

### FRANCHISE DISINFECTION PROGRAM OF NSSO

MULBERRY SEED
COMPONENT 1

1 Name of the sector	Mulberry - Seed
2 Continuation/innovative	Continuation
3 Unit cost	Rs.1,10,000

#	Items / Particulars	Unit			ost applicable or all zones	
	" Tems / Furtiduals		(Rs.)	Physical	Cost (Rs.)	
1	Motor cycle	No.	55,000	1	55,000	
2	Power sprayer (2 HP)	No.	25,000	1	25,000	
3	Modifications (for motor cycle)	Lumpsum		_	5,000	
4	Disinfection mask	No.	7,500	2	15,000	
5	Hand gloves	Pair	250	4	1,000	
6	Gum boots	Pair	500	2	1,000	
7	Rain coat	No.	500	2	1,000	
8	Goggles - Water proof (for eye protection)	No.	500	2	1,000	
9	Plastic tank (100 ltr cap.)	No.	1000	2	2,000	
10	Plastic ware (buckets, mugs etc)	Set	250	2	500	
11	Flame gun	No.	1,000	1	1,000	
12	Miscellaneous	Lumpsum			2,500	
	Total actual cost				1,10,000	
	Unit cost recommended				1,10,000	

#### 4 Technical norms

Cost of disinfection (fuel and labour charges) shall be borne by the farmers (Minimum Rs.100 and maximum Rs. 250 depending upon the size of the rearing house)

### SUPPORT TO CONSTRUCT REARING HOUSES FOR ADOPTED SEED REARERS



1 Name of the sector	Mulberry - Seed
2 Continuation/innovative	Innovative
3 Unit cost	Rs.1,20,000 to 3,00,000

		Unit cost applicable for zones (Rs.)				
#	Items / Particulars	Southern	North- western	Central and western	Eastern	North- eastern
	Rearing House					
1	Model-1: For 175 to 225 dfls rearing capacity					
	Total actual cost	3,80,000				-
	Unit cost recommended	3,00,000				
2	Model-2: For 50 to 100 dfls rearing capacity					
	Total actual cost	2,75,000	1,25,000	1,25,000	1,20,000	1,20,000
	Unit cost recommended	2,00,000	1,25,000	1,25,000	1,20,000	1,20,000

#### 4 Technical norms

Based on the rearing capacity of the farmers, two models are recommended

Model 1 will have 850 sq.ft area to facilitate rearing of 175 to 225 dfls.

Model 2 will have 600 sq.ft area to facilitate rearing of 50 to 100 dfls.

Cost involved for rearing house - Model - 1: Rs.458/- per sq.ft.

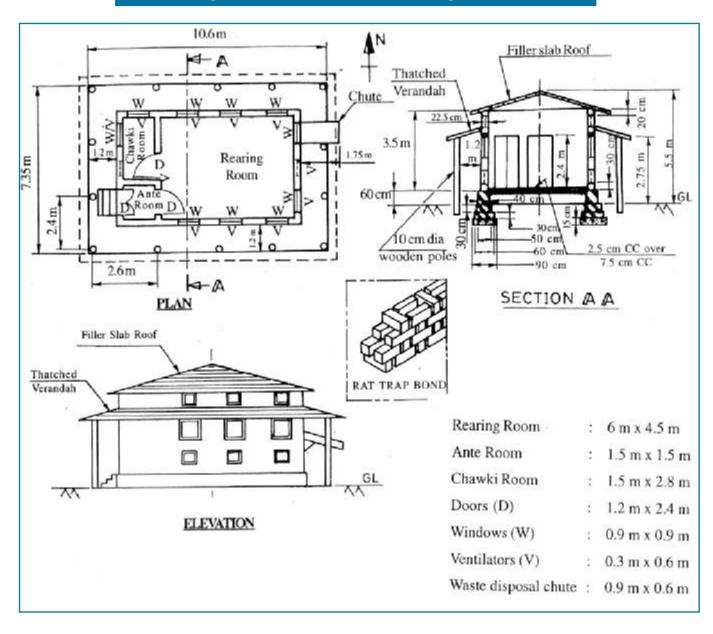
Cost involved for rearing house - Model - 2: Rs.447/- per sq.ft.

