

F.No.43-07/2011-Hort.-IV (E-4701)
Government of India
Ministry of Agriculture & Farmers Welfare
Department of Agriculture, Cooperation & Farmers Welfare
Horticulture Division

Krishi Bhawan, New Delhi
Dated 10th May, 2019

To,

The Director-in-charge,
Central Institute of Horticulture,
Medziphema, Dimapur Distt.,
Nagaland-797106.

Subject:- Approval of minutes of the meeting of 14th Board of Management (BOM) and Annual Action plan 2019-20 of CIH, Nagaland - reg.

Sir,

I am directed to refer to the draft minutes of the 14th Board of Management meeting of CIH, Nagaland held on 2nd May, 2019 at CIH, Nagaland under the Chairmanship of Dr. B.N.S Murthy, Horticulture Commissioner and to convey the approval of the competent authority to the draft Minutes of 14th Board of Management (BOM) meeting and to the implementation of Annual Action Plan of CIH, Nagaland for the year of 2019-20 at the outlay of Rs. 878.12 Lakhs. It is advised that CIH, Nagaland may go ahead with implementation of the action plan as approved by the Board of Management of CIH subject to the condition that expenditure on the activities be restricted to the sub-head-wise budget allocation as available in the BE 2019-20 unless the same are revised in the Revised Estimate 2019-20. The implementation of activities would be further subject to seeking specific approval of the Government of India as required under provisions of GFRs and DFPRs. Authenticated/approved copy of Annual Action Plan 2019-20 is enclosed for necessary action.

2. A copy of authenticated/approved minutes of 14th Board of Management (BOM) meeting is enclosed herewith for information, circulation and further necessary action on the decision points taken in the meeting.

Encl; as above.

Yours faithfully

(N. K. Patle)

Deputy Commissioner (Hort.)
Ph No.: 011-23073956

Central Institute of Horticulture				
Annual Action Plan (2019-2020)				
Sl. no	Components	Physical Targets	Approx. cost per unit (Rs.)	Approx. Financial Allocation (Rs. In lakh)
1	SALARIES			10.00
2	WAGES (Labour & Security persons)			93.00
3	MEDICAL			3.00
4	DOMESTIC TRAVEL EXPENSES			10.00
5	OFFICE EXPENSES			
	1) Office Furniture			4.00
	2) Telephone bill			2.50
	3) Electricity bill			5.00
	4) Repair of motor vehicle and farm implements			3.00
	5) Purchase of rubber stamp			0.10
	6) Stationary			1.00
	7) Office equipment etc.			1.00
	8) Computer & accessories			1.00
	9) Printing & binding jobs			0.20
	10) POL			5.50
	11) AMC			8.00
	12) Postage & Telegraph			2.00
	13) Misc./others			1.70
	Sub total			35.00
6	RATE, RENT & TAXES			1.00
7	PUBLICATION		Annexure I	
1	Annual Report 2018- 2019	1 No.(100 copies)		
2	Technical bulletin	3 Nos(600 copies)		
3	Folders	5 Nos.(500 copies)		
4	Reprinting of exhausted Technical folders	15 Nos. (500 copies)		
5	Procurements of books and journals	Need based		
6	Impact analysis of CIH, Nagaland	1 No.(100 copies)		
	Sub total			13.00

Pl put up with BOM meeting minutes for HC.

8	OTHER ADMINISTRATIVE EXPENSES			
	A. Human Resource Development			
	B. Meetings			
	C. PHM			
	D. Marketing & Agri-Business Promotion			
8.A	Human Resource Development			
1	Farmers Training	37 nos.(50 trainees/batch	0.50 Annexure II	18.50
2	Training of Trainers	03 nos. (40 trainees/batch	2.50 Annexure II	7.50
3	Exposure trip cum training	03 nos.	2.70 Annexure II	8.10
4	Capacity Building			
i	ISTM Training	01 nos.	2.00	2.00
ii	Individual training	01 nos.	1.12	1.12
5	Skill Development Trainings			
a.	Floriculturist-Protected Cultivation / Gardener/ Mushroom grower as per MIDH norms	02 nos.	3.30	6.60
b.	RKVY (Gardener & Floriculturist)	03 nos.	Subject to the availability of funds by RKVY division.	
	Sub total			43.82
8.B	SEMINAR/ WORKSHOPS/ CONFERENCES/MEETINGS			
1	Workshop on Marketing & Supply Chain Management (2 days) {as per MIDH norms}	1 no.	2.00	2.00
2	Technical Advisory Committee (TAC) meeting	1 no	2.00	2.00
3	Board of Management (BOM) meeting	1 no	2.00	2.00
	Sub total			6.00
8.C	PHM			
1	Upgradation of the Minimal Processing Unit	1 unit	6.00	6.00
2	Product developments (candy, pickle, jam, fruit squash, juice etc)		1.30	1.30
3	Setting up of Incubation Centre	1 unit	(Subject to availability of funds)	
	Sub total			7.30

