



हर कदम, हर उमर
किसानों का हमसफर
भारतीय कृषि अनुसंधान परिषद
Agrisearch with a human touch



Indian Council of Agricultural Research
Indian Institute of Vegetable Research
Post Bag No. 01, Post Office Jakhini,
Shahanshapur, Varanasi-221 305, U. P.

F. No: 1-501/2015/Adm.III

Dated: 19th December, 2016

**INVITATION TO TENDER AND INSTRUCTIONS CONTAINING THE TERMS AND
CONDITIONS GOVERNING THE ESTABLISHMENT OF POLY HOUSE
AT ICAR – IIVR, VARANASI**

- A** Kindly go through each and every Terms and Conditions and requirements of the Tender. Non-compliance of any such requirement shall lead to non-consideration of the Bid.
- B** Cost of the Tender Form: **Rs. 3,000/- (Rupees Three Thousand only, Non – Refundable)** in the form of Demand Draft / Banker's Cheque, payable to the **ICAR UNIT, IIVR, Varanasi**.
- C** Last date of the receipt of the Tenders in the Office is **10th January, 2017 up to 2.00 P.M.** Tenders received after the due date and time, shall not be considered under any circumstances.
- D** Tenders shall be opened at **2.05 P.M. on 10th January, 2017**.
- E** The Complete Tender document is also available on our website: **www.iivr.org.in**

NOTE:

- 1** Director, Indian Institute of Vegetable Research, Varanasi, may, at his discretion, extend this date by a fortnight and such extension shall be binding on Bidders.
- 2** If the date up to which the Tender is open for acceptance is declared to be a holiday, the Tenders shall be deemed to remain open for acceptance till the next working day. Similarly, the Tenders will be opened on the next working day following the holiday, but there will be no change in the time for opening the Tender, as indicated above.
- 3** Before filling up the Tender Papers, firms/ agencies are advised to go through the Tender Paper thoroughly and accordingly fill up the contents thereof, as per the norms of Tender. After submission of the Tender, no request for any alteration is permissible. Non-compliance of any of the Terms & Conditions of the Tender shall make the Bid liable to be rejected, calling for no exception/ further request in this regard.
- 4** Firms seeking exemptions, if any, under any clause should submit updated admissible documentary proofs for the same.
- 5** All communications must be addressed to the Director, ICAR-Indian Institute of Vegetable Research, P.B. No.1, P.O. Jakhini (Shahanshapur), Varanasi – 221305, Uttar Pradesh, INDIA.
- 6** In compliance to GFR 2005, Rule 160(ii), enquires/ queries may be made by the bidders/ prospective bidders from the office for any issue related to bidding condition, rejection/ award of bids etc.



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किसानों का हमसफर
भारतीय कृषि अनुसंधान परिषद

AgriSearch with a human touch



TECHNICAL BID
Indian Council of Agricultural Research
Indian Institute of Vegetable Research
Post Bag No. 01, Post Office Jakhini,
Shahanshapur, Varanasi-221 305, U. P.

