

Guidelines for the component ‘Quality Control Arrangements on Seeds’ of Seeds Division’s Scheme ‘Development and Strengthening of Infrastructure Facilities for Production and Distribution of Quality Seeds’

Department of Agriculture and Cooperation is implementing a Central Sector Scheme, ‘Development and Strengthening of Infrastructure Facilities for Production and Distribution of Quality Seeds’ since 2005-06 on all India basis. The scheme has ten components. Guidelines for various components of the scheme have been issued from time to time. Guidelines for the component ‘Quality Control Arrangements on Seeds’ were first issued on 19th August, 2005, and were revised in June, 2006. In view of further developments which have taken place in seed sector in recent times and for supporting States in effective seed quality enforcement, guidelines for component ‘Quality Control Arrangements on Seeds’ of Scheme, are further amended for the purpose of providing financial assistance to different implementing agencies. Assistance will be available for the following :

1. Seed Testing Laboratories
2. Grow-out Test Farm
3. Green House facility
4. Payment of ISTA fee
5. Establishment and Strengthening of Seed Certification Agencies
6. Training
7. Strengthening of Central Seed Committee and Central Seed Certification Board and Seeds Division.
8. Assistance to Designated Authorities for OECD Varietal Certification.

1. Seed Testing Laboratories :

1.1 Seed Testing is a part of seed certification programme, seed law enforcement including Seeds (Control) Order, 1983, seed production and marketing. Accordingly, the importance of seed testing laboratory has been well recognized. The Seeds Act, 1966 and the Seeds Rules, 1968 empower State Governments to establish one or more seed testing laboratory in the State.

1.2 Seed Testing Laboratory is the hub of seed quality control activities. Seed testing services are critical to gain information regarding planting value of seed lots. To carry out these responsibilities effectively, it is necessary that seed testing laboratories are established, manned and equipped in a manner such that whatever samples are received can be analyzed in the least possible time.

1.3 General Principles

- (i) Physical-infrastructure and facilities should be planned on the basis of average expected workload during the peak season, so as to permit efficient handling of seed samples without undue delays. This is important since the time taken in reporting results is of crucial importance.
- (ii) The working space should be adequate, including provision for future requirements.
- (iii) The kind of tests to be carried out or likely to be carried out, for example, routine tests, seed health test, varietal purity test etc., must be ascertained in advance for making provisions in the plan.
- (iv) Selection of equipment should be such so as to permit efficient handling of work. The equipment must meet requisite specifications as prescribed by Central Seed Testing Laboratory, NSRTC, Varanasi.
- (v) Adequate and efficient furnishing, light and other necessities should be ensured so as to reduce the strain of otherwise strenuous work.

1.4. Eligibility

Departments of Agriculture of State Governments/Union Territories, State Seeds Corporations, State Seed Certification Agencies, NSC, SFCI, State Agriculture Universities and KVKs shall be eligible for financial assistance for setting up of seed testing laboratories as per financial pattern given below:

(i) **Building:** The space requirements and financial estimates for testing approximately 10,000 samples per year is given at Annexure - I for guidance. The cost for construction of building with a size of 250 sq. meter i.e. 2500 sq. feet as per details provided in Annexure-I, @ Rs. 750/- per sq. feet with tiled floorings, has been estimated as Rs. 18,75,000/-. Cost of furnishing has been estimated at Rs 1.00 lakh. Hence the total estimated cost for construction of a seed testing laboratory for 10,000 seed samples with area of 250 Square meters is determined approximately as Rs.19.75 lakh. Financial assistance shall be provided to various implementing agencies accordingly or in multiples there of. The estimates given in Annexure-I are indicative and may vary from case to case based on requirement, work-load and price variations etc., for which justification will be provided in detail by the implementing agency.

