RESULTS-FRAMEWORK DOCUMENT

(RFD)

For

NATIONAL RESEARCH CENTRE ON CAMEL

(2012-2013)

Address: Post Bag No. 07, Jorbeer, Bikaner – 334001, Rajasthan

Website ID: http://www.nrccamel.res.in

Section 1

Vision, Mission, Objectives and Functions

VISION

Improvement of economic status of the camel keepers through technological interventions.

MISSION

Improvement of camel production system, conservation of elite indigenous camel germplasm and exploring avenues for profitable camel husbandry by undertaking basic and applied research for improvement of camel, providing leadership and co-ordinate camel research and training nationally and act as a national repository of information and collaborating with national and international agencies for camel research and development.

OBJECTIVES

1. Genetic improvement of indigenous camels through conventional and molecular means for increasing production and productivity.
2. Evaluating physiological efficiency of camel for optimal utilization under impending climate change and improving reproductive efficiency of camel.
3. Feed resource inventerization, evaluation and up-scaling feeding technology for camel.
4. Management of camel diseases through surveillance, sero-monitoring, prophylactic and control measures.
5. Post-harvest processing and value addition of camel milk products and dissemination of technical know-how.

FUNCTIONS

To focus on overall development of camel husbandry through improved production, conservation of elite dromedary germ plasm, efficient diagnosis of camel diseases and their control, augmenting reproductive efficiency and tackling the issues of climate change vis-à-vis camel production and transfer of technology for uplifting the rural economy in arid and semi-arid camel rearing zones of the country.

SECTION 2

Inter se Priorities among Key Objectives, Success indicators and Targets

Objectives	Weight (%)	Actions	Success Indicators	Unit	Weight (%)	Target / Criteria Value				
						Excellent	Very good	Good	Fair	Poor
						100%	90%	80%	70%	60%
Genetic improvement of indigenous camels through conventional and molecular means for increasing production and productivity	10	Selection for enhancement of milk production potential of the indigenous camel breeds	Number of breeds to be covered for which milk production analysis is to be carried out	Number	5	4	3	2	1	0
		Evaluation of growth performance of indigenous camel breeds	Number of breeds to be covered for which growth performance is to be analysed	Number	5	5	4	3	2	1
Evaluating physiological efficiency of camel for optimal utilization under impending climate change and improving reproductive efficiency of camel	20	Body condition scoring and their correlation with different physiological stages of camel	Number of physiological stages for which correlation will be worked out	Number	5	3	2	1	0	0
		Comparative analysis of camel draught power with multipurpose tool carrier and traditional implements under field conditions	Measurement of draught output, physiological responses and endurance	Date	5	30.11.12	31.12.12	15.1.13	31.1.13	28.2.13
		Developing artificial insemination in camel	Efficacy of protocols of artificial insemination	Number	5	2	1	0	0	0
		Reduction in inter-calving period in	Breeding after calving and ahead of breeding season	Number	5	11	10	9	8	7

		female camels								
Feed resource inventerization, evaluation and up-scaling feeding technology for camel	10	Rumen microbial bio-diversity and *in-vitro* fermentation studies	Isolation and molecular identification of anaerobic cellulolytic bacteria from camel rumen	Number	2.5	30	25	20	15	10
			In-vitro/in-vivo evaluation of feed	Number	2.5	6	5	4	3	2
		Evaluation of nutritional status in early lactating camels	Response of diet on performance and production of lactating camels	Date	5	15.1.13	28.2.13	10.3.13	20.3.13	31.3.13
Management of camel diseases through surveillance, sero-monitoring, prophylactic and control measures	38	Organisation of health camps for disease surveillance, monitoring and treatment	Number of health camps /visits organized	Number	13	40	36	30	25	20
		Collection of biological samples for diagnosing common diseases of camel	Number of samples processed and pathogens studied	Number	15	500	450	400	350	300
		Investigation on causes of mortality in camel	All camels succumbing to death at the Centre	Date	10	20.3.13	25.3.13	28.3.13	30.3.13	31.3.13
Post-harvest processing and value addition of camel milk products and dissemination of technical know-how	10	Popularization and refinement of camel milk products	Number of such products to be refined and popularized	Number	5	4	3	2	1	0
		Dissemination of technical know-how through extension activities	Number of exhibitions organized and attempts made for dissemination of technologies	Number	5	6	5	4	3	2
Efficient functioning of the RFD system	3	Timely submission of RFD for 2012-13	On-time submission	Date	2	23.3.12	26.3.12	27.3.12	28.3.12	29.3.12
		Timely submission of results for 2012-13	On-time submission	Date	1	1.05.13	2.05.13	3.05.13	6.05.13	7.05.13

