



Results- Framework Document(RFD)

for

DIRECTORATE OF MUSHROOM RESEARCH

(2012- 2013)

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Section 1: Vision, Mission, Objectives and Functions

Vision

- To bring about mushroom revolution in the country and to promote eco-region specific integrated farming for economic and ecological sustainability

Mission

- To popularize mushrooms in all parts of the country with long-term sustainability by way of integrated mushroom farming - recycling of agro-wastes through mushroom production and use of spent mushroom substrates as organic manure, animal feed and fuel
- To generate technologies for ameliorating poverty through self-employment and to ensure socio-economic as well as nutritional security

Objectives

- Collection, conservation, characterization of wild mushroom flora for genetic enhancement, for diversification of mushroom portfolio in the country and to develop high yielding and disease resistant varieties of mushrooms
- Refinement in production technologies of different mushrooms including disease control, value addition, processing and extension activities

Functions

- To act as the centre of academic excellence and repository of mushroom germplasm and information
- To coordinate network research on location specific problems of national importance, to achieve higher production and productivity
- To promote human resource development and transfer of technology and to provide technical support to the mushroom industry

Section 2: Inter Se Priorities among Key Objectives, Success indicators and Targets

Objectives	Weight (%)	Actions	Success indicator	Unit	Weight (%)	Target/Criteria Value				
						Excellent	Very good	Good	Fair	Poor
						100%	90%	80%	70%	60%
Collection, conservation, characterization of wild mushroom flora for genetic enhancement, for diversification of mushroom portfolio in the country and to develop high yielding and disease resistant varieties of mushrooms	30	Survey of unexplored areas for mushroom/germplasm collection	Number of wild mushroom collected	Number	4	130	120	100	80	60
			Numbers of mushroom identified	Number	4	50	40	30	20	10
			Numbers of mushroom brought in pure culture	Number	4	30	20	10	5	2
		To develop high yielding/ disease resistant varieties of different mushrooms	Evaluation/development of hybrid strain of oyster mushroom	Number	5	2	1	0	0	0
			High yielding single spore isolates of button mushroom selected	Number	8	4	3	2	1	0
			Evaluation/development of white strain of paddy straw mushroom	Number	5	2	1	0	0	0
Refinement in production technologies of different mushrooms including disease control, value addition, processing and extension activities	58	Development/refinement of farmer-friendly cultivation technologies of different mushrooms including pest/disease control. To carry out various extension activities for development/propagation of mushroom in different parts of the country.	Evaluation of wild <i>Auricularia</i> spp. on wheat and paddy straw	Number	5	20	15	10	5	0
			Final trial on new composting technique for its recommendation	Date	5	28.02.13	05.03.13	10.03.13	15.03.13	31.03.13
			Utilized unconventional agri/industrial wastes for compost production	Number	5	3	2	1	0	0
			Improvement in cultural practices of white button mushroom	Date	5	29.02.13	15.03.13	31.03.13	-	-
			Improvement of SMS composting	Date	4	31.12.12	15.01.13	31.01.13	28.02.13	15.03.13

			Suitable low temperature tolerant strains of paddy straw mushroom selected for cultivation	Date	5	31.10.12	31.12.12	31.03.13	-	-
			Improvement in cultivation technology of paddy straw mushroom	Date	5	31.10.12	31.12.12	31.03.13	-	-
			Refinement in substrate preparation for Shitake mushroom cultivation	Date	5	30.09.12	31.10.12	30.11.12	31.12.12	31.01.13
			Number of surveys conducted for pests and pathogens	Number	4	7	6	5	4	3
			Development of primers for wet bubble and yellow mould detection	Date	5	31.08.12	30.11.12	31.12.12	28.02.13	31.03.13
			Various trainings on mushroom cultivation technology conducted	Number	5	5	4	3	2	1
			Numbers of mushroom mela/exhibitions organized and participated	Number	5	4	3	2	1	-
Efficient functioning of the RFD system	03	Timely submission of RFD for 2012-13	On-time submission	Date	02	Mar. 23 2012	Mar. 26 2012	Mar. 27 2012	Mar. 28 2012	Mar. 29 2012
			On-time submission	Date	01	May 1 2013	May 2 2013	May 3 2013	May 6 2013	May 7 2013
Administrative reforms	05	Implement ISO 9001	Prepare ISO 9001 action plan	Date	01	June 4 2012	June 5 2012	June 6 2012	June 7 2012	June 8 2012
			Implementation of ISO 9001 action plan	Date	02	March 25 2013	March 26 2013	March 27 2013	March 28 2013	March 29 2013

		Implement mitigating strategies for reducing potential risk of corruption	% of implementation	%	02	100	95	90	85	80
Improving internal efficiency / responsiveness / service delivery of Ministry / Department	04	Implementation of Sevottam	Independent Audit of Implementation of Citizen's Charter	%	02	100	95	90	85	80
			Independent Audit of implementation of public grievance redressal system	%	02	100	95	90	85	80