(ii) Equipments required for setting up a conventional Seed Testing Laboratory

Quality equipment as per requisite specifications should be purchased for a seed testing laboratory. Total estimated cost of requisite equipments for setting up a conventional Seed Testing Laboratory is determined approximately as Rs 40.84 lakhs at present cost. Details of equipment and estimated cost are given at Annexure-II for setting up of a conventional laboratory for handling approximately 10,000 samples per year. The list of equipment and cost are indicative and may vary based on actual requirement, price etc.

(iii) Equipment required for setting up of DNA Finger Printing / Varietal Purity-Testing Laboratory

Biochemical descriptors, in particular DNA based descriptors, are valuable tests for providing information on genetic identity and similarity. As many of the gene-enzyme system can be altered in its developmental expression by extra cellular signals viz. light, hormones etc., identification of varieties based on iso-enzymes may not be accurate / reliable. Therefore, installation of facilities for conducting DNA Finger Print Test is imperative so as to pin-point the distinct morphological/agronomic/biochemical traits. Molecular data based on DNA markers, which gives unique identity to the varieties, facilitates easy comparison, corresponding to important morphological characters of the varieties. It is proposed to set up at least one DNA finger-printing facility at notified seed testing laboratories in a State/UT for the purpose of analyzing genetic purity of seed samples, includes genetically modified crops. Total estimated cost for setting up a DNA finger printing / varietal purity testing laboratory is determined as Rs 40.39 lakh based on the present cost. A list of equipment along with cost for setting up of a DNA finger-printing facility is given in Annexure-III. The list is indicative in nature and may vary from case to case based on actual requirement and prices.

2. Grow-out Test Farm.

Seed certification programme and controlled pedigree system are aimed at maintaining cultivar trueness and purity of seed. In spite of this, possibilities always exist for unwanted seeds of other cultivars or other types to contaminate the originally pure seed lots. Contamination may occur because of: (i) natural crossing with another cultivar especially in open pollinated crops, (ii) mutation, (iii) unclean harvesting equipment, (iv) carelessness at the processing plant and (v) mistakes in bagging and tagging etc. To discover and control such contamination pre and post control tests are required to be conducted by means of cultivar identification and purity determination. Cultivar purity or genuineness is tested by means of heritable characters (morphological, physiological, chemical etc.) of seeds, seedlings and plants. Determination of the cultivar purity test is the only fool-proof method to identify whether the cultivar is true to the type of the variety. Hence, it is imperative to establish/strengthen the grow-out-test farm in the Department of Agriculture of the State Governments/Union Territories, Seed Certification Agency and Seeds Corporations. Besides, samples drawn by seed inspectors notified under Section 13 of the Seeds Act, 1966 are also subjected to grow-out tests for determining genetic purity of seeds, hence there is requirement for establishing / strengthening grow out test farms.

(i) Establishment/Strengthening of Farm: Financial assistance for establishment/strengthening of grow-out-test farm will be provided for the following activities to be decided on case to case basis by the Department based on such factors as prevailing approximate market price, depth of under ground water sources etc., on the above items:

i	Development of fencing facilities	based on actual estimates from appropriate State agency
ii	Development of irrigation facilities	based on actual estimates from appropriate State agency.
iii	Purchase of equipments, power tiller and required accessories i.e., implements, attachments etc.,	based on cost estimates emerging from process adopted by implementing agency
iv	Development of land	based on actual estimates from appropriate State agency

Funds will not be provided for purchase of land.

The assistance will be subject to limit of Rs. 50.00 lakh for establishment and Rs. 25.00 lakh for strengthening of Grow-out Test farm.

(ii) Reimbursement of Cost of Seed Samples:

In addition, State Governments will be re-imbursed with the actual cost of seed sample drawn by them in the process of seed law enforcement under the Seeds Act, 1966 upto the maximum limit of Rs 5.00 lakhs per annum.

(iii) Green House: Green house facilities are very much essential in order to screen the plants for the seed health test, seedling symptom studies through screening under controlled conditions, including the GM crop plants, varietal purity testing etc., For establishment of Green House, a requirement of Rs.7,50,000/- (approximately) is estimated. Technical specifications for establishment of a green-house as estimated by National Seed Research and Training Centre, Varanasi are given at Annexure – IV for guidance. Green house can be considered for grow out test farm and other purposes also.

