 litre per lactation	2080 litre per lactation	8000	11500	24800	0.55	0.85	1.9
T_1 (farmer practice)	Seed treatment with Trichoderma @ 6 gm/kg seed	Seed treatment with Trichoderma @ 4 gm/ kg seed + use of 60 kg FYM enriched with Trichoderma @ 2.5 kg/ha for soil treatment.	375	480	620	28900	58200	86300	1.7	2.1	2.9
T_1 (farmer practice)	Marigold line, Dimethoate 1ml /lit at flowering time and Acephate 1 gram/lit at 45	Marigold line, Dimethoate 1/2ml/lit at flowering time and Acephate 0.5 gram/lit at 45 fruiting time +Ha NPV 250 LE @ 0.4 ml/lit of water at 30 DAP & 45 DAP	185	255	293	130500	199000	262300	2.4	3.6	4.4

	fruiting time										
Local practices (Without drip and mulch)	Drip irrigation with black polythene mulch	Drip irrigation with living mulch	205	380	310	150500	304400	245000	2.8	4.0	3.7

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

Note: T_1= Farmers' practice, T_2 = Recommended, T_3 = Refined
**Field crops – kg/ha, * for horticultural crops = kg/plant, * milk and meat – litres or kg/animal*
Raj 4037 variety was adopted by 10 farmers as it was found to be best for problematic soil and water conditions.
RZ 223 variety was adopted by 20 farmers. It was found to best for problematic soil and water conditions.
Circular catchment's for rainwater harvesting +pond soil+ vermicompost application practice was also adopted by the 20 farmers. The main reason for adoption was run of water during rainy season and lack of soil moisture during rest of season. Secondly pond soil increases water holding capacity and provides some nutrients also. Vermicompost attributes to increase in soil fertility as well as water retention capacity.

B. Technology Refinement

Trial 1: Ber

1.	**Title**	**:**	Yield improvement of ber orchards through organic manuring with water conservation techniques
2.	**Problem diagnose/defined**	**:**	Low yield
3.	**Details of technologies selected for assessment/ refinement**	**:**	Rainwater harvesting (Circular catchment) + nutrient management through FYM (50 kg)+ Vermi-compost (10 kg) per plant
4.	**Source of technology**	**:**	CAZRI, Jodhpur
5.	**Production system thematic area**	**:**	Rainfed, INM
6.	**Performance of the Technology with performance indicators**	**:**	Higher fruit yield than control
7.	**Final recommendation for micro level situation**	**:**	Good quality fruit
8.	**Constraints identified and feedback for research**	**:**	Nil
9.	**Process of farmers participation and their reaction**	**:**	Adopted this variety

Results of On Farm Trials

Crop/ enterprise	*Farming situation*	*Problem Diagnosed*	*Title of OFT*	*No. of trials**	*Technology refined*	*Parameters*	*Data on the parameter*	*Results of refinement*	*Feedback from the farmer*	*Justification for refinement*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Ber	Rainfed	Low yield	Yield improvement of ber orchards through organic manuring with water conservation techniques	01	Rainwater harvesting (Circular catchment) + nutrient management through FYM (50 kg)+ Vermi-compost (10 kg) per plant	Fruit yield	-	Conti.	Conti.	Conti.

** No. of farmers*

Technology Assessed / Refined			**Production per unit*			*Net Return (Profit) in Rs. / unit*			*BC Ratio*		
11			*12*			*13*			*14*		
T_1	T_2	T_3	T_1	T_2	T_3	T_1	T_2	T_3	T_1	T_2	T_3
No water harvesting, No manuring	Circular catchment for rainwater harvesting +pond soil + FYM	Circular catchment for rainwater harvesting +pond soil+ vermicompost	25.2	36.3	42.0	133.5	301.0	362.0	2.1	3.7	3.8

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

Note: T_1= Farmers' practice, T_2 = Recommended, T_3 = Refined
**Field crops – kg/ha, * for horticultural crops = kg/plant, * milk and meat – litres or kg/animal*

3.2 Achievements of Frontline Demonstrations

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

List of technologies demonstrated during previous year and popularized during 2014-15 and recommended for large scale adoption in the district

S. No	*Crop/ Enterprise*	*Thematic Area**	*Technology demonstrated*	*Details of popularization methods suggested to the Extension system*	*Horizontal spread of technology*		
					No. of villages	*No. of farmers*	*Area in ha*
1.	**Til**	Integrated crop management	• Improved variety (RT 346) • Timely sowing at the 1st rain. • Under low rainfall situation sowing at 45 X10 cm specing for better production. • Seed treatment with Carbendism 2 gm or 4 gm Tricoderma viridi /kg seed for prevention of seed as well as soil born disease. • For root & stem rot treated seed with Tricoderma 4 gm and Incorporate Tricoderma 2.5 kg + 2.5 ton cow dung in the soil before sowing. • Effective insect control seed treated with Emidacloprid 7.5 ml per kg seed. • Incoporate 250 kg Zypsum and 2.5 ton cow dung + 5 kg Azotobacter & PSB before sowing. • Top dressing of urea 2 % at the time of flowering.	• Result demonstration • Extension literature • Extension activities viz. Field day, Kisan Goshthi, Field visit etc.	10	80	141
2.	**Moong**	Integrated crop management	• Improved variety (GM 4, IPM 02-3, RMG 492) • For root rot treated seed with Tricoderma 4 gm and Incorporate Tricoderma 2.5 kg + 1.25q cow dung in the soil before sowing. • Seed treatment with Carbendism 2 gm /kg seed.	• Result demonstration • Extension literature • Extension activities viz. Field day, Kisan Goshthi, Field visit etc.	8	76	64

			• Effective insect control seed treated with Emidacloprid 5 ml per kg seed. • Seed dressing with Rhizobium 600gm & phosphorus solubilizing bacteria (PSB) 500gm to save fertilizer & increase production. • Sowing at 30 X 10cm with a proper depth.				
3.	**Cluster bean**	Varietal performance	• Improved variety (RGC 1003/RGM 112) • Sowing at the onset of mansoon in July • Sowing at 30 X 10cm with a proper depth. • For root rot treated seed with Tricoderma 10 gm and Incorporate Tricoderma 2.5 kg + 100 kg cow dung in the soil before sowing. • Recommended dose of P & N at the time of sowing as basal application to minimize power mildew. • Seed treatment with Carbendism 2 gm /kg seed or Steptocyclin 200ppm • Effective insect control seed treated with Emidacloprid 5 ml per kg seed. • Seed dressing with Rhizobium 600gm & phosphorus solubilizing bacteria (PSB) 500gm to save fertilizer & increase production. • In long dry spell provide life saving irrigation	• Result demonstration • Extension literature • Extension activities viz. Field day, Kisan Goshthi, Field visit etc.	8	105	95
4.	**Dhaman Grass**	Varietal evaluation	CAZRI-76 Line sowing First two years – no grazing	• Result demonstration • Extension literature • Extension activities viz. Field day, etc.	5	10	03
5.	**Vegetables**	Varietal evaluation	Improved Varieties Line sowing Drip irrigation system Recommended dose of NPK and plant protection measures	• Result demonstration • Extension activities viz. Field day, Kisan Goshthi, Field visit etc.	8	45	15

6.	**Sorghum**		• Improved variety (Pratap 14630) • Seed treated with Sulphur 4 gm /kg seed. • Sowing at 45 X12-15 cm, with a proper depth of sowing 4-5 cm. • Recommended dose of P, half dose of N at 10 cm deep during last ploughing. • Rest of half N after one month at the time of rain or irrigation in standing crop.	• Result demonstration • Extension literature • Extension activities viz. Field day, Kisan Goshthi, Field visit etc.	7	46	84
7.	**Mustard**	Integrated crop management	• Improved variety (GM 4/Urvarshi) • Adoption of reduce tillage practices (3-4 plough/harrow) • Seed dressing with nitrogen fixing bacteria Azotobacter and phosphorus solubilizing bacteria (PSB) • Basal application of 40 kg S/ha through gypsum or elemental • Application of 2.5 t/ha vermicompost or FYM + 75% recommended fertility level • Incorporation of 2.5 t/ha mustard residue followed by green manuring during kharif • Use of sprinkler and drip irrigation system • Two hand weedings at 25 and 50 days. Application of 1.0 kg a.i./ha pendimethalin 30 EC (PE) or 0.06 kg a.i./ha. (at 25-30 DAS). • Adoption of cluster bean-mustard, pearl millet-mustard crop rotation cycle.	• Result demonstration • Extension literature • Extension activities viz. Field day, Kisan Gosthi, Field visit, farmers' scientists interaction etc.	6	62	90
8.	**Chickpea**	Varietal evaluation	• Improved variety (Pratap Chana 1/RSG 888) • Better field preparation with right time, proper moisture, proper depth and planking increase moisture conservation for better germination, vegetative growth & germination. • Seed treatment with Carbendism @ 4 gm /kg seed	• Result demonstration • Extension activities viz. Field day, Kisan Goshthi, Field visit etc.	12	92	44

			for prevention of wilt & root rot. • Seed treatment with Chloropyriphos @ 4 ml /kg seed for termite & seed born desease. • Seed dressing with Rhijobia culture & phosphorus solubilizing bacteria (PSB) to save costly fertilizer and to increase production. • Line sowing at 30 cm, proper depth of sowing 7-10 cm according to moisture availability. • Use recommended seed rate for proper plant population per unit. • Two weedig at 25-35 and 45-55 days after sowing. • Two spray of thiourea 0.05% at flowering & grain formation stage.				
9.	**Wheat**	Varietal evaluation	• Improved **Wheat** var. Raj 4037 • Seed treatment with Chloropyriphos @ 4-5 ml /kg seed and Mancozeb 2.5gm/ kg seed for termite & seed born desease. • Sodium sulphate treatment (3%) to enhance the germination under salt affected soil & water. • Seed dressing with Azotobacter & phosphorus solubilizing bacteria (PSB) to save 10-15 kg N & 10-15 kg P fertilizer to increase production. • Recommended dose of P, K & half dose of N at the time of sowing as basal application. • Rest of half N in two split at 1st & 2nd irrigation in standing crop. • Two folier spray of NPK (19:19:19) at tillering & earing (flowering) for better utilization of fertilizer. • Spray of thiourea 0.5 gm per liter water at tillering stage.	• Result demonstration • Extension literature • Extension activities viz. Field day, Kisan Goshthi, Field visit etc.	5	67	30
10.	Barley	Varietal evaluation	• Improved Barley var. RD 2052, RD 2503, RD 2552, RD 2668	• Result demonstration • Extension literature	7	72	38

