



INDIAN COUNCIL OF AGRICULTURAL RESEARCH
ICAR RESEARCH COMPLEX FOR N. E. H REGION
UMROI ROAD, UMIAM, MEGHALAYA-793 103



No. RC(S) 118/2015

Dated Umiyam, the 02nd May 2016

OPEN TENDER

Sealed bids are invited for procurement of **Portable Canopy Analyzer** from the reputed registered firms/ manufacturers/ authorized dealers by ICAR Research Complex for N.E.H. Region, Umroi Road, Umiyam. The detailed specifications of the item(s) and terms & conditions etc. are given below:-

1. **Every Tenderer shall have to deposit consolidate Cost of Tender paper of Rs.1,000/- (Rupees one thousand) only** (Non – refundable) to be deposited in the favour of the Director, ICAR Research Complex for NEH Region, Umiyam – 793103 by means of Demand Draft payable at SBI, ICAR Complex Branch, Umiyam. Non – submission of the cost of Tender paper shall lead to non – consideration of the Tender.
2. **Every quotation should consist of two Bids-** The techno-commercial bid (Bid 'I') and the Financial bid (Bid 'II'). Both must be submitted in two separate envelopes to be sealed and put in a single main cover. The outer main cover should be super scribed as **"Tender No. RC(S)118/2015 dt.02nd May, 2016 for procurement of Portable Canopy Analyzer under the project "All India Network Challenge Programme on Canopy Management and Plant Architectural Engineering in Temperature Fruits", Division of Horticulture at I.C.A.R RESEARCH COMPLEX FOR NEH REGION UMIAM"** and addressed to **"THE DIRECTOR, ICAR RESEARCH COMPLEX FOR NEH REGION UMIAM, MEGHALAYA-793103"**. The Bidding Firm should give their complete address on the bottom left corner of the Main Cover. **The Cost of the Tender as well as the consolidate Earnest Money along with all other Technical Details should be mandatory kept in the Technical Bid only. The Financial Bid should consist of the Rates, their detailed break –ups, etc. Non-compliance of this shall lead to non-consideration of the Bid.** All Tenders should be sent by Registered Post. Tenders to be handed delivered should be dropped in the Tender box, kept in the office chamber of CAO, ICAR Research Complex for NEH Region, Umiyam, Meghalaya-793103 not later than **12:30 P.M. on 24th May, 2016**. Tenders received after the due date and time shall not be considered under any circumstances.
3. **The rates quoted should be up to ICAR Research Complex for NEH Region, Umiyam, (as per the details) for the mentioned items.** The rates must be valid for at least for **1(one) year** from the date of quotation.
4. **Price quoted must be given per unit and must be all inclusive, including packing, forwarding, Delivery charges, Taxes, VAT etc., as may be applicable.**
5. **Furnishing of related documents like detailed specifications, technical literature, brand name, model and make, catalogue, authorization letter, Dealership Certificate, Manufacturing company registration certificate, product certification, price list (if any) etc. is mandatory, Dealership certificate/Agency Certificate for the manufacturer/ manufacturing firm should be enclosed if the rates are quoted by the Dealers/Agents. Sales tax certificate, tax clearance (up – to date), valid CST/VAT registration certificate, last 3-5 years financial standing etc. along with all the commercial terms and conditions. Failing which the quotation shall not be considered.**
6. **The supply is effected at DGS&D rate contract, wherever is applicable.** The rate should be quoted for list of items as per the tender document.
7. The Buyer shall not be responsible for payment of transit insurance charges.
8. Payment shall be made on actual delivery in good condition and successful installation and demonstration (which should be free of cost and must be completed before payment).
9. (a) **In case of imported goods, the price may be quoted in foreign currency and import will be on FOB basis.** However, custom clearance, Inland freight etc. will be the responsibility of the supplier and no separate charges will be paid for that, however, custom duty exemption certificate shall be provided. The supplier should inform well in advance for sending these papers. No demurrage charges will be paid. If the supplier desires, rate in corresponding Indian currency may be quoted. It will be at the discretion of the authority of ICAR Research Complex for NEH Region to accept Indian or Foreign currency prices.
- (b) In case of any custom duty charge, applicable as per Govt. of India's Notification, the same may be paid by the firm which will be reimbursed to the Indian Agent (who should be a registered firm and with DGS&D immediately, subject to the condition that the bill of entry in original along with all relevant papers are submitted immediately, after custom clearance and installation and demonstration of the items. Installation and demonstration should be free of cost.
- (c) **The import & payment will be made by means of Foreign Bank Draft/ Site Draft in case of foreign imported goods.** Performance Bank guarantee of 10% FOB value valid till the end of warranty period should be submitted before the release of the security deposit. All bank charges outside and inside India shall go to the beneficiary's account. Performance bank guarantee of 10% FOB value, valid till the end of warranty period, should be submitted before the release of the security deposit. All bank charges outside and inside India shall go to the beneficiary's account. Draft making charges would go to the beneficiary's account and a scanned copy of the draft, if required, can be sent to the

