



NATIONAL FOOD SECURITY MISSION

COMMERCIAL CROPS

OPERATIONAL GUIDELINES

(12th Five Year Plan)

Department of Agriculture & Cooperation
Ministry of Agriculture
Government of India
Krishi Bhawan, New Delhi-110001
March, 2014

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ABBREVIATION

CCI	COTTON CORPORATION OF INDIA
CDDs	CROP DEVELOPMENT DIRECTORATE
CICR	CENTRAL INSTITUTE OF COTTON RESEARCH
CRIJAF	CENTRAL RESEACH INSITUTE OF JUTE AND ALLIED FIBRES
DAC	DEPARTMENT OF AGRICUTLURE & COOPERATION
DOCD	DIRECTORATE OF COTTON DEVELOPMENT
DOJD	DIRECTORATE OF JUTE DEVELOPMENT
DOSD	DIRECTORATE OF SUGARCANE DEVELOPMENT
ELS	EXTRA LONG STAPLE
FLDs	FRONT LINE DEMONSTRATIONS
HDPS	HIGH DENSITY PLANTING SYSTEMS
HIL	HINDUSTAN INSECTICIDE LIMITED
ICAR	INDIAN COUNCIL OF AGRICULTURAL RESEARCH
IISR	INDIAN INSTITUTE OF SUGARCANE RESEARCH
INM	INTEGRATED NUTRIENT MANAGEMENT
IPM	INTEGRATED PEST MANAGEMENT
IRM	INSECTICIDE RESISTANCE MANAGEMENT
KVKs	KRISHI VIGYAN KENDRAS
NALMOT	NATIONAL LEVEL MONITORING TEAM
NCIPM	NATIONAL CENTRE FOR INTEGRATED PEST MANAGEMENT
NFSM	NATIONAL FOOD SECURITY MISSION

NGO	NON GOVERNMENT ORGANISATION
NIRJAFT	NATIONAL INSTITUTE OF RESEARCH ON JUTE & ALLIED FIBRE TECHNOLOGY
NSC	NATIONAL SEEDS CORPORATION
OPMAS	ON LINE PEST MONITORING AND ADVISORY SERVICES
SAUs	STATE AGRICULTUE UNIVERSITIES
SBI	SUGARCANE BREEDING INSTITUTE
SDA	STATE DEPARTMENT OF AGRICULTURE
SFCI	STATE FARM CORPORATION OF INDIA
SSC	STATE SEED CORPORATION
SSCA	STATE SEED CERTIFICATION AGENCY
UPCSR	UTTAR PRADESH COUNCIL OF SUGARCANE RESEARCH
VSI	VASANT DADA SUGAR INSTITUTE

NFSM-Commercial Crops

Operational Guidelines

1. Introduction

Cotton, Jute and Sugarcane are amongst the main cash crops of India. These crops are grown in food crops sequences in different agro- climatic conditions.

In 12th Five Year Plan under the NFSM, cropping system approach is being adopted by including commercial crops like cotton, jute and sugarcane to meet the demand for both food & cash crops. This would be possible through proper crop rotation, multiple cropping systems, intercropping etc. The commercial crop based cropping system linked with food crops are given in **Annexure-I**.

2. Implementing agencies

NFSM-Commercial Crops (cotton, jute, sugarcane) will be implemented by Department of Agriculture & Cooperation through Directorate of Cotton Development, Mumbai, Directorate of Jute Development, Kolkata and Directorate of Sugarcane Development, Lucknow. The respective Crop Development Directorate (CDD)

will formulate annual action plan in consultation with various implementing agencies and will act as nodal office of respective commercial crop. The CDD will be responsible for monitoring and evaluation of the crop specific programme.

The programme will be implemented in all major cotton, jute and sugarcane growing states. Other non-traditional states may also be covered on basis of their potential. Beside States, ICAR, Krishi Vigyan Kendras (KVKs), State Agriculture Universities (SAUs), Cooperatives, NGOs, etc. will implement the activities of NFSM-commercial crops. The CDDs will involve Cooperatives/NGOs on the basis of the recommendations of the State Government. The State Department of Agriculture (SDA) shall monitor and inspect the activities undertaken by other implementing agencies in the state.

3. Fund flow mechanism

All the components of the NFSM-commercial crops will be 100%

funded. The funds will be released by DAC, Ministry of Agriculture to the respective implementing agencies like SDA, Cane Commissioner, ICAR, SAUs, CDDs etc. with the approval of NFSMEC. The implementing agencies will submit utilization certificate to the respective CDD who will forward the same to DAC, Ministry of Agriculture, Govt. of India for further release of fund. As far as possible, electronic banking / RTGS will be used for transfer of funds to the agencies.