3. Payment of ISTA fee.

It is proposed to extend the financial assistance to the Seed Testing Laboratories working under the control of State Government/Union Territories, Seeds Corporations and Seed Certification Agencies, NSC/SFCI, and NSRTC to obtain the membership of International Seed Testing Association (ISTA). The objective of obtaining this membership is to develop the Seed Industry and promote export of seeds. While exporting seeds and planting material to countries like USA, Australia, Canada, and Europe, the importers insist on orange tag for seed testing. Seed Testing Laboratories accredited with ISTA only can issue the ISTA Certificate. The subscription fee for joining these agencies is high. It is therefore, considered necessary to provide financial assistance to above organizations to obtain/renew the annual membership as per the actual expenditure incurred on this account. For this purpose, financial assistance will be provided @ Rs. 5.00 lakh per case on each occasion or as per actual fee.

4. Power back up facility:

For ensuring precision in test results and to maintain the shelf life of guard seed samples, the controlled germination room, seed germinators and controlled seed storage room in seed testing laboratory requires uninterrupted power supply. Hence it is considered necessary to provide financial assistance for power back up facility to the seed testing laboratories. For this purpose financial assistance up to Rs 5.00 lakhs for a Generator up to 50 KVA capacity, or multiple thereof, will be provided.

5. Establishment and Strengthening of Seed Certification Agencies.

5.1 The Seeds Act, 1966 provides the legislative framework for regulation of quality of seed sold in the country. The Act provides a system of certification of seeds, which is intended to assure the farmer about the quality of the seeds that he purchases. There are 21 State Seed Certification Agencies of State Governments/Union Territories engaged in quality control and certification of seed in country.

5.2 The objective of Seed Certification is to maintain and make available high quality of seeds and propagated material of notified kind/varieties through certification to ensure genetic identity and genetic purity. Seed Certification is also designed to achieve prescribed Indian Minimum Seed Certification Standards under Section 17A of Seeds Rules, 1968.

5.3 The seed certification process involves a large number of day to day operational activities from the receipt of seed farm registration till the issue of seed certification tags. Hence, for effective seed certification programme and also link through SeedNet portal of India, it is proposed to release the funds to Seed Certification Agencies for supporting all such activities with a maximum limit of Rs 25.0 lakhs, for which detailed proposals will be required to be submitted by the Agencies.

5.4 The financial assistance as prescribed above will be considered on case to case basis as per the requirement.

6. Training

6.1 With the rapid development of science and technology, seed production has arisen to the status of commercial activity. Human Resource Development is of prime importance for seed production programme and effective seed laws enforcement. It is therefore imperative to organize training in a regular manner for the state government officials engaged in Seed Development Programmes as well as other stake-holders like farmers, dealers and traders. Directors, Agriculture of State Governments will be empowered to choose the farmers/dealers/traders for the training and provide the required training to them according to their needs. It is proposed to extend the financial assistance for organizing training courses for the personnel mentioned above to NSRTC, State Governments/UTs, NSC, State Seed Corporations, Certifications Agencies, Seed Science and Technology Division of Agricultural Universities, ICAR Institutes, KVKs, and other institutes of repute (to be decided by the Department). The training should be related to dissemination of seed

production and seed development technology, seed quality assurance, seed regulations, seed law enforcement, seed testing and evaluation, integrated seed improvement, varietal purity testing, testing of specified traits (GMOs), seed health, post harvest seed management and need based specialized training on seed related issues etc.

6.2 The amount of financial assistance will be available from Rs. 75,000/- for a training of about 25 officials for 5 days training course, which will be considered on case to case basis by the competent authority in this Department. The break up of admissible expenditure is at Annexure –V.