			• Seed treatment with Chloropyriphos @ 4 ml /kg seed and Mancozeb 2.5gm/ kg seed for termite & seed born disease. • Line sowing at 22.5 cm for timely sowing & at 25 cm for late sown barley. • Recommended dose of P, K & half dose of N at the time of sowing as basal application. • Rest of half N in two split at 1st & 2nd irrigation in standing crop. • Two spray of thiourea 0.05% at earing & grain filling stage. • To avoid molya disease follow proper crop rotation as chickpea, mustard or methi.	• Extension activities viz. Field day, Kisan Goshthi, Field visit etc.			
11.	**Cumin**	Varietal evaluation	• Improved **Cumin** var. RZ 223, GC-4 • Incorporation of 5 t/ha mustard residue during summer irrigate the field then plough by disc help to control wilt problem. • Seed dressing with Azotobacter 500 gm & phosphorus solubilizing bacteria (PSB) 500 gm to save fertilizer & increase production. • Seed treatment with Carbendism @ 2 gm /kg seed . • Line sowing at 22.5-30 cm, with a proper depth of sowing 1 cm according to type of soil. • Use proper weedicide Basalin 2.250 lit/ ha before sowing or Stamp F 34 @ 3.3 kg / ha after sowing + one weeding • Recommended plant protection measures 1st spray mancozeb 0.2% at 30 DAS, 2nd Diamithoat 0.3% + wettable sulphur 0.2 % at 40-45 DAS, 3rd as 2nd spray.	• Result demonstration • Extension literature • Extension activities viz. Field day, Kisan Goshthi, Field visit etc.	7	44	51
12.	**Methi**	Varietal evaluation	• Improved RMT 305 • Field preparation with 2-3 ploughing , incorporation of quanalphos 25 kg at the time of last ploughing to	• Result demonstration • Extension literature • Extension activities viz.	5	56	31

			avoide seed & soil born disease. • Line sowing at 30 cm, with a proper depth of sowing 5 cm. • Recommended dose of N & P, at the time of sowing as basal application. • Proper weeding or weedicide Basalin 1.75 lit/ha after sowing at proper moisture condition for effective weed control.	Field day, Kisan Goshthi, Field visit etc.			

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

*b. Details of FLDs implemented during 2014-15 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)*

Sl. No.	***Crop***	***Thematic area***	***Technology Demonstrated***	***Season and year***	**Variety**	***Area (ha)***		***No. of farmers/ demonstration***		
						Proposed	***Actual***	***SC/ST***	***Others***	***Total***
1.	Sesame	Varietal evaluation	Seed, Biofertilizer	Kharif 2014	RT 127	15	15	8	22	30
2.	Green gram	Varietal evaluation	Seed, Biofertilizer	Kharif 2014	GM 4	15	15	13	25	38
3.	Sorghum	Varietal evaluation	Seed, organic manure	Kharif 2014	CSV 15	10	5	12	20	32
					CSV 20		5	10	22	32
4.	Cluster bean	Varietal evaluation	Seed, organic manure	Kharif 2014	RGC 1003	10	3	3	9	12
					RGC 1066		17	18	48	66
5.	Castor	Varietal evaluation	Seed, Biofertilizer	Kharif 2014	GCH 7	0	5	0	15	15
6.	Moth	Varietal evaluation	Seed, Organic manure	Kharif 2014	CZM 2	0	5	5	15	20
					RMo 435		10	8	17	25
7.	Napier grass	Varietal evaluation	Line sowing , Drip irrigation	Kharif 2014	NHB 1	0	10	12	38	50
8.	Mustard	Varietal evaluation	Line sowing , Drip irrigation	Kharif 2014	NRCDR 2	15	10	6	16	22
					RH 19		5	2	8	10
9.	Wheat	Varietal evaluation	Line sowing , Drip irrigation	Rabi 14-15	Raj 4083	15	15	12	24	36

10.	Barley	Varietal evaluation	Protected cultivation, Line sowing, Drip irrigation	Rabi 14-15	RD 2715	15	10	4	18	22
					RD 2035		5	2	8	10
11.	Oat	Varietal evaluation	Line sowing , Drip irrigation	Rabi 14-15	KENT	5	5	6	19	25
12.	Cumin	Varietal evaluation	Line sowing , Drip irrigation	Rabi 14-15	GC 4	15	15	6	24	30
13.	Chickpea	Varietal evaluation	Line sowing , Drip irrigation	Rabi 14-15	RSG 895	5	5	8	17	25
14.	Okra	Varietal evaluation	Line sowing , Drip irrigation	Rabi 14-15	AA	1	1	4	16	20
15.	Kachri	Varietal evaluation	Line sowing , Drip irrigation	Rabi 14-15	AHK 119	1	1	6	24	30
16.	Methi	Varietal evaluation	Protected Cultivation, Line sowing , Drip irrigation	Rabi 14-15	RMt 305	10	10	8	16	24

Performance of FLD

Sl. No.	*Crop*	*Technology Demonstrated*	*Variety*	*No. of Farmers*	*Area (ha.)*	*Demo. Yield Qtl/ ha*			*Yield of local Check Qtl./ha*	*Increase in yield (%)*
						H	*L*	*A*		
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
1.	Sesame	Varietal evaluation	RT 127	30	15	6.2	2.2	4.5	3.7	21.62
2.	Green gram	Varietal evaluation	GM 4	38	15	9.6	3.5	6.7	5.2	28.85
3.	Sorghum	Varietal evaluation	CSV 15	32	5	95	63	81.6	66	23.64
4.	Sorghum	Varietal evaluation	CSV 20	32	5	119	65	86.4	69	25.22
5.	Cluster bean	Varietal evaluation	RGC 1003	12	3	12.5	6.2	8.2	6.5	26.15
6.	Cluster bean	Varietal evaluation	RGC 1066	66	17	11.2	5.4	7	5.5	27.27
7.	Castor	Varietal evaluation	GCH 7	15	5	45.8	29	41.4	32	29.38
8.	Moth	Varietal evaluation	CZM 2	20	5	8.2	3	5.6	4.2	33.33
9.	Moth	Varietal evaluation	RMO 435	25	10	7.5	4.5	5.4	4.1	31.71
10.	Mustard	Varietal evaluation	NRCDR 2	22	10	19	10	13.8	11.5	20.00
11.	Mustard	Varietal evaluation	RH 19	10	5	17.8	9.5	13.3	11.2	18.75
12.	Wheat	Varietal evaluation	RAJ 4083	36	15	46.6	24.7	36.9	30.3	21.78
13.	Barley	Varietal evaluation	RD 2715	22	10	47.2	26	34.9	28	24.64
14.	Barley	Varietal evaluation	RD 2035	10	5	43	25.4	33.3	27.5	21.09
15.	Oat	Varietal evaluation	Kent	25	5	410	205	328.5	180	82.50
16.	Cumin	Varietal evaluation	GC 4	30	15	6.4	3.5	3.7	2.9	27.59
17.	Chickpea	Varietal evaluation	RSG 895	25	5	24	11	16.9	13.8	22.46
18.	Napier grass	Varietal evaluation	NHB 1	50	10	215	120	166.5	133	25.19
19.	Okra	Varietal evaluation	AA	20	1	140	97	115	89	29.21
20.	Kachri	Varietal evaluation	AHK 119	30	1	95	75	87	69	26.09
21.	Methi	Varietal evaluation	RMt 305	24	10	16	10	13.5	10.6	27.36

* No yield measure due to long dry spell & drought condition during the reporting period.

NB: Attach few good action photographs with title at the back with pencil

Economic Impact (continuation of previous table)

Average Cost of cultivation (Rs./ha)		***Average Gross Return (Rs./ha)***		***Average Net Return (Profit) (Rs./ha)***		***Benefit-Cost Ratio (Gross Return / Gross Cost)***	
Demonstration	***Local Check***	***Demonstration***	***Local Check***	***Demonstration***	***Local Check***		
14	***15***	***16***	***17***	***18***	***19***	***20***	***21***
18500	15100	41000	25000	22500	9900	2.22	1.66
21320	19520	54000	37000	32680	17480	2.53	1.90
32380	31800	102000	63150	69620	31350	3.15	1.99
33400	32200	108000	64300	74600	32100	3.23	2.00
17000	16500	51000	31200	34000	14700	3.00	1.89
17200	16300	48900	32000	31700	15700	2.84	1.96
18300	17200	61750	33100	43450	15900	3.37	1.92
13300	12500	43200	23600	29900	11100	3.25	1.89
12500	11500	40000	21800	27500	10300	3.20	1.90
22900	21600	71300	43000	48400	21400	3.11	1.99
24600	23500	79700	50200	55100	26700	3.24	2.14
25900	25000	76200	49000	50300	24000	2.94	1.96
19300	18600	65350	40500	46050	21900	3.39	2.18
20200	19400	65150	39200	44950	19800	3.23	2.02
16400	14500	37600	23000	21200	8500	2.29	1.59
22500	22000	73500	43000	51000	21000	3.27	1.95
19000	18000	61700	36000	42700	18000	3.25	2.00
12000	11500	26300	16000	14300	4500	2.19	1.39
33400	30200	98600	66500	65200	36300	2.95	2.20
12500	10500	33300	18000	20800	7500	2.66	1.71
19000	17000	50000	29000	31000	12000	2.63	1.71

Analytical Review of component demonstrations (details of each component for rainfed / irrigated situations to be given separately for each season).

Crop	***Season***	***Component***	***Farming situation***	***Average yield (q/ha)***	***Local check (q/ha)***	***Percentage increase in productivity over local check***
Sesame	Kharif 2014	RT 127	Rainfed	4.5	3.7	21.62
Green gram	Kharif 2014	GM 4	Rainfed	6.7	5.2	28.85
Sorghum	Kharif 2014	CSV 15	Rainfed	81.6	66	23.64

Sorghum	Kharif 2014	CSV 20	Rainfed	86.4	69	25.22
Cluster bean	Kharif 2014	RGC 1003	Rainfed	8.2	6.5	26.15
Cluster bean	Kharif 2014	RGC 1066	Rainfed	7	5.5	27.27
Castor	Kharif 2014	GCH 7	Irrigated	41.4	32	29.38
Moth	Kharif 2014	CZM 2	Rainfed	5.6	4.2	33.33
Moth	Kharif 2014	RMO 435	Rainfed	5.4	4.1	31.71
Mustard	Rabi 2014-15	NRCDR 2	Irrigated	13.8	11.5	20.00
Mustard	Rabi 2014-15	RH 19	Irrigated	13.3	11.2	18.75
Wheat	Rabi 2014-15	RAJ 4083	Irrigated	36.9	30.3	21.78
Barley	Rabi 2014-15	RD 2715	Irrigated	34.9	28	24.64
Barley	Rabi 2014-15	RD 2035	Irrigated	33.3	27.5	21.09
Oat	Rabi 2014-15	Kent	Irrigated	328.5	180	82.50
Cumin	Rabi 2014-15	GC 4	Irrigated	3.7	2.9	27.59
Chickpea	Rabi 2014-15	RSG 895	Irrigated	16.9	13.8	22.46
Napier grass	Kharif 2014	NHB 1	Irrigated	166.5	133	25.19
Okra	Rabi 2014-15	AA	Irrigated	115	89	29.21
Kachri	Rabi 2014-15	AHK 119	Irrigated	87	69	26.09
Methi	Rabi 2014-15	RMt 305	Irrigated	13.5	10.6	27.36

* No yield due to drought conditions.