4. Role of Panchayati Raj Institutions

Panchayati Raj Institutions will be actively involved in the selection of beneficiaries, identification of priority areas of commercial crops based cropping system.

5. Reporting

The implementing agencies will submit Quarterly Progress Reports (QPRs) by the 15th of the month following each quarter and the detailed Annual Progress Report (APR) latest by 30th April in prescribed format given in **Annexure-II, II (a) III, III (a) , IV, IV (a) , V, VI and VII** to Additional Commissioner (Crops), DAC and respective CDD.

6. Monitoring mechanism

The National Level Monitoring Team (NALMOT) will be constituted to monitor the activities of NFSM-commercial crops in various states. Respective CDD will meet the expenses of NALMOT.

7. Evaluation

- I. A baseline survey will be conducted to know the resource endowments of the farmers and the level of crop productivity.
- II. Concurrent Evaluation will be done every year to assess the performance of the programme commensurate with annual action plan and its objectives.
- III. Impact Evaluation Study at the National Level will also be undertaken through an independent agency after the third year of implementation to assess the impact of various interventions in increasing the productivity of cotton, jute and sugarcane and enhancement of farmers' income.
- IV. Respective CDD will meet the expenses of evaluation of NFSM-commercial crops programme.

8. Components of NFSM-commercial crops

Front Line Demonstrations (FLDs) of various commercial crops including inter-crops will be conducted by various institutions. Besides, national/state level training, seed production programme will be assisted in case of jute and sugarcane. Insecticide Resistant Management (IRM) and

Online Pest Monitoring and Advisory Services (OPMAS) programme on Bt-cotton will be continued and supported through ICAR institutions. Strengthening of bio-agent production units and tissue culture laboratories for sugarcane will be undertaken. The various technological interventions for commercial crops to be under taken as under:-

Cotton	Jute	Sugarcane
Insecticide Resistance Management (IRM)	Jute Seed Production	FLDs on Intercrops with sugarcane / FLDs on single bud chip technology of sugarcane
On line Pest Monitoring and Advisory Services (OPMAS)	FLDs on alternative retting technologies	Assistance for Breeder Seed Production
i) FLDs on Integrated Crop Management (ICM)	(i) FLDs on production technologies / FLDs on jute with pulses as intercrop	Assistance for production of tissue culture plantlets
ii) FLDs on Desi and Extra Long Staple (ELS) Cotton /FLDs on ELS cotton seed production		Strengthening / establishment of tissue culture laboratory /Bio –agent production unit.
iii) FLDs on Inter-cropping	National level training	National level training
Trials on High Density Planting System (HDPS)	State level training	State level training
Monitoring, evaluation & electronic print media	Monitoring, evaluation & electronic print media	Monitoring, evaluation & electronic print media

9. Contingencies & Electronic Print Media

The cost for the preparation of literature, consultancy services, evaluation, need based studies, workshops, foreign visit, seminars etc., will be met under this component. Besides, making audio / video material for NFSM-commercial crops, preparation of software, state level

seminar may also be organized by the implementing agencies inviting farmers / extension workers / dealers / NGOs / KVKs/ Cooperatives / Farmers Association etc. The allocation per year for each CDD is given in **Annexure-VIII**.

The detail of various components of individual commercial crop based cropping system is as given.

10. Cotton Based Cropping Systems

Cotton is cultivated under different cropping system i.e. mono-cropping, mixed cropping, relay cropping, inter cropping and rotation or sequence cropping in the country. The common traditional practice adopted in cultivation of cotton in central and south India is strip cropping i.e. 1 or 2 rows of pigeon pea, 3-5 rows of finger millet (ragi) after every 8-10 rows of cotton. There is vast scope of cultivation of various crops as inter crop with cotton due to its slow initial growth and long duration. The programme will be implemented in 14 states namely Haryana, Punjab, Rajasthan, Gujarat, Madhya Pradesh, Maharashtra, Andhra Pradesh, Assam, Orissa, Karnataka, Uttar Pradesh, West Bengal, Tripura and Tamil Nadu. The component wise details under cotton crop based cropping system are given below:

10.1 Insecticide Resistance Management (IRM)

IRM module of Bt-cotton hybrids will be implemented by CICR, Nagpur through 22 participating centers of SAUs, ICAR and recognized agriculture organization in collaboration

with SDA to maintain the resistance management. The module will be replicated in 50 districts of 10 states covering more than 1.0 lakh farmers per year which may vary in future depending on pest situation. The IRM strategies will be disseminated in 20 villages in each district with the help of unemployed youth having Agriculture Diploma / B.Sc. (Agriculture)/M.Sc. (Agriculture), skilled helpers and field workers. Funds will be provided in each district for remuneration/honorarium of manpower (one project officer, one helper and twenty field workers for six months), monitoring, training of field workers, conveyance / travel allowance and other contingencies. An assistance @ Rs. 4.5 lakh / district + administrative cost will be provided, CICR Nagpur will circulate guidelines and modules for each activity with financial ceiling to the participating centers.