8.D	Marketing & Agri-Business Promotion			
8.D.i	Linking of Farmers/Farmers Group with Financial Institutions for Availing Agricultural Credit			
1	Facilitation in preparation of projects for farmers to avail agricultural credit			
a)	Awareness programme/training on govt. schemes for horticulture development	2 programs	0.50	1.00
8.D.ii	CREATE AWARENESS AMONG FARMERS FOR FORMATION OF CLUSTERS/FARMERS GROUP/GROWERS SOCIETY THROUGH SFAC			
1	Awareness programme/ training on marketing of horticulture crops	2 programs	0.50	1.00
2	Exposure Visit	1 no.	2.50	2.50
8.D.iii	Creating of Market Linkage for the Farmers			
1	Entrepreneurship Development Programme (3 days)	1 no.	1.50	1.50
2	Buyers & Sellers Meet	1 no.	2.50	2.50
3	Capacity Building for Agripreneurs at National Institute of Agriculture Marketing, Jaipur for 25-30 participants for 03 days.	1 no	Rs 3000/person x 3 days (excluding travel) As per norms of NIAM	3.50
4	Training on Agriculture Marketing in NE States (3 days)	3 nos.	Subject to availability of fund from NIAM, Jaipur	
	Sub total			12.00
	Total (OAE)			69.12
9	ADVERTISEMENT & PUBLICITY			
10	MINOR WORKS			
1	Construction of Shade net for Nursery unit as per MIDH norms	1no.(500sqm)	5.00	5.00
2	Soil filling/land development for shade net construction & renovation of existing water pond	1000 sqm	5.00	5.00
3	Construction of G-Nap water tank at farm	1 Nos.	9.00	9.00
4	Installation of Solar System back up in poly house , bamboo guest house and solar lights	1 unit	10.00	10.00
5	Construction of low cost visitor's hut near to pump house	01 nos	1.00	1.00
6	Terracing in farm for new block development	0.8 ha	35.00/ ha	30.00
	Sub total			60.00

11	PROFESSIONAL SERVICES A. Consultancy fees as per actual B. Professional fees as per actual C. Invigilator fees as per actual D. Legal services as per actual			5.00
12	OTHER CHARGES A. Demonstration of production technologies at Institute level i. Management of existing demonstrations ii. Demonstrations of Technology in the Institute iii. Demonstration of improved Technologies in NE States B. Quality Planting Material Production C. Accreditation of Horticulture Nurseries in NER D. Certificate Course E. Exhibitions/Trade Fairs/Meets/Mela F. Chemical & glassware's for laboratory G. Farm development & beautification H. Contractual staff remuneration			
12.A	Demonstration of production technologies at Institute level			
i.	Management of existing demonstrations			
1	Maintenance of organic vermicompost	4 units		0.20
2	Purchase of fertilizers, chemicals & manures for 10 nos. of polyhouse (Water Soluble fertilizers)	For 10 nos. (1000 sqm) & 04nos. (100sqm) poly houses. 12 truck load FYM	Annexure III	2.00
3	Purchase of FYM, Fertilizer & chemicals (for farm)		2.00	2.00
4	Poly house maintenance (plastic and drip system)	11000 sqm		8.50
5	Shade net ceiling for poly house no. 12	1000 sqm.	0.70	0.70
6	Disinfection chamber in poly house no. 12	1	1.0	1.0
7	Repair and renovation of fan & pad system in poly house no. 6 & 7	2 units	2.5	5.0
8	Repairing of poly house and shade net	-	-	4.0
9	Installation of pipe fitting/Drip irrigation/sprinklers in fruit blocks	4 ha	2.50	10.00
10	Maintenance of existing bee colonies	39 colonies	0.30	0.30
11	Maintenance of Mushroom unit	2 unit	0.25	0.50
12	Maintenance of Herbal Garden	0.02	0.10	0.10
13	Intercropping of green manure in all fruit crops	10 ha	0.05	0.50
14	Gap filling Flowers (tissue culture) i.-Anthurium	1000 nos.	-	2.00
	ii. Gerbera Plants	2000 nos.	-	1.00
15	Demonstration on water shed management	1 unit	1.50	1.50
	Sub total			39.30