- (d) All imported items should be delivered up to destination i.e. all the import should be free of inland freight charges, insurance etc.
- (e) **Indian Agency Commission rate and amount should be clearly specified as per rules. IAC, wherever applicable, will be paid in Indian Currency only.**
- (f) In case of delay in supply, penalty will be imposed @2% per week, subject to a maximum of 10% of the FOB value
- (g) Indian Agents quoting on behalf of their principal must be registered firms with DGS&D. They are also requested to provide necessary authorization letter from their principal along with the quotation.
- (h) **ICAR Research Complex for NEH Region, Umiam, Meghalaya, being a Scientific and Research Organization, is exempted from payment of Excise Duty (Certificate to this effect will be provided).**
10. **All Bidders should mandatory give their current, PAN Card No., TDS& other Bank A/C details to enable the office for releasing the dues via e- payment basis.**
11. **The tenderers [except those who are registered with the Central Purchase Organization & National Small Industries Corporation (valid proof should be mandatory enclosed)] shall have to deposit consolidate Earnest Money for Rs.5,000/- (five thousand) only (for indigenous as well as for foreign items quoted in foreign currency, equivalent Indian currency may be deposited) in the form of Demand Draft, valid for 6 (Six) months, drawn in favour of the Director, ICAR Research Complex for NEH Region, Umiam, Meghalaya, payable at SBI, ICAR Complex Branch, Umiam as a bid security, along with the quotation. **The cost of the Tender paper as well as the consolidate Earnest Money along with all other Technical Details should be mandatory kept in the Technical Bid only. Non submission of the Bid Security with quotation shall make the quotation/ bid liable to be rejected.****
12. Performance Bank Guarantee is required for all indigenous items also. For items less than Rs.50, 000, the amount should be 5% of the actual cost of the equipment and for items more than 50,000.00 the amount should be 10% of the actual cost of the equipment. The bank guarantee should cover the entire guarantee/ warranty period which should be of at least one year duration.
13. The selected tenderers must complete the supply/ installation/ demonstration within the stipulated time limit mentioned in the supply order. In case, the firm fails to execute the supply within the time limit, the bid security would stand forfeited and supply order shall be cancelled.
14. The guarantee/ warranty 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 security deposit may be made at the discretion of the Institute.
15. The complete details regarding the Institutions/ Corporations/ Bodies, etc. where the Firm/ Dealer has made the supplies during the last 2/3 years should also be furnished, along with the supply orders.
16. The Bidders should mandatory provide their full Bank Details, PAN Card No. , IFS code No., and TDS so as to ensure e-payment to them directly on satisfactory completion of the Supply.
17. The Director, ICAR Research Complex reserves the right to reject any tender in part or full, without assigning any reason thereof.
18. Legal jurisdiction for all disputes shall be within the purview of the Shillong Court.
19. **The Firm/ Agency run by the Non-Tribal should produce Trading License issued by the KHADC & also produce Municipal Trade License as applicable state to state & Tribals should provide Schedule Tribe Certificate, failing which the tender are liable to be rejected. Non submission of Trading License, tender rates shall be rejected / not to be considered. The participating the tender from State other than Meghalaya have to obtain KHADC before actual supplying of the materials.**
20. 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. Non submission of the undertaking may lead to rejection/ non-consideration of the tender.
21. **The bidders should mandatory sign on every page of the Tender Document, which would show their unconditional acceptance of all the terms and conditions of the Tender Document.**
22. **Items should be supplied in time and with FOR destination (Umiam).**
23. Tenders shall be opened on **24th May, 2016 at 2:30 pm**, ICAR Research Complex for NEH Region, Umiam, Meghalaya – 793103. Interested bidders may attend the opening.
24. If the above mentioned closing /opening day of the tender happened to be non – working date due to Bandh/Strike as any other reasons, the tender will be received & opened on the following working day at the same time except on the 2nd (second) Saturday.
25. Other terms & conditions, as may be decided by the Competent Authority from time to time, depending upon the condition & requirement of the supply. The intimation in this regard, shall be provided well in advance & the bidder/ supplier shall be bound by the said terms & conditions.
26. For any query/ clarification, the undersigned may be approached at:
Contact No.: 0364-2570363 (Tel- Fax) **E-mail: kcjoshiicar@yahoo.in/storesection@yahoo.in**