10.2 On Line Pest Monitoring and Advisory Services (OPMAS)

OPMAS will provide web based pest monitoring and advisory services about the emerging pests, diseases and any other significant problem with

cotton crop and will be implemented by NCIPM, New Delhi. The programme will be implemented in 30 districts of 9 states covering 15,000 farmers in a year through 16 centers of SAUs, ICAR and KVKs. Resistance monitoring in pink bollworm population, validation and demonstration of grey mildew and leaf reddening management strategies, dissemination of IPM strategies, popularization the safe use of light traps etc will be main activities of OPMAS. An assistance @ Rs. 4.5 lakh / district + administrative cost will be provided. NCIPM, New Delhi will circulate guidelines and modules for each activity with financial ceiling to the participating centers.

10.3 Front Line Demonstration (FLD)

Three types of FLDs on cotton namely (i) FLDs on Integrated Crop Management (ICM) including Integrated Nutrient Management (INM), Integrated Pest Management (IPM), soil & water management / improved agronomic practices, (ii) FLDs on Desi & Extra Long Staple (ELS) cotton / FLDs on ELS Cotton seed production and (iii) FLDs on intercropping will be organized / conducted through SDA, ICAR, SAUs, KVKs, NGOs and Cooperatives. DOCD will also involve

reputed NGOs as per recommendations of State Government to conduct FLDs on cotton. FLDs will be organized in cluster of at least 10 hectares. For each farmer, at least 0.4 hectare area will be included in a demonstration.

10.4 Trials on High Density Planting System (HDPS)

HDPS of cotton in India is promoted to obtain high yields with straight varieties especially in the rainfed conditions. The planting geometry of 8-10 cm distance between plants and row to row distance at 30, 45, 75 and 90 cm is being followed under HDPS.

Early maturing compact plant types with shorter sympodia suitable for HDPS have been identified by CICR, Nagpur. HDPS trials will be conducted by CICR, Nagpur through SDA, SAUs, KVKs, and Cooperatives. The HDPS trials will be conducted to validate agronomic practices for rainfed agro-eco regions of 10 cotton growing states (Haryana, Punjab, Rajasthan, Gujarat, Madhya Pradesh, Maharashtra, Andhra Pradesh, Odisha, Karnataka and Tamil Nadu) to improve and sustain cotton yields on marginal soils.

The pattern of assistance under different types of FLD is given as under:

Type of FLDs	Critical inputs (Rs.)	Contingencies (Rs.)	Total Assistance (Rs./ha)
FLDs on ICM	6000	1000	7000
FLDs on Desi and ELS cotton/ ELS Cotton seed production	7000	1000	8000
FLDs on Intercropping	6000	1000	7000
Trials on HDPS	8000	1000	9000

The critical inputs for FLD includes costs of seed (non-Bt), bio-fertilizer, micronutrients, bio-pesticides, seeds of inter-crops, pheromone traps/

light traps etc. A part of FLD funds is earmarked as contingencies for field day, publicity material, POL, visit of scientists etc.

11. Jute Based Cropping Systems

Jute can be grown successfully in the cropping sequence with food grain crops like rice, wheat and pulses and also pulses as inter-crop with jute. Some of identified promising jute based sequences under rainfed conditions are

- jute-lentil
- jute-black gram
- jute-black gram-wheat
- jute-rice-toria
- pulses as intercrop with jute

Under irrigated conditions, the promising crop sequences identified are

- jute-rice-potato
- jute-rice-lentil/pea
- jute-rice-wheat
- jute-rice-mustard

By adoption of these sequences, crop intensification and diversification has significantly increased in the jute growing regions. The jute based cropping system will be implemented in 12 states namely Andhra Pradesh, Arunachal Pradesh, Assam, Bihar,

Meghalaya, Nagaland, Orissa, Tripura, Uttar Pradesh, Maharashtra, Karnataka and West Bengal. The components of the jute based cropping system and assistance are given below.