Technical Feedback on the demonstrated technologies

S. No	***Feed Back***
1	Non-availability of seeds of latest high yielding variety of all major crops viz. cumin, wheat, gram, moong, guar, etc and biofertilizer in time

Farmers' reactions on specific technologies

S. No	***Feed Back***
1	• Early vigorous growth and branching of Mustard var. NRCDR 2 appreciated by the farmers along with Bold size quality grain & pod containing higher oil content due to basal dose of fertilizer & sulphur. • Variety of mustard gave better performance under limited water as compared to local in terms of branching, no. of siliqua, size of siliqua, & grain etc

2	• GC 4 disease resistant like wilt, powdery mildew disease and higher production and good quality seed
3	• Raj 4083 Higher production of grain and good quality of seed in arid region
4	• RD 2715 Higher yield in rainfed condition, disease resistant variety
5	• Moong var. GM 4 – short duration, early maturity, suitable for low rainfed conditions
6	• Castor var. GCH 7 – Gave better production than existing local variety.
7	• Guar var. RGC 1066 – Higher number of pods and early maturity, suitable for arid region

Extension and Training activities under FLD

Sl No.	***Activity***	***No. of activities organised***	***Number of participants***	***Remarks***
1	Field days	16	475	
2	Farmers Training	18	395	
3	Media coverage	05	-	
4	Publications	04	-	

c. Details of FLD on Enterprises

(i) Farm Implements

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

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

(ii) Livestock Enterprises

Enterprise	***Breed***	***No. of farmers***	***No. of animals, poultry birds etc.***	***Performance parameters / indicators***	**** Data on parameter in relation to technology demonstrated***		***% change in the parameter***
					Demon.	***Local check***	
Multi Nutrient Feed Block	Cattle and buffalo	05	45	Balance feeding of animals	-	-	20% milk increase
Azolla	Cattle and buffalo	25	75	Increasing milk production and infertility check	-	-	15-20% milk production increase

**** Milk production, meat production, egg production, reduction in disease incidence etc.***

(iii) Other Enterprises

Enterprise	***Variety/ breed/ Species/ others***	***No. of farmers***	***No. of Units***	***Performance parameters / indicators***	***Data on parameter in relation to technology demonstrated***		***% change in the parameter***
					Demon.	***Local check***	
Vermi compost	*Assenia foeatida*	25	25	Production of vermi-compost	-	-	-
Azolla	*Improved*	300	300	Production of green fodder	-	-	-
Kitchen garden	*High yielding varieties*	30	30	Self- sufficient for home consumption	-	-	-
Mushroom	*oyster*	30	30	Self- sufficient for home consumption	-	-	-
Farm implements	Serrated sickle, rotovator, farm cutter, mechanized spray machine	298	12	Skill development, labour and fuel saving	-	-	-

Technical Feedback on the demonstrated technologies

S. No	**Feed Back**
1	Higher productivity
2	Low insect pest

Farmers' reactions on specific technologies

S. No	Feed Back
1	Low cost input and higher gain
2	Saving time

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	5	150	
2	Farmers Training	8	120	
3	Media coverage	5	-	
4	Training for extension functionaries	1	42	

3.3 Achievements on Training (Including the sponsored, vocational, FLD and trainings under Rainwater Harvesting Unit) :

A) ON Campus

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	1	5	5	10	4	5	9	9	10	19
Resource Conservation Technologies	1	20	0	20	0	0	0	20	0	20
Integrated Farming	2	30	2	32	20	0	20	50	2	52
Water management	2	22	10	32	10	8	18	32	18	50
Seed production	2	25	0	25	12	0	12	37	0	37
Fodder production	1	7	10	17	2	5	7	9	15	24
II Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops	1	25	5	30	2	0	2	27	5	32
Nursery raising	1	15	5	20	3	2	5	18	7	25
Grading and standardization	1	25	5	30	0	0	0	25	5	30
b) Fruits										
Rejuvenation of old orchards	1	25	0	25	0	0	0	25	0	25
Plant propagation techniques	1	10	10	20	12	0	12	22	10	32
III Soil Health and Fertility Management										
Management of Problematic soils	1	20	0	20	0	0	0	20	0	20
IV Livestock Production and Management										
Dairy Management	1	20	20	40	2	0	2	22	20	42
Disease Management	1	20	2	22	6	3	9	26	5	31
Feed management	1	20	2	22	0	6	6	20	8	28
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	20	20	0	3	3	0	23	23

Designing and development for high nutrient efficiency diet	1	0	25	25	0	17	17	0	42	42
Minimization of nutrient loss in processing	1	0	16	16	0	15	15	0	31	31
Storage loss minimization techniques	1	0	20	20	0	13	13	0	33	33
Value addition	1	0	25	25	0	6	6	0	31	31
Income generation activities for empowerment of rural Women	1	0	20	20	0	16	16	0	36	36
Location specific drudgery reduction technologies	1	0	0	0	0	25	25	0	25	25
VI Agril. Engineering										
VII Plant Protection										
Integrated Pest Management	1	15	5	20	2	1	3	17	6	23
Integrated Disease Management	1	20	5	25	2	0	2	22	5	27
Bio-control of pests and diseases	1	16	13	29	6	0	6	22	13	35
VIII Fisheries										
IX Production of Inputs at site										
X Capacity Building and Group Dynamics										
Leadership development	1	10	5	15	5	1	6	15	6	21
Group dynamics	1	23	5	28	5	4	9	28	9	37
Formation and Management of SHGs	1	20	0	20	0	0	0	20	0	20
Mobilization of social capital	1	20	5	25	6	0	6	26	5	31
Entrepreneurial development of farmers/youths	1	16	6	22	10	0	10	26	6	32
XI Agro-forestry										
TOTAL	33	429	246	675	109	130	239	538	376	914
(B) RURAL YOUTH										
Mushroom Production	1	15	13	28	4	1	5	19	14	33
Value addition	1	30	3	33	3	7	10	33	10	43
TOTAL	2	45	16	61	7	8	15	52	24	76
(C) Extension Personnel										
Productivity enhancement in field crops	1	36	13	49	4	1	5	40	14	54

Capacity building for ICT application	1	30	10	40	10	0	10	40	10	50
TOTAL	2	66	23	89	14	1	15	80	24	104
Grand Total	37	540	285	825	130	139	269	670	424	1094

B) OFF Campus

Thematic area	**No. of courses**	**Participants**								
		Others			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	2	35	7	42	8	0	8	43	7	50
Integrated Farming	4	70	0	70	17	0	17	87	0	87
Water management	2	30	8	38	5	3	8	35	11	46
Seed production	2	30	7	37	3	0	3	33	7	40
Fodder production	3	40	6	46	14	3	17	54	9	63
II Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops	1	20	5	25	5	3	8	25	8	33
Nursery raising	2	33	3	36	6	0	6	39	3	42
Grading and standardization	2	34	4	38	6	0	6	40	4	44
Protective cultivation (Green Houses, Shade Net etc.)	2	30	10	40	7	0	7	37	10	47
b) Fruits										
Layout and Management of Orchards	1	30	3	33	2	7	9	32	10	42
Cultivation of Fruit	1	20	7	27	6	0	6	26	7	33
Micro irrigation systems of orchards	1	20	10	30	0	0	0	20	10	30
III Soil Health and Fertility Management										
Soil fertility management	2	30	4	34	8	1	9	38	5	43
Soil and Water Conservation	1	20	10	30	7	2	9	27	12	39
IV Livestock Production and Management										
Dairy Management	1	20	7	27	6	2	8	26	9	35

Production of quality animal products	1	33	0	33	0	0	0	33	0	33
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	33	33	0	2	2	0	35	35
Design and development of low/minimum cost diet	1	0	37	37	0	2	2	0	39	39
Gender mainstreaming through SHGs	1	0	33	33	0	2	2	0	35	35
Value addition	2	0	37	37	0	15	15	0	52	52
Income generation activities for empowerment of rural Women	2	0	35	35	0	10	10	0	45	45
Location specific drudgery reduction technologies	2	0	30	30	0	16	16	0	46	46
Rural Crafts	1	0	20	20	0	20	20	0	40	40
VI Agril. Engineering										
Repair and maintenance of farm machinery and implements	1	19	4	23	6	2	8	25	6	31
VII Plant Protection										
Integrated Pest Management	1	20	3	23	2	3	5	22	6	28
Integrated Disease Management	2	40	0	40	0	0	0	40	0	40
Bio-control of pests and diseases	1	30	4	34	6	1	7	36	5	41
Production of bio control agents and bio pesticides	1	23	2	25	8	0	8	31	2	33
VIII Fisheries										
IX Production of Inputs at site										
X Capacity Building and Group Dynamics										
Group dynamics	2	45	0	45	0	0	0	45	0	45
Formation and Management of SHGs	2	40	2	42	2	7	9	42	9	51
Mobilization of social capital	2	30	6	36	12	0	12	42	6	48
Entrepreneurial development of farmers/youths	2	30	7	37	13	3	16	43	10	53

XI Agro-forestry										
TOTAL	52	772	344	1116	149	104	253	921	448	1369
(B) RURAL YOUTH										
Mushroom Production	2	35	0	35	0	10	10	35	10	45
Seed production				0			0	0	0	0
Production of organic inputs	1	30	0	30	0	0	0	30	0	30
Vermi-culture	1	20	30	50	0	0	0	20	30	50
Repair and maintenance of farm machinery and implements	1	12	17	29	10	0	10	22	17	39
Nursery Management of Horticulture crops	1	10	0	10	10	13	23	20	13	33
TOTAL	6	107	47	154	20	23	43	127	70	197
(C) Extension Personnel										
Productivity enhancement in field crops	1	33	4	37	10	0	10	43	4	47
Protected cultivation technology	1	20	30	50	0	0	0	20	30	50
TOTAL	2	53	34	87	10	0	10	63	34	97
Grand Total	60	932	425	1357	179	127	306	1111	552	1663