ii.	Demonstrations of Technology in the Institute			
1	Establishment of Rambutan, Loquat and Longan block.	0.5 ha	0.30 Annexure IV	0.30
2	Establishment of strawberry block including mulching for varietal evaluation	0.01 ha	1.00 Annexure V	1.00
3	Gap filling of Custard Apple, Sapota, Ber, Carambola & Fig		0.45 Annexure VI	0.45
4	Establishment of pineapple var. Kew, Queen, Mauritius on slope area and intercropping with tree spices	1.0 ha	1.30 Annexure VI	1.30
5	Demonstration on Improved production technology of yardlong bean, french bean, broccoli & knol-khol (Source , ICAR)	1.1 ha	0.50 Annexure VII	0.50
6	Plantation of tuber crops (cassava, sweet potato)	0.5 ha	0.20	0.20
7	Integrated model of drumstick, ginger, turmeric and vegetables	500 sqm		0.20
8	Production of flowers seedling (gladiolus corm, anthurium & carnation plant) /potted plants/ vegetable seedlings on demand basis.	15,000 nos.	3.50	3.50
9	Performance of high value vegetables under protected cultivation (tomato & coloured capsicum, Cherry tomato, Cucumber, Musk melon, king chilli and exotic vegetables etc)	1500 sqm	0.60 Annexure VIII	0.60
10	Production of Shitake mushroom	1 unit	0.97	0.97
11	Construction of Vermicompost unit	8 unit	4.50 Annexure IX	4.50
12	Establishment of organic input production units (compost, bio-enhancer & bio pesticides)	1 unit	0.50	0.50
	Sub total			14.02
iii.	Demonstration of improved Technologies in NE States (As per MIDH norms)			
1	Rejuvenation of senile citrus orchard and canopy management	1 ha	0.40	0.40
2	High Density Planting of Guava 3x3m spacing	1 ha	0.75	0.75
3	Demonstration on plantation of kiwi fruit at 4x4m spacing in Meghalaya (without trellis)	1ha	1.20	1.20

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4	Improved production technology of citrus decline at Tuensang, Nagaland (2 nd year)	5 ha	0.04	0.20
5	Demonstration on plantation of mango var. Amrapali and Dashehari in Manipur (2 nd year)	1 ha	0.23	0.23
6	Demonstration on Khasi Mandarin and Passion Fruit	0.5 ha each	-	1.00
	Sub total			3.78
B.	Quality Planting Material Production			
	Mass multiplication of quality planting material			
i.	Asexually propagated plants (Cashew 50000, Citrus 10000, Assam lemon 10000, Acid lime 10000, Mango 10000, Guava 10000)	1,00,000 nos	Annexure X	8.00
	Sub total			8.00
C.	Accreditation of Horticulture Nurseries in NER	15 Nos.	1.00	15.00
D.	Certificate Course			
i.	Certificate course on post harvest Management and Value addition of Horticultural crops	1no. (20 trainees)	8.90	8.90
E.	Exhibitions/ Trade Fairs/ Meets/Mela			
1	National/ State level exhibitions/ Seminar (To organize)	1 no	5.00	5.00
2	National/ State level exhibitions (To participate)	2 nos.	3.00	6.00
3	District level promotional event	2 nos.	2.00	4.00
	Sub total			15.00
F.	Farm Development & Beautification		Annexure XI	
	Landscaping i) Annual seasonal, ornamental plants ii) Turf grass iii) Popup irrigation system in old lawn. iv) Maintenance of land scape area	3500 sqm. 18000sqft (Old lawn area and along with road)	5.00	5.00
	Sub total			5.00
G.	Contractual Staff Remuneration			66.00
	Total (OC)			175.00
	Grand total			478.12
13	Major Head (Machinery & Equipment)			
1)	Farm Tools & Implements			
i.	Mini Rotary (5.5HP) Model KKCRT550-D	01	1.00	1.00

ii.	Power Sprayer (4HP) Petrol operated	01	0.45	0.90
iii.	Power chain saw (battery operated)	02	0.50	1.00
iv.	Pruning loopers, diggers, pruning saw, secateurs, gumboots, hand gloves etc.			1.00
v.	Power tillers based weed cutter	01	2.00	2.00
vi.	Repairing, maintenance and servicing of farm machinery			1.00
vii.	Pipeline (GI) from pump house to Fig block			2.00
viii.	Cultivator (tractor operated)	01	1.00	1.00
ix.	Lawn mower (Hand operated)	02	0.05	0.10
x.	Air compressor for vehicles & tractors	01	0.50	0.50
	Sub total			10.50
2)	Major works			
i	Residential quarter building i. Type V - 1 No. ii. Type II -5 Nos.			125.00
ii	Existing boundary to be converted with brick wall	2.6 km		99.50
iii.	Farmers Hostel			150.00
iv.	Renovation and Re-electrification of CIH Bamboo Guest house cum Hostel			15.00
	Sub total			389.50
	Grand total			400.00

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Budget Projection for the year 2019-2020		
Sl. no	Head of Account	Allocation of Budget for 2019-20 (Rs. In Lakhs)
A	Major Head -2401	
1	Salary	10.00
2	Wages	93.00
3	Medical Treatment	3.00
4	Domestic Travel Expenses	10.00
5	Office expenses	35.00
6	Rent, Rates & Taxes	1.00
7	Publication	13.00
8	Other Administrative Expenses	69.12
9	Advertisement & Publicity	4.00
10	Minor works	60.00
11	Professional Services	5.00
12	Other Charges	175.00
	Total	478.12
B	Major Head -4552	
1	Major works	389.50
2	Machinery & Equipment	10.50
	Total	400.00
	Grand Total	878.12