Administrative Reforms	5	Implement ISO 9001	Prepare ISO 9001 action plan	Date	1	4.6.12	5.6.12	6.6.12	7.6.12	8.6.12
			Implementation of ISO 9001 action plan	Date	2	25.3.13	26.3.13	27.3.13	28.3.13	29.3.13
		Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	2	100	95	90	85	80
Improving Internal Efficiency / responsiveness / service delivery of Ministry / Department	4	Implementation of Sevottam	Independent Audit of Implementation of Citizen's Charter	%	2	100	95	90	85	80
			Independent Audit of implementation of public grievance redressal system	%	2	100	95	90	85	80

Section 3
Trend Values of the Success Indicators

Objectives	Actions	Success Indicators	Unit	Actual value for FY10/11	Actual value for FY 11/12	Target value for FY 12/13	Projected value for FY 13/14	Projected value for FY 14/15
Genetic improvement of indigenous camels through conventional and molecular means for increasing production and productivity	Selection for enhancement of milk production potential of the indigenous camel breeds	Number of breeds to be covered for which milk production analysis is to be carried out	Number	3	3	3	3	3
	Evaluation of growth performance of indigenous camel breeds	Number of breeds to be covered for which growth performance is to be analysed	Number	4	4	4	4	4
Evaluating physiological efficiency of camel for optimal utilization under impending climate change and improving reproductive efficiency of camel	Body condition scoring and their correlation with different physiological stages of camel	Number of physiological stages for which correlation will be worked out	Number	-	3	2	2	2
	Comparative analysis of camel draught power with multipurpose tool carrier and traditional implements under field conditions	Measurement of draught output, physiological responses and endurance	Date	-	31.12.11	31.12.12	31.12.13	31.12.14
	Developing artificial insemination in camel	Efficacy of protocols of artificial insemination	Number	2	2	1	1	1
	Reduction in inter-calving period in female camels	Breeding after calving and ahead of breeding season	Number	15	28	10	-	-
Feed resource inventerization, evaluation and up-scaling feeding technology for camel	Rumen microbial bio-diversity and *in-vitro* fermentation studies	Isolation and molecular identification of anaerobic cellulolytic bacteria from camel rumen	Number	-	20	25	-	-
		In-vitro/in-vivo evaluation of feed	Number	6	10	5	5	5

	Evaluation of nutritional status in early lactating camels	Response of diet on performance and production of lactating camels	Date	-	-	28.2.13	-	-
Management of camel diseases through surveillance, sero-monitoring, prophylactic and control measures	Organisation of health camps for disease surveillance, monitoring and treatment	Number of health camps /visits organized	Number	13	28	36	38	40
	Collection of biological samples for diagnosing common diseases of camel	Number of samples processed and pathogens studied	Number	512	373	450	475	500
	Investigation on causes of mortality in camel	All camels succumbing to death at the Centre	Date	31.3.11	25.3.12	25.3.13	25.3.14	25.3.15
Post-harvest processing and value addition of camel milk products and dissemination of technical know-how	Popularization and refinement of camel milk products	Number of such products to be refined and popularized	Number	3	3	3	3	3
	Dissemination of technical know-how through extension activities	Number of exhibitions organized and attempts made for dissemination of technologies	Number	5	10	5	6	7
Efficient functioning of the RFD system	Timely submission of RFD for 2012-13	On-time submission	Date	-	-	26.03.12	-	-
	Timely submission of results for 2012-13	On-time submission	Date	-	-	02.05.13	-	-
Administrative Reforms	Implement ISO 9001	Prepare SIO 9001 action plan	Date	-	-	05.06.12	-	-
		Implementation of ISO 9001 action plan	Date	-	-	26.3.13	-	-
	Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	-	-	95	-	-
Improving Internal Efficiency / responsiveness / service delivery of Ministry / Department	Implementation of Sevottam	Independent Audit of Implementation of Citizen's Charter	%	-	-	95	-	-
		Independent Audit of implementation of public grievance redressal system	%	-	-	95	-	-