11.1. Jute Seed Production

The production programme of breeder, foundation and certified seeds will be undertaken for varieties (not older than 10 years) to ensure availability of good quality seed in time and at a reasonable price. The production of breeder, foundation and certified seeds of jute & mesta will be taken up by different agencies like SDA, CRIJAF, NSC, SFCI, SAU, SSC, ICAR, KVKs, HIL and farmer's groups. The pattern of assistance on production of seed of jute / mesta / sunhemp is given in **Annexure-VIII**.

The breeder seed production will be taken up by the ICAR Institutes and SAUs. The institutes will submit a proposal for production of variety-wise breeder and foundation seed to the Directorate of Jute Development, Kolkata.

The seed producing agencies will submit proposal to the Directorate of Jute Development, Kolkata regarding the variety-wise quantum of production of foundation and certified seed duly certified by the State Seed Certification Agency. The seed producing agencies will also submit information regarding variety-wise source and year of obtaining breeder seed along with item wise cost of production.

11.2 Production of seed through Seed Village programme & Government Farm

The seed production programme through Seed Village Programme and at Government Farm will be undertaken to ensure availability of quality seeds. The implementing agencies will be SDA, SAUs, KVKs, SSC, NSC, SFCI, HIL and SSCA. At least 10 ha area should be covered in each Seed Village Programme or Government Farm. The seed production programme should be taken up with the varieties not older than 10 years. An assistance of Rs. 5500/- per quintal of certified seed

produced would be admissible under the component.

11.3 FLDs on alternate retting technologies

Retting is the most important factor determining the quality of fibre. The whole retting technology is being practiced in India for which large quantity of water is required. CRIJAF has developed two new retting technologies, namely, mechano-microbial retting and in-situ retting with microbial consortium and NIRJAFT has developed two technologies, namely, chemical retting and dry retting. In order to reduce the bulk of the crop to be retted vis-à-vis the requirement of water, the concept of ribbon retting has been advanced. Accordingly, FLDs on newly developed retting technologies will be undertaken by CRIJAF, NIRJAFT, SAUs, KVKs. An assistance of Rs.20000/- per FLDs will be provided for an area of 0.25 ha (75% of the area for alternating retting technology and 25% for traditional technologies) and it will be reduced on pro-rata basis for actual size of FLD conducted.

Item	Amount (Rs.)
Material inputs, labour inputs, ribboner and such other materials required for organizing the demonstration	17000.00
Monitoring, POL, visit of scientists, field day, meeting, publication etc.	3000.00
Total	20000.00

11.4 FLDs on Production Technology / Intercropping

Production technology and intercropping demonstrations will be conducted on jute, mesta, sunnhemp and ramie as recommended by ICAR/SAUs and other Institutes. The location specific improved technology on nutrient use efficiency, weed management, efficient use of water, soil ameliorants, improved farm implements/machines etc. will be demonstrated along with the newer varieties (not older than 10 years). The assistance of Rs. 8000/- per ha will be provided of which Rs. 1000/- will be for contingencies, (field day, publicity materials, POL, visit of scientists etc.) FLDs will be organized in cluster of at least 10 hectares. For each farmer, at least 0.4 hectare area will be included in a demonstration.

11.5 National / State Level Training

The National Level Training Programme on production and retting technology of jute / mesta / ramie / sun hemp including other related other aspects will be organized by the CRIJAF, NIRJAFT, SAUs and such other organizations. For a training of 25 participants from SDA and NGOs associated in jute development activities, an assistance of Rs.80000 per training (3 days) will be provided.

The State Level Training (2 days) will be organized by SAUs, SDA, KVKs and the number of trainees will be 20 for which an assistance of Rs.40000 per training will be provided. The item-wise break-up of national / state level training is given as below.

Particulars	Amount (in Rs.)	
	National Level	State Level
1. Honorarium to Resource Person @ Rs.750/-per lecture for national level for 15 lectures. @ Rs.500/- per lecture for state Level for 10 lectures.	11250	5000
2. Refreshment for inaugural session for 50 persons @ Rs. 50/- per head.	2500	2500
3. Boarding & lodging for trainees @ Rs. 600/-per head per day for national level @ Rs.500/- per head per day for state Level	45000	20000
4. Training Kit including publication @ Rs. 500/-per trainee for national level @ Rs.400/- per trainee for state Level	12500	8000
5. Contingencies including audio visual arrangements, stationary , field visit etc.	8750	4500
Total	80000	40000

12. Sugarcane Based Cropping Systems

Sugarcane based cropping system will involve propagation of intercropping, availability of quality planting material (tissue culture), strengthening of bio-agent and tissue culture laboratories and capacity building. The programme will be implemented in 12 States namely Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Tamil Nadu, Uttar Pradesh & Uttarakhand. The interventions identified are as under.