### SUPPORT TO CONSTRUCT REARING HOUSES FOR ADOPTED SEED REARERS

MULBERRY SEED
COMPONENT 2

5. Plan / Design (Model 1)

### Rearing house (South zone) for rearing 175-225 dfls

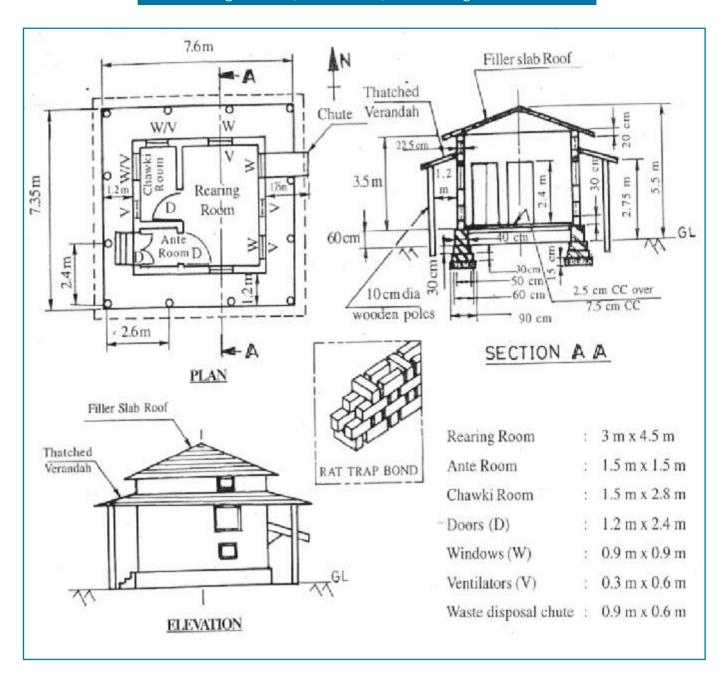


### SUPPORT TO CONSTRUCT REARING HOUSES FOR ADOPTED SEED REARERS

MULBERRY SEED
COMPONENT 2

5. Plan / Design (Model 2)

### Rearing house (South zone) for rearing 50-100 dfls



### REVOLVING CAPITAL FUND SUPPORT FOR STATE GRAINAGES AND REGISTERED SEED PRODUCERS

MULBERRY SEED COMPONENT 3

1	Name of the sector	Mulberry - Seed
2	Continuation/innovative	Innovative
3	Unit cost	Rs.1,35,000 to 5,00,000

			Unit cost a	pplicable for a	zones (Rs.)	)
#	Items/Particulars	Southern	North- western	Central and western	Eastern	North- eastern
1	For production of 2.00 lakh and above CB dfls.					
	Total actual cost				1,35,000	
	Unit cost recommended				1,35,000	
2	For production of 5.00 lakh and above CB dfls.					
	Total actual cost	2,25,000			2,70,000	
	Unit cost recommended	2,00,000			2,70,000	
3	For a total production of 5.00 lakh and above CB and Bivoltine hybrids together.					
	Total actual cost	3,50,000	3,00,000	3,00,000		
	Unit cost recommended	3,00,000	3,00,000	3,00,000		
4	For production of 2.00 lakh and above Bivoltine dfls.					
	Total actual cost					1,35,000
	Unit cost recommended					1,35,000
5	For production of 5.00 lakh and above Bivoltine dfls.					
	Total actual cost	5,75,000	3,00,000	3,00,000	2,70,000	
	Unit cost recommended	5,00,000	3,00,000	3,00,000	2,70,000	
6	For a production of 2.00 lakh and above CB and Bivoltine dfls.					
	Total actual cost	3,50,000			1,35,000	1,35,000
	Unit cost recommended	3,00,000			1,35,000	1,35,000

#### 4 Technical norms

The revolving capital amount required is calculated based on the cost of seed cocoons required to produce commercial seed, optimum recovery of eggs and production cycles / year.

## ASSISTANCE FOR PURCHASING SEED TESTING EQUIPMENT FOR STATE AND PRIVATE REGISTERED SEED PRODUCERS



1	Name of the sector	Mulberry-Seed
2	Continuation/innovative	Innovative
3	Unit cost	Rs.1,75,000

#	Items / Particulars	Unit	Unit price	Unit cost a for all	applicable zones
			(Rs.)	Physical	Cost (Rs.)
	For production of 2.00 lakh and abo	ve CB dfls.			
1	Binocular microscope	No.	26,250	2	52,500
2	Centrifuge (with 8 tube head, 100 m	I cap, 200 tubes) No.	60,000	1	60,000
3	Mixi (with 6 jars)	No.	7,500	2	15,000
4	Cyclomixer	No.	4,000	1	4,000
5	Moth examination table	No.	2,500	2	5,000
6	Testing stool	No.	500	3	1,500
7	Funnel	No.	40	100	4,000
8	Beaker	No.	60	25	1,500
9	Test tube stand	No.	200	25	5,000
10	Vacuum cleaner	No.	15,000	1	15,000
11	Chemicals	Lumpsun	n 6,500		6,500
12	Glass ware	Lumpsun	n 5,000		5,000
	Total actual cost				1,75,000
	Unit cost recommended				1,75,000

#### 4 Technical norms

Assistance shall be extended only to the Registered Seed Producers.

### SUPPORT TO STRENGTHEN BASIC SEED FARMS OF STATES

MULBERRY SEED
COMPONENT 5

1	Name of the sector	Mulberry-Seed
2	Continuation/innovative	Innovative
3	Unit cost	Rs. 5,00,000

#	Items / Particulars	Unit		Unit cost applica for all zones	•
			(Rs.)	Physical	Cost (Rs.)
1	Plantation of new variety	Acre	25,000	1	25,000
2	Drip irrigation	Acre	40,000	1	40,000
3	Bore well plus pump set	No.	1,20,000	1	1,20,000
4	Power operated weeder	No.	15,000	1	15,000
5	Power tiller	No.	50,000	1	50,000
6	Power sprayer	No.	25,000	1	25,000
7	Garden equipment	Set	17,000	1	17,000
8	PVC rearing stands (for P3 farms)	No.	3,000	10	30,000
9	PVC shoot rearing stands (for P2 farms)	No.	2,500	20	50,000
10	Plastic rearing trays (2' x 3')	No.	300	250	75,000
11	Room heater	No.	8,500	4	34,000
12	Humidifier	No.	24,000	2	48,000
13	Split air conditioner (1.5 Ton)	No.	30,000	4	1,20,000
14	Disinfection mask	No.	7,500	2	15,000
15	Flame gun	No.	1,500	1	1,500
16	Testing equipment	Set	1,75,000	1	1,75,000
17	Miscellaneous	Lumpsum	9,500		9,500
	Total actual cost				8,50,000
	Unit cost recommended				5,00,000

### SUPPORT TO UPGRADE STATE AND PRIVATE COMMERCIAL SEED PRODUCTION UNITS



1	Name of the sector	Mulberry - Seed
2	Continuation/innovative	Innovative
3	Unit cost	Rs. 3,50,000

#	Items / Particulars	Unit	Unit price (Rs.)	Unit cost applicable for all zones			
			(RS.)	Physical	Cost (Rs.)		
1	Plastic tray (2' x 3')	No.	300	200	60,000		
2	Grainage stand	No.	12,000	10	1,20,000		
3	Power sprayer	No.	25,000	1	25,000		
4	Disinfection mask	No.	15,000	2	30,000		
5	Room heater	No.	8,500	4	34,000		
6	Humidifier	No.	24,000	1	24,000		
7	Split air conditioner	No.	30,000	2	60,000		
8	Acid treatment bath with timer	No.	30,000	1	30,000		
9	Loose egg washing tray	No.	16,000	1	16,000		
10	Loose egg drying chamber	No.	8,000	1	8,000		
11	Loose egg winnowing unit	No.	6,000	1	6,000		
12	Male moth preservation chamber (7° & 9° C)	Unit	3,50,000	1	3,50,000		
13	Egg preservation chamber	Unit	5,00,000	1	5,00,000		
	Total actual cost				12,63,000		
	Unit cost recommended				3,50,000		

Proposed to provide one time assistance to the registered graineurs for procuring the equipment (who are producing 5 lakh dfls)

SUPPORT FOR MULBERRY BUSH PLANTATION DEVELOPMENT MULBERRY COCOON (RAISING OF HIGH YIELDING MULBERRY VARIETIES IN PRIVATE LANDS/ MULBERRY TREES / REPLACEMENT OF MULBERRY VARIETIES WITH "NEW VARIETIES")

**COMPONENT 1** 

1	Name of the sector	Mulberry - Cocoon
2	Continuation/innovative	Continuation
3	Unit cost	Rs. 14,000 per acre

				Unit cost for the zones (per acre)								
#	Items / Particulars	Unit	Unit price (Rs.)	Southern		North-wes		Central and western; Eastern and North-eastern				
				Physical	Cost (Rs.)	Physical	Cost (Rs.)	Physical	Cost (Rs.)			
1	Tilling and land preparation	Lumpsum			3,600				2,000			
2	Farmyard manure	MT	800	8	6,400			3	2,400			
3	Saplings	No	1.50	6,000	9,000			6,000	9,000			
4	Preparation of ridges and											
	furrows/pit making and	Mandays	200	22	4,400			20	3,000			
	plantation											
5	Irrigation	Mandays	200	10	2,000			14	2,800			
6	Weeding	Mandays	200	10	2,000			20	4,000			
	Total actual cost				27,400				23,200			
	Unit cost recommended				14,000				14,000			

- Actual unit costs for different zones have been arrived at taking into consideration the prevailing costs of saplings, transportation and inputs (like labour, FYM, chemical fertilizer, irrigation, chemicals etc) for plantation and establishment of garden etc.
- Only zone-wise recommended high yielding mulberry varieties shall be selected for plantation.
- Either cuttings or 3-4 month old saplings can be used as planting material.
- Irrigation and fertilizers shall be applied / provided as per recommeded guidelines / schedules.