F. No: 1-501/2015/Adm.III

Dated: 19th December, 2016

**INVITATION TO TENDER AND INSTRUCTIONS CONTAINING THE TERMS AND
CONDITIONS GOVERNING THE ESTABLISHMENT OF POLY HOUSE**

AT ICAR – IIVR, VARANASI

- 1 Sealed Tenders are hereby invited on the behalf of the Director, Indian Institute of Vegetable Research, Varanasi for **ESTABLISHMENT OF POLY HOUSE AT THE INDIAN INSTITUTE OF VEGETABLE RESEARCH (I.I.V.R.), VARANASI**. The terms and conditions of the Tender which will govern any contract made are those contained in the General conditions of contract applicable to the contracts placed by the ICAR and by the Research Institutes of the Council and the special terms and conditions are detailed in the tender forms and its schedules. Please submit your rates in the tender form if you are in a position to supply the Equipment in accordance with the requirements stated in the attached schedules.
- 2 **An earnest money of Rs. 60,000/- must be deposited in the form of demand draft/ pay order payable to ICAR UNIT, IIVR Varanasi. The particulars of the earnest money deposited must also be super scribed on the top of the envelope containing the Technical Bid by indicating the draft/ pay order number and date, failing which the tender will not be opened. The tender will not be considered if earnest money is not deposited with the tender. The EMD should be valid for a period of forty-five days beyond the final bid validity period.**
- 3 The tenderer is being permitted to give tenders in consideration of the stipulations on his part that after submitting his tenders, he will not resale from his offer or modify the terms and conditions thereof. If the tenderer fails to observe and comply with the foregoing stipulation, the aforesaid amount of EMD will be forfeited by the Institute. In the event of the offer made by the tenderer not being accepted, the EMD deposited by the tenderer shall be refunded back at the earliest after expiry of the final bid validity and latest on or before the 30th day after the award of the contract.
- 4 **The Schedules of the tender form should be returned intact and pages should not be detached. In the event of the space provided on the schedule form being insufficient for the required purpose, additional pages may be added. Each additional page must be numbered consecutively and be signed in full by the tenderer. In such cases reference to the additional pages must be made in the tender form. If any modification of the schedule is considered necessary it should be communicated by means of a separate letter along with the tenders. Overwriting/ erasing in rates to be quoted by the tenderer will not be allowed otherwise the tender may be rejected.**
- 5 The tenders are liable to be ignored if complete information as required is not given therein or if the particular asked for in the schedules to the tenders is not fully filled in. Individual signing the tenders or other documents connected with the contract may specify whether he signs it in the capacity of (i) a sole proprietor of the firm or constituted attorney of such sole proprietor, or (ii) a partner of the firm if it be partnership in which case he must have authority to refer to

arbitration dispute concerning the business of the partnership whether by virtue of the partnership agreement or power of attorney or (iii) constituted attorney of firm if it is a company.

- 6 If the tenderer does not accept the offer, after issue of letter of award by Institute within 15 days, offer made shall be deemed to be withdrawn & earnest money forfeited.
- 7 **In case of partnership firms, where no authority has been given to any partner to execute the contract/ agreement concerning the business of the partnership, the tenders and all others related documents must be signed by every partner of the firm. A person signing the tender form or any other documents forming part of the contract on behalf of another shall be deemed to warranty that he has authority to bind such other and if, on enquiry it appears that the persons so signing had no authority to do so, the Institute shall without prejudice to other civil & criminal remedies cancel the contract & hold signatory liable for all costs & damages.**
- 8 **The original copy of the tender is to be placed in sealed double cover. The Tenderer shall place two sealed envelopes for each item clearly marked TECHNICAL BID and FINANCIAL BID separately. Both these should be placed in one Main Outer Cover, which should be super scribed with Tender no. & date and “ESTABLISHMENT OF POLY HOUSE AT I.I.V.R., VARANASI.” with address of this office on the right hand side and that of the tenderer on the left hand bottom side. Right is reserved to reject outstation tenders. All tenders should be sent by Registered Post. Tenders to be hand delivered should be put in the tender box kept in the Administration Wing, IIVR, not later than 10th January, 2017 up to 2.00 P.M.**
- 9 **The technical bid shall consist of all technical details including detailed specifications, technical literature, brand name, model and make, catalogue, authorization letter, dealership certificate, users list, turnover, experience certificates, registration copies, tender cost, EMD etc. *Submission of catalogue containing details with full specifications of the item quoted is a must for technical comparison.* Only the rates quoted along with their break-ups, taxes, rates, etc. should be kept in the Financial Bid. Only those firms will be considered for opening of the financial bid which will qualify in the technical bid.**
- 10 **Rates quoted should be all inclusive i.e. all taxes, packaging & forwarding, insurance, etc. and must be specifically provided with detailed break-ups. No payment over & above the quoted rates shall be made under any circumstances.**
- 11 **The rates quoted by each firm in tender should be typed written both in words and figures. There should not be any cutting/ overwriting in the rates. Tenderer is at liberty to be present or to authorize a representative to be present at the time of opening of the tenders. The name and address of the representative who would be attending the opening of the tenders on tenderer's behalf should be indicated in the tender.**
- 12 **No interest on Performance Guarantee Deposit or E.M.D. shall be paid by the Institute to the tenderer, under any circumstances.**
- 13 **The Institute is not bound to accept the lowest or any other tenders and also reserve to itself the right of accepting the tenders in whole or in part. The Tenderer is, however, at liberty to tender for the whole or any portion of the Tender. Conditional tenders imposing a condition which is detrimental to the Interest of the Institute or for effective utilization of the Govt. fund will not be accepted.**