12.1 Demonstration on Intercropping with sugarcane

Demonstration on pulses, oilseeds and cereals as intercrop with sugarcane will be organized by SDA, Cane Commissioner, sugar factories, sugarcane research institutes, NGOs, KVKs etc. Assistance of Rs. 8000/- per demonstration (1.0 ha each) will be provided of which Rs.1000/- for contingencies, (field day, publicity material, POL, visit of scientists etc.) Demonstration will be organized in

cluster of at least 10 hectares. For each farmer, at least 0.4 hectare area will be included in a demonstration. Demonstration on single bud chip technology may also be emphasized where ever possible for which Rs. 8000/- per hectare will be provided.

12.2 Assistance for Breeder Seed Production

Production of breeder seeds of varieties (not older than 15 years) will be taken up through ICAR, SAUs, sugarcane research Institutes for which assistance limited to Rs. 40,000/- per ha will be provided. Out of which Rs. 6000/- will be for contingencies (preparation of report, record management, POL for visit of scientist, GOI officers & other miscellaneous expenses.)

12.3 Production of tissue culture raised plantlets/seedlings

For faster and cheaper multiplication of the cane seed through tissue culture technique, incentive for production of tissue culture raised

plantlets/ seedlings will be provided @ 50% of cost of seedlings limited to Rs. 3.5/-per seedling to sugarcane institutions and sugar factories. The individual agencies will submit the claim to Director, DOSD, Lucknow after duly authenticated by the respective State Government.

12.4 Strengthening/ Establishment of tissue culture and Bio-agent laboratories

Sugarcane is vegetative propagated and huge quantity of cane seed is required for planting of per unit area. Therefore, there is a need to enhance the seed multiplication through establishment/ strengthening of tissue culture laboratories. For strengthening/establishment of tissue culture laboratories at Sugarcane Research Institutes, ICAR, SAUs, sugar factories etc., an assistance of 50% of the cost of project limited to Rs. 75.00 Lakhs will be provided.

In order to enhance the availability of bio-agents / bio-pesticides for biological control of sugarcane pest, bio-agent laboratories will be

established / strengthened at sugar factory, sugarcane research institute, SAU/ ICAR @ 50% of the cost of project limited to Rs. 75.00 Lakh. The project of tissue culture & bio-agent laboratory includes cost of equipments, furniture fixtures, green houses, consumable, glass wares, feeding stock etc. The component will not support construction of building, recurring expenditure and salary of the staff.

12.5 National / State Level Training

The national level trainings on crop production and protection aspects including intercropping will be conducted by IISR, SBI, VSI, UPCR etc. and state level trainings by sugarcane research Institutes, sugarcane training centers of State Government, SAUs, KVKs etc. The financial assistance for national level training of 2 days will be provided @ Rs. 50000/- for 25 participants and Rs. 40000/- per state level training of 2 days for 20 participants. The item wise break up of national/state level training is as under:

Particulars	Amount (in Rs.)	
	National Level	State Level
1. Honorarium to Resource Person @ Rs.750/-per lecture for National Level for 10 lectures. @ Rs.500/- per lecture for State Level for 10 lectures.	7500	5000
2. Refreshment for inaugural session for 50 persons @ Rs. 50/- per head..	2500	2500
3. Boarding & Lodging for trainees @ Rs.500/- per head per day	25000	20000
4. Training Kit including publication @ Rs.400/- trainee.	10000	8000
5. Contingencies including audio visual arrangements, field visit, etc.	5000	4500
TOTAL	50000	40000

The summary of Components and Pattern of Assistance under NFSM-Commercial Crops is given in **Annexure VIII**.

Commercial crop based cropping system linked with food crops

1. Cotton

State	Cropping Systems
Punjab, Haryana and Rajasthan	Cotton-wheat, cotton-mustard
Madhya Pradesh, Maharashtra and Gujarat	Mono-cropped cotton, cotton-jowar (2 year rotation), intercropping with blackgram, greengram, soybean, groundnut and pigeonpea.
Andhra Pradesh	Mono-cropped cotton, cotton-rice (sequence), cotton-jowar.
Tamil Nadu	Mono-cropped cotton, rice-cotton, rice-rice-cotton, cotton-jowar, cotton-pulses-jowar, intercropping with onion, groundnut and blackgram.
Karnataka	Monocropped cotton, cotton-wheat, intercropping with chilli, groundnut, blackgram and greengram.