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ANNEXURE I

PUBLICATION

Sl. No.	Type of Publication	Particulars	Items	Copies	Approx. rate (lakh)
1.	Annual report 2017-18	Multicolor, A4 size, art paper, 50 pages	1 no.	300	2.50
2.	Folders	Multicolor, 1/3 size, 6 pages	6 nos.	500	1.50
3.	Bulletin	Multicolor, A4 size, art paper, 30 pages	3 nos.	500	2.00
4.	Reprinting of exhausted folders	Multicolor, 1/3 size, 6 pages	15 nos.	500	2.50
5.	Procurement of books & journals for library				1.50
6.	Impact analysis of CIH, Nagaland		1 no.		3.00
Total					13.00

ANNEXURE II

HUMAN RESOURCE DEVELOPMENT

a) Proposed topic for Farmers Training (40 nos.)

Sl. No.	Topics	Remarks
1	Awareness programme on government schemes for horticulture development	Mr. Prabin
2	Awareness programme on formation and management of FPOs	
3	Package & Practices of Cultivation of horticulture crops	Dr. Moa
4	Avenues for generating income through horticulture intervention	
5	Post Harvest Management of horticulture crops	
6	INM and IPM in horticulture production system	
7	Nursery management and propagation techniques of horticulture crops	Mr. A.K.Singh
8	Nursery accreditation awareness programme for nurserumen	
9	High Density Plantation in banana, pineapple and guava	
10	Irrigation and fertigation under protected cultivation	Mr. Arvind Singh
11	Flowers and vegetable production under protected cultivation	
12	General green house construction	
13	Bee keeping for efficient pollination	Ms. Meribeni
14	Oyster mushroom cultivation for livelihood generation	
15	Organic farming practices for vegetable crops	
16	Value addition of underutilized horticultural crops	Ms. Vinika
17	Food safety standards Acts and Rules	
18	Standardization of protocols for value added products	
19	Training on Home-scale processing and value addition	
20	Avenues of post harvest processing for income generation	

Budget for Farmers training

Sl. No.	Particulars (As per MIDH Norms)	Approx. Cost (Rs. In lakhs)
1	a) Within the State Conduct of training (working lunch/ refreshment/ training kits/honorarium/ conference hall/ including transport/TA of participants etc.) @Rs. 1000/person/day (as per norms) for 50 nos. x 1 day	0.50
	b) Outside the State Project based as per actual. 100% of the cost.	-----
	i.e. Rs. 0.50 lakh/ training = Rs. 0.50 lakh x 38 trainings	19.00

Sl No.	Particulars	Rate (Rs.)	Amount (Rs.)
1	Training Kits (File folder/Pen/Notepad) -50 nos	80	4000.00
2	Refreshment – 50 nos	60	3000.00
3	Working lunch – 50 nos	200	10000.00
4	Honorarium – 4 lectures	1000	4000.00
5	Banner (8x4 ft) – 1 nos	1000	1000.00
6	Training Materials to be distributed/ for demonstration – 50 nos	80	4000.00
7	Stationeries/ materials for practical/ M. water/hall hiring/generator etc	--	9000.00
9	TA of participants (to be paid at actual)- 50 nos	300	15000.00
	TOTAL		50,000.00

b) Proposed Topics for Trainer's Training

Sl.	Topics
1.	Supply Chain and Marketing of Horticultural Crops
2.	Food safety standards Acts and Rules
3.	Standardization of protocols for value added products
4.	Organic Farming & Certification of Horticulture Crops
5.	Packaging, Branding and Marketing Skill in horticultural crops
6.	Post Harvest Management and Value Addition of Horticulture Crops
7.	Hi-Tech methods for raising nursery of Vegetable/Flower Crops
8.	Production of quality planting material & accreditation of nursery of focus Fruit Crops

Budget for Trainers training

Sl. No	Particulars(As per MIDH Norms)	Approx. Cost (Rs. In lakhs)
	a) Within the State	
1	Conduct of training (Refreshment/ honorarium/ conference hall etc.) @Rs. 200/person/day (as per norms) for 40 nos x 3 days	0.20

2	DA of participants (food & lodging) approx. as per admissible @ Rs. 500 x 40 x 3 days as admissible	0.60
3	TA of participants (to be paid as admissible) Approx. @Rs. 1500 x 40 nos.	0.60
4	TA/ DA of resource persons (to be paid at actual as per norms)	0.40
5	Vehicle hiring (for field trips & local conveyance during training)	0.20
	TOTAL	2.00
	b) Outside the State Project based as per actual. 100% of the cost.	-----
	i.e. Rs. 2.00 lakh/ training = Rs.2.00 lakh x 4 trainings)	8.00(approx)

c) Budget for exposure trip cum training (2 no)