- 14 An amount equivalent to 5% of the approved quoted rates for each implement in the form of D.D./ B.G./ F.D.R. shall have to be deposited by the selected agency/successful tenderer as a Performance Guarantee Deposit after receiving a communication from the Institute, which should remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including warranty obligations. In the event of non-deposition of the same, the earnest money shall be forfeited. Any non-compliance of the Contract/ Guarantee/ Warrantee clauses, etc. the P. G. Deposit shall be forfeited and no request in this regard shall be considered.
- 15 In case of submission of Bank Guarantees for Performance Guarantee Deposit, the B.G.s should be send to IIVR, Varanasi directly by the issuing bank under Registered Post (A.D.). However, if the B.G. is deposited directly by the firm to IIVR, in that case, the issuing Bank should mandatory forward an unstamped duplicate copy of the B.G. directly to IIVR under Registered Post (A.D.) with a covering letter to compare with the original B.G. This shall be the duty & obligation of the selected/ successful agency/ firm.
- 16 **As per the CVC guidelines, in the Tender, either the Indian Agent on behalf of the Principal/ OEM or the Principal/ OEM itself can bid, but both cannot bid simultaneously for the same item/product in the same tender. Also, if an agent submits on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.**
- 17 The decision of the Director, IIVR, Varanasi, shall be final for any aspect of the Tender/ Contract and binding on the Tenderer. Disputes arising, if any, on the Tender will be settled at Institute level and in case of failure of settlement, dispute shall be referred to the sole arbitrator to be appointed by the Director, IIVR, Varanasi. The decision of the sole arbitrator so appointed shall be final and binding on the parties. Arbitration proceedings shall be governed by the Arbitration and Conciliation Act, 1996.
- 18 **The tenderer should mandatory provide its full bank details (a/c holder name; a/c no.; name of the Bank & Branch; IFS Code, etc.) along with the Tender document for enabling the payments by e-mode. No payment above Rs.25,000/- shall be paid other than e-mode under any circumstances, as has been made mandatory by G.O.I., Min. of Fin. vide letter F. No. 1(1)/2011/TA/291 dated 31.03.2012.**
- 19 As per the new Public Procurement Policy for Micro & Small Enterprises, effective from 1st April, 2012, 20% of the procurement of annual requirement of goods and services will be from the micro and small enterprises, with a sub-target of 4% from MSEs owned by SC/ ST Entrepreneurs. If the tenderer falls under the category of Micro & Small Enterprises, it should be specifically informed along with documentary proof/ certificate issued by the competent authority.
- 20 **The Tenderer should attach financial statements (Trading/ Profit & Loss account as well as Balance Sheet) for the A.Y. 2015-16 duly certified by a C. A. to corroborate their claim of turnover.**
- 21 **There should be no legal suit/criminal case pending or contemplated against the Proprietor/ Partners of the Firm or any of its Directors (in the case of Pvt. Ltd. Company) on grounds of moral turpitude or for violations of any of the laws in-force. Also, the firms should not have been Black Listed by any Govt. Department. The Tenderer must enclose this declaration at the time of submission of bid.**

