



ICAR - SUGARCANE BREEDING INSTITUTE
COIMBATORE - 641 007
TAMILNADU

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**NOTICE INVITING TENDER THROUGH GOVERNMENT e-MARKETING (GeM)
TOWARDS THE SUPPLY AND INSTALLATION OF CONTROLLED CONDITION
GROWTH CHAMBER FACILITY FOR SUGARCANE AT ICAR-SUGARCANE
BREEDING INSTITUTE, COIMBATORE, TAMIL NADU**

Online Bids under two bid systems (viz. Technical Bid & Financial bid) is invited on behalf of the Director, ICAR-Sugarcane Breeding Institute, Coimbatore - 641007 (Tamilnadu) through GeM.

The tender document contains the following: -

- Annexure-I - "Terms for Delivery of Goods"
- Annexure II - "Guiding specification and other technical details"
- Annexure III - "Technical bid statement"
- Annexure IV - "Performance Statement for last 3 years".

IMPORTANT NOTES: -

- I. Bids received on GeM portal only will be considered. Bids in any other form sent through sealed cover/email/post/fax etc. will be rejected.
- II. An earnest money of Rs.2,00,000/- (Rupees two lakhs only) must be deposited in the form of Demand Draft, Fixed deposit receipt, Banker's Cheque or Bank Guarantee from any of the commercial banks in favour of the Director, ICAR-Sugarcane Breeding Institute, Coimbatore payable to the Director, ICAR Sugarcane Breeding Institute, Coimbatore and must be sent in a sealed cover to the Director, ICAR-Sugarcane Breeding Institute, Coimbatore 641 007 so as to reach this office on or before the last date and time stipulated.
- III. ICAR - SBI reserves the right to accept / reject any or all the tenders in part / full without assigning any reason thereof.
- IV. Only those firms should respond who are the manufacturer or authorized dealers / agents of the stores specified in the tender specification. The dealers / agents will submit along with the tender document a copy of latest authority letter from the manufacturer.
- V. The bidder shall necessarily be a legal valid entity either in the form of registered firm or Limited company or a Private Limited Company registered under the Indian Companies Act, 1956 or sole proprietorship or country of origin.
- VI. The bidder should have registered with Department of Scientific and Industrial Research, Govt. of India, Documentary proof should be attached.

- VII. An understanding (Self certificate) is to be submitted that the Organization has not been blacklisted during the last 3 years by any Central / State Government Department / Organization / Autonomous Body / PSU etc.
- VIII. Financial bids will be opened / considered only for the bidders who have qualified technically.
- IX. Pre bid meeting will be held at this Institute as mentioned date and time in GeM portal.
- X. Tenderers are requested to study the tender documents completely and ensure all documents, forms and annexure to the tender are completely and correctly filled in, signed and stamped where applicable, all necessary literature, brochures and pamphlets have been attached and then to submit their offer. In complete tender offer shall be rejected straightway without any reference to the tenderers. Leaving any column not filled in or with cuttings will lead to rejection of the tender.
- XI. Any change / corrigendum/ extension of opening date in respect of this tender shall be issued through websites only and no press notification will be issued in this regard. Bidders are therefore requested to regularly visit our website for updates.
- XII The Firms are required to furnish / upload copies of the following documents:
1. The bidder should have completed at least 1 project of establishing the Controlled condition Growth chamber facility from initial stage to till project completion with any Research Institute / Central Govt./ State Govt./ PSUs / Autonomous bodies in India satisfying the below mentioned criteria (supporting documents to be uploaded). List of projects with purchase order and completion certificate issued by the client.
 2. The bidders / applicant should have registered with valid ISO Certifications like ISO 45001: 2018, ISO 9001: 2015 & ISO 14001: 2015.
 3. The bidder / applicant should have registered with EPF & ESIC Govt. of India. Documentary proof should be attached
 4. The bidder must submit Purchase Orders copies of establishment of Controlled condition Growth chamber facility in Government / State Government / Autonomous bodies in India of following value:
 - (a) One order costing more than Rs. 75 Lakhs (or)
 - (b) Two orders each costing more than Rs. 50 Lakhs (or)
 - (c) Three orders each costing more than Rs. 35 Lakhs
 5. The Applicant must be a legal entity like Private Limited / Public Limited / Government Registered Company registered under the Companies Act, Limited Liability Partnership (LLP) under the Partnership Act, Partnership Firm, Societies Registration Act, etc. The agency/s must have valid PAN card and GST Registration certificate (Documentary proof should be attached).
 6. The bidder's Annual turnover for the last three financial years should not be less than INR 1 Crore. The copies of the Profit & Loss statement also to be provided. The bidder should not be in loss in the last 03 financial years. The Annual Turnover Certificate duly signed & stamped by Chartered Accountant are to be attached.