Section 4

Description and Definition of Success Indicators and Proposed Measurement Methodology

Objective 1

- With respect to selection for enhancement of milk production potential of the indigenous camel breeds it is envisaged that the evaluation of three important breeds of camel *viz.* Bikaneri, Kachchhi and Mewari would be carried out. Minimum 15 females are to be re corded and production potential analysed. The targeted number of breeds is same in subsequent years because all the three main milch breeds of camel have been included in the study.

- With respect to genetic improvement of indigenous camel breeds for better growth, it was envisaged to compare all four breeds of dromedary during different stages of growth. All available animals will be measured in each breed. The targeted number of breeds is same in subsequent years because all breeds of camel available at the farm have been included in the study.

Objective 2

- With respect to body condition scoring and its correlation with different physiological stages of camel, it is envisaged that correlation of body condition score for two different physiological stages will be carried for a minimum of twenty camels in each group. The targeted number of physiological stages is same in subsequent years because the stages to be compared should have rationale e.g. lactating animals vs. non-lactating animals.

- With respect to the comparative analysis of camel draught power with multipurpose tool carrier and traditional implements under field conditions, it is envisaged that measurement of draught output, physiological responses and endurance study will be carried out in field conditions using the MPTs in a time bound manner by the end of this year.

- With respect to improvement in reproductive efficiency of camel through artificial insemination, it is envisaged that efficacy of one protocol will be evaluated for the development of artificial insemination in camel. Evaluation of protocols is an exhaustive exercise and looking at the availability of only one scientist in the subject, one protocol in the each subsequent year would be targeted.

- With respect to reduction in the calving interval in female camels, it is envisaged that breeding after calving and ahead of the breeding season in ten females will be carried out. This activity is not to be carried out in subsequent years because the experiment was conducted during last years and the recommendations will been finalized.

Objective 3

- With respect to evaluation and up-scaling feeding technology for camel by the studies on rumen microbial bio-diversity and *in-vitro* fermentation of feed, it is envisaged that 25 anaerobic cellulolytic bacteria from camel rumen will be isolated and characterized. The activity is not to be carried out in subsequent years due to the lack of support facilities.

- With respect to feed resource inventerization and evaluation for camel, it is envisaged that evaluation of five feeds will be done by *in vitro / in vivo* studies. The values in the subsequent years are same because the availability of the camels for various experiments to different scientists is limited.

- With respect to evaluation of nutritional status in early lactating camels it is envisaged that the evaluation will be carried out in at least 10 females in a time bound manner by 28.2.2013.The experiment is to be conclude by this year end.

Objective 4

- With respect to the management of camel diseases through surveillance, sero-monitoring, prophylactic and control measures it is envisaged that a minimum of thirty six health camps / visits will be organized.

- With respect to the diagnosis and research on camel diseases, it is envisaged that a minimum of 450 biological samples will be processed in the laboratory for parasitological, pathological, molecular and microbiological analysis.

- With respect to the management of camel diseases, it is envisaged to carry out complete analysis of causes of death for the centre's animals that are succumbing to death in reporting period.

Objective 5

- With respect to post-harvest processing and value addition of camel milk and dissemination of technical know-how, it was envisaged to refine and popularize three milk products. The values in the subsequent years are same because of the limited man-power and facilities availability.

