

**VIVEKANANDA PARVATIYA KRISHI ANUSANDHAN SANSTHAN
(INDIAN COUNCIL OF AGRICULTURAL RESEARCH)
ALMORA (UTTARAKHAND)**

F. No: 6-461/2011-12/Admn.III/

Dated 19.01.2012

As Per List Enclosed.

Subject:- Quotation For Construction Of Hightech Poly House At Hawalbagh.

Dear Sirs,

You are requested to kindly quote your lowest rate keeping in view of the following conditions in respect of Construction of High Tech Poly House as per specification enclosed:-

1. The quantity proposed in the quotation might be increased or decreased at the discretion of the undersigned while placing orders.
2. The material subject to approval by the undersigned. Rejected stores shall be collected by the supplier at their expenses and replacement will be made at their cost.
3. Quotation not found according to specification will be rejected.
4. The rates should be F. O. R., Out Agency/Road Transport ~~Almora~~/Hawalbagh.
5. The purchaser will not pay separately for transit insurance and the supplier will be responsible until the entire stores ordered for arrive in good condition at ~~Almora~~/ Hawalbagh.
6. Packing and forwarding charges shall be the responsibility of supplier.
7. Sales Tax/Surcharge if any would be paid only in case you are registered under sales tax act.
8. No advance payment will be made but payment is assured within 20 days through a crossed demand draft/cheque from the date of receipt of material in good condition/completion of work. Duplicate pre-receipted bills on a revenues stamp will be sent to this office for arranging payment. No interest will, however, be payable in case of delayed payments.
9. A guarantee for 12 months or more, as the case may be, for satisfactory working of equipment, apparatus and machinery etc. should invariably be given in your quotation. The provision of free servicing of apparatus etc. if any and period therefore may also be specified in your quotation. In case you are ready to supply the stores on any other condition apart from the above the same be specifically noted in your quotation, which will be considered by the undersigned. But once the conditions are settled and the supply order is placed, you will be bound to supply the stores.
10. Samples, Catalogue, Pumptlets of the articles, wherever possible may be sent alongwith the quotation.
11. The undersigned reserves the right to accept or reject any or all quotation without assigning any reason and is not bound to accept the lowest quotations.
12. Item/equipment costing more than **Rs. 3.00 (Rupees Three Lakhs)** technical Bid and Financial Bid should be submitted separately and financial bid will be opened after evaluation and satisfaction of the technical bid.

Contd...2

13. Goods costing more than Rs. Three Lakhs, Earnest money @ of 3% of the cost of Goods/item should be deposited along with the tender documents only in the form of Demand Draft in favour of Director, VPKAS, Almora payable at S.B.I. Almora. Otherwise the tender will be treated as cancelled.
14. The rates quoted should be valid for a minimum period of 6(six) months from the date of quotation. The quotation may be furnished to the undersigned in sealed cover superscribe **“Quotation for Construction of Hightech Poly House At Hawalbagh. The last date of submission/opening of Quotation is 10.02.2012”**
15. In case the documents are negotiated through our bankers, State Bank of India, Almora to accept the bills against 90% payment, the bank commission will, however, be borne by the suppliers and the bank may be advised to charge the same from this office while releasing the documents. The amount negotiated through bank is advised to us at least a week advance failing which any wharf age incurred will be to your account. Payment of balance 10% cost will be made through crossed demand draft/cheque within 20 days from the date of receipt of material to our entire satisfaction, for which pre-receipted bills duly affixing revenue stamp in duplicate, shall have to be submitted to this office separately. No interest in delayed payment of bills will, however, be paid by this Institute.

भवदीय,

प्रभारी अधिकारी (भण्डार)
कृते निदेशक

Encl:- Specification of High Tech Poly House.

TECHNICAL SPECIFICATIONS AND DETAILED PLAN FOR THE CONSTRUCTION OF HIGHTECH POLYHOUSE

Technical Specifications:-

Size: 18 x 10 x 3.5m (L x B x H); Side height 2.2m

Frame structure: Made of GI square pipes (ISI marked) size 45mm x 45mm(foundation pipe) and 40mm X 40mm (roof) **IS 1239 class A** designated to withstand wind loading of not less than 140-150 Km/ hour. Central support is also required to avoid sagging of the frame structure.