7. The Bidder/Applicant should provide ITR (Income Tax Return) for the last three financial years.
8. The firm must have trade registration certificate.
9. Scanned copy of similar contracts with Central / State Government Department / Organization / Autonomous Body / PSU etc. / Research Institutes.
10. **Technical Bid** : Signed and Scanned Copy of Completely filled Technical Verification data sheet (Technical Compliance Statement) must be submitted for each quoted configuration. **SIGNED AND SCANNED COPY OF MAKE AND MODEL OF ALL SYSTEMS, SUB SYSTEMS AND ADDITIONAL ITEMS SHOULD BE MENTIONED IN THE TECHNICAL BID AND COMPLETE TECHNICAL DETAILS ARE TO BE PROVIDED IN THE FORM OF BROCHURES AND WRITE-UPS, FAILING WHICH THE TECHNICAL BID OF THE FIRM WILL BE REJECTED SUMMARILY.**
11. **Financial bid** : Financial bid indicating item-wise price for the items mentioned in the technical bid is to be uploaded separately.

THE BIDS WITHOUT THE ABOVE DOCUMENTS WILL BE REJECTED SUMMARILY.

XIII Bidders are required to furnish the following undertaking :

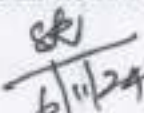
We agree to supply the above goods and allied services. We confirm that the same will meet the description, specification and other technical details as required in the tender enquiry.


We conform that we agree to all other terms and conditions of your tender enquiry including the terms of delivery, period of delivery and warranty provision.

We have furnished all the information, as required in the tender enquiry and attached the relevant documents.

(In case a tenderer desires to put some additional/modified stipulations, terms and conditions etc. the same may be clearly indicated).


ADMINISTRATIVE OFFICER


6/11/24


6/11/2024

I. Terms of delivery:

Delivery at site viz. – ICAR - SUGARCANE BREEDING INSTITUTE, COIMBATORE, TAMIL NADU.

Performance Security: To ensure due performance of the contract, performance security is to be furnished by the successful bidder for an amount of 3% of the value of the goods as fixed by the Competent Authority in the form of Account payee Demand draft, fixed deposit receipt, Bankers cheque or Bank Guarantee in favour of the Director, ICAR-Sugarcane Breeding Institute, Coimbatore payable at Coimbatore to be furnished within 21 days from the date of issue of Purchase order.

- ii. **Delivery period for goods:** Within 12 weeks from the date of the purchaser's signing the contract.
- iii. **Erection/installation and commissioning** (if required, depending on the goods ordered) are to be completed within 20 days of delivery of the goods at site.
- iv. **Inspection after Receipt of Goods:** The inspection will be done by the Committee in the presence of firm representative. The successful tenderer will have to provide at his own cost and arrangement technically qualified personnel at the consignee's location for inspection. These personnel must be able to unpack, assemble and demonstrate the use of the equipment fully and identified each Part / Machines supplied. Any consumables that are essential will be provided by the supplier free of cost. In case of receipt of materials in damaged condition the suppliers will have to arrange the replacement of goods free of cost. All expenses in this regard will be borne by the supplier.
- v. **Payment Terms:** Payment will be made after delivery of the item and satisfactory installation of the item.
- vi. **Terms of inspection by the Purchaser's representative.**
- vii. **Price structure:**
 - a) The tenderer shall quote for the complete requirement of goods and services and for the full quantity as shown against in Annexure –II.
 - b) The rates and prices quoted shall be in Indian Rupees only.
 - c) Two percent (2.0%) of the total billed amount will be deducted towards TDS on GST and the same will be remitted to the GST Department concerned.
 - d) All duties, taxes and levies payable by the supplier under the contract shall be included in the quoted price. The purchaser will not pay any such duties, taxes and levies separately.
 - e) The rates and prices quoted by the supplier shall remain firm and fixed during the currency of the contract and shall not be subject to variation on any account, whatsoever, including statutory variations, if any.