- With respect to popularization of camel milk products and dissemination of technical know-how, it was envisaged to organize at least five exhibitions at appropriate place.

Section 5

Specific Performance Requirement from other Departments

1. The outbreak of certain diseases in camel and subsequent request from the State Animal Husbandry Departments influence the number of health camps and disease diagnosis process.
2. Availability of desired animals in the field and for on-farm experimentations.
3. Timely release of funds from head quarter.

Section 6

Out Come / Impact of Department / Ministry

S. No.	Outcome / Impact of organization / RCs	Joint responsibility for influencing this outcome/ impact with the following organisation (s) departments/ ministry (ies)	Success indicator (s)	Unit	2010-11	2011-12	2012-13	2013-14	2014-15
1	Dissemination of improved germplasm (Free of cost)	State Animal Husbandry Department	Number of females covered by elite studs under out service programme	Number	108	105	100	100	100
2	Overcoming mineral deficiency in camels of specified area(s) using area specific mineral mixture (Free of cost)	State Animal Husbandry Department	Number of camels covered	Number	-	73	30	35	40
3	Dissemination of technology(ies) developed for making camel milk products (Free of cost)	NGOs/KVKs	Number of persons trained	Number	14	40	45	50	55
4	Providing expert opinion in diagnosis of camel diseases (Free of cost)	State Animal Husbandry Department	Number of consultancies given to state animal husbandry officers/ stake holders	Number	8	28	30	32	35

Annual-RFD (April 1, 2012 to March 31, 2013) Performance Evaluation report of RSCs i.e. Institutions for the year 2012-2013

Name of the Division: Animal Science
Name of the Institution: National Research Centre on Camel, Bikaner
RFD Nodal Officer: Dr. S C Mehta

Objectives	Weig ht	Actions	Success Indicators	Un it	Weig ht	Target / Criteria Value					Achie ve ments	Performance		Percent achieveme nts against Target values of 90% Col.	Reasons for shortfalls or excessive achievements , if applicable
						Excelle nt	Very good	Good	Fair	Poor		Ra w Sco re	Weight ed score		
						100%	90%	80%	70%	60%					
Genetic improveme nt of indigenous camels through conventiona l and molecular means for increasing production and productivity	10	Selection for enhancemen t of milk production potential of the indigenous camel breeds	Number of breeds to be covered for which milk production analysis is to be carried out	No.	5	4	3	2	1	0	4 ✓	100 ✓	5.0 ✓	133	Depends on the calving of she camels of different breeds in sizable number.
		Evaluation of growth performance of indigenous camel breeds	Number of breeds to be covered for which growth performance is to be analysed	No.	5	5	4	3	2	1	4 ✓	90 ✓	4.5 ✓	100	-
Evaluating physiologic al efficiency of camel for optimal utilization under impending climate change	20	Body condition scoring and their correlation with different physiologic al stages of camel	Number of physiologic al stages for which correlation will be worked out	No.	5	3	2	1	0	0	2 ✓	90 ✓	4.5 ✓	100	-
and improving reproductiv e efficiency of camel		Comparativ e analysis of camel draught power with multipurpos e tool carrier and traditional implements under field conditions	Measureme nt of draught output, physiologic al responses and endurance	Dat e	5	30.11.1 2	31.12. 12	15.1. 13	31.1. 13	28.2. 13	25.11. 12 ✓	100 ✓	5.0 ✓	-	-
		Developing artificial inseminatio n in camel	Efficacy of protocols of artificial inseminatio n	No.	5	2	1	0	0	0	2 ✓	100 ✓	5.0 ✓	200	The data is very small (single digit) hence with one extra attempt of protocol percentage shoot up.
		Reduction in inter-calving period in female camels	Breeding after calving and ahead of breeding season	No.	5	11	10	9	8	7	19 ✓	100 ✓	5.0 ✓	190	Availability of more/ extra females for the experiment led to increased achievement.
Feed resource inventerizati on, evaluation and up-scaling feeding technology for camel	10	Rumen microbial bio-diversity and in-vitro fermentatio n studies	Isolation and molecular identificatio n of anaerobic cellulolytic bacteria from camel rumen	No.	2.5	12	10	8	6	4	48 ✓	100 ✓	2.5 ✓	480	After standardizatio n of technique more quantum of work was possible.
			In-vitro/in-vivo	No.	2.5	6	5	4	3	2	11 ✓	100 ✓	2.5 ✓	220	More no. of available