# SUPPORT FOR MULBERRY TREE PLANTATION DEVELOPMENT (RAISING AND MAINTENANCE OF TREE PLANTATION / MAINTENANCE OF EXISTING MULBERRY TREES)



1	Name of the sector	Mulberry - Cocoon
2	Continuation/innovative	Continuation
3	Unit cost	Rs.14,000 per acre or for 300 trees

					Unit c	ost for the zo	ones (pe	er acre)	
#	Items / Particulars	Unit	Unit price (Rs.)	Southern		North-we:	stern	Central and Easter North-e	n and
				Physical	Cost (Rs.)	Physical	Cost (Rs.)	Physical	Cost (Rs.)
1	Saplings	No.	4		400	1,600			
2	Preparation of pits	Mandays	200		12	2,400			
3	Farm yard manure and chemical fertilizers	Lumpsum	4,000			4,000			
4	Application of inputs, cultural operations and potwatering etc.	Mandays	200		40	8,000			
5	Farm implements (spade, bucket, pick axe, secateur and pruning saw)	No. (set)	1,000		1	1,000			
	Total actual cost					17,000			
	Unit cost recommended					14,000			_
No	te: Other zones desirous of d	eveloping tre	ee plantati	on may avai	l this.				

- Actual unit costs for north-western zone have been arrived at taking into consideration the prevailing cost of saplings and inputs (like labour, FYM, chemical fertilizer, irrigation, cultural operations etc.) for tree plantation.
- > Only recommended high yielding mulberry varieties shall be selected for plantation.
- Only saplings to be used as planting material.
- > Irrigation and fertilizers shall be applied / provided as per recommended guidelines / schedules.

### ASSISTANCE FOR IRRIGATION AND OTHER WATER CONSERVATION AND USAGE TECHNIQUES

(TO COVER DRIP IRRIGATION, TUBE/OPEN WELLS, SHALLOW WELLS, PONDS, FARM PONDS, SURFACE TANKS AND SIMILAR WATER HARVESTING SYSTEMS INCLUDING GROUND WATER)



1	Name of the sector	Mulberry - Cocoon
2	Continuation/innovative	Continuation
3	Unit cost	Rs. 25,000 to 30,000 per acre

			Unit	L	Init cost for	the zones per a	acre (Rs.)	
#	Items / Particulars	Unit	price (Rs.)	Southern	North- western	Central and western	Eastern	North- eastern
1	Development of irrigation sources (Construction/digging of farm ponds, open and bore-wells, bore-well recharge structures, surface tanks including storage tanks, conservation facilities etc.)	Lumpsum (Rs.)	-	50,000	13,000	13,000	13,000	-
2	Water lifting devices (Electric pump-set, diesel engine pump-set etc.)		-	30,000	30,000	30,000	30,000	30,000
3	Sprinkler irrigation system			30,000				26,000
4	Drip irrigation system			30,000				26,000
5	Rain gun with accessories			30,000				
	Total actual cost			50,000	30,000	30,000	30,000	30,000
	Unit cost recommended			30,000	25,000	25,000	25,000	25,000

- Actual cost has been arrived at considering the prevailing cost of material, installation and labour etc., depending upon type of the irrigation system.
- Availability of basic requirements like water resource and electricity / diesel power, pumps of adequate capacity etc., to be ensured.
- Appropriate irrigation system shall be provided depending upon the zone requirements duly ensuring least cost burden to the farmers.
- > Supply of good quality irrigation system having Bureau of Indian Standards (BIS) marking and proper after-sales service to the satisfaction of the farmers, is of paramount importance.
- Only the recommended design of main and lateral drip lines should be installed depending upon the type of mulberry plantation and nature of land.

### SUPPLY OF REARING APPLIANCES TO FARMERS (INCLUDING IMPROVED MOUNTAGES / FARM EQUIPMENT)



1	Name of the sector	Mulberry-Cocoon
2	Continuation/innovative	Continuation
3	Unit cost	Rs. 40,000 to 70,000 per acre

						Uı	nit cost fo	or the z	ones per	acre (R	?s.)		
#	Items / Particulars	Unit	Unit price		thern 50 dfls)		western 00 dfls)	Centra wes (For 1			tern 50 dfls)	North-6 (For 1	eastern 50 dfls)
			(Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)
1	Motorized power weeder/ bush cutter	No.	80,000	1	80,000								
2	Mulberry shoot harvester	No.	30,000	1	30,000								
3	Power sprayer	No.	20,000	1	20,000	1	20,000	1	18,000	1	18,000	1	18,000
4	Flame gun	No.	1,500	1	1,500	1	1,500	1	1,200	1	1,200	1	1,200
5	Humidifier / heater	Set	10,000	2	20,000	1	10,000						
6	Mature silkworm separator with nets	Set	15,000	1	15,000								
7	Improved / rotary mountage	No.	650	90	58,500	35	22,750						
8	Plastic collapsible mountage	No.	40			225	9,000	225	9,000	225	9,000	225	9,000
9	Cocoon deflosser	No.	5,000	1	5,000	1	5,000						
10	Bamboo dala (4' x 6')	No.	100					48	4,800	48	4,800	48	4,800
11	Plastic tray (3' x 2')	No.	350			10	3,500	192	67,200	192	67,200	192	67,200
12	Bed cleaning net	No.	24			40	960	120	3,000	120	3,000	120	3,000
13	Chandrike (bamboo made)	No.	200					48	9,600	48	9,600	48	9,600
14	Shoot rearing racks	Sq ft	7	2,000	14,000	800	5,600	1,050	7,350	1050	7,350	1,050	7,350
15	Plastic cocoon harvester (pushers and iron frame)	Set	300	4	1,200	1	300	2	600	2	600	2	600
16	Solar lighting system	Lumpsum										1	10,000
	Total actual cost				2,45,200		78,610		1,20,750		1,20,750		1,30,750
	Unit cost recommended				70,000		40,000		50,000		50,000		50,000

- > The actual unit cost per farmer having one acre has been arrived at taking into consideration depending on rearing capacity, required quantum of rearing appliances/equipment and the prevailing rates for different zones.
- > The farmers can be supplied with the labour reduction machinery, equipment, tools and appliances as per their actual requirement as recommended by the Research Institutes.
- > For southern states, supply of rotary mountages is essential for bivoltine sericulture. In respect of other states, plastic or other type of mountages can also be used in addition to rotary mountages within the approved unit cost.
- > Solar lighting system could be made available for other zones.