C) Consolidated table (ON and OFF Campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	3	40	12	52	12	5	17	52	17	69
Resource Conservation Technologies	1	20	0	20	0	0	0	20	0	20
Integrated Farming	6	100	2	102	37	0	37	137	2	139
Water management	4	52	18	70	15	11	26	67	29	96
Seed production	4	55	7	62	15	0	15	70	7	77
Fodder production	4	47	16	63	16	8	24	63	24	87
II Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops	2	45	10	55	7	3	10	52	13	65
Nursery raising	3	48	8	56	9	2	11	57	10	67
Exotic vegetables like Broccoli	0	0	0	0	0	0	0	0	0	0
Export potential	0	0	0	0	0	0	0	0	0	0

vegetables										
Grading and standardization	3	59	9	68	6	0	6	65	9	74
Protective cultivation (Green Houses, Shade Net etc.)	2	30	10	40	7	0	7	37	10	47
b) Fruits										
Layout and Management of Orchards	1	30	3	33	2	7	9	32	10	42
Cultivation of Fruit	1	20	7	27	6	0	6	26	7	33
Rejuvenation of old orchards	1	25	0	25	0	0	0	25	0	25
Micro irrigation systems of orchards	1	20	10	30	0	0	0	20	10	30
Plant propagation techniques	1	10	10	20	12	0	12	22	10	32
III Soil Health and Fertility Management										
Soil fertility management	2	30	4	34	8	1	9	38	5	43
Soil and Water Conservation	1	20	10	30	7	2	9	27	12	39
Management of Problematic soils	1	20	0	20	0	0	0	20	0	20
IV Livestock Production and Management										
Dairy Management	2	40	27	67	8	2	10	48	29	77
Disease Management	1	20	2	22	6	3	9	26	5	31
Feed management	1	20	2	22	0	6	6	20	8	28
Production of quality animal products	1	33	0	33	0	0	0	33	0	33
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	2	0	53	53	0	5	5	0	58	58
Design and development of low/minimum cost diet	1	0	37	37	0	2	2	0	39	39
Designing and development for high nutrient efficiency diet	1	0	25	25	0	17	17	0	42	42
Minimization of nutrient loss in processing	1	0	16	16	0	15	15	0	31	31
Gender mainstreaming through SHGs	1	0	33	33	0	2	2	0	35	35
Storage loss minimization techniques	1	0	20	20	0	13	13	0	33	33
Value addition	3	0	62	62	0	21	21	0	83	83
Income generation activities for empowerment of rural Women	3	0	55	55	0	26	26	0	81	81
Location specific drudgery reduction technologies	3	0	30	30	0	41	41	0	71	71

Rural Crafts	1	0	20	20	0	20	20	0	40	40
VI Agril. Engineering										
Repair and maintenance of farm machinery and implements	1	19	4	23	6	2	8	25	6	31
VII Plant Protection										
Integrated Pest Management	2	35	8	43	4	4	8	39	12	51
Integrated Disease Management	3	60	5	65	2	0	2	62	5	67
Bio-control of pests and diseases	2	46	17	63	12	1	13	58	18	76
Production of bio control agents and bio pesticides	1	23	2	25	8	0	8	31	2	33
VIII Fisheries										
IX Production of Inputs at site										
X Capacity Building and Group Dynamics										
Leadership development	1	10	5	15	5	1	6	15	6	21
Group dynamics	3	68	5	73	5	4	9	73	9	82
Formation and Management of SHGs	3	60	2	62	2	7	9	62	9	71
Mobilization of social capital	3	50	11	61	18	0	18	68	11	79
Entrepreneurial development of farmers/youths	3	46	13	59	23	3	26	69	16	85
XI Agro-forestry										
TOTAL	85	1201	590	1791	258	234	492	1459	824	2283
(B) RURAL YOUTH										
Mushroom Production	3	50	13	63	4	11	15	54	24	78
Production of organic inputs	1	30	0	30	0	0	0	30	0	30
Vermi-culture	1	20	30	50	0	0	0	20	30	50
Repair and maintenance of farm machinery and implements	1	12	17	29	10	0	10	22	17	39
Nursery Management of Horticulture crops	1	10	0	10	10	13	23	20	13	33
Value addition	1	30	3	33	3	7	10	33	10	43
TOTAL	8	152	63	215	27	31	58	179	94	273
(C) Extension Personnel										
Productivity enhancement in field crops	2	69	17	86	14	1	15	83	18	101
Protected cultivation technology	1	20	30	50	0	0	0	20	30	50
Capacity building for ICT application	1	30	10	40	10	0	10	40	10	50
TOTAL	4	119	57	176	24	1	25	143	58	201
Grand Total	97	1472	710	2182	309	266	575	1781	976	2757

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

Detailed training programmes

Date	Clientele	Title of the training programme	Discipline	Thematic area	Durat-ion in days	Venue (Off / On Campus)	Number of other participants			Number of SC/ST			Total number of participants		
							Male	Female	Total	Male	Female	Total	Male	Female	Total
04.06.2014	Farmer	Fertility management through composting	Agronomy	Fertility management	1	Off	12	4	16	4	0	4	16	4	20
05.06.2014	Farmer	Package practices for kharif crops	Agronomy	Integrated farming	1	Off	12	0	12	8	0	8	20	0	20
7.6.2014	Farmer	Improved package practices for kharif crops	Agronomy	Integrated farming	1	Off	7	0	7	13	0	13	20	0	20
9.6.2014	Farmer	Seed multiplication of kharif crops	Agronomy	Seed production	1	Off	12	3	15	5	0	5	17	3	20
19.6.2014	Farmer	Weed management in kharif crops	Agronomy	weed management	1	Off	17	4	21	6	3	9	23	7	30
25.9.2014	Farmer	Improved farm implements	Agronomy	Improved implements	1	Off	9	4	13	5	2	7	14	6	20
26.9.2014	Farmer	Composting for soil fertility	Agronomy	Fertility management	1	Off	12	0	12	8	0	8	20	0	20
30.9.2014	Farmer	Improved package practices for fodder crops	Agronomy	Fodder production	1	Off	9	2	11	7	2	9	16	4	20
10.10.2014	Farmer	Seed multiplication of rabi crops	Agronomy	Seed production	1	Off	16	0	16	4	0	4	20	0	20
7.1.2015	Farmer	Agronomical practices for rabi oilseeds	Agronomy	Integrated farming	1	Off	19	0	19	7	0	7	26	0	26
8.1.2015	Farmer	Water management technology	Agronomy	Water management	1	Off	9	4	13	9	4	13	18	8	26
12.1.2015	Farmer	Weed management in rabi crops	Agronomy	weed management	1	Off	14	0	14	6	0	6	20	0	20
28.1.2015	Farmer	Fodder production technology	Agronomy	Fodder production	1	Off	10	3	13	8	2	10	18	5	23
4.2.2015	Farmer	Improved package practices for rabi crops	Agronomy	Integrated farming	1	Off	16	0	16	5	5	10	21	5	26

7.2.2015	Farmer	Water management technology	Agronomy	Water management	1	Off	11	3	14	6	0	6	17	3	20
10.2.2015	Farmer	Improved farm implements	Agronomy	Improved implements	1	Off	12	0	12	5	0	5	17	0	17
17.2.2015	Farmer	Improved package practices for summer fodder	Agronomy	Fodder production	1	Off	18	0	18	2	0	2	20	0	20
23- 24 .05.2014	Farmer	Seed multiplication of kharif crops	Agronomy	Seed production	2	On	14	0	14	5	0	5	19	0	19
17-18.06.2014	Farmer	Management of problematic soils	Agronomy	Soil management	2	On	20	0	20	0	0	0	20	0	20
27-28.06.2014	Farmer	Seed multiplication technology	Agronomy	Seed production	2	On	18	0	18	0	0	0	18	0	18
02-03.07.2014	Farmer	Efficient management of available irrigation water	Agronomy	Water management	2	On	2	8	10	0	10	10	2	18	20
21-22.07.2014	Farmer	Improved cultivation practices for quality fodder production	Agronomy	Fodder production	2	On	7	12	19	2	3	5	9	15	24
19-20.08.2014	Farmer	Weed management in kharif crops	Agronomy	Fodder production	2	On	7	10	17	2	12	14	9	22	31
17-18.09.2014	Farmer	Crop production technology under conserved moisture	Agronomy	Water management	2	On	20	0	20	0	0	0	20	0	20
15-16.10.2014	Farmer	Cultivation practices for kharif oilseed crops	Agronomy	Integrated farming	2	On	12	2	14	6	2	8	18	4	22
28-29.10.2014	Farmer	Rabi crops production technology	Agronomy	Integrated farming	2	On	22	0	22	8	0	8	30	0	30
05-06.12.2014	Farmer	Efficient management of available irrigation water	Agronomy	Water management	2	On	18	0	18	12	0	12	30	0	30
26.4.2014	Farmers	Entrepreneurship development in agriculture	Agricultural Extension	Employment generation	1	Off	20	5	25	2	6	8	22	11	33
29.4.2014	Farmers	Entrepreneurship development in agriculture	Agricultural Extension	Entrepreneurship	1	Off	27	3	30	10	0	10	37	3	40

20.10.2014	Farmers	Entrepreneurship development in agriculture	Agricultural Extension	Entrepreneurship	1	Off	11	13	24	6	0	6	17	13	30
30.11.2014	Farmers	Entrepreneurship development in agriculture	Agricultural Extension	Entrepreneurship	1	Off	20	2	22	7	2	9	27	4	31
17.12.2014	Farmers	Adoption of improved farm implements	Agricultural Extension	Farm implements	1	Off	16	9	25	15	0	15	31	9	40
16.4.2014	Farmers	Sources of information used by the farmers in crop production	Agricultural Extension	ICT	1	Off	29	3	32	10	1	11	39	4	43
24.5.2013	17.7.2014	Mass media and modern information technology	Agricultural Extension	ICT	1	Off	30	4	34	10	0	10	40	4	44
25.12.2014	Farmers	Sources of information used by the farmers in crop production	Agricultural Extension	Information sources	1	Off	3	27	30	2	8	10	5	35	40
13.2.2015	Farmers	Grain storage technologies	Agricultural Extension	Rural developments	1	Off	12	6	18	12	7	19	24	13	37
27.3.2015	Farmers	Adoption of drip irrigation in field crops	Agricultural Extension	Soil and water management	1	Off	30	0	30	0	5	5	30	5	35
3-5.7.2014	Farmers/ Farm woman	Value addition of arid fruits	Agricultural Extension	PHT	3	On	40	0	40	10	0	10	50	0	50
10-12.7.2014	Farmers	Entrepreneurship development in agriculture	Agricultural Extension	Entrepreneurship	3	On	0	0	0	0	20	20	0	20	20
11-13.8.2014	Farmers	Entrepreneurship development in agriculture	Agricultural Extension	Entrepreneurship	3	On	20	0	20	5	0	5	25	0	25
4-6.9.2014	Farmers/ Farm woman	Mass media and modern information technology	Agricultural Extension	ICT	3	On	20	0	20	6	0	6	26	0	26
23-25.2.2015	Farmers	Mass media and modern information technology	Agricultural Extension	Information technology	3	On	16	6	22	10	0	10	26	6	32
7-9.3.2015	Farmers	Government programme beneficial for farmers	Agricultural Extension	Income generation	3	On	17	5	22	2	6	8	19	11	30
19-20.3.2015	Farm women	Processing and value addition of arid vegetables	Agricultural Extension	PHT	2	On	0	20	20	0	5	5	0	25	25