			evaluation of feed												samples done
		Evaluation of nutritional status in early lactating camels	Response of diet on performance and production of lactating camels	Date	5	15.1.13	28.2.13	10.3.13	20.3.13	31.3.13	28.2.12 ✓	90 ✓	4.5 ✓	-	-
Management of camel diseases through surveillance, sero-monitoring, prophylactic and control measures	38	Organisation of health camps for disease surveillance, monitoring and treatment	Number of health camps /visits organized	No.	15	40	36	30	25	20	40 ✓	90 ✓ 150	13.0 ✓	111	-
		Collection of biological samples for diagnosing common diseases of camel	Number of samples processed and pathogens studied	No.	15	500	450	400	350	300	1109 ✓	100 ✓	15.0 ✓	246	No of samples vary depending upon incidence of diseases/mortality etc. accordingly the no of samples is likely to vary
		Investigation on causes of mortality in camel	All camels succumbing to death at the Centre	Date	10	20.3.13	25.3.13	28.3.13	30.3.13	31.3.13	24.3.13 ✓	90 ✓ 92	9.0 ✓	-	-
Post-harvest processing and value addition of camel milk products	10	Popularization and refinement of camel milk products	Number of such products to be refined and popularized	No.	5	4	3	2	1	0	4 ✓	100 ✓	5.0 ✓	133	More products could be prepared.

and dissemination of technical know-how		Dissemination of technical Know-how through Extension activities	Number of exhibitions organized and attempts made for dissemination of technologies	No.	5	6	5	4	3	2	7 ✓	100 ✓	5.0 ✓	140	Due to organization of new extension activities during Agriculture Education Day, first time at NRCC
Efficient functioning of the RFD system	3	Timely submission of RFD for 2012-13	On-time submission	Date	2	23.3.13	26.3.13 ✓	27.3.13	28.3.13	29.3.13	23.3.12 ✓	100 ✓	2.0 ✓	-	-
		Timely submission of results for 2012-13	On-time submission	Date	1	1.05.13	2.05.13	3.05.13	6.05.13	7.05.13	12.4.13 ✓	100 ✓	1 ✓	-	-
Administrative Reforms	5	Implement ISO 9001	Prepare ISO 9001 action plan	Date	1	4.6.12	5.6.12	6.6.12	7.6.12	8.6.12	28.5.12 ✓	100 ✓	1 ✓	-	
			Implementation of ISO 9001 action plan	Date	2	25.3.13	26.3.13	27.3.13	28.3.13	29.3.13	Not done ✓	0.00 ✓	0 ✓	0	The contract was awarded but the consultant exhibited his inability to accomplish the work in limited time period.
		Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	2	100	95	90	85	80	100 ✓	100 ✓	2.0 ✓	105	
Improving Internal Efficiency /	4	Implementation of Sevottam	Independent Audit of Implementat	%	2	100	95	90	85	80	100 ✓	100 ✓	2.0 ✓	105	-

responsiveness / service delivery of Ministry / Department			ion of Citizen's Charter												
			Independent Audit of implementation of public grievance redressal system	%	2	100	95	90	85	80	95 ✓	90 ✓	1.8 ✓	100	
Total Composite Score													95.3		

NA: Not applicable because the dates fall in the next half of the year.

95.5?