2. Jute

Growing Conditions	Cropping System
Rainfed Conditions	Jute – Lentil, Jute-blackgram-Wheat, Jute-Rice-Toria, inter crop with green gram, vegetables etc.,
Irrigated Conditions	Jute-Rice-Potato, Jute-Rice-Lentil/Pea, Jute-Rice-Wheat, Jute – Rice-Mustard

3. Sugarcane

Cropping Systems	
Sub tropical region	Tropical region
Paddy- Autumn Sugarcane-ratoon-wheat	Bajra-Sugarcane (pre-seasonal)-Ratoon- wheat
Greengram- Autumn Sugarcane-ratoon-wheat	Paddy-Sugarcane-Ratoon- Finger millet
Maize- Autumn Sugarcane-ratoon-wheat	Paddy-Sugarcane-Ratoon- Wheat
Kharif Crops-Potato-Spring Sugarcane-ratoon-Wheat	Paddy-Sugarcane-Ratoon- gingelly
Kharif Crops-Mustard-Spring Sugarcane-ratoon-Wheat	Paddy-Sugarcane-Ratoon- black gram
Kharif Crops-Pea/Coriander-Spring Sugarcane-ratoon-Wheat	Cotton-Sugarcane-Ratoon—wheat
Kharif Crops-Wheat-late Planted Sugarcane-ratoon-Wheat	Sugarcane-Ratoon-Kharif rice-Winter rice.

ANNEXURE-II

Quarterly Progress Report of FLDs on Cotton/Jute/Sugarcane

Name of the State

Reporting Period

Name of the Agency

Crop	Types of FLD	Physical		FLDs District/Block village	No. of Farmers	Varieties	Critical inputs provided	Financial (Rs. in lakh)	
		T	A					Allocation	Expenditure

T=Target, A= Achievement

Extension activities:

Crop Conditions

Quarterly Progress Report on HDPS trials on Cotton

Name of the State

Reporting Period

Name of District	Name of Block / Village	Physical Target (ha)	Achievement			Financial (Rs. in Lakh)	
			Variety	Spacing No. of plants/ha	Area (Ha)	Allocation	Expenditure

Name of the Agency

Extension activities:

Crop Conditions

Annual Progress Report of FLDs

Implementing Agency:

1. Introduction
2. Objectives
3. Technologies demonstrated:
4. Physical & Financial progress
 - a. Physical

State/District	Villages	Target (ha)				Achievement (ha)				Total
		SC	ST	Women	Others	SC	ST	Women	Others	
Total										

b. Financial (Rs. in Lakh)

State/District	Villages	Allocation				Expenditure				Total
		SC	ST	Women	Others	SC	ST	Women	Others	
Total										

5. Input distributed

Type of FLD	Name of the input	Quantity	Rate	Cost (Rs.)
Total				

6. Impact of FLD

State/District	Cost of inputs (Rs/ha)		Cost of cultivation (Rs/ha)		Net profit (Rs/ha)		Additional profit due to FLD (Rs/ha)	Benefit Cost Ratio
	FLD	Farmer Practice	FLD	Farmer Practice	FLD	Farmer Practice		
Total								
Average								

7. Extension activities

State/District	Extension programme				
	Scientist visit	Farmers meeting	Field days	Awareness programme	News paper/Radio/Video coverage
Total					

6. Financial progress (Rs. in Lakh)

Centres	Unspent Balance	Allocation	Release	Expenditure	Balance
Total					

7. Success Stories
8. Monitoring reports
9. UC (Form GFR 19-A)
10. Audited UC

**Quarterly Progress Report of Insecticide Resistance
Management (IRM) under cotton**

Name of IRM Centre

Reporting Period

State

Components	Physical		Financial (Rs. in lakh)		Remarks
	Target	Achievements	Allocation	Expenditure	
Villages					
No. of Farmers					
Area (Ha)					
Field Visits Organization					
Farmers meeting Organization					
Field day Organization					
Training Programme Organization					
Training Farmers No. of leaflets/ pamphlets distributed					
Technology Chart					
Manual / Popular articles					
Pamphlets					
Press Release					
Radio talk / TV shows					
Field Schools					
SRF engaged					
Field workers engaged					

Crop Condition:-

Insect Pest situation

Yield expected (kg lint/ha)

Any specific information

Annual Progress Report of IRM under cotton

Implementing Agency

1. Introduction
2. Objectives
3. Zone wise IRM strategies disseminated
4. Spread of IRM Across India

State/District	Villages	Farmers	Area in ha	Manpower employed	
				Field workers	RA/SRF
Total					