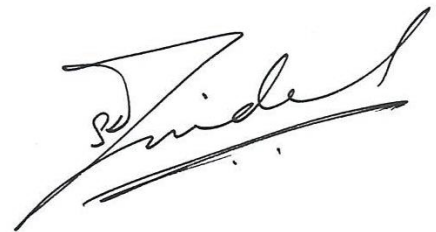
- 22 Any legal/ financial complication on account of infringement of any Patent/ Copyright/ Trademark, etc. or on account of any other factor, due to an act of commission or omission on the part of the Tenderer/ Firm/ Manufacturer shall be the sole responsibility of the Tenderer/ Firm/ Manufacturer and the Institute shall be indemnified from any such pecuniary loss. A certificate to this effect should be mandatory provided.**
- 23 Last 2-3 years continued experience of the Tenderer in the business/ supply of equipment to Central Govt. establishments/ Autonomous bodies of Govt. of India/Corporations of Govt. of India/ reputed public or private organizations. The details along with documentary proof viz. copies of Supply Orders, etc. should be provided by the Tenderer.**
- 24 The supply should be made within the time frame mentioned in the supply order. In case of any extension, prior approval of the office shall have to be taken. In case, the supply is not completed within the time limit, the supply order shall stand cancelled and the bid security would stand forfeited.
- 25 The firms which are ISO/ ISI/ BIS certified may be given preference.**
- 26 Indian Institute of Vegetable Research, Varanasi, being a Scientific and Research Organization, is exempted from payment of Excise Duty (Certificate to this effect, if required, shall be provided on request). The Institute is registered with the D.S.T., New Delhi for claiming exemption of Excise duty as per the G.O.I. Notification No. 10/97- Central Excise dtd. 1.3.1997. Excise duty will not be paid. However, percentage of excise duty payable on basic process must be indicated in each offer.
- 27 The supply is affected at DGS&D Rate Contract, wherever applicable.
- 28 Payment shall be made only on actual delivery in good condition and successful installation & demonstration (which should be free of cost & must be completed before payment). No advance or part payment request shall be made/ considered under any circumstances. Institute is not responsible for payment of transit insurance charges.
- 29 Legal jurisdiction for all disputes shall be within the purview of the Varanasi Court.
- 30 As per Council's instructions vide F. No. 8-15/2012-IC.II dated 1st August, 2012, if there is any in-built provision for training abroad, in that case the tenderer should clearly and separately mention the cost of the Implement, various taxes thereon and the cost of the visit of the Scientist/s, if required. The cost inclusive quotations for training visits shall not be accepted and will be disqualified. If training abroad in any equipment is required, the Tenderer should specifically mention the detailed and justified reasons for it, informing therein as to whether any such equipment is installed anywhere in India or not. If installed, then why training cannot be done on already installed implement in India. They should also specifically provide the likely period of such training. However, the Training abroad shall ordinarily not be considered, until and unless duly approved by the Council.**
- 31 The guarantee/ warrantee should be from the date of installation. All guarantee/ warranty services should be attended within a maximum limit of 15 days, failing which, proportionate deductions from the P. G. may be made at the discretion of the Institute.
- 32 All bidders shall give an undertaking that they fully and unconditionally agree to abide by all the terms and conditions which, if needed, may be modified at the discretion of the Competent Authority, in supply order, for which confirmation from the supplier shall be taken or else they should sign on every page of the Tender Document, which would show their unconditional acceptance of all the terms and conditions of the Tender Document.**

- 33 All bidders should be mandatory give an index of all documents attached along with page no. thereof. All the conditions and documents as sought under point no. 2,4,7, 8, 9, 10, 16, 18, 20, 21, 22, 23, 30, 32 & 33 (in bold) are mandatory for technical qualification of a firm. Non-submission of these documents/ non-compliance of these conditions shall make the firm liable not to be considered. The format is provided below:**

Sl. No.	Document particulars	Page No.
1	Processing fees of bid document/Tender Cost	
2	Earnest Money Deposit	
3	Signed Tender document or Undertaking for unconditional acceptance of terms & conditions	
4	Two Bid System	
5	Technical literature including catalogue, CST/VAT/PAN, etc.	
6	Authorization/ Dealership Certificate	
7	User list/client list along with the order copies of last 2-3 years	
8	Bank details	
9	Financial Statements (A.Y. 2015-16)	
10	No legal case certificate as in item no.21 of tender	
11	Non infringement certificate as in item no.22 of tender	
12	Copy of ISO/IST/BIS Certificate or any other certification, if any	

- 34 Liquidated Damages Clause:** Except as otherwise as mentioned above, if the supplier fails to deliver any or all of the goods or perform the services within the time period (s) specified in the contract, the Institute shall, without prejudice to its other remedies under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% (half percent) of the delivered price of the delayed goods or unperformed services for each week of delay or part thereof until actual delivery or performance, up to a maximum deduction of 10% (ten per cent) of the delayed goods' or services' contract price. Once the maximum is reached, the purchaser may consider termination of the contract, if the same have not been terminated already. Further, during the above mentioned delayed period of supply and/or performance, the supplier, notwithstanding any stipulation in the contract for increase in price for any ground, shall not be entitled to any increase in price and cost, whatsoever, which take place during the period of delay. But, nevertheless, the purchaser shall be entitled to the benefit decrease in price and cost on any ground during that period of delay.
- 35 Force Majeure:** Except as otherwise as mentioned above, the supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Measure. For purposes of this clause, "Force Measure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the purchaser in its sovereign capacity wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes. If a Force Measure situation arises, the supplier shall promptly notify the purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical & shall seek all reasonable alternative means for performance not prevented by Force Majeure event.