Total Composite score - 95.3%

Rating: Excellent

RESULTS-FRAMEWORK DOCUMENT

(RFD)

for

NATIONAL RESEARCH CENTRE ON CAMEL

(2013–2014)

Address: Post Bag No.07, Jorbeer
Bikaner – 334001, Rajasthan

Website ID: http://www.nrccamel.res.in

Section 1 : Vision, Mission, Objectives and Functions

VISION

Improvement of economic status of the camel keepers through technological interventions

MISSION

Improvement of camel production system, conservation of elite indigenous camel germplasm and exploring avenues for profitable camel husbandry by undertaking basic and applied research for improvement of camel, providing leadership and co-ordinate camel research and training nationally and act as a national repository of information and collaborating with national and international agencies for camel research and development

OBJECTIVES

- Management of camel diseases through surveillance, prophylactic and control measures
- Enhancement of camel productivity by breeding, nutritional, physiological, reproductive interventions and product development

FUNCTIONS

- To manage camel diseases through surveillance, prophylactic and control measure
- To enhance camel productivity through conventional and molecular approach

SECTION 2 : *Inter se* Priorities among Key Objectives, Success indicators and Targets

S.No.	Objectives	Weight	Actions	Success Indicators	Unit	Weight	Target / Criteria Value				
							Excellent	Very good	Good	Fair	Poor
							100%	90%	80%	70%	60%
1.	Management of camel diseases through surveillance, prophylactic and control measures	40	Surveillance, monitoring and treatment of camel disease	Health and extension camps organized	Number	20	42	40	37	34	30
			Investigation of causes of mortality and morbidity	Samples processed for establishment of cause	Number	20	500	475	450	425	400
2.	Enhancement of camel productivity by breeding, nutritional, physiological, reproductive interventions and product development	49	Evaluation and improvement of growth and production performance of camel	Breeds covered under growth and production study	Number	12	4	3	2	1	0
			Evaluation and improvement of physiological & reproductive efficiency and nutritional status of camel	Camels covered under physiological and reproduction study	Number	12	70	65	60	55	50
				Feed formulations	Number	13	12	10	8	6	4
			Training/awareness activity on processing & its utilization of camel milk	Trainees/participants	Number	12	23	20	17	14	10
	Efficient functioning of the RFD system	3	Timely submission of draft RFD (2013-14) for approval	On-time submission	Date	2	15.5.13	16.5.13	17.5.13	20.5.13	21.5.13
			Timely submission of results for RFD (2012-13)	On-time submission	Date	1	1.5.13	2.5.13	5.5.13	6.5.13	7.5.13
	Administrative Reforms	4	Implement ISO 9001 as per the approved action plan	% Implementation	%	2	100	95	90	85	80

			Prepare an action plan for innovation	On-time submission	Date	2	30.7.13	10.8.13	20.8.13	30.8.13	10.9.13
	Improving internal efficiency / responsiveness / service delivery of Ministry / Department	4	Implementation of Sevottam	Independent Audit of Implementation of Citizen's Charter	%	2	100	95	90	85	80
				Independent Audit of implementation of public grievance redressal system	%	2	100	95	90	85	80

Section 3 :Trend Values of the Success Indicators

S.No.	Objectives	Actions	Success Indicators	Unit	Actual Value for FY 11/12	Actual Value for FY 12/13	Target Value for FY 13/14	Projected Value for FY 14/15	Projected Value for FY 15/16
1.	Management of camel diseases through surveillance, prophylactic and control measures	Surveillance, monitoring and treatment of camel disease	Health and extension camps organized	Number	38	41	40	45	50
		Investigation of causes of mortality and morbidity	Samples processed for establishment of cause	Number	373	450	475	500	525
2.	Enhancement of camel productivity by breeding, nutritional, physiological, reproductive interventions and product development	Evaluation and improvement of growth and production performance of camel	Breeds covered under growth and production study	Number	3	4	3	3	3
		Evaluation and improvement of physiological & reproductive efficiency and nutritional status of camel	Camels covered under physiological and reproduction study	Number	48	50	65	70	75
			Feed formulations	Number	10	5	10	12	14
		Training/awarenes activity on processing & its utilization of camel milk	Trainees/participants	Number	15	18	20	22	25
	Efficient functioning of the RFD system	Timely submission of draft RFD (2013-14) for approval	On-time submission	Date	-	-	16.5.13	-	-
		Timely submission of results for RFD (2012-13)	On-time submission	Date	-	-	2.5.13	-	-
	Administrative Reforms	Implement ISO 9001 as per the approved	% Implementation	%	-	-	95	-	-