28-29.3.2015	Livestock Assistant	Disease management in small ruminants	Agricultural Extension	Disease management	2	On	50	0	50	20	0	20	70	0	70
2.2.2015	Farm woman	Bandhej technique	Home Science	Income generation	1	Off	0	33	33	0	2	2	0	35	35
9.3.2015	Farm woman	House hold food security by kitchen garden	Home Science	Food security	1	Off	0	37	37	0	0	0	0	37	37
21.3.2015	Farm woman	Designing and development for high nutrient efficient diet	Home Science	Food security	1	Off	0	25	25	0	15	15	0	40	40
22.3.2015	Farm woman	Minimization of nutrient loss in proccessing	Home Science	Nutrient management	1	Off	0	27	27	0	13	13	0	40	40
18.5.2014	Farm woman	Gender mainstreaming through SHGs	Home Science	Income generation	1	Off	0	33	33	0	0	0	0	33	33
3.4.2014	Farm woman	Storage loss minimization techniques	Home Science	Storage management	1	Off	0	15	15	0	6	6	0	21	21
19.9.2014	Farm woman	Value addition	Home Science	Income generation	1	Off	0	17	17	0	13	13	0	30	30
20.10.2014	Farm woman	Income genetion activities for empowerment of rural women	Home Science	Income generation	1	Off	0	35	35	0	0	0	0	35	35
11.11.2014	Farm woman	Location specific drudgery reduction techniques	Home Science	Drudgery reduction	1	Off	0	30	30	0	16	16	0	46	46
17.1.2015	Farm woman	Bandhej techniques	Home Science	Income generation	1	Off	0	20	20	0	15	15	0	35	35
13.3.2015	Farm woman	Processing and value addition of arid fruits	Home Science	Income generation	1	Off	0	23	23	0	3	3	0	26	26
18.3.2015	Farm woman	Processing and preservation of different types of pickle	Home Science	Income generation	1	Off	0	37	37	0	3	3	0	40	40
23.3.2015	Farm women	Seed storage techniques	Home Science	Storage management	1	Off	0	36	36	0	2	2	0	38	38
27.2.2015	Farm women	Bandhej techniques	Home Science	Income generation	1	Off	0	20	20	0	5	5	0	25	25

15-17.4.2014	Farm woman	Papad making	Home Science	Income generation	3	On	0	20	20	0	5	5	0	25	25
5-6.6.2014	Farm woman	Bandhej technique	Home Science	Income generation	2	On	0	25	25	0	5	5	0	30	30
16-19.8.2014	Farm woman	Tailoring techniques	Home Science	Income generation	3	On	0	16	16	0	15	15	0	31	31
29-30.9.2014	Farm women	Stitching of baby garments	Home Science	Income generation	2	On	0	20	20	0	13	13	0	33	33
20-22.10.2014	Farm women	Drudgery reduction	Home Science	Income generation	3	On	0	19	19	0	16	16	0	35	35
20-23.1.2015	Farm women	Stitching	Home Science	Income generation	4	On	0	27	27	0	0	0	0	27	27
17-18.2.2015	Farm women	Location specific drudgery reduction techniques	Home Science	Income generation	2	On	0	25	25	0	5	5	0	30	30
10.8.2014	Farmers	Integrated pest management	Plant protection	Plant Protection	1	Off	20	3	23	3	5	8	23	8	31
11.9..2014	Farmers	Integrated disease management	Plant protection	Disease management	1	Off	30	4	34	4	4	8	34	8	42
1.3.2015	Farm women	Bio control of pest and disease	Plant protection	Plant Protection	1	Off	0	20	20	0	3	3	0	23	23
20.7.2014	Farmers	Mushroom cultivation	Plant protection	Income generation	1	Off	33	5	38	2	0	2	35	5	40
22.2.2015	Farmers	Plant protection measures in rabi crops	Plant protection	Plant Protection	1	Off	20	0	20	13	3	16	33	3	36
3.3.2015	Farmers	IPM in seed spices	Plant protection	Plant Protection	1	Off	33	2	35	10	0	10	43	2	45
13-15.5.2014	Farmers	Seed treatment of summer vegetables	Plant protection	IPM	3	On	15	5	20	2	1	3	17	6	23
26-28.6.2014	Farmers	Bio control of pest and disease	Plant protection	Bio-agents	3	On	16	20	36	2	2	4	18	22	40
17-19.10.2014	Farmers	Production of bio-control agents and bio pesticides	Plant protection	Bio-agents	3	On	25	3	28	6	0	6	31	3	34
2-3.2.2015	Farm women	Mushroom cultivation	Plant protection	Plant Protection	2	On	0	20	20	0	0	0	0	20	20

13.8.2014	Farmers	Irrigation management in ber plant	Horticulture	Irrigation management	1	Off	20	5	25	5	3	8	25	8	33
16.8.2014	Farmers	Nursery management	Horticulture	Nutrient management	1	Off	23	0	23	6	0	6	29	0	29
8.9.2014	Farmers	Grading and standardization of fruits and vegetables	Horticulture	Arid fruits	1	Off	30	0	30	0	0	0	30	0	30
25.9.2014	Farmers	Protective cultivation	Horticulture	Protective cultivation	1	Off	33	0	33	3	0	3	36	0	36
17.10.2014	Farmers	Cultivation of seasonal flowers	Horticulture	Flower cultivation	1	Off	20	5	25	2	0	2	22	5	27
19.10.2014	Farmers	Micro irrigation techniques in vegetables	Horticulture	Irrigation management	1	Off	28	3	31	0	2	2	28	5	33
18.11.2014	Farmers	Layout of ber plantation	Horticulture	Arid fruits	1	Off	17	3	20	2	2	4	19	5	24
23.11.2014	Farmers	Nursery management	Horticulture	Nutrient management	1	Off	17	13	30	3	3	6	20	16	36
16.12.2014	Farmers	Micro nutrient spray on ber plants	Horticulture	Nutrient management	1	Off	27	6	33	0	0	0	27	6	33
29.12.2014	Farmers	Propagation of arid fruit plants	Horticulture	Arid horticulture	1	Off	25	2	27	5	3	8	30	5	35
18-20.11.2014	Farmers	Grading and standardization of fruits and vegetables	Horticulture	Arid horticulture	3	On	15	5	20	0	0	0	15	5	20
23-25.12.2014	Farmers	Irrigation management in vegetables	Horticulture	Arid horticulture	3	On	20	5	25	0	2	2	20	7	27
17-20.2.2015	Farmers	Plant propagation techniques	Horticulture	Arid horticulture	4	On	23	3	26	3	0	3	26	3	29
15-16.1.2015	Farmers	Plastic mulching for weed control	Horticulture	Arid horticulture	2	On	10	10	20	11	3	14	21	13	34
17-19.7.2014	Farmers	Rejuvenation of old orchard	Horticulture	Arid horticulture	3	On	25	0	25	0	0	0	25	0	25
2.2.2015	Farmers	Dairy management	Veterinary Science	Dairy management	1	Off	20	7	27	2	6	8	22	13	35
1.1.2015	Farmers	Disease management in small ruminants	Veterinary Science	Disease management	1	Off	33	3	36	0	0	0	33	3	36

8.6.2014	Farmers	Production of quality animal products	Veterinary Science	Dairy management	1	Off	25	13	38	4	2	6	29	15	44
17-20.6.2014	Farmers	Balance feed management in bovine	Veterinary Science	Feed management	3	On	20	0	20	0	0	0	20	0	20
6-7.11.2014	Farmers	Multi nutrient feed block techniques	Veterinary Science	Feed management	2	On	27	3	30	4	1	5	31	4	35
18-19.1.2015	Farmers	Management of dairy animals and increase their production	Veterinary Science	Dairy Management	2	On	25	0	25	0	0	0	25	0	25

(D) Vocational training programmes for Rural Youth

Crop / Enterprise	**Date**	**Training title***	**Identified Thrust Area**	**Duration (days)**	**No. of Participants**			**Self employed after training**			**Number of persons employed else where**
					Male	**Female**	**Total**	**Type of units**	**Number of units**	**Number of persons employed**	
Mushroom	15-18.7.2014	Mushroom production	Income generation	4	15	5	20	12	12	24	0
Mustard	27-30.8.2014	Production technology of mustard seed	Seed production	4	20	5	25	5	20	20	0
Vermi compost	18-21.11.2014	Organic farming	Organic farming	4	25	0	25	18	15	20	0
Fruit and vegetable	2-5.12.2014	Processing and value addition of fruits and vegetables	Value addition	4	0	20	20	13	13	13	0
Farm machinery	27-30.1.2015	Repair and maintenance of farm machinery and implements	Farm machinery	4	25	5	25	19	19	23	0
Nursery	16-19.2.2015	Nursery Management of Horticulture crops	Nursery management	4	20	0	20	14	14	17	0
Total				**24**	**105**	**35**	**135**	81	93	117	0

(E) Sponsored Training Programmes

Sl. No	Date	Title	Thematic area	Duration (days)	Client (PF/ RY/ EF)	No. of courses	No. of Participants									Spon-soring Agency
							Others			SC/ST			Total			
							Male	Female	Total	Male	Female	Total	Male	Female	Total	
1.	4-5.5.2014	Cultivation of summer crops	Crop production	2	PF	1	20	0	20	20	0	20	40	0	40	DOA
2.	27-28.5.2014	Cultivation of summer vegetables	Vegetable crops	2	PF	1	20	0	20	0	0	0	20	0	20	DOA
3.	8-9.8.2014	Nutrient management in ber orchard	Fruits	2	RY	1	20	0	20	0	0	0	20	0	20	ATMA
4.	24-25.9.2014	Improved cultivation practices of spices	Spices	2	PF	1	10	5	15	10	5	15	20	10	30	DOA
5.	27-28.10.2014	Cultivation of medicinal and ornamental plants	Medicinal and aromatic plants	2	RY	1	25	0	25	0	0	0	25	0	25	NYK
6.	3-4.11.2014	Soil fertility management	Soil Health and Fertility Management	2	PF	1	20	10	30	0	0	0	20	10	30	DOA
7.	18-19.11.2014	Seed production of rabi crops	Seed production	2	RY	1	30	0	30	0	0	0	30	0	30	DOA
8.	17-18.12.2014	Production of organic inputs	Organic farming	2	FW	1	30	0	30	0	0	0	30	0	30	NABARD
9.	2-3.1.2015	Nursery management	Planting material production	2	RY	1	20	3	23	2	0	2	22	3	25	NHM
10.	30-31.1.2015	Repair and maintenance of farm machinery and implements	Farm implements	2	RY	1	20	10	30	2	0	2	22	10	32	ATMA
11.	2-3.3.2015	Processing and value addition of fruits and vegetables	Value addition	2	FW	1	20	2	22	3	0	3	23	2	25	NABARD
12.	27-28.3.2015	Preparation of baby garments	Tailoring and stitching	2		1	0	20	20	0	0	0	0	20	20	NABARD
		Total				**12**	**235**	**50**	**285**	**37**	**5**	**42**	**272**	**55**	**327**	