- 36 Termination for insolvency:** If the supplier becomes bankrupt or otherwise insolvent, the purchaser may terminate the contract by giving written notice to the supplier, without any compensation to the supplier, provided, that such termination will not prejudice or affect any right of action or remedy which has accrued and/or will accrue thereafter to the purchaser.
- 37 Termination for convenience:** The purchaser, by written notice sent to the supplier, may terminate the contract, in whole or in part, at any time for its convenience, the notice of termination shall specify that the termination is for purchaser's convenience, the extent to which performance of the supplier under the contract is terminated and the date with effect from which such termination becomes effective. The goods that are complete and ready for shipment within 30 (thirty) days after the supplier's receipt of notice of termination shall be accepted by the purchaser at the contract terms and prices. For the remaining goods, the purchaser may elect:
- (a) To have any portion completed & delivered at the contract terms and prices; and/or
 - (b) To cancel the remainder and pay to the supplier an agreed amount for partially completed goods and services and for materials and parts already procured by the supplier for fulfilling the contractual obligations.
- 38** Any other terms and conditions, which may be updated/ modified from time to time, on the basis of the GOI policies/ instructions or for the optimal utilization of the Govt. fund, shall be applicable and binding on the tenderer.



(Sumit Kumar Jindal)
Senior Admn.Officer

QUESTIONNAIRE

BIDDERS SHOULD FURNISH SPECIFIC ANSWERS TO ALL THE QUESTIONS GIVEN BELOW. IN CASE A QUESTION DOES NOT APPLY TO A BIDDER, THE SAME SHOULD BE ANSWERED WITH THE REMARK "NOT APPLICABLE."

1. Name & address of manufacturer:

2. Station of Manufacture:

3. P.A.N. details:

4. Status:

(a) Are you currently registered with the Directorate General of supplies & Disposals (DGS&D) for the item (s) quoted? If so, indicate the date up to which you are registered and whether there is any monetary limit on your registration.

(b) Are you a small scale unit currently registered with the National small industries Corporation (NSIC) under single point Registration Scheme for the item (s) quoted? If so, indicate the date up to which you are registered and whether there any monetary limit on your registration.

(c) If you are registered either with NSIC or DGS&D, please state whether you are currently registered with Directorate of industries of the State Government concerned. If so, indicate the date up to which you are registered and whether there is any monetary limit on your registration.

(d) Are you registered under the Indian Companies Act, 1956 or any other Act?

5. Please provide:

Full Bank details for e-payment:

Address of your Banker (s):

6. State whether business dealings with you have been currently banned by any Ministry/ Deptt. Of Central Govt. or any State Govt.

Signature of Witness

Signature of Authorized Person

Name & address of Witness

Full name, designation & address of the person signing above

For and on behalf of Messer's

(Name and address of the bidding firm)

PROFORMA FOR BANK GUARANTEE FORM FOR BID SECURITY (if required)

Whereas.....[name of bidder] [hereinafter called “the bidder”] has submitted his bid dated.....[date] for the supply of (brief description of the relevant goods and services) (Hereinafter called “the bid”)

KNOW ALL PEOPLE by these presents that WE..... (name of the bank) having registered office at.....(full address) (hereinafter called “the bank”) are bound unto.....(name of the purchaser) (hereinafter called “the purchaser”) in the sum of (Amount in figures and in words) for which payment well and truly to be, made to the said purchaser, the bank binds itself, its successors and assigns by these presents.

Sealed with common seal of the said bank this..... Day of.....20.....

