

**ICAR**  
**RESULTS - FRAMEWORK DOCUMENT (RFD)**  
**for**  
**National Research Centre for Litchi**  
**(2013- 2014)**

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# Results-Framework Document (RFD) of NRCL (2013-14)

## Section 1: Vision, Mission, Objectives and Functions

### Vision

Developing the National Research Centre for Litchi as a centre of excellence in the field of research, extension and training.

### Mission

Harnessing science and technology by interfacing research and extension activities for enhanced quality production, productivity, processing and use diversification for sustained litchi production, industry and trade.

### Objectives

1. Production and post-harvest management in litchi
2. Plant genetic resources management and crop improvement in litchi
3. Training and transfer of technology to stakeholders

### Functions

- To undertake basic, strategic and applied research for enhancing productivity, quality and utility of litchi.
- To act as repository of genetic resources and scientific information on all aspects of litchi.
- To undertake frontline demonstration in newer technologies and to impart training for upgrading scientific knowledge.

**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.	Production and post-harvest management in litchi	46	Development of improved production technology	Production technology developed	Number	18	3	2	1	-	-	
			Development of post-harvest technology	Post-harvest technology developed	Number	10	2	1	-	-	-	
			Production of quality planting materials	Saplings produced	Number	18	25000	24000	23000	22000	20000	
2.	Plant genetic resources management and crop improvement in litchi	25	Collection of germplasm	Germplasm collected	Number	6	8	6	4	2	1	
			Selection and establishment of clones	Clones selected and established in field	Number	8	10	8	6	5	4	
			Hybridization	Hybrid seedlings produced	Number	5	40	35	30	25	20	
			Characterization of seedling population	Seedlings characterized	Number	6	45	35	25	20	15	
3.	Training and transfer of technology to stakeholders	18	Organization of training programmes for farmers and processors	Trainings organized	Number	18	8	6	5	4	3	
*	Efficient functioning of the RFD system	3	Timely submission of Draft RFD (2013-14) for approval	On-time submission	Date	2	May 15, 2013	May 16, 2013	May 17, 2013	May 20, 2013	May 21, 2013	
			Timely submission of Results for RFD (2012-13)	On-time submission	Date	1	May 1, 2013	May 2, 2013	May 5, 2013	May 6, 2013	May 7, 2013	
	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	30/07/2013	10/08/2013	20/08/2013	30/08/2013	10/09/2013	
	Improving internal efficiency /responsiveness / service delivery of Department/ Ministry	4	Implementation of <i>Sevottam</i>	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

\* = Mandatory objectives

### Section 3: Trend Values of the Success Indicators

S. No.	Objectives	Actions	Success indicators	Unit	Actual value for FY 2011-12	Actual value for FY 2012-13	Target value for FY 2013-14	Projected value for FY 2014-15	Projected value for FY 2015-16
1.	Production and post-harvest management in litchi	Development of improved production technology	Production technology developed	Number	2	2	2	3	3
		Development of post-harvest technology	Post-harvest technology developed	Number	1	1	1	1	2
		Production of quality planting materials	Saplings produced	Number	19074	23005	24000	25000	26000
2.	Plant genetic resources management and crop improvement in litchi	Collection of germplasm	Germplasm collected	Number	4 <sup>#</sup>	2	6	8	-
		Selection and establishment of clones	Clones selected and established in field	Number	0	6	8	10	12
		Hybridization	Hybrid seedlings produced	Number	0	15	35	50	60
		Characterization of seedling population	Seedlings characterized	Number	0	125 <sup>##</sup>	35	40	45
3.	Training and transfer of technology to stakeholders	Organization of training programmes for farmers and processors <sup>¥</sup>	Trainings organized	Number	9 <sup>*</sup>	5	6	7	8
†Efficient functioning of the RFD system	Timely submission of Draft RFD (2013-14) for approval	On-time submission	Date				May 16, 2013		
	Timely submission of Results for RFD (2012-13)	On-time submission	Date				May 2, 2013		
†Administrative Reforms	Implement ISO 9001 as per the approved action plan.	% Implementation	%				95		
	Prepare an action plan for Innovation	On-time submission	Date				10/08/2013		
†Improving internal efficiency /responsiveness / service delivery of Department/ Ministry	Implementation of <i>Sevottam</i>	Independent audit of implementation of Citizen's Charter	%				95		
		Independent audit of implementation of public grievance redressal system	%				95		

