Annual (April 1, 2012 to March 31, 2013) Performance Evaluation Report in respect of RFD 2012-2013 of RSCs i.e. Institutions

Name of the Division: **Crop Science**

Name of the Institution: **Indian Grassland and Fodder Research Institute, Jhansi (UP)**

RFD Nodal Officer: **Dr. Sunil Kumar, Head, Crop Production Division**

S. No.	Objectives	Weight	Actions	Success Indicators	Unit	Weight	Target / Criteria Value					Achievements	Performance		Percent of Achievable Targets of 90% Column	Reasons for shortfall or excessive achievements, if applicable
							Excellent 100 %	Very Good 90%	Good 80%	Fair 70%	Poor 60%		Raw score	Weighted score		
1.	Enhancement in forage productivity	44	Management of forage genetic resources	Germplasm added	No.	1	60	55	50	45	40	427	100	1.0	776	Success in obtaining consent from various national and international agencies for germplasm sharing
				Germplasm evaluated	No.	2	400	350	325	300	250	447	100	2.0	127.7	Receipt of germplasm lines more than expected. Majority of them evaluated

																this year.
				Catalogues/ Descriptors developed	No.	2	2	1	0	0	0	1	90	1.8	100	-
				Germplasm maintained	No	3	7300	7000	6500	6000	5500	8516	100	3.0	116.7	Receipt of many germplasm accessions from diverse sources this year.
			Cultivar development	Breeding high yielding lines for dual types in cereal fodders	No	3	2	1	0	0	0	2	100	3.0	200	High yielding lines identified in Sorghum and oats
				Breeding high yielding lines in cultivated fodder legumes	No	2	2	1	0	0	0	2	100	2.0	200	Two high yielding lines identified in berseem
				Breeding high yielding lines in pasture grasses and perennial legumes	No	2	2	1	0	0	0	1	90	1.8	100	-
				Inter-specific hybridization and pre-breeding in fodder crops	No	2	2	1	0	0	0	1	90	1.8	100	-
				Identification of sources for	No	2	2	1	0	0	0	2	100	2.0	200	Abiotic tolerant line

				biotic and abiotic stress tolerance												identified in sorghum, one biotic tolerant line identified in oats
			Disease and pest management	Studies on pest genomics: pathotype identification, maintenance and characterization	No.	2	2	1	0	0	0	2	100	2.0	200	Pests/pathogens identified in berseem and cowpea
				Eco-friendly pest control technology, evaluation of bio-control agents	No.	1	2	1	0	0	0	1	90	0.9	100	-
				Development of IPM	No.	1	2	1	0	0	0	1	90	0.9	100	-
			Forage biotechnology and reproductive biology of tropical grasses	Development of molecular markers for mode of reproduction (apomixis/sexuality)	No.	3	2	1	0	0	0	1	90	2.7	100	-
			Forage production from arable lands	Development of fodder production systems for different farming	No.	3	2	1	0	0	0	1	90	2.7	100	-

				situations (rainfed, irrigated, peri-urban etc.)												
				Enhanced forage production through improved resource use efficiency (INM, IPNM, organics, water use, conservation agriculture etc.)	No.	2	2	1	0	0	0	1	90	1.8	100	-
				Forage production from problem soils - acidic & saline (characterization, amelioration & management)	No.	2	2	1	0	0	0	1	90	1.8	100	-
				Climate change trends, impacts and mitigation strategies for fodder crops	No.	1	2	1	0	0	0	1	90	0.9	100	-
				Quantification of weather crop interaction in forages	No.	1	2	1	0	0	0	1	90	0.9	100	-
			Forage production from grasslands and	Assessment of forage and grazing	No	1	2	1	0	0	0	2	100	1.0	200	-

			rangelands	resources in hilly/temperate states												
				Spatial database creation, updating and maintenance using GIS and Remote sensing	No	1	2	1	0	0	0	2	100	1.0	200	-
				Amelioration of temperate/alpine pasture for livelihood support to pastoral communities. Technology refinement and on farm trial/demonstration modules along with grazing routes for enhancing livelihood option	No.	2	2	1	0	0	0	2	100	2.0	200	-
				Soil microflora and fauna studies for nutrient dynamics for different land use systems	No.	1	2	1	0	0	0	2	100	1.0	200	-
				Development of different MPTS	No.	2	2	1	0	0	0	2	100	2.0	200	-

				based silvopasture and fruit species based hortipasture system models												
				Silvipastoral/ hortipastoral system modelling studies for different agro-climatic zones	No.	2	2	1	0	0	0	2	100	2.0	200	-
2.	Development of forage seed standards and seed production technologies	13	Development of seed production technology for forage seeds	Economics of seed production of cultivated forages, range grasses and legumes	No.	4	2	1	0	0	0	2	100	4.0	200	-
			Breeder seed production	% of breeder seed produced as per indent	%	4	100	90	80	70	60	98.35	98.35	3.9	197	-
			TFL seed produced	Quantity of TFL produced	quintal	5	200	150	100	75	50	210.5	100	5.0	205	-
3.	Improvement	13	Organic feeding system for milk	FYM quality, soil attributes,	No.	2	5	4	3	2	1	5	100	2.0	125	-