THE CONDITIONS of this obligation are:

If the bidder

- (i) withdraws its bid during the period of bid validity specified by the bidder on the bid form; or
- (ii) does not accept the correction of errors in accordance with the Instruction to Bidders

OR

2. If the bidder, having been notified of the acceptance of its bid by the purchaser during the period of bid validity.

- (i) Fails or refuses to execute the contract form, if required; or
- (ii) Fails or refuses to furnish the performance security, in accordance with the instructions to Bidders;

We undertake to pay to the purchaser up to the above amount upon receipt of its first written demand, without the purchaser having to substantiate its demand, provided that in its demand the purchaser will note that amount claimed by it is due to it, owing to the occurrence of one or both of the above mentioned two conditions, specifying the occurred or conditions.

This guarantee will remain in force up to and including 60 (sixty) days after the period of bid validity and any demand in respect thereof should reach the bank not later than the above date.

Date:

Place:

.....
Signature of the Bank

SEAL of the Bank

MANUFACTURER'S AUTHORISATION FORM

TO

.....
.....

(Name and address of the purchaser)

Dear Sir,

Ref: Your Bidding Documents No.....

We..... who are established and reputable manufactures of(name and description of the goods offered in the bid) having factories at..... hereby authorize Messrs.....(name and address of the agent) to submit a bid, negotiate(as and if necessary) and conclude the contract with you against your above mentioned Bidding Documents for the above goods manufactured by us.

No company or firm individual other than Messrs..... (name and address of the above agent) is authorized to bid, negotiate and conclude the contract against this specific Bidding Documents for the above mentioned goods manufactured by us.

We hereby extend our full guarantee and warranty as per clause 15 of the General conditions of Contract, read with modification, if any, in the Special Conditions of contract for the goods and services offered for supply against this Bidding Document by the above firm.

Yours faithfully

[Signature, name and designation

for and on behalf of Messrs.....

[Name & address of the manufacturers]

Note: This letter of authorization should be on the letter head of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.

PROFORMA FOR BANK GUARANTEE FORM FOR PERFORMANCE SECURITY

(if required)

To,

.....
.....

(Name and address of the purchaser)

WHEREAS.....(name and address of the supplier)
(hereinafter caller “the supplier”) has taken, in pursuance of contract
No.....dated.....to supply (Description
of goods and services) (hereinafter called “the contract”)

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall you with a bank guarantee by a recognized bank acceptable to you, for the sum specified therein as security for compliance with its (supplier’s) obligations in accordance with the contract:

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of [Amount of the guarantee in words and figures], such sum being payable in the types and proportions of currencies in which the contract price is payable and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of [amount of guarantee] as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We further undertake to pay you the sum so demanded notwithstanding any dispute or disputes raised by the supplier in any suit or proceedings pending before any court or tribunal relating thereto liability under this present being absolute and univocal.

We also hereby waive the necessity of your demanding the said amount from the supplier before presenting us with the demand.

We further agree that you shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder, to vary any of the terms and conditions of

the contract or to extend the time of performance by the supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by you against the supplier and to forbear or enforce any of the terms and conditions relating to the contract and we shall not be relieved from our liability under this guarantee.

This guarantee shall be valid and remain in force untilday of20.....

Dated the.....day of20

For.....

(Name of the Bank)

Signature.....

Name of the officer.....

(in block letters)

Designation of the officer.....

Code No.....

Name of the Bank and full address

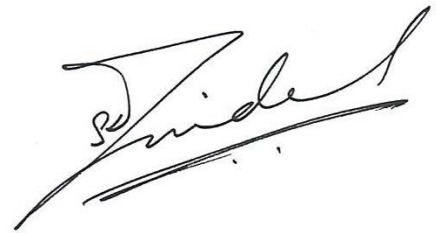
Specifications for Establishment of Poly House**(At par or Higher Specifications may also be quoted)**