Sl.	Particulars(As per MIDH Norms)	Approx. Cost (Rs. In lakhs)
1	i) Training charges/fooding/lodging @ Rs. 1000/day/person excluding transport) for 20 participants for 8 days	1.60
	ii) Transport cost (approx.) Rs.5400x 20 person	1.08
	Total	2.68
	a) Outside the State Project based as per actual. 100% of the cost.	---
	b) Outside India Rs. 4.00 lakh / participant Project Based. 100% of air/rail travel. Course fee cost to be funded under Mission Management.	---
	i.e. Rs. 2.68 lakh/ training = Rs. 2.68 lakh x 2 nos)=	5.36 (approx)

Annexure III

12 A.i. 2Purchase of fertilizers, chemicals & manures for open cultivation & 10 nos. of polyhouse (Water Soluble fertilizers)

Sl. No.	Name of fertilizer and chemical	Quantity (litres/kg)	Rate (Rs)	Amount (Rs)
1.	Topaz (triazole)	4	1200/l	4800.00
2.	Score (Difenconazole25%EC)	3	1000/l	3000.00
3.	Redomil (Mencozeb+Metalaxyle-M)	5	1800/kg	9000.00
4.	Dithane M-45(Mancozeb)	10	800/kg	8000.00
5.	Bavestine (Carbandezim)	10	1000/kg	10000.00
6.	Quantinal	3	1500/kg	4500.00
7.	Benomyle (Fundazol)	2	2000/kg	4000.00
8.	Alitete (Fosetyle)	5	1900/kg	9500.00
9.	Captaf (ethylmercaptan)	7	800/kg	5600.00

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10.	Mytex (Propageite)	10	3000/kg	30000.00
11.	Acifed (Astaf-75%)	5	1300/kg	6500.00
12.	Dicofal (organochlorine	6	1000/l	6000.00
13.	Lannate (Methomyle)	8	1600/kg	12800.00
14.	Rogar (Dimethoate phoshamide)	5	900/l	4500.00
15.	Neem oil (Azadirachtin)	5	500/l	2500.00
16.	Biozyme (seaweed based)	10	500/l	5000.00
17.	Boran (Borax)	15	150/kg	2250.00
18.	Iron chelated	15	900/kg	13500.00
19.	Copper sulphate	10	400/kg	4000.00
20.	Sodium molybedate	1	3000/kg	3000.00
21.	Calcium Nitrate	200	130/kg	26000.00
22.	Potassium Nitrate	150	160/kg	24000.00
23.	Magnesium sulphate	200	50/kg	10000.00
24.	Potassium Sulphate	150	160/kg	24000.00
25.	Mono ammonium sulphate	100	150/kg	15000.00
26.	Zinc Sulphate	50	200/kg	1000.00
27.	Fertilon comb-ii	50	150/kg	7500.00
28.	NPK (0:52:34)	100	150/kg	7500.00
29.	NPK (13:00:45)	100	150/kg	7500.00
30.	Magnesium Nitrate	50	80/kg	4000.00
31.	NPK (19 all)	100	80/kg	8000.00
32.	FYM	12	8000/ Truck load	96000.00
33.		Total Rs.		3,78,950.00 (approx)

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Annexure IV

Establishment of Rambutan, Loquat & longan block (0.5 ha)

Sl. No.	Particulars	Quantity	Rate (Rs.)	Approx. Cost (Rs.)
1.	Planting materials Rambutan var. Seenjonja, B-R-1 & B-R-2	100	50.00	5000.00
	Longan var. Fukien & Kohala	100	50.00	5000.00
	Loquat var. Ahmar & Fire Ball	100	50.00	5000.00
2.	Laying of Mulching sheet	10 kg	250.00	2500.00
3.	FYM	2 Truck loads	6500.00	13000.00
			Total	30500.00

ICAR, Barapani/ AAU, Jorhat technology to be followed for the cultivation practices. Physical, quality characters & yield (t/ha) will be studied.

Annexure V

Establishment of strawberry block including mulching (0.01 ha)

Sl. No.	Particulars	Quantity	Rate (Rs.)	Approx. Cost (Rs.)
1.	Planting Materials Var. Winter Dawn, Sabrina, Barak, Gili and Hada	5000	35.00	1,75,000.00
2.	Laying of Mulching sheet and plantation	100 kg	250.00	25,000.00
			Total	2,00,000.00(approx)

ICAR, Barapani/ AAU, Jorhat technology to be followed for the cultivation practices. Physical, quality characters & yield (t/ha) will be studied.