### SUPPLY OF QUALITY DISINFECTING MATERIALS AND OTHER CROP PROTECTION MEASURES FOR FARMERS



1	Name of the sector	Mulberry-Cocoon
2	Continuation/innovative	Continuation
3	Unit cost	Rs. 4,000 to 5,000 per Acre

						Un	it cost fo			acre (R	s.)		
#	Items / Particulars	Unit	Unit price (Rs.)		uthern 250 dfls)		western 00 dfls)	wes	ral and tern 50 dfls)		tern 50dfls)		-eastern 50 dfls)
				Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)
1	General disinfectants												
	a) Asthra	g	150	3	450			2	320	2	320	2	320
	b) Sanitech	No	90			5	450						
	c) Bleaching powder	kg	25	5	125	9	225	3	75	3	75	3	75
	d) Lime	kg	10	10	100	4	40	7	70	7	70	7	70
2	Bed disinfectants (Ankush, Rakshak, Vijetha etc.)		50	15	750	4	200	7	350	7	350	7	350
3	Uzi fly control												
	Uzi trap(Chemo-trap for attracting adult uzi flies)	No	40	2	80								
4	Crop protection measures for	mulbe	erry										
	Navinya (for 600 plants)	Kg.	500	6	3,000								
	Total cost of disinfectants (For one crop)				1,505		915	-	815		815		815
	Total cost of disinfectants (For 5 crops)(Acre/year/one crop)				7,525		4,575		4,075		4,075		4,075
	Navinya (for 600 plants)				3,000								
	Total actual cost				7,525		4,575		4,075		4,075		4,075
	Unit cost recommended				5,000		4,000		4,000		4,000		4,000

#### 4 Technical norms:

For rearing of 250 dfls (southern zone), Rs.1505 is the disinfectant cost (General disinfectants/bed disinfectants and uzi fly control) /crop. Hence, size of the rearing house)

For north-western zone, to rear 100 dfls, the actual cost will be Rs.4575 for 5 crops in a year. Similarly, for other zones *viz.*, central and western, eastern and north-eastern, to rear 150 dfls, the actual cost will be Rs.4,075/- for 5 crops in a year.

Procurement of disinfectants from list of approved suppliers and their supply by the concerned agencies will be subject to quality test either by the state or CSB research institutes/laboratories.

In case of use of *Navinya*, for the control of root rot in mulberry, subsidy will be released on pro-rata basis subject to a maximum of Rs. 3,000 per acre.

Disinfectants supplied should be well within expiry date.

Disinfectants should be used as per the recommendations of the research institutes for the particular zone.

### ASSISTANCE FOR CONSTRUCTION OF REARING HOUSES



1	Name of the sector	Mulberry-Cocoon
2	Continuation/innovative	Continuation
3	Unit cost	Model No.1 - Rs.1,75,000 to 2,75,000; Model No.2 - Rs.1,20,000 to 1,75,000; Model No.3 - Rs.60,000 to 90,000 and Low cost model Rs.30,000 per rearing house

			Unit		Unit cos	t for the zones	(Rs.)	
#	Items / Particulars	Unit	price (Rs.)	Southern	North- western	Central and western	Eastern	North- eastern
1	Model I - Floor area 1000 sqft for rearing 250 dfls/batch	Lumpsum	400 per sq.ft.					
	Total actual cost			4,00,000			1,80,000	1,80,000
	Unit cost recommended			2,75,000			1,75,000	1,75,000
2	Model II - Floor area 600 sqft for rearing 150 dfls/batch	Lumpsum	400 per sq.ft.					
	Total actual cost			2,50,000	1,25,000		1,20,000	1,20,000
	Unit cost recommended			1,75,000	1,25,000		1,20,000	1,20,000
3	Model III - Floor area 225 sq ft for rearing 50 dfls/batch	Lumpsum	400 per sq.ft.					
	Total actual cost			1,00,000	75,000	75,000	60,000	60,000
	Unit cost recommended			90,000	75,000	75,000	60,000	60,000
4	Low cost rearing house- Floor area 225 sq ft for rearing 50 dfls/batch	Lumpsum						
	Total actual cost			50,000	50,000	50,000	50,000	50,000
	Unit cost recommended			30,000	30,000	30,000	30,000	30,000

#### 4 Technical norms

Considering the topographical nature of the regions and rearing capacity, three models of rearing houses, *viz.*, 1,000 sq ft (250 dfls rearing capacity), 600 sq ft (150 dfls rearing capacity) and 225 sq ft (50 dfls rearing capacity) have been designed.

For constructing low cost rearing houses with locally available materials, the cost is restricted to Rs.30,000/-. Rearing houses should be constructed as per the prescribed designs, but material usage is as per discretion of implementing agency and size of the rearing house.

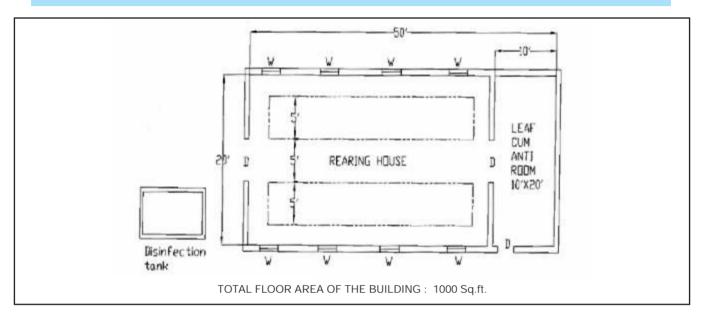
### ASSISTANCE FOR CONSTRUCTION OF REARING HOUSES

MULBERRY COCOON

COMPONENT 5

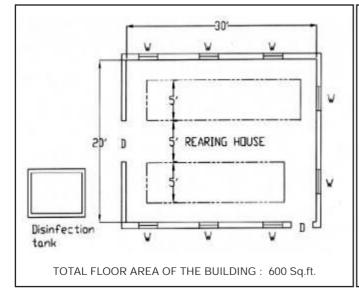
5. Plans / Designs

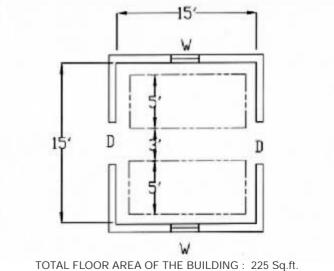
Rearing house sketch for 1 acre mulberry garden (Rearing capacity : 250 dfls)