3.4. Extension Activities (including activities of FLD programmes)

Nature of Extension Activity	No. of activities	Participants											
		Farmers (Others)			SC/ST (Farmers)			Extension Officials			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	20	370	56	426	103	23	126	5	1	6	478	80	558
Kisan Mela	1	1250	170	1420	102	25	127	15	3	18	1367	198	1565
Kisan Ghosthi	25	290	70	360	56	13	69	3	0	3	349	83	432
Exhibition	1	1250	170	1420	102	25	127	15	3	18	1367	198	1565
Film Show	30	230	120	350	105	26	131	3	0	3	338	146	484
Method Demonstrations	20	190	25	215	27	4	31	2	0	2	219	29	248
Farmers Seminar	1	211	6	217	17	4	21	2	0	2	230	10	240
Workshop	0			0			0			0	0	0	0
Group meetings	26	275	70	345	98	37	135	21	2	23	394	109	503
Lectures delivered as resource persons	125	390	160	550	180	80	260	200	3	203	770	243	1013
Newspaper coverage	30			0			0			0	0	0	0
Radio talks	8			0			0			0	0	0	0
TV talks	3			0			0			0	0	0	0
Popular articles	10			0			0			0	0	0	0
Extension Literature	5	1200	100	1300	150	50	200	35	15	50	1385	165	1550
Advisory Services	20	210	12	222	13	150	163	3	1	4	226	163	389
Scientific visit to farmers field	35	260	15	275	20	10	30	0	0	0	280	25	305
Farmers visit to KVK	30	1800	210	2010	304	107	411	10	3	13	2114	320	2434
Diagnostic visits	12	102	10	112	12	30	42	0	0	0	114	40	154
Exposure visits	8	75	15	90	60	10	70	0	0	0	135	25	160
Ex-trainees Sammelan	5	80	10	90	30	10	40	0	0	0	110	20	130
Soil health Camp	5	20	10	30	10	0	10	0	0	0	30	10	40
Animal Health Camp	2	25	25	50	25	25	50	5	0	5	55	50	105
Agri mobile clinic	0			0			0			0	0	0	0
Soil test campaigns	0			0			0			0	0	0	0
Farm Science Club Conveners meet	3	75	10	85	10	0	10	5	2	7	90	12	102

Self Help Group Conveners meetings	5	80	25	105	25	10	35	10	2	12	115	37	152
Mahila Mandals Conveners meetings	0			0			0			0	0	0	0
Celebration of important days ()	3	75	16	91	17	10	27	13	10	23	105	36	141
Total	433	8458	1305	9763	1466	649	2115	347	45	392	10271	1999	12270

Number of Technology weeks celebrated	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
2	Gosthies	1	30	
	Lectures organised	4	170	
	Exhibition	2	120	
	Film show	4	190	
	Fair	0	0	
	Farm Visit	10	50	
	Diagnostic Practicals	2	25	
	Distribution of Literature (No.)	5	253	
	Distribution of Seed (q)	15	60	
	Distribution of Planting materials (No.)	3000	150	
	Bio Product distribution (Kg)	0	0	
	Bio Fertilizers (q)	0	0	
	Distribution of fingerlings	0	0	
	Distribution of Livestock specimen (No.)	0	0	
	Total number of farmers visited the technology week		715	

Kisan Mobile Advisory

No. of Farmers registered: 200

Details of SMSs

Text Messages			Voice Messages		
Content Category	**No. of Messages**	**No. of Farmers**	**Content Category**	**No. of Messages**	**No. of Farmers**
Crop Production	0	0	Crop Production	25	200
Crop Protection	0	0	Crop Protection	22	200
Livestock & Fisheries Advisory	0	0	Livestock & Fisheries Advisory		
Weather Advisory	0	0	Weather Advisory	10	200
Market Information	0	0	Market Information	15	200
Events Information	0	0	Events Information	20	200
Input availability	0	0	Input availability	25	200
Others (specify)	0	0	Others (specify)	0	0
Total	0	0	Total	117	1200

3.5 Production and supply of Technological products

SEED MATERIALS

Type	Crop	Variety	Quantity (qtls)	Value (Rs.)	Provided to no. of farmers
Oilseeds	Til	RT 127	4.7	80563	143
	Mustard	Urvarshi	3.7	11205	0
Cereals	Wheat	RAJ 4083	1.7	2890	5
	Barley	RD 2035	0.25	350	2
Spices	Methi	RMt 305	1.92	8640	24
	Ajvain	AA 1	0.65	7107	10
Fodder	Oat	Kent	5	12500	25
	Napier grass	NHB 1	17004 no.	85020	142
Others	Vermi compost	Assenia foetida	45.5 no.	17068	40

SUMMARY

Sl. No.	*Major group/class*	*Quantity (qtls)*	*Value (Rs.)*	*Provided to No. of Farmers*
1	OILSEEDS	8.4	91,768	143
2	CEREALS	1.95	3,240	7
3	SPICES	2.57	15,747	34
4	FODDER	5 qtls+17004 No.	97,520	167
5	WORMS	45.5 Units	17068	40
TOTAL		**17.92 qtls + 17004 no.+45.5 Units**	**2,25,343**	**391**

PLANTING MATERIALS

Type	Crop	Variety	Number	Value (Rs.)	Provided to no. of farmers
Vegetable					
	Bhindi	AA	200	400	5
	Tomato	Pusa Rubi	250	500	10
	Cauliflower	Pusa Savni	150	300	5
	Chili	Pusa Jwala	300	600	10
	Cabbage	Pusa Anmol	200	400	5
Fruits					
	Ber	Gola	165	8250	25
	Gonda	Improved	270	7380	25
	Pomegranate	Sindura	221	6630	30
	Lime	Kagji	579	11580	25
	Fig	Puna Fig	446	22300	65

	Papaya	Taiwan	83	2370	10
	Guava	L 49	97	679	10
	Banana	G 9	79	3950	35
	Custard apple	Improved	17	680	5
Ornamental					
	Agave	Improved	10	200	5
	Rose	Ganganagari	176	3520	30
	Ashok	Improved	21	630	5
Medicinal					
	Aloevera	CO 1	49	980	20
	Drumstick	CO 1	465	4650	70

SUMMARY

Sl. No.	***Major group/class***	***Quantity (Nos.)***	***Value (Rs.)***	***Provided to No. of Farmers***
1.	Vegetables	**1100**	**2200**	**35**
2.	Fruits	**1957**	**63819**	**230**
3.	Ornamentals	**207**	**4350**	**40**
4.	Medicinal	**514**	**5630**	**90**
	TOTAL	**3778**	**75999**	**395**

3.6. Literature Developed/Published (with full title, author & reference)

(A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.)

(B) Literature developed/published

Item	***Title***	***Authors name***
a. Abstracts		
	Boosting chickpea production through Front Line Demonstration in rainfed condition of Rajasthan, 7th NEEC, on Translation Research-Extension for Sustainable Small Farm Development, Organized by SEE, ICAR, Research Complex, NEH, Umiam, Meghalaya:204 from 08-11 November, 2014	M. L. Meena, Dheeraj Singh, M.K. Chaudhary and P.K. Tomar (2014)
	Impact of improved technologies on productivity enhancement of fennel (Foeniculum vulgare Mill.), National Seminar on "Strategies for enhancing production of quality spices for domestic use and export. Organized by SKN, AU, Jobner, DASD, Kozhikode, Kerala. from 16-17 March, 2015:34.	M. L. Meena, Dheeraj Singh, M.K. Chaudhary and Chandan Kumar (2015)
	Factor affecting dryland farming technologies under climate change in Pali, Rajasthan, XII Agriculture Science Congress on "Sustainable livelihood security of smallholder farmers,	M. L. Meena, Dheeraj Singh and M.K. Chaudhary (2015)

	organized by NASC, ICAR, NDRI, at NDRI, Karnal, 3-6 February 2015:268	
	Impact of training and FLD on cumin farmers under semi-arid condition of Pali, National Seminar on "Strategies for enhancing production of quality spices for domestic use and export. Organized by SKN, AU, Jobner, DASD, Kozhikode, Kerala. from 16-17 March, 2015:160	Dheeraj Singh, M.L. Meena, M.K. Chaudhary and Chandan Kumar 2015
	Growth and yield of cumin (*Cuminum cyminum* L.) as influenced by sowing date and irrigation methods, National Seminar on "Strategies for enhancing production of quality spices for domestic use and export. Organized by SKN, AU, Jobner, DASD, Kozhikode, Kerala. from 16-17 March, 2015:36	Chandan Kumar, M.K. Chaudhary and, Dheeraj Singh and M.L. Meena (2015)
b. Paper		
	Adoption level of buffalo farming practices in the arid zone of Rajasthan, India, *Buffalo Bulletin*, 3(3):283-290.	M.L. Meena and Dheeraj Singh (2014)
	Knowledge level of poultry keepers about improved poultry practices in Rajasthan, *Indian Journal of Poultry Science*, 48 (2):203-208.	M.L. Meena and Dheeraj Singh (2014)
	Impact of On Farm Testing of chickpea production technology in rainfed condition of Rajasthan, *Indian Journal of Extension Education*, 48 (1):93-97.	M.L. Meena and Dheeraj Singh (2014)
	Ethno-veterinary treatment of sheep in Marwar Region of Rajasthan, India. *Indian Journal of Animal Research*, 48(1):123-126.	M.L. Meena and Dheeraj Singh (2014)
	Seed Village Programme: An Innovative Approach for Small Farmers. *Agricultural Information Worldwide* – vol. 6, pp. 143-146. 2013-14.	Dheeraj Singh, M.L. Meena, M.K. Choudhary and M.M. Roy (2014)
	Local wild plants from the Thar Desert for improved health and food security. Promotion of underutilized indigenous food resources for food security and nutrition in Asia and the Pacific, FAO. Pp: 147-153.	Dheeraj Singh, Rakesh Bhardwaj, M.K. Chaudhary, M.L. Meena and L. Wangchu (2014)
c. Book chapter		
	The Oran dynamics: a Community-Based Biodiversity Management System in India's Arid Zone. Editors Purabi Bose and Han van Dijk, Forest Tenure in the Drylands: The Human Dimensions of Vulnerability in Asia and Africa (in print)	Dheeraj Singh, M.K. Choudhary, M.L. Meena, M.M. Roy (2014)
d. Technical article		
	Agri-entrepreurship for increasing production and productivity. Efficient supply chain management and marketing of horticulture produce in dry region. Directorate of Extension, Deptt. Of Agriculture and Cooperation, Ministry	Dheeraj Singh, Chandan Kumar, M.K. Choudhary and M.L. Meena (2014)