	in livestock productivity through efficient utilization of forage resources		and meat production	fodder yield, forage quality, feeding trial, milk yield & quality etc: No. of parameters												
			Nutritional mapping of crop residues and its implication for strategic livestock feeding	Projection on availability of crop residues, proximate constituents, micronutrient contents, DM degradability etc: No. of parameters	No.	2	4	3	2	1	0	4	100	2.0	133	-
			Methane production potential of tropical fodders/feeds vis-à-vis efficacy of tree foliages secondary metabolites for	Proximate constituents, carbohydrate & protein fractions, secondary metabolites, IVDMD, total gas & CH_4 production,	No.	2	6	5	4	3	2	6	100	2.0	120	-

			defaunation and methanogenesis	Protozoa count etc: No. of parameters												
			Performance of mixed herd of sheep and goat under grazing in different silvopasture systems	Pasture yield, soil quality, biomass composition, grazing trial, animal performance, nutrient utilization etc: No. of parameters	Quintal	2	5	4	3	2	1	5	100	2.0	125	-
			Evaluation of *Stylosanthes seabrana* and *S. hamata* meal as a supplementary feed in animals	Stylo meal preparation, feeding trial, feed intake, nutrient utilization, milk yield etc: No. of parameters	No.	2	4	3	2	1	0	4	100	2.0	133	-
			Evaluation of tropical grass/ stover based silage as summer forage for livestock	Feed intake, nutrient utilization, milk yield etc: No. of parameters	No.	2	4	3	2	1	0	4	100	2.0	133	-
			Utilization of chaya (*Cnidoscolus aconitifolius*) for efficient livestock production	DM intake, nutrient utilization, weight gain, blood metabolites etc: No. of	No.	1	4	3	2	1	0	4	100	1.0	133	-

				parameters												
4.	Farm mechanization for efficient forage production and post harvest management	12	Farm mechanization in forage production and its post harvest management	Development of improved farm machinery for forage production and utilization	No	2	2	1	0	0	0	2	100	2.0	200.0	-
				Prototype feasibility testing of improved implements and frontline demonstration of farm implements and machinery in selected region of the country	No	2	2	1	0	0	0	2	100	2.0	200.0	-
				Post harvest production of value added feed and fodder products in form of bales, pellets,	quintal	1	20	15	10	5	2	25	100	1.0	167	-

				nutrient enrichment and leaf meal etc. in developing model fodder banks												
				Nutritional quality assessment and interpretation of post harvest processes and feed products	No	2	2	1	0	0	0	3	100	2.0	300.0	-
				Database development and suitable interventions for efficient post harvest practices, transport, storage and marketing of feed and fodder resources for creating fodder banks in different climatic situations in India	No	2	2	1	0	0	0	2	100	2.0	200.0	-
				Soil and water conservation practices for forage crops	No	2	2	1	0	0	0	0	0	0.0	0	Concerned scientist on study leave

				Utilization of non conventional energy sources and energy management in forage crops	No	1	2	1	0	0	0	1	90	0.9	100.0	-
5.	Transfer of forage based technologies for improvement in livelihood	6	Socio-economic studies, transfer of technology, impact analysis, human resource development	Socio-economic studies: No. of farmers	No.	1	40	30	20	15	1	50	100	1.0	167	-
				Gender issues and women empowerment : No. of farmers	No.	1	15	12	10	8	5	70	100	1.0	583.3	Based on demand/ facilities available more effort were made later
				Popularization of fodder production technologies by demonstration.: No. of	No	1	20	18	15	10	5	313	100	1.0	1738.8	-do-

				demonstrations												
				Trainings organized for farmers	No.	1	5	4	3	2	1	30	100	1.0	750.0	-do-
				Trainings organized for other stakeholders/ managers/researchers	No.	1	3	2	1	0	0	6	100	1.0	300.0	-do-
				Extension literature	No.	1	2	1	0	0	0	5	100	1.0	500.0	-do-
6.	Efficient functioning of the RFD system	3	Timely submission of RFD for 2012-13	On-time submission	Date	2	Mar. 23 2012	Mar. 26 2012	Mar. 27 2012	Mar. 28 2012	Mar. 29 2012	Mar. 23 2012	100	2.0	100.0	-
			Timely submission of results for 2012-13	On-time submission	Date	1	May 1 2013	May 2 2013	May 3 2013	May 6 2013	May 7 2013	April, 20, 2013	100	1.0	100.0	-
	Implementation of ISO 9001	3	Implementation of ISO 9001	% of implementation	%	3	100	90	80	70	65	80	80	2.4	88.8	-
	Administrative Reform	2	Implement mitigating strategies for reducing	% of implementation	%	2	100	95	90	85	80	90	80	1.6	100.0	-

	s		potential risk of corruption													
	Improving internal efficiency / responsiveness / service delivery of Ministry / Department	4	Implementation of Sevottam	% of implementation	%	4	100	95	90	85	80				94.7	-

Composite score: 88.4

Rating- Very Good