7. Strengthening of Central Seed Committee and Central Seed Certification Board and Seeds Division.

7.1 Central Seed Committee(CSC) and Central Seed Certification Board (CSCB) are constituted under the provisions of the Seeds Act, 1966 to advise the Central Government and the State Governments on all matters arising out of the administration of Seeds Act, all matters relating to seed certification, and to coordinate the functioning of Seed Certification Agencies established under the Act.

7.2 The provision under this component is to be utilized for the payment of TA/DA of the staff of CSC and CSCB and TA/DA of the non-official members of its sub-committees constituted under the relevant provision of Seeds Act, 1966 and Seeds Rules 1968, as well as for strengthening of the CSC and the CSCB with regard to office efficiency, delivery mechanisms etc. This expenditure will be need based and will be considered accordingly.

7.3 For effective implementation of Seeds Division's schemes and also to cater to the increased work load due to new initiatives, such as implementation of OECD Seeds Schemes, operationalization of NSRTC, Varanasi, proposed Mission on Seeds, out sourcing of various services, infrastructure requirement for OECD Cell etc, it is proposed make an estimated outlay of Rs.50.00 lakhs for strengthening of Seeds Division in XI plan period.. This amount would also be utilized for purchase of books, computers for technical staff, organization of symposium/seminars, payment of consultancy service for revision of standards of seed testing, seed certification, publication of Seed Division etc.

7.4 These provisions are continuing from the IX Plan period and are proposed to have in view of their continuous necessity

8. Assistance to Designated Authorities for OECD Varietal Certification.

8.1 The Organization of Economic Cooperation and Development(OECD) is an inter-governmental organization founded in 1961 with a mission to help its member countries to achieve sustainable economic growth and employment and to raise the standard of living in the member countries.

8.2 OECD Seed Scheme is one of the international frameworks available for certification of agricultural seeds moving in international trade. The objective of the OECD Seed Schemes is to encourage use of seeds of consistently high quality in participating countries. The Scheme authorizes use of labels and certificates for seed produced and processed for international trade according to agreed principles.

8.3 Government of India had applied for accession to the OECD Seed Schemes. In the Annual Meeting of the OECD held in Chicago in July, 2008, India's request to participate in OECD Seed Schemes has been approved based on the recommendations of an Evaluation Mission of OECD, which visited India in April, 2008. India's participation in OECD Seed Schemes is likely to boost its seed export. The Divisional Head of Seeds Division i.e. Joint Secretary (Seeds) in the Department of Agriculture and Cooperation has been nominated as National Designated Authority under the Scheme. Further, to begin with, the Heads of State Seed Certification Agencies of Karnataka, Andhra Pradesh, Tamil Nadu, Maharashtra, Rajasthan, Uttarakhand and Uttar Pradesh, Haryana, Bihar and Assam have been designated to undertake certification work under OECD Seed Schemes and for this purpose, each of these agencies have been allotted States for handling the certification work.

8.4 Seed Certification under OECD Seed Schemes requires creation of a special and dedicated Cell in each of the Designated Authorities. The personnel engaged in this kind of certification will be required to be constantly trained in India as well as abroad. The laboratories under these Seed Certification Agencies will also be required upgraded and the equipment and other laboratory material will also be required to be constantly replaced as per international standards.

8.5 Seed certification Agencies engaged in OECD Seed Certification can avail financial assistance for up-gradation of laboratories, other infrastructure facilities and training of officials as per requirement and norms as mentioned under preceding paragraphs. However, a lump sum one time grant of Rs. 10.00 lakh will be provided to the Designated Authority to initiate the work under OECD Seed Certification, which will be considered on case to case basis and decided by the competent Authority in the Department based on the proposals of the Designated Authorities. Assistance under this sub-component may be provided purchase of computers, furniture, fax/telephone facilities, software requirement and other miscellaneous items. Training of officials of the Designated Authorities within India and abroad will also be considered.