Annexure VI

Custard Apple, Carambola, Sapota, ber, fig and Pineapple (1.0 ha)

Sl. No.	Particulars	Quantity (nos)	Rate (Rs.)	Approx. Cost (Rs.)
1.	Planting Materials			
i	Carambola var Golden star, Arkin	50	50	2500.00
ii	Ber var Umran, Gola	50	50	2500.00
iii	Custard Apple var. Arka Sahan, Bala Nagar	50	50	2500.00
iv	Sapota var Cricket Ball, Dhola Diwani	50	50	2500.00
v	Fig var. Poona	50	50	2500.00

vi	Pineapple var. Kew, Queen, Mauritius	45,000 suckers	1	45,000.00
vii	Tree spices (Bay leaf, Cinnamom, curry leaf, All spice, nutmeg, star anise etc.)	1200	50	60,000.00
2.	Laying of Mulching sheet	100 kg	250.00	25,000.00
3	FYM	5 Truck load	6500	32,500.00
			Total	1,75,000.00(approx)

ICAR, Barapani/ AAU, Jorhat technology to be followed for the cultivation practices. Physical, quality characters & yield (t/ha) will be studied.

Annexure VII

Sl.no	Particulars	Quantity	Rate (Rs.)	Amount (Rs.)
1	Effect of INM on growth and yield of Yardlong bean var Arka Mangala (0.10 ha) ICAR, Barapani/ AAU, Jorhat technology to be followed for the cultivation practices. Objective: <ul style="list-style-type: none"> The performance of yardlong bean against different organic nutrient resources. The economics of different organic nutrient sources. Parameters to be recorded: Germination %, Days taken for germination, Days to 1 st flowering, Plant ht. (cm), No. of leaves/ plant, Pod length (cm), Pod wt. (g), No. of seeds/ pod, No. of pods/ plant, Pod wt. (5 nos/ plant), Pod yield / plant, Pod yield / plot, Total yield (kg/ha)			
	i) Seeds	4 kg	500	2000.00
	ii) Bio fertilizer (Azotobacter + phosphotika)	10 kg	30	300.00
	iii) Bioagents (trichoderma)	3 kg	80	240.00
	i) FYM	1 truck load	7500	7500.00
	Total			10040.00
2	Effect of INM on growth and yield of French bean var. Local (0.10 ha) ICAR, Barapani/ AAU, Jorhat technology to be followed for the cultivation practices. Objective: <ul style="list-style-type: none"> The performance of french bean against different organic nutrient resources. The economics of different organic nutrient sources. Parameters to be recorded: Germination %, Days taken for germination, Days to 1 st flowering, Plant ht. (cm), No. of leaves/ plant, Pod length (cm), Pod wt. (g), No. of seeds/ pod, No. of pods/ plant, Pod wt. (5 nos/ plant), Pod yield / plant, Pod yield / plot, Total yield (kg/ha)			
	i) Seeds	4 kg	350	1300.00
	ii) Bio fertilizer (Azotobacter + phosphotika)	10 kg	30	300.00
	iii) Bioagents (trichoderma)	3 kg	80	240.00
	iv) FYM	1 truck load	7500	7500.00
	Total			9340.00

3	<p>Effect of organic and inorganic nutrient source on growth and yield of broccoli var. Green Magic (0.10 ha) ICAR, Barapani/ AAU, Jorhat technology to be followed for the cultivation practices.</p> <p>Objective:</p> <ul style="list-style-type: none">To study the effect of organic and inorganic source on nutrient and their combined effect on growth and yield of broccoli.To determine the organic and inorganic sources of nutrient on quality of broccoli <p>Parameters to be recorded: Plant height (cm), Number of leaves per plant, Stalk length (cm), Days to first curd initiation (days), Days to 50% curd initiation (days), Days to 50% curd maturity (days), Curd maturity duration (days), Curd length (cm), Curd diameter (cm), Curd compactness (very compact, compact, medium compact and loose), Gross plant weight (g), Curd weight (g), Yield per plot (kg), Yield (q/ha), B:C ratio</p>																									
	<table><tr><td>i)</td><td>Seeds</td><td>50 g</td><td>780/10 g</td><td>3900.00</td></tr><tr><td>ii)</td><td>Bio fertilizer (Azotobacter + phosphotika)</td><td>10 kg</td><td>30</td><td>300.00</td></tr><tr><td>iii)</td><td>Bioagents (trichoderma)</td><td>3 kg</td><td>80</td><td>240.00</td></tr><tr><td>iv)</td><td>FYM</td><td>1truck load</td><td>7500</td><td>7500.00</td></tr><tr><td></td><td>Total</td><td></td><td></td><td>11,940.00</td></tr></table>	i)	Seeds	50 g	780/10 g	3900.00	ii)	Bio fertilizer (Azotobacter + phosphotika)	10 kg	30	300.00	iii)	Bioagents (trichoderma)	3 kg	80	240.00	iv)	FYM	1truck load	7500	7500.00		Total			11,940.00
i)	Seeds	50 g	780/10 g	3900.00																						
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iii)	Bioagents (trichoderma)	3 kg	80	240.00																						
iv)	FYM	1truck load	7500	7500.00																						
	Total			11,940.00																						
4	<p>Effect of organic and inorganic nutrient source on growth and yield of cabbage var. Green Express (0.10 ha) ICAR, Barapani/ AAU, Jorhat technology to be followed for the cultivation practices.</p> <p>Objective:</p> <ul style="list-style-type: none">To study the performance of cabbage crop at varying treatments combinations of organic and inorganic fertilizer in respect of growth, yield, nutrient uptake and quality of cabbage crop. <p>Parameters to be recorded: Germination %, Days taken for germination, Plant height (cm), Stalk girth (cm), Days to 50% head initiation (days), Days to 50% head maturity (days), Diameter of head (cm), Fresh weight of head/plant (g), Yield (kg), B:C ratio</p>																									
	<table><tr><td>i)</td><td>Seeds</td><td>50 g</td><td>400/10 g</td><td>2000.00</td></tr><tr><td>ii)</td><td>Bio fertilizer (Azotobacter + phosphotika)</td><td>10 kg</td><td>30</td><td>300.00</td></tr><tr><td>iii)</td><td>Bioagents (trichoderma)</td><td>3 kg</td><td>80</td><td>240.00</td></tr><tr><td>iv)</td><td>FYM</td><td>1 truck load</td><td>7500</td><td>7500.00</td></tr><tr><td></td><td>Total</td><td></td><td></td><td>10040.00</td></tr></table>	i)	Seeds	50 g	400/10 g	2000.00	ii)	Bio fertilizer (Azotobacter + phosphotika)	10 kg	30	300.00	iii)	Bioagents (trichoderma)	3 kg	80	240.00	iv)	FYM	1 truck load	7500	7500.00		Total			10040.00
i)	Seeds	50 g	400/10 g	2000.00																						
ii)	Bio fertilizer (Azotobacter + phosphotika)	10 kg	30	300.00																						
iii)	Bioagents (trichoderma)	3 kg	80	240.00																						
iv)	FYM	1 truck load	7500	7500.00																						
	Total			10040.00																						
5	<p>Effect of organic and inorganic nutrient source on growth and yield of knolkhol var. White Vienna (0.05 ha) ICAR, Barapani/ AAU, Jorhat technology to be followed for the cultivation practices.</p> <p>Objective:</p> <ul style="list-style-type: none">To study the performance of varying treatments combinations of organic and inorganic fertilizer in respect of growth, yield and quality of knolkhol crop.																									