	of Agriculture, Govt. of India:157-165.	
	Khejri: The Life Tree. In: Purabi Bose and Savyasachi (Eds.). 2014. Landscaping Actually. Forests to farms through a gender lens. International Center for Tropical Agriculture (CIAT), Colombia.	Dheeraj Singh (2014)
	Integrating small farmers into horticulture value chain through KVK networking. Efficient supply chain management and marketing of horticulture produce in dry region. Directorate of Extension, Deptt. Of Agriculture and Cooperation, Ministry of Agriculture, Govt. of India : 196-202	A.K. Mishra and Dheeraj Singh (2014)
e. Popular articles		
	राजस्थान के बारानी क्षेत्रों में सरसों उत्पादन की वैज्ञानिक खेती, राजस्थानी खेती, अकं–07:11–13, अक्टूबर 2014	मोती लाल मीणा, धीरज सिंह एवं एम.के.चौधरी (2014)
	सफेद मूसली की वैज्ञानिक खेती, खेती, अंक–5, अगस्त, 2014:29.	मोती लाल मीणा, धीरज सिंह एवं एम.के.चौधरी (2014)
	भिण्डी की वैज्ञानिक खेती ने बनाया लखपति, फल–फूल, अंक –6, नवम्बर–दिसम्बर, 2014:34–36	मोती लाल मीणा, धीरज सिंह एवं एम.के.चौधरी (2014)
	शुष्क एवं अर्धशुष्क क्षेत्रों की लवणीय मृदा में ग्वारपाठा की खेती–एक लाभदायक विकल्प, कृषि किरण, अंक –5, वर्ष 2012:53–55.	मोती लाल मीणा, धीरज सिंह एवं एम.के.चौधरी (2014)
	अनुपजाऊ शुष्क लवणीय क्षेत्रों के लिए लाभकारी फसल–मेंहदी, कृषि किरण, अंक –5, वर्ष 2012:58–61.	धीरज सिंह, मोती लाल मीणा, महेन्द्र चौधरी व पी. के.तोमर (2014)
	शुष्क लवणीय व क्षारीय मृदा क्षेत्रों के लिए वरदानः कुमट, कृषि किरण, अकं –5, वर्ष 2012:62–65.	महेन्द्र चौधरी, धीरज सिंह, मोती लाल मीणा व पी. के.तोमर (2014)
	शुष्क क्षेत्रों में उन्नत भेड़ पालन, अविशोध पत्रिका 45–48, सी.एस.डब्ल्यु.आर.आई, अविकानगर	मोती लाल मीणा व धीरज सिंह (2014)
	लवणीय व क्षारीय मृदा सुधार के लिए हरी खाद का महत्व, राजस्थानी खेती, अकं–04:40–41, जुलाई –2014	मोती लाल मीणा, धीरज सिंह एवं एम.के.चौधरी (2014)
	बारानी क्षेत्रों में मूंग की वैज्ञानिक खेती, राजस्थानी खेती, अकं–06:12–14, सितम्बर–2014	मोती लाल मीणा, धीरज सिंह एवं एम.के.चौधरी (2014)
	सरसों उत्पादन की उन्नत खेती. राजस्थानी खेती, अंक अक्टूबर 07, 11–13	मोती लाल मीणा, धीरज सिंह एवं एम.के.चौधरी (2014)
	स्वास्थ्य के लिए जैविक खेती : सफलता की एक कहानी. मरू कृषि चयनिका–2014: 129–131.	धीरज सिंह, मोती लाल मीणा, महेन्द्र चौधरी (2014)
	पोषण पावर खाद्य पंचकुटा. विज्ञान प्रगति, अक्टूबर 2014: 35.38.	धीरज सिंह, चंदन कुमार (2014)
d. Poster		
	सूखे चारे को यूरिया घोल से उपचारित कर चारे की पौष्टिकता बढाना	
	काजरी की बहु पोषक तत्व आहार बट्टिका एवं मिश्रण	
	फसलों को हानि पहुंचाने वाले मुख्य कीट एवं रोकथाम	
	Success story of Sh. Chand Mohammad farmer	
	Success story of Sh. Deda Ram Patel farmer	

	Success story of Sh. Madan Lal Devra farmer	
	Poster on Barley species	
	Poster on Cumin species	
	कलिकायन द्वारा उन्नत फलदार पौधे तैयार करना	
	Seed production programme of vegetables under National Horticulture Mission	
	Poster on Ber rejuvenation	
	Poster on Kachra species	
	किसान भाईयों क्या आप पशुओं के कम दूध उत्पादन से चिंतित हैं ?	
e. Booklets		
	Innovation and Capacity Building Through KVK, Pali: A Compendium of Success Stories. Central Arid Zone Research Institute, Jodhpur (Rajasthan). Pp. 88.	Dheeraj Singh, M.K. Chaudhary, M.L. Meena and M.M. Roy (2014).
	ढिंगरी मशरूम की व्यावसायिक खेती. केन्द्रीय शुष्क क्षेत्र अनुसंधान संस्थान, जोधपुरः 26 पृष्ठ ।	एल. पी. बलाई, एवं धीरज सिंह (2014).
	ग्रामीण माताओं एवं बच्चों के लिए स्वास्थ्य एवं पोषण. केन्द्रीय शुष्क क्षेत्र अनुसंधान संस्थान, जोधपुरः 42 पृष्ठ ।	ऐश्वर्या डूडी, धीरज सिंह, एम.एल. मीणा एवं पी. के. तोमर (2014).
f. Folders		
1.	मिर्च की वैज्ञानिक खेती।	धीरज सिंह, चंदन कुमार, एम. के. चौधरी एवं एम. एल. मीणा (2014)
2.	तिल की उन्नत खेती।	एम. के. चौधरी, एम. एल. मीणा, धीरज सिंह एवं एम. एम. रॉय (2014)
3.	कृषि विज्ञान केन्द्र, काजरी पाली – एक परिचय।	एम. एल. मीणा, एम. के. चौधरी, धीरज सिंह एवं एम. एम. रॉय (2014)
4.	मूंग फसल में समन्वित कीट प्रबन्धन।	एल. पी. बलाई, एम. के. चौधरी, धीरज सिंह, एम. एल. मीणा एवं एम. एम. रॉय (2014)
5.	टमाटर की वैज्ञानिक खेती।	चंदन कुमार, एम. के. चौधरी, धीरज सिंह एवं एम. एल. मीणा (2014)

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

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

Chain Singh belongs to Bilada and has 20 bighas of land. Due to low income and decreasing soil fertility, he shifted to organic cultivation. Today, he grows his crops on organic model and gets bumper harvest of wheat, cumin, mustard, jowar, bajra, til, moong and moth, He is having 20 desi breed cows which give him sufficient milk for his home consumption and for sale besides supplying plenty of dung and urine which forms the basis of organic farming. He uses entire cow dung for biogas plant which supplies sufficient gas for his domestic purpose. The slurry is used for manuring the crops. He makes a special insecticide by mixing cow urine, tobacco leaves, whey, common salt, datura leaves, aak milk and lime kept in copper containers for 3—4 weeks. This mixture acts as growth promoter and also controls all types of insects and pests. Today, his crops are purchased at much higher price than other crops and he is earning Rs. 4—4.5 lakhs per annum.

Champa Lal belongs to Kishan nagar and was unable to get government job despite his graduate degree. By meeting government officials he adopted farming as his occupation. He adopted scientific cultivation of crops by line sowing, adopting improved varieties and using gypsum and organic manure for soil improvement. Lack of ground water forced him to adopt water saving irrigation for watering his crops and the success of this technology is evident by the fact that today he grows cotton, wheat, mustard, cumin, fennel, barley and ajwain on 450 bighas of land from a single well. The remarkable feature of his profession is that he takes entire crops on drip irrigation only. His annual earnings reached to Rs. 8.50 lakhs per annum.

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

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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1.	Seed storage	Seed storing earthen pot with ash to control of storage pest	Insect control
2.	Cumin	Foliar spray of neem based insecticide	Insect control
3.	Stomach ache in animals	To feed Tumba powder	Control of stomach ache
4.	Methi	Control of powdery mildew	Ash
5.	Cumin	Burning of crop residual at cumin field	Protection from frost
6.	Livestock	Wound of maggot	Crushed leaves of marua for control of maggot

3.10 Indicate the specific training need analysis tools/methodology followed

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

3.11 Field activities

i. Number of villages adopted : 15
ii. No. of farm families selected : 140
iii. No. of survey/PRA conducted : Village Kharda and Phulad

4.0 IMPACT

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

Name of specific technology/skill transferred	*No. of participants*	*% of adoption*	*Change in income (Rs.)*	
			Before (Rs./Unit)	*After (Rs./Unit)*
Multi-nutrient feed block/ Mixture preparation	35	61.30	Nil	6500 per month
Urea molasses	20	59.20	Nil	5200 per month
Vermi-composting unit	50	66.10	Nil	6000 per month

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

4.2. Cases of large scale adoption: NIL
(Please furnish detailed information for each case)

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

Impact of training

Pre and Post evaluation of On-campus trainings

Title of Training	*No. of farmers*	*Knowledge level (%)*		*Know. Gain (%)*
		Pre	*Post*	
Improved agricultural implements technology	25	33.2	52.5	19.3
Adoption of fruits and vegetables production technology	35	27.9	55.9	28
Processing, packaging, storage and export of horticulture crops	40	31.3	65.3	34
Field crop production technology	36	42.5	70.2	27.7
Rain water harvest management	33	45.3	70	24.7
Production technology of fodder crops	20	40.1	55.5	15.4
Nursery management of flowers	35	30.9	60.5	29.6
Stitching of baby garments	25	21.3	52.3	31
Production technology of vegetables	30	39.1	59.5	20.4
Adoption technology of arid fruits	35	43.9	60.7	16.8
Propagation of fruit and vegetable in arid and semi arid regions	36	36.5	60	23.5
Weed management in rabi crops	42	43.2	75.8	32.6
Bandhej technique	27	30.9	46.9	16
Preservation and value addition of fruit and vegetables	32	37.2	70.3	33.1
Indigenous technology use in agriculture production	43	20.5	63.2	42.7
Modern information technology	40	28.3	65.3	37
IPM in seed spices	30	19.2	70.2	51
Cultivation practices of arid fruits and vegetables	55	33.7	60	26.3
Adoption of improved varieties of wheat and mustard crops	35	18.5	70.9	52.4
Indigenous technology used in livestock	28	36.9	68.5	31.6
Dairy management	35	33.2	70.3	37.1
Plastic mulching for weed management in cucurbits	37	37	65.3	28.3