viii. Receipt of goods and terms of payment:

a) Payment term for supply of goods, including erection/ installation and commissioning (as and if applicable): -

Immediately on receiving the goods at site, the purchaser will verify the quantities of the items supplied as specified in the delivery challan of the supplier and also check for any superficial damage etc. in the goods so supplied and issue a provisional receipt accordingly. If the goods supplied do not require erection/installation and commissioning at site, the purchaser, within three working days of issue of the provisional receipt, will issue acceptance certificate (of the goods) to the supplier, provided the goods supplied are acceptable in terms of the contract. However, if the goods supplied also need erection/installation and commissioning, the purchaser will issue acceptance certificate within two working days, after successful erection/installation and commissioning. The supplier will then send its invoice along with the purchaser's acceptance certificate and other accompanying documents to the paying authority for payment.

The paying authority will release the full payment to the supplier as due in terms of the contract, within fifteen working days of receipt of supplier's invoice, purchaser's receipt certificate and other accompanying documents, provided the same are in order.

After release of payment to the supplier as per sub-para (a) above and after successful completion of training of the operator(s) in terms of the contract, the purchaser will immediately issue a certificate to this effect to the supplier. The supplier will thereafter send its invoice for training charges, along with the above certificate to the paying authority. The paying authority will release the payment to the supplier in terms of the contract within fifteen days of receipt of supplier's invoice provided the invoice and the accompanying documents are in order.

PAYING AUTHORITY: THE DIRECTOR, SUGARCANE BREEDING INSTITUTE, COIMBATORE - 641 007.

viii. Liquidated Damage Clause:

If any time during the performance of the contract, the supplier encounters conditions hindering timely delivery of the goods, the supplier shall promptly inform the purchaser in writing the fact of the delay and the likely duration of the same. After receipt of supplier's communication, the purchaser shall decide as to whether to cancel the contract for the un-supplied portion after the existing delivery period, or to extend the delivery period suitably issuing an amendment to the contract. If the supplier fails to deliver the goods and/or perform the services within the contractual delivery period for reasons other than circumstances beyond supplier's control (which will be determined by the purchaser) and the purchaser extends the delivery period, the purchaser will also deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% (half per cent) of the delivered price of the delayed goods or unperformed services for each week of delay or part thereof until actual delivery or performance. The maximum limit of such deduction will, however, be 10% (ten per cent) of the contract price of the delayed goods or services.

Further, during such delayed period of supply and/or performance, the supplier shall not be entitled to any increase in price and cost, whatsoever, on any ground. However, the purchaser shall be entitled to the benefit of any decrease in price and cost on any ground, whatsoever, of the goods and services, supplied during the period of delay.

ix. **Warranty Clause: Two Years Warranty**

x. **Dispute Resolution Mechanism**

If any dispute or difference arises between the purchaser and the supplier relating to any matter connected with the contract, the parties shall make every effort to resolve the same amicably by mutual discussions. However, if the parties fail to resolve the dispute or difference by such mutual discussion within 30 days, either the purchaser or the supplier may give notice to the other party of its intention to refer the same to arbitration. The arbitration shall commence thereafter. The arbitration shall be conducted by a sole arbitrator, who will be appointed by the Secretary, ICAR and the procedure to be followed in this respect will be as per the Indian Arbitration and Conciliation Act, 1996. The venue of the arbitration shall be the place from where the contract is issued.

You are also required to fulfill the following conditions and furnish the details as indicated in subsequent paragraphs.