		action plan							
		Prepare an action plan for innovation	On-time submission	Date	-	-	10.8.13	-	-
	Improving internal efficiency / responsiveness / service delivery of Ministry / Department	Implementation of Sevottam	Independent Audit of Implementation of Citizen's Charter	%	-	-	95	-	-
			Independent Audit of implementation of public grievance redressal system	%	-	-	95	-	-

Section 4 : Acronyms

S.No.	Acronym	Description
1	AH	Animal Husbandry
2	KVKs	Krishi Vigyan Kendras
3	NGOs	Non-Governmental Organizations
4	SAUs	State Agricultural Universities

Section 4 : Description and Definition of Success Indicators and Proposed Measurement Methodology

S.No.	Success Indicator	Description	Definition	Measurement	General comments
1	Number of health and extension camps organized	The health and extension camps will cover major camel rearing villages and provide expert treatment to camels. The technologies will be disseminated and farmers problems be addressed.	Several camel rearing villages are remotely located and the camel populations at times do not get proper veterinary aid. The technologies and expertise available at the centre needs to be disseminated.	Number	The treatment of sick camels will facilitate the camel owners and provide biological samples to the scientists for further research. The extension camps will help in disseminating the technologies and provide a forum to the camel owners and the scientists to interact and understand each other in a better manner.
2	Number of samples processed for establishment of cause	The biological samples from farm and field will be collected from sick camels suffering from diseases of complex nature.	At times camels suffer from diseases of complex nature and routine treatment is not effective.	Number	The camels suffering from diseases of complex nature need to be addressed by the scientists as the routine treatment by the veterinary officers may not provide sufficient relief.
3	Number of breeds covered under growth and production study	The growth and production performance of the camels will be studied and selection for the better performance will be done.	Regular evaluation and improvement of growth and production parameters need to be addressed for better performance of the species.	Number	With the change in climate and other factors the performance of the camel populations is also affected. Regular monitoring of performance and steps to improve production will ultimately result in better studs for field improvement.
4	Number of camels covered under physiological and reproduction study	The physiological and reproduction study will be focused on improvement of physiological conditions of the camels and reproductive performance of the camel.	For better performance of the species, the physiological and reproductive efficiency needs to be paid attention.	Number	Enhanced physiological and reproductive performance will increase the lifetime returns from an animal and hence beneficial for the camel farmers.
5	Number of feed formulations	Different feed formulations of locally available feeds will be prepared and tested for nutritional parameters.	The availability of feeds changes from time to time. Different feed formulations need to carried out for improving growth and productivity.	Number	Better utilization of locally available feed resources reduces the feed cost and provides optimum nutrition to camels resulting in increased production in less cost.
6	Number of trainees / participants	Training for the preparation of camel milk products will be given to the interested youth of this country	The youth of this country needs to trained for the technologies /preparations methods developed at the Centre	Number	With the learning of new skills, the preparation of value added milk products will be possible at much larger scale resulting in earning of livelihood of people and will also help in sustaining the species.