5. Impact of IRM on yield and No. of sprays

State/District	Average no of insecticide sprays					Yield (kg lint/ha)		
	IRM		Total	Non IRM		Total	IRM	Non IRM
	Sucking pests	Boll worms		Sucking pests	Boll worms			
Total								
Average								

6. Impact of IRM on the Benefit Cost ratio

State/District	Cost of spray (Rs/ha)		Cost of cultivation (Rs/ha)		Net profit (Rs/ha)		Additional profit due to IRM (Rs/ha)	Benefit Cost Ratio
	IRM	Non IRM	IRM	Non IRM	IRM	Non IRM		
Total								
Average								

7. Extension activities carried out in IRM villages

State/District	Extension programme				
	Field visit	Farmers meeting	Field days	Training of scouts	Farmers training
Total					

8. Centre wise financial progress (Rs. in Lakh)

State/District	Unspent Balance	Allocation	Release	Expenditure	Balance
Total					

9. Success Stories
10. Monitoring reports
11. UC (Form GFR 19-A)
12. Audited UC

ANNEXURE-IV**Quarterly Progress Report of OPMAS under cotton**

Name of OPMAS Centre

Reporting Period

State

Components	Physical		Financial (Rs. in lakh)		Remarks
	Target	Achievements	Allocation	Expenditure	
No. of Villages					
Area Coverage					
No. of Farmers					
Village group meeting					
No. of Farmer attend					
Farmers' Training					
No. of Farmer attend Training					
News paper coverage					
Radio talks/Videos / Photo					
Project Officer employed					
Field Scout					
Data Entry Operator					

Crop Condition :

Insect Pest situation :

Yield expected (kg lint/ha) :

Advisory to the farmers :

Any specific information :

ANNEXURE-IV(a)

Annual Progress Report of OPMAS under cotton

Implementing Agency

1. Introduction

2. Objectives

3. Spread of OPMAS Across India

State/District	Villages	Farmers	Area in ha	Manpower employed		
				Field workers	RA/SRF	Data entry operator
Total						

4. Data observation, up loading & survey report

State/District	Major pests observed		Data fed in website		Advisory issued
	Sucking	Boll worm	Fixed field	Random field	

5. Impact of OPMAS on yield and No. of sprays

State/District	Average no of insecticide sprays		Yield (kg lint/ha)		Cost of cultivation (Rs/ha)		Net profit (Rs/ha)	
	IPM	Non IPM	IPM	Non IPM	IPM	Non IPM	IPM	Non IPM
Total								
Average								

6. Extension activities

State/District	Farmers meeting	Farmers training	Training of project staff	News paper/Radio/Video coverage
Total				

7. Centre wise financial progress (Rs. in Lakh)

Centres	Unspent Balance	Allocation	Release	Expenditure	Balance
Total					

8. Success Stories

9. Monitoring reports

10. UC (Form GFR 19-A)

11. Audited UC

ANNEXURE-V

Quarterly / Annual Progress Report of Jute Seed production programme

Name of the Agency

Reporting Period

Components Jute Seed Production Plan (Quintal)	Name of Variety	Year of Release	Area under Seed Production (ha)	Location of Seed Prodn. Dist / Block / village	Quantity (Qtls)		Remarks	Financial (Rs. in lakh)	
					Target	Achievement		Allocation	Expenditure
Production of Breeder Seed									
Production of Foundation Seed									
Production of Certified Seeds.									
Seed Village/ Govt. Farm (minimum 10 ha)									

ANNEXURE-VI

Quarterly / Annual Progress Report of National / State Level Training Programme

Name of the Agency/Organization

Reporting Period

Sr. No:	Name of Training	Physical		Title of the Training	Venue and Date of Training	No. of Participants	Financial (Rs. in Lakh)	
		Target	Achievement				Allocation	Expenditure
1.	National Level							
2.	State Level							
Total—>								

List of lectures:

ANNEXURE-VII

Quarterly/Annual Progress Report of Bio-agent lab / Tissue Culture lab

Implementing Agency

Reporting Period

Components	Physical		Location of Lab Dist/Block/ Village	Progress so far equipment Purchased	Type & quantity of Bio-agent Produced	Financial (Rs. in lakh)	
	Target	Achievement.				Allocation	Expenditure
Bio-agent lab							
Total							
Tissue Culture lab	Physical		Location of Lab Dist/Block/ Village	Progress so far equipment Purchased	No. of Seedlings produced	Financial (Rs. in lakh)	
	Target	Achievement				Allocation	Expenditure
Total							