Section 3: Trend Values of the success indicators

Objectives	Actions	Success Indicators	Unit	Actual Value for FY 10/11	Actual Value for FY 11/12	Target Value for FY 12/13	Projected Value for FY 13/14	Projected Value for FY 14/15
Collection, conservation, characterization of wild mushroom flora for genetic enhancement, for diversification of mushroom portfolio in the country and to develop high yielding and disease resistant varieties of mushrooms	Survey of unexplored areas for mushroom collection ----- To develop high yielding/disease resistant varieties of different mushrooms	No. of wild mushroom collected	Number	154	140	120	120	100
		Number of Mushrooms identified	Number	75	60	40	40	30
		Number of mushrooms brought in pure culture	Number	25	20	20	20	10
		Evaluation/Development of hybrid strain of oyster mushroom	Number	-	1	1	1	1
		High yielding single spore isolates of white button mushroom selected	Number	1	3	3	2	2
		Evaluation/development of one white strain of paddy straw mushroom	Number	-	1	1	-	-
Refinement in production technologies of different mushrooms including disease control, value addition, processing and extension activities	Development/ refinement of farmer-friendly cultivation technologies of different mushrooms including pest/disease control. To carry out various extension activities for development/ propagation of mushroom in different parts of the country.	Evaluation of wild <i>Auricularia</i> spp. on wheat and paddy straw	Number	-	-	15	5	4
		Final trial on new composting technique for its recommendation	Date	-	31.07.11	05.03.13	-	-
		Utilized unconventional agri/industrial wastes for compost production	Number	-	2	2	2	-
		Improvement in cultural practices of white button mushroom	Date	-	29.02.12	15.03.13	31.03.14	15.03.15
		Improvement of SMS composting	Date	-	31.12.12	15.01.13	31.01.13	28.02.13
		Suitable low temperature tolerant strains of paddy straw mushroom selected for cultivation	Date	-	31.10.11	31.12.12	31.12.12	-

		Improvement in cultivation technology for paddy straw mushroom	Date	-	31.10.11	31.12.12	-	-
		Refinement in substrate preparation for Shitake mushroom cultivation	Date	-	30.09.11	31.10.12	15.04.13	-
		Number of surveys conducted for pests and pathogens	Number	10	6	6	6	6
		Development of primers for wet bubble and yellow mould detection	Date	-	30.09.11	30.11.12	-	-
		Various trainings on mushroom cultivation technology conducted	Number	7	5	4	5	5
		Numbers of mushroom melas, exhibitions organized and participated	Number	4	4	3	4	4
Efficient functioning of RFD system	Timely submission of RFD for 2012-13	On time submission	Date	-	-	Mar. 26 2012	-	-
	Timely submission of results for 2012-13	On time submission	Date	-	-	May 2 2013	-	-
Administrative reforms	Implement ISO 9001	Prepare ISO 9001 action plan	Date	-	-	June 5 2012	-	-
		Implementation of ISO 9001 action plan	Date	-	-	March 26 2013	-	-
	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: India is endowed with innumerable mushroom flora across the country, which is threatened due to global warming in the present scenario, which needs to be protected and conserved. Efforts will be made to cultivate some of the edible wild mushrooms and also they will be utilized for enhancing the productivity of known cultivated mushroom through breeding using conventional and molecular techniques.

Objective 2: This is the key objective of the Institute involving production technology of different mushrooms under cultivation in different parts of the country. Under this, efforts will be made to generate farmers friendly cheap technologies to enhance their yield level. Development of low cost machinery and disease control of different moulds and pests occurring during cultivation will also be taken due care in this project. Under this head several training programmes for KVKs, farmers, entrepreneurs and other stakeholders is proposed for dissemination of mushroom knowledge throughout the country. Further, Mushroom Melas, demonstrations and other related activities of TOT are proposed. Obviously, success indicators under this objective would be to quantify the level of yield enhancement using newly developed technologies especially for button, oyster, milky and shiitake mushrooms.

Section 5: Specific Performance Requirements from other Departments

1. Full support of Council is required for providing proper funds to strengthen infrastructure, manpower and equipments required for R&D and promotion of mushroom throughout the country.
2. KVKs located in different parts of the country will have to come forward in disseminating the mushroom cultivation technologies in their areas.
3. Other funding agencies like DST, CSIR, etc. should whole heartedly support mushroom research projects.
4. Funding agencies like NHB, NABARD, Horticulture Mission and different bank should liberally support commercial mushroom projects for promotion of large scale mushroom cultivation in the country.

Section 6: Outcome/Impact of activities of Organization/Ministry

S.No.	Outcome/Impact of organization /RCs	Jointly responsible for influencing this outcome/impact with the following organization(s)/departments/ministry(s)	Success Indicators	Unit	2010-11	2011-12	2012-13	2013-14	2014-15
1.	Production of quality spawn of different mushrooms & development/refinement of cultivation technologies for different mushrooms	State Agricultural Universities- Himachal Pradesh	Increase in production of different mushrooms	%	-	2	3	4	5
			Development of production technologies	Number	-	2	2	2	2
			Production of quality spawn	Ton	-	8	10	12	14
			Awareness of stakeholders and capacity building of the scientist through training/ demonstrations	Number	-	5	5	6	7

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