Rearing house sketch for rearing 50-100 dfls (south zone)

Rearing house sketch for below 1/2 acre mulberry garden: (Rearing capacity: 50 dfls/crop)





Indicative sketches for rearing houses

# ASSISTANCE FOR MAINTENANCE OF CHAWKI GARDEN, CONSTRUCTION OF CHAWKI REARING CENTRE AND PROCUREMENT OF REARING EQUIPMENT



1	Name of the sector	Mulberry - Cocoon
2	Continuation/innovative	Continuation
3	Unit cost	Rs. 4,00,000 to 6,00,000 per CRC

						Ur	nit cost fo	the z	ones per	acre (F	Rs.)		
#	Items / Particulars	Unit	Unit price (Rs.)	Sou	uthern	North	-western		tral and estern	Ea	stern	Nort	h -eastern
			(113.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)
1	Inputs for plantation and establishment of 2 acres chawki garden (Mulberry cuttings/saplings, labour, bullock power, FYM, chemical fertilizer, irrigation, chemicals etc.)	Lump- sum		-	1,20,000	-	1,20,000		1,20,000		1,20,000		1,20,000
II.	Rearing house (42'x30'16')	No		1	3,00,000	1	4,00,000	1	2,56,000	1	2,56,000	1	2,56,000
111	Equipment												
1	Plastic rearing tray	No	350	600	2,10,000	400	1,40,000	400	1,40,000	400	1,40,000	400	1,40,000
2	Rearing stand (made of HD PVC pipes)	No	15,000	4	60,000	4	48,000	4	48,000	4	48,000	4	48,000
3	Incubation frame	No	45	100	4,500	100	4,500	100	4,500	100	4,500	100	4,500
4	Leaf chopping machine	No	30,000	1	30,000	1	30,000	1	30,000	1	30,000	1	30,000
5	Humidifier	No	16,000	1	16,000	1	16,000	1	16,000	1	16,000	1	16,000
6	Heater	No	5,000	2	10,000	2	10,000	2	10,000	2	10,000	2	10,000
7	Power sprayer	No	20,000	1	20,000	1	10,000	1	10,000	1	10,000	1	10,000
8	Disinfection mask	No	7,000	1	7,000	1	7,000	1	7,000	1	7,000	1	7,000
9	Microscope	No	12,000	1	12,000								
10	Wet and dry thermometer	No	1,500	1	1,500	1	700	1	700	1	700	1	700
11	Bed cleaning net	No	30	1,200	36,000	320	9,600	320	9,600	320	9,600	320	9,600
12	Plastic tray washing machine	No	20,000	1	20,000								
13	Chawki dusting machine	No	25,000	1	25,000								
14	1 KVA Generator	No	50,000	1	50,000								
15	Other contingencies	Lumpsum			54,800				46,400		46,400		46,400
	Total actual cost				9,76,800		7,95,800		5,78,200		5,78,200		5,78,200
	Unit cost recommended				6,00,000		4,00,000		4,00,000		4,00,000		4,00,000

ASSISTANCE FOR MAINTENANCE OF CHAWKI GARDEN, CONSTRUCTION OF CHAWKI REARING CENTRE AND PROCUREMENT OF REARING FOUIPMENT

MULBERRY COCOON

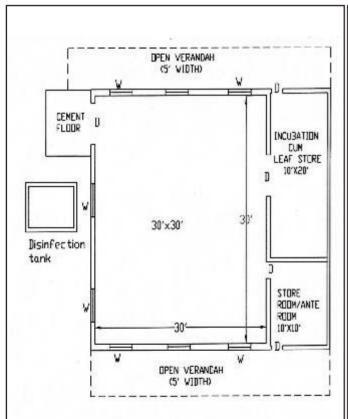
COMPONENT 6

#### 4 Technical norms

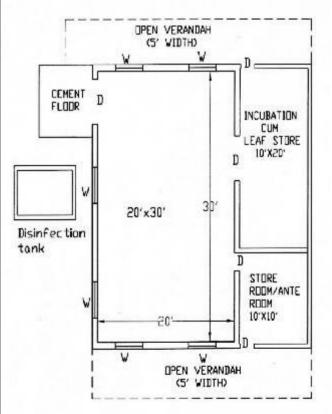
- For establishment of a new CRC, well irrigated plantation with high yielding mulberry variety in plain land with fertile and porous soil is recommended
- Depending upon the rearing capacity, the required quantity of rearing appliances / equipment and other inputs have been recommended and accordingly the actual cost for different zones have been worked out.
- Two acres of chawki garden is essential for a CRC to rear 1.50 to 1.60 lakh dfls of chawki worms @ 5000 dfls / batch once in every 10 days (with 32 batches per annum)
- Microlevel CRCs in small clusters (covering 10 to 20 farmers) shall also be assisted for procurement of CRC equipment (like plastic rearing trays and stands, hygrometer, humidifier, leaf chopping machine and compressor power sprayer etc) worth to Rs. 50,000 to 1,00,000
- > The CRC shall have to be registered with CSB as per the Seed Act.
- CRC building shall be constructed as per the prescribed design.

#### 5. Plans / Designs

### Model Chawki Rearing Building For 5000 dfls/batch



### Model Chawki Rearing Building For 2500 dfls/batch



# PRODUCTION UNITS FOR BIOLOGICAL INPUTS / DOOR-TO-DOOR SERVICE AGENTS FOR DISINFECTION AND INPUT SUPPLY AND ASSISTANCE FOR SERICULTURE POLY-CLINICS