	Parameters to be recorded: Plant height, number of leaf per plant, leaf area (cm ²), leaf weight (g), root length (cm) and root weight (g), Average diameter of knob (cm), Average knob weight (g), average dry weight of knob (g), yield per plot (kg), yield (q / ha)			
i)	Seeds	30 g	200/10 g	600.00
ii)	Bio fertilizer (Azotobacter + phosphotika)	10 kg	30	300.00
iii)	Bioagents (trichoderma)	3 kg	80	240.00
iv)	FYM	1 truck load	7500	7500.00
	Total			8640.00

Annexure VIII

Performance of high value vegetables under protected cultivation (tomato & sweet pepper)

Sl.no	Particulars	Quantity	Rate (Rs.)	Amount (Rs.)
1	Impact of INM on growth and yield of Capsicum, Tomato, Musk Melon & cucumber each area (0.10 ha) ICAR, Barapani/ AAU, Jorhat technology to be followed for the cultivation practices. Objective: To investigate the comparative effect of organic manures, synthetic fertilizers and biofertilizers and their different combinations on growth, yield and quality and uptake of vegetable crop. Parameters to be recorded: Plant height (cm), number of leaves/plants, number of braches and leaf size, no. of fruit per plant, fruit length (cm), diameter of fruit (cm) and yield of fruit per plant kg			
	Planting material & inputs			
	i) Capsicum, Tomato, cucumber & Musk Melon	150g	--	40000.00
	ii) FYM	02 truck load	7500	15000.00
	i) Supporting (staking Material)			10000.00
	ii) GI wire-12no.	50 kg	100/kg	5000.00
	Total Rs.			60,000.00
2	Impact of INM on growth and yield of various high value vegetable under protected cultivation ICAR, Barapani/ AAU, Jorhat technology to be followed for the cultivation practices. Objective: <ul style="list-style-type: none"> To study the influence of inorganic, organic and bio fertilizers in various combinations on the growth and yield parameters of turmeric. To study the influence of inorganic, organic and bio fertilizers in various combinations on the physiological and quality parameters of all the vegetable.. Parameters to be recorded: Plant height (cm), number of leaves/plants, number of branches and leaf size, no. of fruit per plant, fruit length (cm), diameter of fruit (cm) and yield of fruit per plant kg			
	Inputs & Plant protection			
	i) Bio fertilizer (Azotobacter + phosphotika)	15 kg	30	450.00
	ii) Bioagents (trichoderma)	5 kg	80	400.00
	iii) Trichoderma chiloris	15 card	35	550.00
	Total Rs.			1400.00
	Total (A+B)			52800.00

