

**DEPARTMENT OF ZOOLOGY
UNIVERSITY OF LUCKNOW
LUCKNOW-226007**

TENDER NO.: COE-01/Zoo-LU/2010

Dated: February 24, 2010

**Short term Tender/Bid invited
for scientific equipment required for
Centre of Excellence in
Biocontrol of Insect Pests**

**Department of Zoology
University of Lucknow
Lucknow**

Non transferable

**DEPARTMENT OF ZOOLOGY
UNIVERSITY OF LUCKNOW
LUCKNOW-226007**

TENDER NO. – COE-01/Zool-LU/2010 Dated: February 24, 2010

Notice inviting short term tenders for scientific equipment required for Centre of Excellence in Biocontrol of Insect Pest in the Department of Zoology, University of Lucknow, Lucknow.

Sealed tenders are invited from registered, experienced & reputed firms under Two Bid system, i.e. Technical Bid & Financial Bid for two scientific equipments/items required for a research project in the Department of Zoology, University of Lucknow, Lucknow.

1. Detailed description of the item required along with specifications
(Please see Annexure I)

2. Time Schedule:

Date of downloading of Bid document: **24.02.2010 onwards till last day.**

Last Date & Time for receipt of tenders: **20.03. 2010 at 4:00 P.M.**

Date & Time for opening of Bid: **22.03.10 at 3:00 P.M.**

Place of deposit of tender: Head, Department of Zoology, University of Lucknow, Lucknow.

3. **Cost of Tender Form:** Rs. 500.00 in form of bank draft from any Nationalized bank in favour of Finance Officer, University of Lucknow payable at Lucknow must be enclosed with tender form. Cost of tender form is Non-refundable.

4. **Validity of Tender:** 120 days from the date of opening of tender.

5. The interested firms may put the document completed in all respects along with Earnest Money Deposit (EMD) of Rs. 1,20,000.00 (Rupees One lac twenty thousand only) for equipment 1 and Rs. 50, 000=00 (Rupees Fifty thousand only) for equipment 2 in the name of Finance Officer, University of Lucknow, Lucknow-226007 in form of bank draft only from any Nationalized bank.

6. The University of Lucknow, reserves all right to amend or withdraw any of the terms and conditions contained in tender document or to reject any or all tenders without giving any notice or assigning any reason. The decision of University of Lucknow in this regard shall be final and binding on all.

Head

Department of Zoology

For Registrar,

University of Lucknow, Lucknow-226007

Tender Form

The bidders should furnish the under mentioned information and also enclose the copy of the respective document as mentioned below failing which their bids will not be considered.

1. Name of the Firm along with Full Address:

2. Name of the Proprietor:

3. Telephone / Mobile Number:

4. Bank Account Number:

5. Income Tax Permanent Account Number:
(Please enclose photocopy)

6. Registration with Trade Tax (U.P.):

- Trade Tax Reg. No.
- C.S.T. No.
- ST / VAT No.
- TIN No.

7. Income Tax Return for the past 3 years (Please enclose photocopy):

8. Firm deed & Registration of the firm: (Please enclose photocopy):

9. (a) Demand Draft towards the cost of the Tender Form (Rs. 500/=):

Draft No.

Name of the issuing Bank

Date:

(b) Demand Draft for the Earnest Money Deposit (EMD; Rs. 1,20,000/=) for equipment 1:

Draft No.

Name of the issuing Bank

Date:

(c) Demand Draft for the Earnest Money Deposit (EMD; Rs. 50,00/=) for equipment 2:

Draft No.

Name of the issuing Bank

Date:

Demand Draft should be drawn in favour of Finance Officer, University of Lucknow, Lucknow, payable at any Nationalized bank payable at Lucknow. Tenders/ Bids not accompanied by the requisite Demand Drafts shall not be considered and shall be rejected.

**Instructions to Bidders &
Pre Qualification Requirement of Bidders**

1. Tenders are invited from reputed firms with minimum 10 years of experience in the field.

2. Capacity

The firm should be capable of mobilizing adequate arrangement for the supply of scientific equipments/items required for various projects in the Department of Zoology, University of Lucknow, Lucknow.

3. Penalty

Penalty @ 10% of the value of the order shall be imposed for every day of delay in the supply of the full order.

4. Arbitration

In case of any dispute, the decision of University of Lucknow shall be binding. University of Lucknow has the right to cancel all or any of the tenders without assigning any reason.