MULBERRY COCOON COMPONENT 7

1	Name of the sector	Mulberry-Cocoon
2	Continuation/innovative	Continuation
3	Unit cost	Rs. 1,50,000 to 3,00,000

							Unit co	ost for	the zone	S			
#	Items / Particulars	Unit	Unit price	Sou	thern	North -	western		ral and stern	Eas	stern	North-	eastern
			(Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)
1.	"Establishment of production units for biological Inputs (Nesolynx thymus, lady bird beetles, Trichogramma chilonis / Scymnus coccivora) "												
Α	Equipment:												
1	Iron Stand (6" x 5' x 6" - 10 rows)	No.	3,000	6	18,000								
2	Plastic crates (non perforated) (57cm x 36 cm x 11cm)	No.	350	50	17,500								
3	Plastic tray (non perforated) (90cm x 60cm x 6cm)	No.	350	30	10,500								
4	Plastic crates (non perforated) (57cm x 36 cm x 6cm)	No.	350	70	24,500								
5	Plastic basins (45 cm dia, 20 cm ht)	No.	75	100	7,500								
6	Plastic tray with perforated bottom (90 cm x 60 cm x 6 cm)	No.	300	10	3,000								
7	Open shelf (6' x 3' x 1')	No.	3,000	4	12,000								
8	House fly cage (2' x 1.5' x 1.5')	No.	250	3	750								
9	Plastic boxes with mesh lid	No.	15	360	5,400								
10	Room heater	No.	1,000	2	2,000								
11	Refrigerator	No.	7,000	1	7,000								
12	Measuring cylinders – plastic	No.	50	10	500								_
13	Working table (2.5' x 4' x 2.5')	No.	2,000	2	4,000								
14	Office table	No.	2,500	1	2,500								
15	Chairs	No.	500	4	2,000								
16	Stool	No.	300	4	1,200								
17	Wet and dry thermometer	No.	1,200	2	2,400								
18	Weighing balance	No.	1,500	1	1,500								
19	Water storage container (plastic)	No.	500	1	500								
20	Almirah	No.	7,000	1	7,000								
21	Wooden cages (1' x 1' x 1')	No.	400	30	12,000								
22	Stand for pumpkin	No.	30	300	9,000								
`B	Consumables												
1	Pumpkin	kg	15	500	7,500								
2	Wheat bran	kg	25	500	12,500								
3	Cow dung cake	kg	10	200	2,000								
4	Milk powder	kg	100	40	4,000								

PRODUCTION UNITS FOR BIOLOGICAL INPUTS /
DOOR-TO-DOOR SERVICE AGENTS FOR DISINFECTION AND
INPUT SUPPLY AND ASSISTANCE FOR
SERICULTURE POLY-CLINICS

# MULBERRY COCOON COMPONENT 7

							Unit c	ost for	the zones	6			
#	Items / Particulars	Unit	Unit price	Sou	uthern	North	-western		ral and stern	Eas	stern	North	n-eastern
			(Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)
5	Yeast	kg	200	5	1,000								
6	Honey	kg	150	2	300								
7	Absorbent cotton	Roll	100	3	300								
8	Sugar	Kg	35	30	1,050								
9	Packing material Nylon net pouches, plastic boxes, card board boxes, gum tape etc.	Lumpsum			3,500								-
10	Cloth	Lumpsum			1000								
11	Miscellaneous (soap, detergents, stapler pins, rubber bands etc.)	Lumpsum	-		1100		-						
Ш	Setting up of door-to-door ser	vice age	nts for di	sinfect	ion								
1	Vehicle	No.	60,000	1	60,000	1	35,000	1	35,000	1	35,000	1	35,000
2	Power sprayer	No.	30,000	1	30,000	1	30,000	1	30,000	1	30,000	1	30,000
3	Accessories and assembling charges	Lumpsum			7,500		7,500		7,500		7,500		7,500
4	Mask	No.	7,000	1	7,000	1	7,000	1	7,000	1	7,000	1	7,000
5	Hose pipe	Unit	2,500	1	2,500	1	2,500	1	2,500	1	2,500	1	2,500
6	Water container (100 ltr cap.)	No.	300	2	600	2	600	2	600	2	600	2	600
7	Bucket (Plastic)	No.	100	2	200	2	200	2	200	2	200	2	200
8	Filters	No.	200	2	400	2	400	2	400	2	400	2	400
9	Plastic ware	Lumpsum			1,000		1,000		1,000		1,000		1,000
10	Flame gun	No.	1,500	1	1,500	1	1,500	1	1,500	1	1,500	1	1,500
11	Apron	No.	500	4	2,000	4	2,000	4	2,000	4	2,000	4	2,000
12	Tool kit	Set	1,200	1	1,200	1	1,200	1	1,200	1	1,200	1	1,200
13	Rain coat	No.	500	2	1,000	2	1,000	2	1,000	2	1,000	2	1,000
14	Storage rack for equipment	No.	5,000	1	5,000	1	5,000	1	5,000	1	5,000	1	5,000
15	Basic furniture	Lumpsum			6,000		6,000		6,000		6,000		6,000
16	Gum boot	No.	700	2	1,400	2	1,400	2	1,400	2	1,400	2	1,400
17	Vacuum cleaner	No.	4,000	1	4,000	1	4,000	1	4,000	1	4,000	1	4,000
18	Miscellaneous - Contingencies	Lumpsum			3,700		3,700		3,700		3,700		3,700
Ш	Setting up of sericulture poly-												
1	Portable soil testing unit	No.	40,000	1	·	1	40,000	1	40,000	1	40,000	1	40,000
2	Microscope	No.	15,000	1	15,000	1	15,000	1	15,000	1	15,000	1	15,000
3	Mixer with 4 jars	No.	4,000	1	4,000								
4	Centrifuge (10000 rpm)	No.	20,000	1	20,000								
5	Cyclo-mixer	No.	1,500	1	1,500								-
6	Plastic & glass ware	Lumpsum			5,000		6,500		6,500		6,500		6,500

PRODUCTION UNITS FOR BIOLOGICAL INPUTS /
DOOR-TO-DOOR SERVICE AGENTS FOR DISINFECTION AND
INPUT SUPPLY AND ASSISTANCE FOR
SERICULTURE POLY-CLINICS



							Unit c	ost for	the zone	S			
#	Items / Particulars	Unit	Unit price	Sou	thern	North	-western		ral and stern	Ea	ıstern	Nortl	n-eastern
			(Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)
7	Small pumps-knapsack/backpack	No.	2600	1	2,600	1	2,600	1	2,600	1	2,600	1	2,600
8	Duster	No.	2500	1	2,500	1	2,600	1	2,600	1	2,600	1	2,600
9	Miscellaneous-Contingencies	Lumpsum			20,000		7,300		7,300		7,300		7,300
Α	Establishment of production un	its for b	iologica	inputs									
	Total actual cost				1,85,000	)							
	Unit cost recommended				1,40,000	)							
В	Setting up of door-to-door serv	ice ager	nts for di	sinfecti	on								
	Total actual cost				1,35,000	)	1,10,000		1,10,000		1,10,000		1,10,000
	Unit cost recommended				1,10,000	)	1,10,000		1,10,000		1,10,000		1,10,000
С	Setting up of sericulture poly-cl	inics											
	Total actual cost				1,10,600	)	74,000		74,000		74,000		74,000
	Unit cost recommended				50,000		40,000		40,000		74,000		40,000

#### 4 Technical norms

Bio-control agents : 1. Nesolynx thymus for the control of "Uzi fly"

2. Scymnus coccivora for the control of "Tukra"

Production capacity per unit / Month for Bio-Control Unit.

1. Nesolynx thymus : 2000 pouches covering one lakh dfls (at 2 pouches per 100 dfls)

2. Scymnus coccivora : 85,000 beetles covering 170 acres (Mulberry) (at 500 beetles per acre/year)

The actual cost for establishment of bio-control units have been arrived at taking into consideration the cost of equipment, raw material/building rent, working capital/training etc.