Section 5 : Specific Performance Requirement from other Departments

Location Type	State	Organisation Name	Relevant Success Indicator	What is your requirement from this organisation	Justification for this requirement	Please quantify your requirement	What happens if your requirement is not met
State	Camel Rearing States of India, mainly Rajasthan, Haryana and Gujarat	State Animal Husbandry Department / KVK / SAUs / NGOs	Health and extension camps organized.	Request for expert opinion and problem solving with respect to treatment of camel diseases	The AH departments, NGOs and KVKs are located all through the breeding tracts of camels.	Disease incidence cannot be predicted and quantified	The targeted values may not be achieved.
			Samples processed for establishment of cause	Request for expert opinion and problem solving with respect to sample collection from diseased camels	The AH departments, NGOs and KVKs are located all through the breeding tracts of camels.	Disease incidence cannot be predicted and quantified	The targeted values may not be achieved.
State	Camel Rearing States of India, mainly Rajasthan, Haryana and Gujarat	State Animal Husbandry Department / KVK / SAUs / NGOs	Trainees / participants	Request for organization of training programme	These agencies have day to day contact with the camel farmers	Cannot be quantified as there are several agencies and one may not respond but the others may compensate	The targeted values may not be achieved.

Section 6 : Out Come/Impact of Department/Ministry

S. No.	Outcome / Impact of organization	Jointly responsible for influencing this outcome/ impact with the following organisation (s) department(s)/ ministry (ies)	Success indicator (s)	Unit	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
1	Awareness of camel milk utilization through sale of milk products	-	Increase in sale of milk products through milk parlour	Percent	42.52	3.44	1.67	1.64	3.23

Annual (April 1 to March 31, 2014) Performance Evaluation Report of RFD of RSCs i.e. Institutions for the year 2013-2014

Name of the Division: Animal Science
Name of the Institution: National Research Centre on Camel, Bikaner
RFD Nodal Officer: Dr. S C Mehta

S.No.	Objectives	Weight (%)	Actions	Success Indicators	Unit	Weight	Target / Criteria Value					Achiev-ements	Performance		Percent achievements against Target values of 90% Col.*	Reasons for shortfalls or excessive achievements, if applicable
							Excellent 100%	Very Good 90%	Good 80%	Fair 70%	Poor 60%		Raw score	Weighted score		
1.	Management of camel diseases through surveillance, prophylactic and control measures	40	Surveillance, monitoring and treatment of camel disease	Health and extension camps organized	Number	20	42	40	37	34	30	**40**	90	18	100	-
			Investigation of causes of mortality and morbidity	Samples processed for establishment of cause	Number	20	500	475	450	425	400	**825**	100	20	173.7	Due to increased disease incidence
2.	Enhancement of camel productivity by breeding, nutritional, physiological, reproductive interventions and product development	49	Evaluation and improvement of growth and production performance of camel	Breeds covered under growth and production study	Number	12	4	3	2	1	0	**4**	100	12	133.3	Target achieved under 100% value o Target/criteria
			Evaluation and improvement of physiological & reproductive efficiency and nutritional status of camel	Camels covered under physiological and reproduction study	Number	12	70	65	60	55	50	**117**	100	12	180	
				Feed formulations	Number	13	12	10	8	6	4	**13**	100	13	130	Feed formulations sent separately
			Training/awareness activity on processing & its utilization of camel milk	Trainees/participants	Number	12	23	20	17	14	10	**115**	100	12	575	Due to organisation o some training programme
3	Efficient functioning of the RFD system	3	Timely submission of draft RFD (2013-14) for approval	On-time submission	Date	2	15.5.13	16.5.13	17.5.13	20.5.13	21.5.13	**0**	0	0		
			Timely submission of results for RFD	On-time submission	Date	1	1.5.13	2.5.13	5.5.13	6.5.13	7.5.13	**15.4.13**	100	1		

			(2012-13)													
4	Administrative Reforms	4	Implement ISO 9001 as per the approved action plan	% Implementation	Percent	2	100	95	90	85	80	**0**	0	0		
			Prepare an action plan for innovation	On-time submission	Date	2	30.7.13	10.8.13	20.8.13	30.8.13	10.9.13	**27.7.13**	100	2		
5	Improving Internal Efficiency / responsiveness /service delivery of Ministry / Department	4	Implementation of Sevottam	Independent Audit of Implementation of Citizen's Charter	Percent	2	100	95	90	85	80	**100**	100	2		
				Independent Audit of implementation of public grievance redressal system	Percent	2	100	95	90	85	80	**100**	100	2		

Composite Score – 94
Rating: Very Good