Sd/- S. V. Ngachan
DIRECTOR



SPECIFICATION FOR PORTABLE CANOPY ANALYZER

Canopy Analyzer for measurement of Leaf Area Index at above and below the forest/ tall canopy and it is measured with built-in GPS and provision for scattering correction Instrument should provide Leaf Area Index and other parameters of all kinds of plants of Agricultural Field, Isolated tree condition, plantation trees/ seedling (Row trees) etc.

Desirable output:

Leaf Area Index, Foliage Density, Standard Error of LAI, Mean Tip Angle, PAR, Gap fractions etc. Fraction, Canopy (crown) Volume, Total Foliage Area, Standard error of the Mean Tip Angle.

Control Unit: Instrument with built-in GPS and software for corrections due to scattering:


1. Sensor Inputs: 2 no. for both beneath the canopy and outside (open condition)
2. Connectors for Optical Sensors
3. Connectors for Light Sensors
4. Inbuilt Memory: minimum of 128 MB for Data Storage with extendable up to 2GB on to optical Sensor.
5. Display: atleast 128x64 graphics display
6. Communications: USB port for connecting external hard disc or memory card

Optical Sensor:

1. Two optical sensor — suitable for under the canopy and outside the canopy (open condition)
2. Sensor output: connector for control unit interface
3. Memory: minimum of 1 MB flash memory for record storage expandable up to 2GB.
4. Battery Life: minimum of 180 hours of typical operation
5. Optics: 1.00° maximum decentering error as measured from center of mass of ring 4. 0.50° maximum magnification error as measured from the center of mass of ring 4.
6. Radiation Rejection: > 99% from 490-650 nm; > 99.9% above 650 nm
7. Wavelength Range: 320-490 nm
8. Nominal Angular Coverage: five rings-Ring 1: 0.0-12.3° ; Ring 2: 16.7-28.6°; Ring 3: 32.4-43.4°; Ring 4: 47.3-58.1°; Ring 5: 62.3-74.1°
9. Lens: coating for improved transmission at oblique angles (external and internal lenses).
10. View condition: Provide view of 10°, 45°, 90°, 180°, and 270° quadrants

Battery:

Rechargeable- 4 "AA" alkaline or NiMH / Lithium ion.


(S. Das Biswas)
Administrative Officer (G)