ANNEXURE-I

Indicative list of Items and Cost for a Seed Testing Laboratory - Building

Particulars of Room	Size of Room (meters)	Total Area (Sq. meters)
A. Rooms		
1. Sample receipt and preparations room	3 x 3.6	10.8
2. Moisture Test room	3 x 3.6	10.8
3. Purity Room	6 x 6	36.0
4. Germination Room		
a. Walk-in-germinator	1.8 x 2.4	4.3
b. Cabinet-type germinators	3 x 3.6	10.8
c. Sand test room	3 x 3.6	10.8
d. Preparation room cum germination counting room	4.5 x 6	27.0
Particulars of Room	Size of Room (meters)	Total Area (Sq. meters)
5. Seed Health test room (2 Nos.)	4.5 x 6	27.0
6. Special tests	6 x 6	36.0
7. sample storage	4.5 x 6	27.0
8. Miscellaneous room & other office space (3 Nos.)	3 x 3.6	10.8
	Total	243.7
Say total square meter		250.00
B. (i) Green house (wire mesh enclosure)/ Glass house	4.5 x 6	27.0 Sq. Mts.

Notes :

- (1) For Construction of building with a size of 250 sq. meter i.e. 2500 sq. feet @ Rs. 750/- per sq. feet with tiled floorings with minimum required furnishing an amount of **Rs. 18,75,000/- + Rs. 1.00 lakh** (for furnishing), approximate, is required.

Indicative List of Equipments for Seed Testing Laboratory – Conventional : (Rate quoted are approximate and tentative)

Equipment	No. Required	Rate of Equipment (Rs.)	Total Amount (Rs.)
1. Seed sampling and dividing			
a. Seed triers (assorted sizes)	One set	25,000.00	25,000.00
b. Boerner divider	1	8,500.00	8,500.00
c. Gamet divider	1	17,000.00	17,000.00
d. Soil type divider	1	7,500.00	7,500.00
2. Sample storage boxes and racks	As per requirement	50,000.00	50,000.00
3. Laboratory models of following			
a. Air Screen cleaner cum grader	1	1,25,000.00	1,25,000.00
b. Aspirator	1	35,000.00	35,000.00
4. Balances			
a. Single pan (top loading)	2	20,000.00	40,000.00
b. Analytical balance	1	50,000.00	50,000.00
5. Purity Work Boards	6	3,500.00	21,000.00
6. Germinators			
a. Cabinet germinators (Single Chamber)	1	90,000.00	90,000.00
b. Cabinet germinators (Double Chamber)	1	1,55,000.00	1,55,000.00
c. Walk-in-room germinator, step-in-germinator	1	10,00,000.00	10,00,000.00
7. Refrigerator	1	25,000.00	25,000.00
8. Sand Sterilizer	1	50,000.00	50,000.00
9. Hot air ovens	2	30,000.00	60,000.00
10. Grinding mill	1	50,000.00	50,000.00
11. Binocular Stereoscopic Microscope	1	2,00,000.00	2,00,000.00
12. Incubators	2	85,000.00	1,70,000.00
13. Autoclave	1	40,000.00	40,000.00
14. Controlled Seed Storage Room	1	7,00,000.00	7,00,000.00
15. Digital Temperature and Humidity Indicator	3	20,000.00	60,000.00
16. pH Meter	2	10,000.00	20,000.00