The actual cost for door-to-door service agents has been arrived at taking into consideration the cost of bicycle/motor cycle to carry the disinfecting equipment like power sprayer, disinfectants, accessories and safety equipment etc.

The entrepreneurs / unemployed graduates should be trained on the concerned activity in a research institute/training centre of the CSB before taking up the activity

The entrepreneurs/unemployed graduates who receive assistance will be issued a certificate either from DOS/CSB as the authorized person to sell/distribute the biological control agents

The DOS/CSB will adopt a quality control system so as to ensure the quality of biological agents produced and distributed in the field.

### SUPPORT FOR DEVELOPMENT OF KISAN NURSERIES



1	Name of the sector	Mulberry-Cocoon
2	Continuation/innovative	Innovative
3	Unit cost	Rs.1,15,000 per acre

						Unit co	st for the	zones	(per acre	Kisan	Nursery)		
			Unit	Sou	uthern	North	-western		tral and	Ea	astern	Nort	h-eastern
#	Items / Particulars	Unit	price					WE					
			(Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)
1.	No of saplings to be raised per a	acre : 1280	00										
1	Preparation of nursery												
1	Tractor ploughing	hr	600	4	2,400	4	2,400	4	2,400	4	2,400	4	2,400
2	Sand	Truck load	7,500	2	15,000	2	15,000	2	15,000	2	15,000	2	15,000
3	Bullock plough	Days	400	2	800	2	800	2	800	2	800	2	800
4	Preparation of nursery bed	Mandays	200	50	10,000	50	10,000	50	10,000	50	10,000	50	10,000
5	Farm yard manure	MT	750	10	7,500	10	7,500	10	7,500	10	7,500	10	7,500
6	Broadcasting of sand	Mandays	200	8	1,600	8	1,600	8	1,600	8	1,600	8	1,600
7	Broadcasting of farm yard manure	Mandays	200	8	1,600	8	1,600	8	1,600	8	1,600	8	1,600
Ш	Planting and maintenace of nu	rsery											
1	Planting material	MT/No.	1,600	6	9,600	6	9,600	6	9,600	6	9,600	6	9,600
2	Transportation of planting material	Load	2,000	1	2,000	1	2,000	1	2,000	1	2,000	1	2,000
3	Preparation of cuttings	Mandays	200	35	7,000	35	7,000	35	7,000	35	7,000	35	7,000
4	Planting of cuttings	Mandays	200	105	21,000	105	21,000	105	21,000	105	21,000	105	21,000
5	Irrigation	Mandays	200	20	4,000	20	4,000	20	4,000	20	4,000	20	4,000
6	Weeding	Mandays	200	75	15,000	75	15,000	75	15,000	75	15,000	75	15,000
7	Fetilizer	kg	6	65	390	65	390	65	390	65	390	65	390
8	Application of fertilizer	Mandays	200	2	400	2	400	2	400	2	400	2	400
9	Uprooting of saplings	Mandays	200	15	3,000	15	3,000	15	3,000	15	3,000	15	3,000
10	Miscellaneous	Lumpsum			1,210		1,210		1,210		1,210		1,210
Ш	Machinery, tools and equipmen	nt											
1	Garden implements	Lumpsum			2,000		2,000		2,000		2,000		2,000
2	Cutting making machine	No	9,000	1	9,000	1	9,000	1	9,000	1	9,000	1	9,000
3	Electricity and diesel	Lump sum			1,500		1,500		1,500		1,500		1,500
	Total actual cost (1 acre)				1,15,000		1,15,000		1,15,000		1,15,000		1,15,000
	Unit cost recommended (1 acre)				1,15,000		1,15,000		1,15,000		1,15,000		1,15,000

### SUPPORT FOR DEVELOPMENT OF KISAN NURSERIES



- > Though mulberry saplings can be raised throughout the year, it is suggested to raise saplings three to four months prior to the planting season, i.e, February to April, so that the saplings shall be ready by June to August to take up plantation taking advantage of monsoon rains.
- The nursery land shall be flat and elevated with adequate irrigation facilities. Submersible areas must be avoided.
- Sandy to clayey loam, light textured sorts of good drainage capacity with PH range of 6.5 to 7.5 and soil depth of 3' are considered ideal for establishing nurseries.
- It is advisible to collect improved mulberry variety true to type seed cuttings, free from pests and diseases.
- Cuttings shall be planted in the nursery beds in straight position, exposing only one bud above the surface of the soil, following row to row distance of 20 cm and cutting to cutting distance of 10 cm. A nursery bed of size 3m x 1m acommodates 150 cuttings.
- The actual unit cost to establish one acre kissan nursery has been arrived at taking into consideration the cost of saplings cost of cultural operations, transportation, maintenance etc.
- The subsidy amount shall be given according to number of acres of kissan nurseries on pro-rata basis subject to a maximum of Rs.10.00 lakh.
- Even though there is ceiling limit per kissan nursery, DOS can support more than one hectare depending on the capacity of the identified entrepreneur and potential in the area for sericulture development.
- The DOSs and other implementing agencies have to support the nurseries raised by the farmers by procuring the saplings for distribution to the identified project / cluster area beneficiaries.
- Large scale kissan nurseries could be supported on pro-rata basis

# MAINTENANCE COST FOR MULBERRY PLANTATION RAISED DURING X AND XI PLANS FOR 3 YEARS (NORTH-EASTERN AND HILLY AREAS)



1	Name of the sector	Mulberry-Cocoon
2	Continuation/innovative	Innovative
3	Unit cost	Rs. 4,500 per acre

			Unit		Unit cost	for the zones (p	per acre)			
#	Items / Particulars	Unit	price (Rs.)	Southern	North- western	Central and western	Eastern	North- eastern		
1	Inputs (Labour, bullock power, FYM, fertilizers, irrigation, chemicals etc.) for maintenance of mulberry garden	Lumpsum			19,800*			13,500		
	Total actual cost				19,800			13,500		
	Unit cost recommended				4,500			4,500		
	* Per acre @ Rs.66 per tree for 300 trees									

- > Only surviving plants developed in earlier Plan are eligible for maintenance cost, depending on a minimum number of 1500 plants per acre at the rate of Rs. 3 per plant
- In case of tree plantation, assistance of Rs.110 per tree shall be provided to a minimum of 100 plants on prorata basis.