Annexure IX

Approximate estimate for construction of vermicompost unit

Sl/no.	Particulars	Rate	Quantity	Amount
1	Bricks	Rs. 8/-	200 pieces	Rs. 1,600/-
2	Sand			
	a. Deopani	Rs. 40/-	20 cft	Rs. 800/-
	b. Local	Rs. 20/-	20 cft	Rs. 400/-
3	Cement	Rs. 400/-	7 bags	Rs. 2800/-
4	Timber	Rs.300/-	20 cft	Rs. 6,000/-
5.	Stone Chips	Rs. 30/-	30 cft	Rs. 900/-
5	C.G.I Sheet	Rs. 450/-	10 pieces	Rs. 4,500/-
6	Nails	Rs. 80/-	5 kg	Rs. 400/-
7	Nails for roofing	Rs. 100/-	2 kg	Rs. 200/-
8	Clamp for post	Rs. 300/-	10 piece	Rs. 3000/-
9	Labour Charge			
	a) Skilled	Rs. 500/-	2 x 8 days	Rs. 8000/-
	b) Unskilled	Rs. 350/-	2 x 8 days	Rs. 5,600/-
10.	Transportation & loading charges	Rs. 2000/-		Rs. 2,000/-
11.	Earthworm	Rs. 2,000/-		Rs. 2,000/-
12.	Vermi beds	Rs. 11,800/-		Rs. 11,800/-
Total				Rs. 50,000/-

****Rs. 50,000/- x 5 unit = Rs. 2,50,000.00 (Rupees two lakh fifty thousand) only.**

Annexure -X

1) Mass Multiplication of Quality Planting Material:

i) Raising root stock Seedling:

Sl. No.	Particulars	Qty.	Rate (Rs.)	Approx. Cost (Rs.)
1.	Mango seed	15 bags	1000/bags	15,000.00
2.	Guava seed	5.0 kg	1,000.00/kg	5,000.00
3.	Citrus seed (Volkamariana)	10 kg	6000.00/kg	60,000.00
4.	Cashew seed	300 kg	150.00/kg	45,000.00
5.	Acid lime	8 kg	6000.00	48,000.00
6.	Assam Lemon cuttings	10000 nos.	1.0	10,000.00
7.	Poly bags	500 kg	200.00/kg	1,00,000.00
8.	FYM (Well decomposed)	5 truck loads (300cft)	6500.00/truck	32,500.00
9.	Sand	3 truck loads (300cft)	6000.00/truck	18,000.00
10.	Coco peat bricks (1x1x1 ft)	500 pcs	100/pcs	50,000.00
11.	Vermiculite	500 kg	25/kg	12,500.00
12.	Perlite	500 kg	70/kg	35,000.00
13.	Labour charge for poly bag filling	100000 nos.	2.0/poly bag	2,00,000.00

14.	Hiring charges of outsourcing agencies for budding/grafting	-	-	3,00,000.00
			Total	9,31,000.00

ii) Propagation Activity

Sl. No.	Particulars	Qty.	Rate (Rs.)	Approx. Cost (Rs.)
1.	Cashew scion sticks	10000 nos.	2.0/scion stick	20,000.00
2.	Citrus scion sticks	10000 nos.	2.0/scion stick	20,000.00
3.	Mango scion sticks	5000 nos.	5.0/scion stick	25,000.00
4.	Budding and grafting knife	10 nos.	500.00 each	5,000.00
5.	Secateurs	10 nos.	1000.00 each	10,000.00
6.	Label / tags	50,000 nos.	2/label	1,00,000.00
7.	Small Sign board	5000 nos.	60	3,00,000.00
8.	Poly strips	100 kg	200.00/kg	20,000.00
9.	Poly caps	100kg	200.00/kg	20,000.00
			Total	5,20,000.00

2) Vegetable seedling Production

Sl. No.	Particulars	Qty.	Rate (Rs.)	Approx. Cost (Rs.)
1.	Cabbage	3500 nos.(30 g)	400/10 g	1200.00
2.	Broccoli	3500 nos. (30 g)	780/10 g	2340.00
3.	Knolkhol	3000 nos. (20g)	200/10 g	400.00
4	Coco peat	8 bricks	700	5600.00
	Total			9540.00

Annexure XI

- (i) Establishment of irrigation system in old lawn area as well as in avenue plantation
(Sprinklers/ popup system): Rs.4,50,000.00 (approx)
- ii).Purchase of annual seasonal seed (winter, summer & rainy)
1. China aster, Phlox, Dianthus, Petunia, Gazania, salvia, Pansy, Mesembryanthemumtc.
 2. Kochia, footwall lily, Hollyhock etc.
 3. Balsome, marigold, Genia etc.
- Rs.50, 000.00 (approx)
- (iii). Ornamental plants
- Bottle palm, Ficus Panda, Juniperus,
Hedge plants - Hibiscus, Duranta
- Rs.1, 00,000.00(approx)
- (iv). Turf grasses
- Rs.2, 00,000.00 (approx)
- (v). Formal Hedge (by stone/tile etc.)
- Rs.2, 00,000.00(approx)