17. U V Lamp / Chamber	1	30,000.00	30,000.00
18. Miscellaneous equipment			
1. Seed blower	1	35,000.00	35,000.00
2. Digital Moisture Meter	2	20,000.00	40,000.00
3. Hand Sieves	One set	50,000.00	50,000.00
4. Seed Sieve Shaker	1	50,000.00	50,000.00
5. Seed herbarium model	1	1,00,000.00	1,00,000.00
6. Counting Boards	Assorted	25,000.00	25,000.00
7. Sand benches	As per requirement	50,000.00	50,000.00
8. Water Sprinklers	2	25,000.00	50,000.00
19. Miscellaneous supplies			
a. Sample pans	10	10,000.00	1,00,000.00
b. Desiccators	6	10,000.00	60,000.00
c. Aluminium cans with lids	100	-	25,000.00
d. Forceps	12	-	5,000.00
e. Magnifiers (10x)	6	-	25,000.00
f. Aluminium dishes	50	-	50,000.00
g. Petri dishes	As per requirement		25,000.00
h. Plastic boxes	-do-		25,000.00
i. Other glassware & Apparatus/ Desiccators	-do-		1,50,000.00
20. Impression Board –Assorted numbers	1 set	35,000.00	35,000.00
21. Illuminated Stand Magnifier	2	5,000.00	10,000.00
22. Hand lenses	10	10,000.00	10,000.00
23. Electrical Conductivity Meter(EC Bridge)	1	25,000.00	25,000.00
24. Laminar Flow Chamber	1	65,000.00	65,000.00
25. Computer & Laser Printer	1	45000.00	45000.00
Total			40,84,000.00

Annexure-III**List of Equipment and cost for setting up of a DNA finger-printing facility****(Rates quoted are approximate and tentative)**

Equipment	No. Required	Rate of Equipment	Total Amount (Rs.)
1. DNA Electrophoresis system with power supply	1	5,00,000.00	5,00,000.00
2. Gel Documentation Unit with UV Transilluminator	1	3,50,000.00	3,50,000.00
3. ELISA Reader	1	2,00,000.00	2,00,000.00
4. PCR machine / Thermo Cycler	1	4,00,000.00	4,00,000.00
5. Table Top Refrigerated Centrifuge	1	2,50,000.00	2,50,000.00
6. Micro Centrifuge	1	2,00,000.00	2,00,000.00
7. Multipurpose Digital Shaker /Orbital Shaker	1	1,30,000.00	1,30,000.00
8. Water Bath	1	50,000.00	50,000.00
9. Test Tube Rotator	1	20,000.00	20,000.00
10. Rotary Mixture	1	20,000.00	20,000.00
11. Heating Blocks	1	15,000.00	15,000.00
12. Water Purification /Double distillation system	1	4,00,000.00	4,00,000.00
14. Refrigerators			
a. 710 Liters	1	75,000.00	75,000.00
b. 200 Liters	1	25,000.00	25,000.00
15. Analytical Balance	2	50,000.00	1,00,000.00
16. Biotechnological Plastic wares and Glassware's	-	-	2,00,000.00
17. 6KV UPS with Batteries	1	1,10,000.00	1,10,000.00
18. Autoclave	1	60,000.00	60,000.00
19. Computer & Laser Printer	1	45000.00	45000.00
20. Fluorimeter	1	35000.00	35000.00
21. Freezer (-20 to - 80 °C)	1	100000.00	100000.00
22. Fumehood	1	50000.00	50000.00
23. Furnishing of the Lab		150000.00	150000.00
24. Hot Air Oven	1	40000.00	40000.00

25.Hot plate cum stirrer	1	12000.00	12000.00
26.Liquid nitrogen can	1	35000.00	35000.00
27.Microwave oven	1	10000.00	10000.00
28.Mortar and pestle	10	500.00	5000.00
29.pH meter	1	12000.00	12000.00
30.Pipetman	1 Set	100000.00	100000.00
31.Spectrophotometer	1	40000.00	40000.00
Total			40,39,000.00

TECHNICAL SPECIFICATIONS FOR ESTABLISHMENT OF A GREEN HOUSE

TYPE Greenhouse with Photosynthesis Action Spectra, microprocessor monitored.

SIZE 60' x 30' x 9': 12' (Length x Breadth x Side Height: Center Height)
(Two chambers of size 30' x 30' each floor area)

SHAPE – **Dome Type** with temperature control round the clock whole year as per set point up to 20-25° C round the year for 365 days.