# = Out of 8 collected, only four finally survived, ## = Morphological characterization was done; reproductive phase characterization in subsequent years, - = No programme during the year, ¥ = Minimum 50 farmers/beneficiaries, \* = Out of 9, eight was sponsored training, † = Mandatory objectives

## Section 4:

### Acronyms

<b>S. No.</b>	<b>Acronym</b>	<b>Description</b>
1.	NHB	National Horticulture Board
2.	NHM	National Horticulture Mission
3.	APEDA	Agricultural Produce Export Development Authority
4.	SAU	State Agricultural Univesities
5.	KVK	Krishi Vigyan Kendra

## Section 4:

### Description and Definition of Success Indicators and Proposed Measurement Methodology

S. No.	Success indicator	Description	Definition	Measurement	General Comments
1.	Production technology developed	Development of production technology includes techniques to produce quality planting material, improved nutrient management, water management and pest management practices.	All those technologies that lead to increase in production and productivity are called production technology.	Number	This will help in enhancing litchi production.
2.	Post-harvest technology developed	Development of post-harvest technology includes diversified value added products, extension in shelf life and reduction in post-harvest losses including fruit rots through different packaging systems.	All those technology that minimizes post-harvest loss and results in value addition is called post-harvest technology.	Number	It will help in reducing losses of litchi and diversified value added products of litchi to consumers
3.	Saplings produced	Supply of quality planting material of litchi to various stakeholders.	It is a process of vegetative means by which new individuals arise without production of seeds	Number	In a wider sense, planting material arise from vegetative propagation methods such as air-layering and grafting in case of litchi
4.	Germplasm collected	Diverse germplasm is the basic requirement to bred new improved varieties	Germplasm is collection of cultivars, landraces, wild species etc. for conservation and utilization	Number	Germplasm material serve as base for utilization in crop improvement programs for breeding new varieties.
5.	Clones selected and established in field	Selection of intra-varietal variation to develop new cultivars.	Clones are progenies of a single vegetatively propagated plants	Number	This is a method of improving the existing variety.
6.	Hybrid seedlings produced	Through hybridization, the genetic base of a crop is broadened. It may help in improving various traits of fruit quality, shelf-life, extending harvesting period and overcoming irregular bearing habit in litchi.	Hybrids are progenies obtained through crossing of diverse plant varieties.	Number	This is a method of developing new cultivars.
7.	Seedlings characterized	The seedling progenies are highly variable and selection can be	Characterization of seedlings is systematic	Number	This is also a method of development of new

		performed only after characterization.	observation of useful vegetative and reproductive traits		cultivars.
8.	Trainings organized	Capacity building activities related to knowledge and skill improvement/development programmes conducted for farmers/ stakeholders, Technology developed at the centre particularly rejuvenation, intercropping and IPM in litchi is aimed will be disseminated among stakeholders.	Training is a process of acquisition of new skills, attitude and knowledge in the context of preparing for entry into a vocation or improving productivity in an organization or enterprise	Number	

### Section 5: Specific Performance Requirements from Other Departments

Location Type	State	Organization Type	Organization Name	Relevant Success Indicator	What is your requirement from this organization	Justification for this requirement	Please quantify your requirement from this Organization	What happens if your requirement is not met.
State Government	Litchi growing states (Bihar, WB, UP, Uttarakhand, North Eastern states and new potential areas in Southern States)	Department	Different States' Agricultural Department	Saplings produced	Indent for quantity (number) of litchi saplings	Variety-wise indent for litchi saplings	Quantity of saplings is produced as per indent	Less or more number of saplings will be produced



### Section 6: Outcome/ Impact of activities of the Organization

S. No.	Outcome/ Impact of organization	Jointly responsible for influencing this outcome/ impact with the following organization(s)/ departments	Success Indicator (s)	Unit	2011-12	2012-13	2013-14	2014-15	2015-16
1.	Enhanced productivity and production of litchi	NHB, NHM, APEDA, State Departments of Agriculture SAUs, KVKs, etc.	Improvement in productivity*	%	3.0	4.5	6.0	7.5	8.0
2.	Enhancement in shelf life of fruits		Increased shelf life	Days	6	8	10	12	15

\*Enhancement over the base year 2011-12