5. Legal Jurisdiction

For legal dispute, if any, the jurisdiction will be limited to the District of Lucknow.

6. Rates quoted by the firms (L1) are negotiable.

7. Technical and financial bids, duly signed and stamped, to be kept separately in sealed envelopes. The envelope containing bids be marked on top as "Technical/Financial bids for items (Name of the scientific equipment required for the project in the Department of Zoology, University of Lucknow)".

8. Separate sealed bids should be made for each equipment.

9 Tender should be addressed in the name Head, Department of Zoology, University of Lucknow, Lucknow-226007.

10. With tender form specification of equipment or item supplied must be written, sealed and signed by the authorized signatory.

11. Separate tender will be applied for each item.

12. Supplied scientific equipments/items must be as per given specifications.

13. Quantity to be supplied and work to be completed may change at the time of order.

14. Non compliance of order, in time, will be treated as non compliance of the terms and conditions.

15. No advance amount will be given.

16. Without assigning any reason any tender or all tenders can be cancelled by the University authorities at any stage.

17. Affidavit will be given by the tenderer that they will follow the all the mentioned terms and conditions.

18. Payment will be made to the firms after deducting the Sales tax, Stamp Duty and Income Tax, if applicable through the Finance & Accounts office of the University of Lucknow.

Dr. Omkar

Reader, Department of Zoology

For Registrar,

University of Lucknow, Lucknow-226007

Annexure -I
Equipment1 : Polyhouse 1

Dome shaped greenhouse (40 x 15 feet; side height 6 ft; centre height: 10 ft; area: 600 sqft), with a common buffer room (6.5 x 6.5 x 6 ft height); With temperature ($20\pm 2^{\circ}\text{C}$), Photoperiod and humidity (70-80%) control; Plantation racks, proper electric and water connections. Further details are given below:

- a) CONSTRUCTION:-** Foundation for holding 40 x 15 x 10 ft (ht. at peak curve) steel structure
- b) STRUCTURE STEEL FRAME:-** Reinforced rigid frame; walls and ceilings sealed with internal shell. Framing may be aluminium, steel or Pipe Anti-corrosive, Humidity resistant GI pipe (47 x 47 mm); Doors:- G.I; Lock :- Brass ; Window :- GI
- c) GLAZING :-** (Conventional) Plastic material unbreakable. Liquid and chemicals resistant. Properly installed and regularly maintained greenhouse glazing should be provided to work as a suitable barrier for transgenic research materials. Roof, side wall, opposite side wall, end wall covering and opposite end wall covering with 10 mm. polycarbonate sheets.
- d) FLOORING:** Flooring of vitrified liquid, chemical resistant vitrified tiles
- e) POLYCARBONATE SHEET SPECIFICATION:-** 10 mm multilayer multiwall 5 layer polycarbonate sheet; Make :- LEXAN USA; Clear code : 112; with maximum warranty
- f) POLYCARBONATE SHEET FIXING WITH ALUMINIUM:** Polycarbonate Sheet Fixing with aluminium Stripping; Perforated Anti dust Aluminum tape
- g) TEMPERATURE MAINTENANCE:** Year round maintenance of temperature at the range of $20-22\pm 2^{\circ}\text{C}$.
- (i) **Appropriate Cooling Systems** (Hybrid technology/SST) involving branded Air conditioners with sequential running arrangements. Window type air conditioners 1.5 TR (08/ per requirements) &/or Standard Cellulose pads with all accessories including exhaust fans (03), drainage and water storage [2000 litre (Sintex) tank & 1/2 hp lifting pump (Crompton)]
- (ii) **Heating System:-** using hot air blowers (04) of reputed make. Inbuilt auto thermal cut off device, Biotech grade 2.5 KW with ISI standard make heating element and ISI standard 900 rpm speed fan;
- (iii) **Shading:** Overhead shading arrangements with manually rolling thermo-reflective screens; UV resistant Material, protection against frost radiation, provides uniform shade and reduced day temperature.
- h) AUTOMATIC CONTROL SYSTEMS:-** a) Microclimatic Temperature Controller; b) Microclimatic Humidity Controller; c) Programmable Photoperiodic Timer; d) Plitz Timer for Humidity; e) Main Switch (Rotory) L&T make; microprocessor photosynthetic control
- (i) **RHQ system-** for temperature and RH for maintaining stable temperature and Relative Humidity.
- (ii) **Temperature Controller:** - Real time microprocessor based user programmable Controller. 4 digit LED display for displaying measured values and another 4-digit LED display for

displaying settings. Feather touch operation. Set point lock within the setting panel to protect setting changes. Level lock to ensure that the parameter can be read but cannot be changed. Sensor failure indication. Selection of unit °C, °F .Display resolution 0.1°.Accuracy ± 0.1°C. Wide selectable temperature range, ranges from 0° to 100°C.