1. At the time of awarding the contract, the purchaser reserves the right to increase or decrease by up to 25%, the quantity of goods and services as specified in the list of requirements, without any change in the unit price or other terms and conditions.
2. Please furnish a certified copy your latest ITCC (INCOME TAX CLEARANCE CERTIFICATE).
3. Please indicate if you are currently registered with any Govt. organization and if registered, furnish all relevant details.
4. Please state whether business dealings with you presently stand banned by any Government organization and, if so, furnishes relevant details.
5. The supplier shall at all times indemnify the purchaser, at no cost to the purchaser, against all third party claims of infringement of patent, trade mark or industrial design rights arising from the use of the goods or any part thereof, with respect to the goods quoted by the supplier in its offer.
6. The contract shall be governed by the laws of India and interpreted in accordance with such laws.
7. The quotation/offer shall remain valid for acceptance for a period not less than 180 days after the specified date of opening of the offers.
8. Notwithstanding the above, the purchaser reserves the right to accept or reject any quotation or annul the tendering process and reject all quotations at any time prior to award of the contract, without assigning any reason, whatsoever, and without incurring any liability or obligation, whatsoever, to the affected tenderer or tenderers.
9. The Successful Bidder shall have to deliver the performance security either by a Bank Guarantee or a Bank Draft in favour of the Director, ICAR-Sugarcane Breeding Institute, Coimbatore for an amount of 3% contract value, valid up to 60(sixty) days after the date of completion of all contractual obligations by the Supplier, including the warranty obligations.

ADMINISTRATIVE OFFICER

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SPECIFICATION FOR ESTABLISHING OF CONTROLLED CONDITION
GROWTH CHAMBER FACILITY FOR SUGARCANE

TECHNICAL DESCRIPTION

SHUTTERING SYSTEM:

Motorized based shutter door made by galvanized profile and outer frame with gear motor, electric control box and manual chain pulling system. Door opening and height should not disturb trolley movement along with sugarcane plants.

UTILITY AREA :

The facility will have a specific ante zone of size- 3m × 9m made galvanized steel and covered by 6mm PC Sheet .

Utility area: where controlling unit and all the other spare items can be stored

Doors size: 1 m. wide & 2m height anodized aluminum single sliding door with sliding wheel roller, guide channel, toughened glass, flashings & installation hardware. - 03 nos.

Motorized Service door of 6m x 3m with Gear motor - 02 Nos.

Air curtain: m.s. powder coated body heavy duty air curtain with double blowers. Prevents loss of cooling/heating effects of air. Shuts out insects, dust and Fumes. Air Curtains maintains high quality international standards.

INSULATED CLADDING:

Roof and all sides should be covered by PPGI sheet 0.5mm thick profile shape and Inner all sides including false Ceiling covered by Panel . 60MM thick panel with PUR puff type.

LIGHT:

Programming and control:

1. Independent level programming to set up day/night programming in all three chambers.
2. A combination of lights programmed to switch on/switch off to simulate sunrise and sunset, respectively, with the option of a daily reduction in the photoperiod in three chambers. Also, the R:FR ratios should be adjustable in all the three chambers independently.
3. One chamber should be provided with extended PAR light with tunable/adjustable wavelength. Light intensity: 0 to 1000 $\mu\text{moles}/\text{m}^2/\text{sec}$ at 45 cm height from light. LED panel should have IP54 protection.
4. All lights should be height adjustable which is suitable for sugarcane canopy.

5. One Spectrometer to measure the light parameter.
6. Effective wattage suitable for sugarcane canopy.
7. Proper beam angle for better reach of light to canopy.

LOCAL AUTOMATION CONTROL SYSTEM:

Should be Microprocessor based Microclimate Panel for Light, Temp. & Humidity controller with Automatic / manual operating option/ feature.