### SUPPORT FOR CONSTRUCTION OF VERMI-COMPOST SHEDS



1	Name of the sector	Mulberry-Cocoon
2	Continuation/innovative	Innovative
3	Unit cost	Rs. 20,000 per vermi-compost shed

							Unit c	ost for	the zone	S			
#	Items / Particulars	Unit	Unit price (Rs.)	Sou	ıthern	North	-western		ral and stern	Ea	stern	North	n-eastern
				Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)
1	Vermi-compost shed with tiles/asbestos sheets/ thatched roof (Size : 8m x 4m)	No	10,500	1	10,500	1	2,500	1	2,500	1	2,500	1	2,500
2	Labour charges for roofing work	Lumpsum			3,000		800		800		800		800
3	Roofing poles	No	200	12	2,400	12	2,400	12	2,400	12	2,400	12	2,400
4	Vermi-compost tanks (Size : 3 x 1.5x 1 m)	No	3,500	4	14,000	2	7,000	2	7,000	2	7,000	2	7,000
5	Full plastering / flooring cost	Lumpsum			4,000		2,000		2,000		2,000		2,000
6	Centre pillar	No	1,500	3	4,500	1	1,500	1	1,500	1	1,500	1	1,500
7	Side pillar	No	1,000	8	8,000	4	4,000	4	4,000	4	4,000	4	4,000
8	Miscellaneous Total actual cost	Lumpsum			1,000 47,400		500 20,700		500 20,700		500 20,700		500 20,700
	Unit cost recommended				20,000		20,000		20,000		20,000		20,000

- A thatched roof shed preferably open from all sides with unpaved(katcha) floor is required to be erected in east-west direction length wise to protect the site from direct sunlight.
- A shed of 12 x 12 size is sufficient to accommodate three vermi-beds of 10 x 3 size each having 1 space in between for treatment of 9-12 quintals of waste in a cycle of 40-45 days.
- The length of shed can be increased/decreased depending upon the quantity of waste to be treated and availability of space.
- The height of thatched roof is kept at 8 feet from the centre and 6 feet from the sides.
- The base of the site is raised atleast 6 inches above ground to protect it from flooding during rains.
- The site marked for vermi-beds on the raised ground is watered and a 4 6 layer of any slowly biodegradable agricultural residue such as dried leaves/straw/sugarcane trash etc., is laid over it after soaking with water. This is followed by 1 layer of vermi-compost or farm yard manure.

### ASSISTANCE TOWARDS FENCING OF MULBERRY GARDENS IN NORTH-EASTERN STATES



1	Name of the sector	Mulberry-Cocoon
2	Continuation/innovative	Innovative
3	Unit cost	Rs.10,000 per acre

						Unit c	ost for t	he zone	es es				
#	Items / Particulars	Unit	Unit price	Sou	ıthern	North -v	vestern		al and stern	Eas	stern	North	n-eastern
			(Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)
1	Bamboo fencing: (for 256 m)												
	1 Bamboo (Jati variety)	No	150									200	30,000
	2 Labour	Mandays	150									70	10,500
	Total actual cost												40,500
	Unit cost recommended												10,000
П	Hedge fencing:												
	Fencing charges	Lumpsum											1,00,000
	Total actual cost												1,00,000
	Unit cost recommended												10,000

- > The general thumb rule on a hedge is to space the bamboos at 3-5 feet from each other. This will create a fairly dense privacy screen.
- Planting bamboos too deep or narrow will inhibit the rhizomes ability to gather oxygen and nutrients.
- For optimum growth potential, a mixture of 1 part soil and 1 part organic compost is required.
- It is generally advised to avoid using fertilizer or manure during the initial planting, which would potentially damage the rhizomes. Manure and fertilizer will become more useful once the plant is well established.
- > The farmers can go for either hedge fencing with vegetative crops or bamboo fencing.
- The subsidy will be provided only to the farmers of norh-eastern states and hilly areas in eastern zone.

### ASSISTANCE TOWARDS EXPANSION OF REARING HOUSES TO CONSTRUCT MOUNTING HALLS IN NORTH-EASTERN AND HILLY STATES



1	Name of the sector	Mulberry-Cocoon
2	Continuation/innovative	Innovative
3	Unit cost	Rs. 30,000 per mounting hall

			Unit	Unit cost for the zones per acre (Rs.)						
#	Items / Particulars	Unit	price (Rs.)	Southern	North -western	Central and western	Eastern	North- Eastern		
1	Mounting hall for 100 dfls capacity	No.	Lumpsum		75,000			75,000		
	20' x 15' x 12'									
	Total actual cost				75,000			75,000		
	Unit cost recommended				30,000			30,000		

- > A separate mounting hall (disinfected) with good ventilation is ideal for mounting of silkworms.
- > Proper mounting of matured silkworm larvae and their spinning environment have a direct influence on the quality of seed cocoons
- For the production of quality cocoons the pre requisites are 1. good mountages, 2. germ free space, 3. optimal larval density and protection from physical and physiological injuries
- At the time of spinning, it is necessary to maintain the normal temperature (23 25°C) and humidity (65 75%).
- The farmers who have stable plantation, functional rearing house and conduct regular rearing only are eligible for getting assistance for construction of mounting halls.
- Preference shall be for more farmers in hilly regions, whose rearing houses are far away from dwelling

### SUPPORT FOR INCREASING YIELD OF EXISTING RAIN-FED MULBERRY GARDEN THROUGH WATER CONSERVATION TECHNIQUES



1	Name of the sector	Mulberry-Cocoon
2	Continuation/innovative	Innovative
3	Unit cost	Rs. 10,000 per acre

							Unit c	ost for t	he zones	5			
#	Items / Particulars	Unit	Unit price	Sou	thern	North -	western		al and stern	Eas	stern	North-	eastern
			(Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)	Phy	Cost (Rs.)
- 1	Ploughing	Days	400	4	1,600	2	800	3	1,200	3	1,200	2	800
2	Green manuring seed	kg	40	8	320	4	160	4	160	4	160	4	160
3	Trench / ridge / mulch making cost in between rows	Mandays	200	20	4,000	10	2,000	10	2,000	10	2,000	10	2,000
4	Raising of bunds on all around the land area (in four blocks)	Mandays	200	25	5,000	15	3,000	10	2,000	10	2,000	15	3,000
5	Preparation of water conserver (1000 cu ft ditch)	Lumpsum			6,500		6,000		6,300		6,300		6,000
6	Trench terracing	Lumpsum											15,000
	Total actual cost (1 acre)				17,420		11,960		11,660		11,660		26,960
	Unit cost recommended (1 acre)				10,000		10,000		10,000		10,000		10,000

#### 4 Technical norms:

The decomposing biomass provides necessary nutrients to the mulberry plantation in addition to acting as a sponze to absorb maximum moisture and retain the same *in situ*.

The subsidy shall be given only once to a farmer to show the benefit of the technology.

The subsidy shall be released after carrying out the operations by the farmer.

The team comprising both State and CSB officers should certify the farmers for undertaking water conservation techniques before release of subsidy to the farmer.