- (iii) **Sensor** :-Platinum sensor probe (max var ± 0.20°C)
 - (iv) **Humidity Controller**:-Real Time microprocessor based. On/Off control for Humidifying/ Dehumidifying, Hysteresis /Feather touch operation
 - (v) **Humidity Sensor**:- Fast response sensor–line resistance < 10 Display Accuracy indicating value ±0.2% ±1digit.
 - (vi) **Photoperiodic Timer**: Real time microprocessor based. Clock Accuracy ±2.5sec/day; multiple memory locations adjustable to the minutes; Holiday programming.
 - (vii) **Plitz Timer** for Humidity: 0-999 Min/sec On, 0-999 Min/sec OFF automatic cycling. Accuracy quartz
 - (viii) **Safety provided** Under and over voltage protection; Single phase prevention device incorporated; thermal protected monoblock pumps.
- i) **GROW LIGHT SYSTEM**:- PAR 40 W & LAMP 80W; Photosynthetically active radiation Lamp 16 nos PAR with photosimulator code V-02302 (Osram make)
- j) **ULTRA SONIC VAPOUR HUMIDIFIER/ HUMIDITY AND IRRIGATION SYSTEM**: Suitable system to maintain humidity at 70-80%
- k) **ELECTRICAL WIRING**:-Lights Fluorescent Tube light 1 no. in Buffer room compartment . Electrical Device: High quality ISI approved fittings with copper multi strand twisted FR Grade cable and rigid Standards of safety with proper MCB with appropriate electrical points of 5 Amp & 15 Amps, Copper Cable, MCB, Switch & Socket, Fluorescent Tube, Conduite of reputed make and ISI branding. Proper under ground wiring in side of Glass houses. Separate cable connection from pole for glasshouse
- l) **PLUMBING**:- Water connection with two taps in Green House with elbow operated tap, distributed through corrosion free pre coated GI pipe of appropriate diameter (3/4” or 1/2” ; ISI make-B class) & L-bow & T :- ISI Make; additional 1/2 HP pump (crompton/ servo).
- m) **PLANTATION RACKS**: Double shelf, heavy duty GI pipe welded with anti-corrosive, humidity, humidity resistant treatment; Size 10’ x 1.5’ (12nos.); suitable design for root trainers and pots.
- n) **MISCELLANEOUS**: Stainless Wash Basin (2 No), Drainage Points will also be provided; Wash Basin:- SS non magnetic ISI ; Drains & Recycle Water :- Provision for collection and decontamination of runoff water.

Equipment 2: Polyhouse 2

Dome shaped greenhouse (20 x 15 feet; side height 6 ft; centre height: 10 ft; area: 300 sqft), with a common buffer room (6.5 x 6.5 x 6 feet height); with temperature, photoperiod and humidity (70-80%) control; Plantation racks, proper electric and water connections. Further details are given below:

- a) **CONSTRUCTION:-** Foundation for holding 20 x 15 x 10' (ht. at peak curve) steel structure
- b) **STRUCTURE STEEL FRAME:-** Reinforced rigid frame; walls and ceilings sealed with internal shell. Framing may be aluminium, steel or Pipe Anti-corrosive, Humidity resistant GI pipe (47 x 47 mm); Doors: G.I; Lock :- Brass ; Window :- GI
- c) **GLAZING :-** (Conventional) Plastic material unbreakable. Liquid and chemicals resistant. Properly installed and regularly maintained greenhouse glazing should be provided to work as a suitable barrier for transgenic research materials. Roof, side wall, opposite side wall, end wall covering and opposite end wall covering with 06 mm. polycarbonate sheets.
- d) **FLOORING:** Flooring of vitrified liquid, chemical resistant vitrified tiles
- e) **POLYCARBONATE SHEET SPECIFICATION:-** 06 mm poly carbonate sheet; Make : LEXAN USA; Clear code : 112; with maximum warranty
- f) **POLYCARBONATE SHEET FIXING WITH ALUMINIUM:** Polycarbonate Sheet Fixing with aluminium Stripping; Perforated Anti dust Aluminum tape
- g) **TEMPERATURE MAINTENANCE:** Year round maintenance of temperature.
 - (i) **Cooling/Heating System:-** using Celdek Cellulose Pad alongwith all accessories, such as GI Tray, Filter, GI water Distribution and return system and other accessories; Fan & Pad system; Pad of appropriate size; heavy duty Exhaust fan Fans 24" 2 nos.. Polymer water storage tank 500 liter capacity (Sintex), ½ HP motor (Crompton/servo),
 - (ii) **Heating System :** Inbuilt auto thermal cut off device, Biotech grade 2.5 KW with ISI standard make heating element and ISI standard 900 rpm speed fan, No. of heater 02
 - (iii) **Shading:** Overhead shading arrangements with manually rolling Agro shading Nets; should protect against frost radiation, provides uniform shade and reduced day temperature.
- h) **AUTOMATIC CONTROL SYSTEMS:-** a) Microclimatic Temperature Controller; b) Microclimatic Humidity Controller; c) Programmable Photoperiodic Timer; d) Plitz Timer for Humidity; e) Main Switch (Rotary) L&T make; microprocessor photosynthetic control
 - (i) **RHQ system:-** for temperature and RH for maintaining stable temperature and Relative Humidity.
 - (ii) **Temperature Controller:** - Real time microprocessor based user programmable Controller. 4 digit LED display for displaying measured values and another 4-digit LED display for displaying settings. Feather touch operation. Set point lock within the setting panel to protect setting changes. Level lock to ensure that the parameter can be read but cannot be changed. Sensor failure indication. Selection of unit °C, °F .Display resolution 0.1°.Accuracy ± 0.1°C. Wide selectable temperature range, ranges from 0° to 100°C.

- (iii) **Sensor** :-Platinum sensor probe (max var $\pm 0.20^{\circ}\text{C}$)
 - (iv) **Humidity Controller**:-Real Time microprocessor based. On/Off control for Humidifying/ Dehumidifying Hysteresis /Feather touch operation
 - (v) **Humidity Sensor**:- Fast response sensor–line resistance < 10 Display Accuracy indicating value $\pm 0.2\%$ ± 1 digit.
 - (vi) **Photoperiodic Timer** Real time microprocessor based. Clock Accuracy $\pm 2.5\text{sec/day}$ @ 20°C ; multiple memory locations adjustable to the minutes; Holiday programming.
 - (vii) **Plitz Timer** for Humidity: 0-999 Min/sec On, 0-999 Min/sec OFF automatic cycling. Accuracy quartz
 - (viii) **Safety provided** Under and over voltage protection; Single phase prevention device incorporated; thermal protected monoblock pumps.
- i) **GROW LIGHT SYSTEM**:- PAR 40 W & LAMP 80W; Photosynthetically active radiation Lamp 10 nos PAR with photosimulator code V-02302 (Osram make)
- j) **HUMIDIFICATION / IRRIGATION SYSTEM** : Manufactured of high quality plastic material, resistant to chemicals; Humidity Range :- 50 % to 95 %; Microfogging / Micromisting :- Installation with leakage prevention device (LPD) fogger should not drip during and after functioning; Additional 2000 litre tank with lifting pump
- k) **ELECTRICAL WIRING** :-Lights Fluorescent Tube light 1 no. in Buffer room compartment .Electrical Device: High quality ISI approved fittings with copper multi strand twisted FR Grade cable and rigid standards of safety with proper M.C.B . with appropriate electrical points of 5 Amp & 15 Amps .Copper Cable, MCB, Switch & Socket Make, Fluorescent Tube Make, Conduite of reputed make and ISI branding. Proper under ground wiring in side of Glass houses. Separate cable connection from pole for glasshouse
- l) **PLUMBING**:- Water connection with two taps in Green House with elbow operated tap, distributed through corrosion free pre coated GI pipe of appropriate diameter (3/4” or 1/2” ; ISI make -B class) & L-bow & T :- ISI Make\
- m) **PLANTATION RACKS**: Double shelf, heavy duty GI pipe welded with anti-corrosive, humidity, humidity resistant treatment; Size 10’ x 1.5’ (06 nos.); suitable design for root trainers and pots.
- n) **MISCELLANEOUS**: Stainless Wash Basin (2 No), Drainage Points will also be provided; Wash Basin- SS non magnetic ISI ; Drains & Recycle Water :- Provision for collection and decontamination of runoff water.