5.0 LINKAGES

5.1 Functional linkage with different organizations

Name of organization	*Nature of linkage*
• CAZRI, RRS, Pali	Collaborative training programme, OFT, delivering lectures, meeting and Kisan mela / field days etc
• ATMA	Collaborative training programme, demonstration, meeting and Kisan mela, field days, infrastructural development etc

• Dept of Agriculture	Participation in joint diagnostic survey, kisan melas, field days, farmers meeting, delivering lectures.
• NABARD	Implementation of recent scheme of Technology Transfer Clubs having basic philosophy of Self Help Groups
• Dept of Horticulture	Collaborative training programme, meeting and Kisan mela, field days etc.
• Dept of Soil Conservation	Joint course as per need is being conducted
• DRDA	Participation as technical expert in various training and developmental programmes and activities
• ICDS	Participation as technical expert in various women empowerment programmes and activities
• Nehru Yuva Kendra	Participation as technical expert in various rural youth development activities
• State Fisheries Department	Production technologies of improved fish farming
• State Forest Department	Improved nursery technology for arid fruits and ornamental plants
• AFRI	Collaboration for training programme and conservation of natural forest
• DWR	Collaboration for training programme and awareness for farmer right protection and recently released wheat varieties
• NRCSS	Collaboration for training programme and awareness for recently released seed spices varieties
• DRMR	Collaboration for training programme and awareness for recently released mustard varieties
• CSSRI	Collaboration for training programme and awareness for recently released saline resistant wheat and mustard varieties
• NHM	Collaboration for training programme, meetings, demonstrations and farmer school
• CIPMC	Collaboration for farmers' farm school and training programme
• ARS, SKRAU	New varieties of vegetables and wheat crops
• NAARM	Training programme of newly recruited scientists

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

5.2 List special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district Yes/No: Yes

S. No.	*Programme*	*Nature of linkage*	*Remarks*
1.	Training	Collaborative training programme and meeting etc.	-
2.	Farmers school	Training to farmers	-
3.	Demonstrations	Production technology	-

5.4 Give details of programmes implemented under National Horticultural Mission

S. No.	*Programme*	*Nature of linkage*	*Constraints if any*
1.	Training	Training of farmers	-
2.	Seed multiplication programme	Seed production	
3.	Seed grading unit	Improved seed for farmers	
4.	Fruit orchard development	Fruit production	
5.	Model Nursery	Development of model nursery	-

5.5 Nature of linkage with NABARD

S. No.	*Programme*	*Nature of linkage*	*Remarks*
1.	Rain water harvesting	Water conservation	-

6. PERFORMANCE OF INFRASTRUCTURE IN KVK

6.1 Performance of demonstration units (other than instructional farm)

Sl. No.	*Demo Unit*	*Year of estt.*	*Area*	*Details of production*			*Amount (Rs.)*		*Remarks*
				Variety	*Produce*	*Qty.*	*Cost of inputs*	*Gross income*	
1.	Ber	1998	0.7	Gola, Sev	Auctioned	98 plants	5500	44000	-

6.2 Performance of instructional farm (Crops) including seed production

Name Of the crop	*Date of sowing*	*Date of harvest*	*Area (ha)*	*Details of production*			*Amount (Rs.)*		*Remarks*
				Variety	*Type of Produce*	*Qty. (Kg) approx.*	*Cost of inputs*	*Gross income*	
Oilseeds									
Til	14.7.2014	28.10.2014	2	RT 127	Seed	250	12500	Not sold	-
Mustard	20.10.2014	15.2.2015	0.2	NPJ 13/14	Seed	50	4500	Not sold	-
Fibers									
Spices & Plantation crops									
Cumin	26.11.2014	-	0.2	GC-4	-	0	0	0	Wilt due to rain at flowering time
Methi	26.11.2014	20.2.2015	0.2	RMt 305	Seed	30	1500	Not sold	-
Ajvain	26.10.2014	15.3.2015	0.2	AA 1	Seed	30	1100	Not	

								sold	
Linseed	26.11.2014	28.2.2015	0.2	Nilam	Seed	25	550	Not sold	-
Floriculture									
Fruits									
Vegetables									
Others									
Aloe vera plants	-	-	-	NPBG-1	Plant	49 no.	-	980	-
Grass	-	-	20	Dhaman	Fodder	-	-	41000	-
Ber	-	-	0.5	Gola	Fruit	-	5500	44000	-
Napier grass offshoot	-	-	0.5	NHB 1	Seedlings	20204 no.	5000	101020	

6.5 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Demonstration Unit

Date	*Title of the training course*	*Client (PF/RY /EF)*	*No. of Courses*	*No. of Participants including SC/ST*			*No. of SC/ST Participants*		
				Male	*Female*	*Total*	*Male*	*Female*	*Total*
2-4/10/2014	Raiwater harvesting for crop production	PF	1	20	5	25	12	6	18
9-11/12/2014	Cultivation of arid vegetable through rain water harvesting	PF	1	35	0	35	5	0	5

6.5 Utilization of hostel facilities

Accommodation available (No. of beds): 20 (3 dormitory capacity 8 each)

Months	**Title of the training course/Purpose of stay**	*No. of trainees stayed*	*Trainee days (days stayed)*	*Reasons for shortfall (if any)*
Total				

*** Funds required for renovation**

7.0 FINANCIAL PERFORMANCE

7.1 Utilization of KVK funds during the year 2013-14 and 2014-15 (upto 1st April 2015) (year-wise separately) (current year and previous year)

YEAR 2013-2014 (1.4.2013 – 31.3.2014)

S. No.	*Particulars*	*Sanctioned*	*Released*	*Expenditure*
A. Recurring Contingencies				
1	**Pay & Allowances**	7250000	7250000	6698323
2	**Traveling allowances**	300000	300000	95751
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	440000	440000	439000
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	810000	810000	823129
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
TOTAL (A)		**8800000**	**8800000**	**8056203**
B. Non-Recurring Contingencies				
1	**Works**	0	0	0
2	**Equipments including SWTL & Furniture**	0	0	0
3	**Vehicle** (Four wheeler)	0	0	0
4	**Library** (Purchase of assets like books & journals)	0	0	0
TOTAL (B)		**0**	**0**	**0**
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		**8800000**	**8800000**	**8056203**

YEAR 2014-2015 (1.4.2014 – 31.3.2015)

S. No.	*Particulars*	*Sanctioned*	*Released*	*Expenditure*
A. Recurring Contingencies				
1	**Pay & Allowances**	840000	840000	7108252
2	**Traveling allowances**	50000	50000	53401
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	250000	250000	600000
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	375000	375000	640041
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
TOTAL (A)		**9075000**	**9075000**	**8401694**
B. Non-Recurring Contingencies				
1	**Works**	0	0	0
2	**Equipments including SWTL & Furniture**	0	0	0
3	**Vehicle** (Four wheeler)	0	0	0
4	**Library** (Purchase of assets like books & journals)	0	0	0
TOTAL (B)		0	0	0
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		**9075000**	**9075000**	**8401694**

7.2 Status of revolving fund (Rs. in lakhs) for the three years

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2012 to March 2013	82904	266042	90497	258449
April 2013 to March 2014	258449	436500	247247	447702
April 2014 to March 2015	447702	484688	887390	45000

8.0 PLEASE INCLUDE INFORMATION WHICH HAS NOT BEEN REFLECTED ABOVE (WRITE IN DETAIL).

8.1 Constraints

(a) Administrative

1. Post of administrative staff viz. **one Stenographer vacant**.

(b) Financial : Nil

(c) Technical : **Lack of farm security** leads to unbearable losses making it difficult to utilize revolving fund remuneratively through seed and commercial crop production programmes

Annexures

District Profile - I

Include the details of

1. General census : **20,38,533**
2. Agricultural and allied census : **13,25,046**
3. Agro-climatic zones : **Transitional plain of Luni basin (Zone II b)**
4. Agro-ecosystems : **Western Dry Region (XIV)**
5. Major and micro-farming systems : **Crop+sheep and goat husbandry; Cattle+crop husbandry**
6. Major production systems like rice based (rice-rice, rice-green gram, etc.), cotton based, etc. : **Wheat-Mustard-Chickpea-Cumin-Fennel-Fenugreek-Green gram-Sesame-Sorghum**
7. Major agriculture and allied enterprises : **Animal husbandry, horticulture**

Agro-ecosystem Analysis of the focus/target area - II

Include

1. Names of villages, focus area, target area etc. : **Phulad, Kharda, Bhimalia, Kharchia ke Dhani, Hemawas, Haziwas, Kisan nagar, Bed kala**
2. Survey methods used (survey by questionnaire, PRA, RRA, etc.) : **PRA**
3. Various techniques used and brief documentation of process involved in applying the techniques used like release transect, resource map, etc. : **Questionnaire, village transect, social map, resource map, ranking, wealth diagram, seasonal calendar and Vann diagram**
4. Analysis and conclusions : **Assessment**
5. List of location specific problems and brief description of frequency and extent/ intensity/severity of each problem : **Low soil fertility, salinity effect, lack on input seeds**
6. Matrix ranking of problems : **Nil**
7. List of location specific thrust areas : **Low rainfall**
8. List of location specific technology needs for OFT and FLD : **Timely provide improved seeds.**
9. Matrix ranking of technologies : **Nil**
10. List of location specific training needs : **Fodder production, IPM in seed spices, soil fertility management, balance diet of cattle**

Technology Inventory and Activity Chart - III

Include

1. Names of research institutes, research stations, regional centres of NARS (SAU and ICAR) and other public and private bodies having relevance to location specific technology needs
2. Inventory of latest technology available *

Sl. No	Technology	Crop/enterprise	Year of release or recommendation of technology	Source of technology	Reference/ citation
1.	GC 4	Cumin	2009	AAU, Anand	-

3. Activity Chart

Crop/Animal/ Enterprise	Problem	Cause	Solution	Activity	Reference of Technology
Cumin	Low productivity of cumin under rainfed condition in sandy soil	1) Imbalance fertilizer application 2) Pest and disease	1. Application of recommend dose of fertilizer 2. Integrated Pest management control of aphid 3. Integrated disease management control of powdery mildew of cumin	1. Single component FLD to demonstrate effect of recommended dose of fertilizer 2. Training and FLD programme on integrated pest management and disease managment 3. OFT on management of wilt incumin	-

1. Details of each of the technology under Assessment, Refinement and demonstration
Include

a. Detailed account on varietal/breed characters for each of the variety/breed selected for FLD and OFT
Improved seed and bio-fertilizer

b. Details of technologies that may include formulation, quantity, time, methods of application of nutrients, pesticides, fungicides etc., for technologies selected under FLD and OFTs
Trichoderma 2.5gm/kg of seed to control of wilt in cumin; dieomethoat 30EC 2 ml per liter water spray on cumin crop to control of aphid