Sl. No.	Items	Descriptions
1.	Product	Poly house (500 sq m, multi span, central height 6.5 m)
2.	Area covered	500 m ²
3.	Design	<ul style="list-style-type: none">➤ Central height: 6.5 m, Side height: 4-4.5 m.➤ Multi span, appropriate bay size, double door.➤ Entry room/ chamber of bricks and RCC.➤ Side gate with slide door for tractor and implements entrance.
4.	Structure	<ul style="list-style-type: none">➤ Made of galvanized iron/ steel/ metal tubular pipes having wall thickness 2 mm, structural members should be joined with fasteners nut and bolts.
5.	Gutter	<ul style="list-style-type: none">➤ Height: 4-4.5 m from floor.➤ Slope: 2% slope in civil foundation work/ structure.➤ Materials: 20 gauge or 1 mm thick GI sheet with perimeter of 500 mm or more.
6.	Pole	<ul style="list-style-type: none">➤ Grouting pole of GI pipe round (2-2.5") with RCC➤ Upper grouting pipe size round (1.5-2.0")➤ Perline size (1-1.5")
7.	Foundations	<ul style="list-style-type: none">➤ GI pipes of required diameter to have foundation depths of 80 cm or more, grouted with cement concrete mixture of 1:2:4 using telescopic insertion of column including excavation of trenches for all civil works.
8.	Entrance room and door	<ul style="list-style-type: none">➤ Entrance chamber/ room of size 3m x 4m x 3m (LXWXH) made of brick and RCC.➤ Two hinge door of size 2m width and 3 m height.➤ Side gate with slide door for tractor entrance.
9.	Cladding material	<ul style="list-style-type: none">➤ Low maintenance high durability material/ Poly carbonate with suitable locking arrangement

10.	Fan, pad, pump, fogging system, lighting, trellis system and all other required accessories	<ul style="list-style-type: none"> ➤ Co-axial fan of minimum 1200 mm diameter containing 6 numbers of GI sheet blades, frame of GI sheet materials followed by aluminum louver. ➤ Cellulose pad of thickness 4''-6'', height 5' width as desired equipped with Aluminum frame. Cooling pad complete in all respect. ➤ Circular pump 220 V, single phase, 50 Hz with required capacity and accessories for water circulating and wetting the pad area. ➤ Copper wire to withstand desired load of required electrical gadgets/appliances with ISI mark. ➤ Lighting in order to supplement day light during nights. ➤ Fogging/misting system for increasing humidity. ➤ Trellis system for vegetables.
11.	Irrigation and fertigation system	<ul style="list-style-type: none"> ➤ Controller based drip irrigation and fertigation system. ➤ Drip irrigation: drip emitter (upto 2 lph, inbuilt) spacing 30-45 cm on 12-16 mm diameter lateral pipes spaced at 45 cm, sand filter 10-25 m³/hr, screen filter 10-25 m³/hr, control valves, by-pass assembly, air release valve 1'', non-return valve, flush valve, fertilizer pump with manifold, PVC pipe 63-50 mm (4-6 kg/ cm²). ➤ Water tank (5,000 liter), electric operated monoblock pump (3-5 HP), fittings, accessories and installation to provide water in poly house.
12.	Foot path	<ul style="list-style-type: none"> ➤ 1m wide and 10 cm thick foot path made of cement concrete 1:2:4 in the center (length X width).
13.	Curtain wall/ apron	<ul style="list-style-type: none"> ➤ 22 cm brick wall (with plaster and water proofing) of 80 cm height (20 cm below and 60 cm above ground level) on all the four sides.
14.	Controller and probes	<ul style="list-style-type: none"> ➤ Controller and Probes/ sensors/ instruments for measuring/ monitoring/ maintain adequate temperature, humidity, light, air flow, soil moisture inside poly house and compatible with controller for automatic control along with data retrieval system/ computer/ laptop of Dell/ HCL/Lenovo/ or equivalent etc for retrieving data. ➤ The controller shall control fans, pad pump, fogger system, drip irrigation & fertigation and lighting system individually. ➤ User friendly controller with various probes/ sensors/ instruments. ➤ Suitable constant voltage transformer for safe working of the controller.

15.	Control panel box	➤ All electrical shall be enclosed inside a control panel duly powder coated and consisting of a set of MCB, relays, contactors, manual and auto mode including wiring and MCB separate set for each fans, pump of pad & pump of fogging system etc.
16.	Painting	➤ All welded points, non-galvanized structural components and curtain walls/apron are to be adequately painted with primers and good quality silver paint.

- On site guarantee for four years functioning.
- Provision for AMC.



(Sumit Kumar Jindal)
Senior Admn.Officer