Software Climate Control

Features:

- Control system should be capable of Real time clock programming of temperature, relative humidity and lighting status.
- Microcontroller based control system.
- 7 inch touch display
- Multi set-point programming.
- Experiment protection via temperature limit shut-down. Auto-restart when temperature is normal.
- Temperature/RIH%/light high & low deviation alarm.
- Auto restarts in case of power failure with in-built battery.
- Alarm history of last 15 alarms
- Data recording facility of minimum 30 days with 1-minute interval.
- Data logging is in excel and graphical format.
- Remote access to local computer within the facility.
- Remote access from anywhere on computer when connected to internet¹.
- Email Alarm Alert system¹Note

¹ Internet on LAN thru Ethernet must be provided to the control system for this feature. Virtual Software

To access & monitor one or multiple chambers (photoperiodic chamber) from one location to fulfil customer need. It should provide solution for centralized system that has following features

- Work on networked Windows computer
- Facilitate user to communicate directly with the local control system
- Same programming facilities as local control system
- Online service diagnostic by service personal
- Supply with a compatible, necessary software-loaded desktop computer.

HUMIDIFICATION SYSTEM – ULTRA FOGGING:

Ultra-Sonic humidity System/Atomizing spray nozzle with fine water particles (size:

12µm) to attain humidity level up to 90% ± 5% Capacity: 8Ltrs / Hrs. capacity, Qty. As per requirement Unit in each chamber with at least 1.8 KW/8 litres/ hour capacity for each optimization chamber.

1. Range: Up to 85% RH
2. Control: ± 5% RH.
3. System: It has a dry sensor to direct measure humidity in % RH.
4. PVC connection for water supply from a single point source

COOLING SYSTEM:

Air conditioner units to maintain the temperature range minimum 18°C to 31°C ±2°C in all the chambers.

SPECIALISED TRACK AND TROLLEY:

Three Galvanized Trolley (3 Nos) each one for chamber lengthwise of compartment along with base Track mechanism specially design to shift automatically from Compartment to open field and back to Compartment as per requirement with motorized system. One extra trolley may be provided as spare.

Trolley design should be in such a way to accommodate complete Sugarcane crop handling without fall while transferring from Compartment to open field. Forward and Reverse with inbuilt limit protection and with remote operate feature. Trolley quantity for entire area of Compartment except pathway.

The trolley should be parkable in staggered offset pattern in open field way.

CIVIL WORK:

1. Excavation for Foundation for Columns : 1.8 mtr x 1.8mtr x 1.5 mtr – 14 nos (Normal morrum soil)
2. PCC for Footing – 1.5 mtr x 1.5 mtr x .150mtr – 14 nos
3. RCC Footing – 1.2 mtr x 1.2mtr x .450 mtr – 14 nos
4. RCC Column - .300 x .300 x 1.8 mtr
5. Back filling soil till ground.
6. RR masonry – 12mtr x 9 mtr x .600 – below the Ground level
7. Brick masonry/Stone masonry above the Ground level – 12 mtr x 9 mtr x .600mtr
8. PCC for Foundation : 12 mtr x 9 mtr x .600mtr of .100 mm thick
9. Plinth beam : 12 mtr x 9 mtr x .300mt
10. Soil filling – 12 mtr x 9 mtr x .450mt
11. PCC for flooring – 1:4:8 – 12 mtr x 9 mtr x .150mt
12. VDF flooring – 75mm thick
13. Movable track – Foundation upto 22 mtr
14. Flooring below the track with PCC and VDF Flooring

Galvanized Structural work for Main Facility: 12mtr x 9mtr x 8 mtr

1. Column Pipe with 100mm x 50mm x 3.2mm thick – 14 nos
2. Foundation plate 12mm thick - .300mt x .300mtr – 14 nos
3. Truss Base plates – 12mm x .250mm.250mm – 28 nos
4. Truss Pipe – 60mmx 60mmx 2.9mm thick
5. Purlins – 50x50mm x 2.6mm
6. Supporting pipes – 50x50mmx 2.6mm
7. Bracings with 40x40x3mm thick

DATA PROCESSING UNITS

Supply of compatible & software-loaded 2 units of Laptops for data processing and analysis

FIRE SAFETY LEVEL

Fire Extinguisher Cylinder should be provided in each chamber which is designed to ensure safe passage through limited visibility conditions and evacuation. Fire Detection systems should be equipped with a variety of detectors that cannot just sense smoke but heat and flames as well.

