

Results Framework Document

(RFD)

Achievements

for

National Research Centre on Plant Biotechnology,

New Delhi

(2012-13)

Nodal Officer

**Dr PK Mandal,
Principal Scientist,
NRCPB, New Delhi**

Annual (April, 2012 to March 31, 2013) Performance Evaluation Report in respect of RFD 2012-13 of RSCs

Name of the Division: Crop Science

Name of the Institute: National Research Centre on Plant Biotechnology, Pusa Campus, New Delhi

RFD Nodal Officer: Dr. P. K. Mandal

S. N.	Objective	Wt	Action	Success Indicators.	Unit	Wt	Target criteria value							
							Excellent	V. Good	Good	Fair	Poor	Achievement	Raw score	Weighted score
							100	90	80	70	60			
1.	Strengthening frontier molecular biology research for enhancing agricultural production and productivity	35	Generation of genomic resources base for gene discovery and crop genetic enhancement	Sequencing of wheat chromosome 2A	Gb data	15	250	200	150	100	75	200	100	13.5
			Finishing of pigeonpea genome sequence and sequence analysis	Mb data	4	200	150	100	75	50	245	100	4	
			Development of EST sequences in seven major crops (rice, wheat, mustard, chickpea, pigeon pea, ragi and pearl millet) under different stress situations and validate their expression	Mb data	14	600	500	400	350	300	620	100	14	
			Maintenance and up gradation of GM crop & Plant genome database at NRCPB.org	Volume of data added as genomic and EST resources	Number of entries	2	80000	60000	50000	35000	25000	1825647**	100	2
2	Identification and isolation of useful genes and promoters for the development of transgenics	20	Identification of novel genes and promoters through mutagenesis	Generation of mutants in Rhizobium through Tn5 mutagenesis	Number	4	50	40	35	25	20	50	100	4
				Generation of rice mutants through EMS	Number	4	50	40	35	25	20	48	98	3.9

			Discovery of new genes and promoters through transcriptome profiling	Transcriptome analysis of anthers in mustard	Mb	4	200	150	100	80	60	300	100	4
				Transcriptome analysis in Finger millet	Mb	4	400	350	300	250	200	450	100	4
				Cloning and characterization of important genes for use in crop improvement	Number	4	5	4	3	2	1	5	100	4
3	Designing and deploying high throughput SNP genotyping assays for molecular breeding	15	Designing of SNP genotyping assays	Designing high throughput genotyping assay for a number of loci/SNPs in rice and other mandate crops	Number	5	4000	3000	2500	2000	1500	6000	100	5
				Mapping genes for agriculturally important traits in mandate crops	Using the same assay to genotype mapping population to map genes for heat and drought tolerance and other important traits	Number	10	5	4	3	2	1	6	100
4	Intellectual property protection and commercialization of molecular biology tools	9	Protection of intellectual property related to novel genes promoters and technologies for crop improvement	Filing of application for patent protection of innovations	Number	3	3	2	1	-	-	1	80	2.4
				Research publication in high impact journals	Number	6	10	8	6	5	4	20	100	6
5	Capacity building in Plant Biotechnology	9	Human resource development	M. Sc.	Number	3	5	4	3	2	2	5	100	3
				Ph.D.	Number	2	3	2	1	0	0	2	90	1.8
				Long term trainees	Number	4	40	35	30	20	10	47	100	4
6	Efficient functioning of RFD system	12	Timely submission of draft for approval	On time submission	Date	4	10/06/2012	14/06/2012	16/06/2012	20/06/2012	22/06/2012	07/06/2012	0	0
			Timely submission of results	On time submission	Date	2	01/05/2013	03/05/2013	04/05/2013	05/05/2013	06/05/2013	01/05/2013	100	2
Composite score													87.6	

****Due to new high throughput sequencing methods**

Total Composite Score: 87.6
Rating: Very Good