Details of the Product with Specifications

S.No	Product and Specifications/Technical Details	Nos. Camber – I	Nos. Camber – II
1.	Photo synthetically Active Radiation Lamp (PACRa TM /PAR) with Photo simulators. (05508 PACRa W 1.7 to 2.6/60 PACRa TM) are specific action spectra lamp systems for photosynthesis for commercial production and research. The lamps are DIN Germany, & IEC international. PACRa TM systems.	10	10
2.	Normal Tube Lights Standard 4' with fitting	5	5
3.	Microprocessor Photosynthesis Monitor Panel code No. 09355. It should have temperature, humidity and photoperiodic monitor, real microprocessor, large digital display (14 mm, 14 mm, 8 mm). Temperature control $\pm 1^{\circ}\text{C}$, Humidity control $\pm 4\%$, Time control \pm sec/day.	1	1
4.	Water pad Cooling System : Axial flow fan (imported) 36" Nos. 2 with CH2, HD motor fixtures and 200 liter polymer SL-3-40 system water tank to distribute and collect water from pads, cellulose cooling pads complete, 4" thick, 4' height x width with IZ-AL-S4 system lowers by $8^{\circ}\text{C} \pm 2^{\circ}\text{C}$ at outside max. 62% RH (subject to ambient 35°C or above) or low with TL-90 Technology.	Complete	Complete
5.	Heating system by electric heat convector system 2.4 KW. It should have heat convector to circulate heat so that the heat can be blown in the complete area.	3	3
6.	Timer piltz for humidity.	1	1
7.	Misting unit heavy duty motor with nozzles, filter, pipes sintex polymer tank 1000 ltr. etc., to raise RH upto 90% provided humidity created is not expelled from the green house etc., with MPST technology.	1 set	1 set

8.	Polycarbonate sheet double walled 6 mm thick, (GE make) UV stabilised with transparent sheet geegnet gaskets for sides & roof set	Complete	Complete
9.	Roof screen 50% (shading) colour green manually rolabale	Complete	Complete
10.	Super structure module aluminum anodized covering strip infra structure mainly GI iron pipe 47 mm x 47 mm \pm 1 mm door size 1.92 x 91 m (normally 6'3"x3') lockable.	Complete	Complete
11.	Benching system size: 9' x 4' x 2' (LxWxH) Mild steel rust resistant with movable top.	15	15
12.	Foundation for green house WIDE BASED 1' below earths surface, 1' above earth's surface, as kick-board 9" wide. Frame base block height 2'.	Complete	Complete
13.	Floor made of crushed bricks 1", over that 'rodi' (small stone pieces) upto 1" over that cement plaster with ratio of rodi, sand, cement 4:3:1, tiled with full white anti slippery hard material.	Complete	Complete
14.	Electrical Wiring of entire green house	Complete	Complete
15.	Electrical Wiring and other works charges viz., leveling the site, provision of electrical wiring up to Green House from the existing electric phase connections. Water pipe ½" with water supply up to Green House from the existing water connection point shall also be included. No extra charges should be given. Hence, the firm/agency should be requested to make visit and survey the place of Green House to be installed before quoting the rates.	Complete	Complete
16.	Pro-Tray 50 Cavity (50 Nos.)	25 Nos.	25 Nos.
17.	Miscellaneous washbasin, aluminum ladder, plumbing polymer pipes etc., all fittings of ISI or equivalent material.	Complete	Complete

Budget break up details for 5 days training programme

Sl. No.	Details	Amount (Rs.)
1.	Training kit and Training Module @ Rs. 500/- per person for 25 Nos.	12,500/-
2.	Refreshments and Lunch Rs.150 / person / day / 5 days for 25 Nos. including service charges and other government taxes.	18,750/-
3.	Other Logistics, POL support including field visit	15,000/-
4.	Miscellaneous expenditure (Inaugural, Valedictory Function, Certificates, Photographs, etc.,)	5,000/-
5.	Honorarium for the Resource Persons @ Rs. 500 /Lecture for 25 lectures	12,500/-
6.	TA/DA for the invited external resource persons as per the entitlement restricted to train fare	11,250/-
	Total (Rupees seventy five thousand only) for one training of 5 days	75,000/-