ELECTRICAL WIRING:

1. All wires will be of copper and desired load (Make-finolex/Havells) and switches imported make, extra switches also provided as stand by. Each feature has own electric line with MCB and will be underground in PVC conduit pipe complete set with A grade work. Separate electrical work, panel board and main switches as well as per International norms- 01 complete set.
 2. ELCB (Earth Leakage Circuit Breaker) to protect electronic components in case of abnormal power supply.
- Provision for mobile alert via GSM technology Safety cut off when temperature crosses 45-50.0°C. Overload Protector to safeguard the compressor 180 seconds time delay for compressor switch ON.

FENCE: The covered facility needs to be fenced (24m x 15m) with link chain net wire with entry / exit gate.

POWER SUPPLY AND BACKUP:

- > A separate Generator backup system along with calculation and justification.
- > Uninterrupted online power supply for PLC in case of power failure

PERPETUAL LICENSE OF ALL THE SOFTWARES:

- All the softwares used in the facility (Control systems, data logging, etc.,) should be provided perpetual license with a provision for upgradation on yearly basis

WARRANTY:

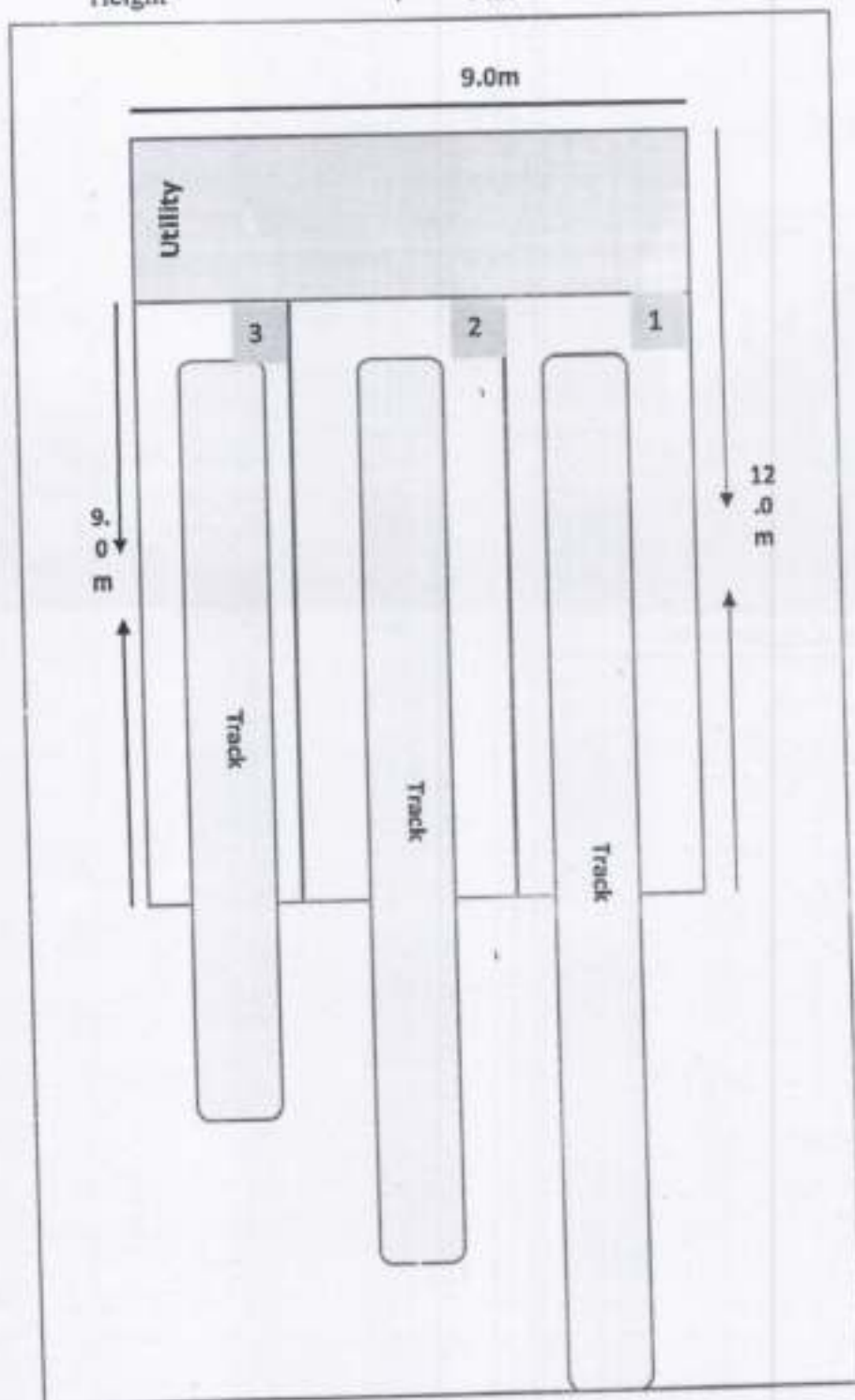
- Minimum two years warranty after takeover of the facility.