Doors: Free moving bearing mounted Sliding doors. Doors made of FRP sheets mounted on Aluminum door sections with sliding rails and rollers. Supplier to state detailed specifications of the material used. Inner door with insect proof anti rust iron net, (40 mesh).

Door size: 2m x 1.5m

Fastners / Nuts & bolts:

Galvanized with minimum 50 micron thick Zinc coating. higher micron would be preferred.

Covering and glazing:

Complete structure will be covered with UV stabilized 120 GSM cross laminated Rigidex film with minimum light transmission 87 %, film should be fixed with aluminum strip, screw etc.

Top Ventilation: Across the length of the polyhouse with the provision of insect proof net (40 mesh), mechanism to open/close, special care to be taken to avoid leakage of the rain water inside, **caution: very heavy rain with high wind velocity.**

Side wall curtain: 2 rollup curtains open-able up to 1 meter height each with rigidex film and both with standard non breakable insect proof net (40 mesh) on two sides (opposite to each other) with crank mechanism and anti-flapping strip to be used to ensure smooth movement of the curtains.

Shading: 50% Agro shading net, Green colour, moveable with manual rolling system.

Cooling system:

Pad: Consisting of cellulose celedex pad 100mm thick size 11.0 m x 1.5 m, with G.I. sheet frame and FRP distributors PVC tank 500lt, mono block pump 1.5 H.P. (ISI).

Axial fan: Imported axial fan (Not indigenous), 2Nos. belt driven axial fan 1200 mm, 1420 RPM complete with 1.5 KW (2HP) electric motors back cover and louvers controlled by temperature. Sensor should be fitted at least three places along the length of polyhouse, automatic control system as per the temperature requirement.

Humidification: Through microfogging /micromisting system, provided with micro filter unit, control valve assembly, pressure gauge' Droplet size: 100 µm, automatic control.

Contd...

Timer: Digital cyclic timer with on/off system for fogger.

Fogger: Standard

Circulation fans: It is essential to have circulation fans within the polyhouse to ensure uniform temperature is maintained throughout the growing area. The number and the positioning should be found out based on weather condition in Almora.

Irrigation: A full drip irrigation system (pressurized drip system) has to be installed. PVC tank (ISI) and mono block pump (ISI) with suitable capacity needed to supply water to the irrigation.

Fertigation System: 250 L, PVC (ISI) Fertigation tank with double screen chamber for filter of liquid chemical fertilizers, system should be attached to the drip system.

Heating System: 2.4 KW of ISI standards 6 such system placed at 6m apart, controlled by temperature.

Timer: Digital cyclic timer with on/off system for heaters.

Rain water collection/harvesting system from the roof

Instrumentation: To measure and record RH, temperature with data logger facilities.

1. pH and conductivity meter (mettler) seven easy with accessories

2. Red / Far red light meter digital

Electric fitting: Would be ISI marked and copper wire complete with power light/point for pumps, fan, drip system and others.

General Specifications

1. Foundation: Grouting of side poles in cement concrete 1:2:4 (30 x 30 x 60 cm) below ground level. Appropriate depth (2') above (1.5') of foundation for brick wall, R.C.C footings will be adopted.

2. Cement concrete for R.C.C foundation: 1:2:4 mix (1 Cement: 2 coarse sand: 4 stone aggregate) will be used in foundations (Thickness 6").

Above items are applicable for green house 1 mt. wide plinth protections around polyhouse.

3. Cement plaster: In walls 12 mm th. Cement plaster from in side and out side will be done with mix 1: 6 (i.e 1 cement: 6 coarse sand) in all net house. and plate form for tank etc.

4. Pipe line:- Only 'B' class medium G.I pipe I.S.I with all ISI fittings will be used. Stop cock, bib cock etc. will be of brass (heavy quality).

5. Tender should contain sample of the product, i.e. *Film and Insect proof net with complete technical specifications and should state the life of the product under temperate conditions in Almora, Uttarakhand.*