**Components and Pattern of Assistance under NFSM- Commercial Crops
during 12th Plan Period**

1. Cotton based cropping system

Sl. No.	Component	Unit cost (Rs.)	Implementing agency
1	Insecticide Resistant Management (IRM)	Rs.4.5 lakh / dist + Administrative cost	CICR, Nagpur
2	Online Pest Monitoring and Advisory Services (OPMAS)	Rs. 4.5 lakh / dist + Administrative cost	NCIPM, New Delhi
3	(a) Front Line Demonstration on Integrated Crop Management (ICM)	Rs.7000/ha (Rs. 6000 for inputs & Rs. 1000 for Contingency)	SDA/ ICAR/SAUs/ KVK/ NGOs / Cooperatives
	(b) Front Line Demonstration on Desi and ELS cotton / ELS Cotton Seed Production.	Rs. 8000/ha (Rs 7000 for inputs & Rs. 1000 for Contingency)	ICAR/SAUs/ KVK/NGOs / Cooperatives /State Dept of Agriculture
	(c) Front Line Demonstration on Intercropping	Rs.7000/ha (Rs. 6000 for inputs & Rs. 1000 for Contingency)	ICAR/SAUs/ KVK/NGOs / Cooperatives /State Dept of Agriculture -
4	Trials on High Density Planting System	Rs.9000/ha (Rs. 8000 for inputs & Rs. 1000 for Contingency)	ICAR/SAUs/ KVK/NGOs / Cooperatives /State Dept of Agriculture
5	Contingencies & Electronic Print Media	Rs. 20.00 lakh	DOCD, Mumbai

**Components and Pattern of Assistance under NFSM- Commercial Crops
during 12th Plan Period**

2. Jute based cropping system

SI.No	Component	Unit cost	Implementing agency
1	Seed production Production of Breeder Seed Production of Foundation Seed Production of certified Seeds	Rs 20000/qtl Rs.12000/qtl Rs.5000/qtl	State Department, CRIJAF, NSC, SFCI, SAUs, ICAR, KVKs and farmers group
2.	Seed Village programme and Production of seed in government farm	Rs. 5500/- per qtl. of Certified Seed produced	State Department of Agriculture, Universities, KVKs, SSC, NSC, SFCI & SSCA
3	FLDs on alternate Retting technologies	Rs. 20000/FLD (Rs. 17000 for inputs & Rs. 3000 for Contingency)	ICAR/SAUs/ KVKs
4	FLDs on Production technologies / Intercropping	Rs.8000/ha (Rs. 7000 for inputs & Rs. 1000 for contingency)	ICAR/SAUs/ KVKs/NGOs / Cooperatives /State Dept of Agriculture
5	National level training (25 Participants X 3 days)	Rs.80000/Training	CRIJAF, NIRJAFT, SAUs such other organization.
	State level training (20 participants X 2 days)	Rs. 40000/Training	State Dept of Agriculture SAUs/ KVKs
6	Contingencies & Electronic Print Media	Rs. 20.00 lakh	DOJD, Kolkata

**Components and Pattern of Assistance under NFSM- Commercial Crops
during 12th Plan Period**

3. Sugarcane based cropping system

Sl.No	Component	Unit cost (Rs.)	Implementing agency
1	Demonstration on intercropping and single bud chip technology with Sugarcane.	Rs.8000 per ha (Rs.7000 for inputs & Rs. 1000 for Contingency)	ICAR/SAUs/ KVKs/NGOs / Cooperatives /State Dept. of Agriculture
2	Assistance for Breeder Seed Production	Rs.40000 per ha (Rs. 34000 for inputs & Rs. 6000 for Contingency)	SAUs/ ICAR and Sugarcane Research Institute
3	Production of tissue culture raised plantlets/ seedlings	Rs. 3.5 per seedlings	Sugarcane Institutions, Sugar Factories, NGOs
4	Strengthening / establishment of bio agent and tissue culture laboratory	50% of cost limited to Rs. 75 lakhs per laboratory	Sugar factories/ SAU's/ ICAR/ Sugarcane Research Institute etc.
5	National Level Trainings (25 Participants X 2 days)	Rs. 50000 per training	IISR, SBI, VSI, UPCSR, etc.
	State level training (20 participants X 2 days)	Rs. 40000 per training	State Government KVKs/ SAUs, NGO etc.
6	Contingencies & Electronic Print Media	Rs. 20.00 lakh	DOSD, Lucknow