MODEL FRONT VIEW

Controlled condition Growth chamber facility for sugarcane- Photoperiodic chamber

Overall Induction Facility	:	12m x 9m = 108 sq.m. (L x W)
Induction Chamber Area	:	9m x 9m = 81 sq.m. (L x W)
Utility/Entry Area	:	3m x 9m = 27 sq.m. (L x W)
Height	:	8 m.



**ICAR – SUGARCANE BREEDING INSTITUTE
COIMBATORE - 641007**

TECHNICAL BIDS

Specification of the equipment/ item (in detail) to be purchased

S. No.	Essential Criteria	Whether complied with YES/NO	If yes, please Tech literature of the equipment duly printed & clearly specify page No. of Bulletin which specifically confirm this	If no, attach deviation statement	Remarks (if any)
1.	The bidder should have completed at least 1 project of establishing the Controlled condition Growth chamber facility from initial stage to till project completion with any Research Institute / Central Govt/ State Govt/ PSUs / Autonomous bodies in India satisfying any one from the below mentioned criteria supporting documents to be uploaded. List of projects with purchase order and completion certificate issued by the client.				
2.	The bidders / applicant should have registered with valid ISO Certifications like ISO 45001: 2018, ISO 9001: 2015 & ISO 14001: 2015.				
3.	The bidder / applicant should have registered with EPF & ESIC Govt. of India, Documentary proof should be attached				
4.	The bidder must submit Purchase Orders for establishment of Controller condition Growth chamber facility in Government / State Government / Autonomous bodies in India. (i) One order costing more than Rs. 75 Lakhs (or) (ii) Two orders each costing more than Rs. 50 Lakhs (or) (iii) Three orders each costing more than Rs.35 Lakhs				
5.	The Applicant must be a legal entity like Private Limited / Public Limited / Government Registered Company registered under the Companies Act, Limited Liability Partnership (LLP) under the Partnership Act, Partnership Firm, Societies Registration Act, etc. The agency/s must have valid PAN card and GST Registration certificate.				

	Documentary proof should be attached.				
6.	The bidder shall have Annual turnover for latest last three financial years should not be less than INR 1 Crore. The copies of the Profit & Loss statement also to be provided. The bidder should not be in loss in the last 03 financial years. The Annual Turnover Certificate duly signed & stamped by Chartered Accountant.				
7.	The Bidder/Applicant should provide ITR (Income Tax Return) for latest last three financial years.				
8.	The firm must have trade registration certificate				
9.	Scanned copy of similar contracts to Government Departments				
10.	Signed and Scanned Copy of Completely filled Technical Verification data sheet (Technical Compliance Statement) must be submitted for each quoted configuration				

N. B.: - All the bidders are requested to provide true statement in the columns. Concealing of facts will liable to be rejected the tender completely. No communication will be made in this regard.

Signature of Tenderer with office seal

Annexure IV

PERFORMANCE STATEMENT FOR LAST 3 YEARS

S. No.	Name of the items	Name of the office by whom order was placed	Order No.& date (Please enclose copy of supply orders)	Value of supply order	Delivered in time or not	If not please specify the reason	Attach satisfactory working report from each office (Yes/No)

Signature of Tenderer with Office Seal