

**DIVISION OF VEGETABLE SCIENCE
ICAR-INDIAN AGRICULTURAL RESEARCH INSTITUTE
NEW DELHI-110012**

F. No. 44-2/VS/2018-19/AAS

Dated: 15-10-2018

Subject: Purchase/supply of Atomic Absorption Spectrophotometer (AAS) at the Division of Vegetable Science, ICAR-IARI, New Delhi-12.

Online Quotations are invited from reputed manufacturer/Dealer/Supplier in two bid system (Technical bid & Financial bid) for purchase/supply of Atomic Absorption Spectrophotometer on behalf of Director, ICAR-Indian Agricultural Research Institute, New Delhi. The last date for online submission of Bid is 12.11.2018 at 1:00 P. M. The bids will be opened on dated 13.11.2018 at 3:00 P.M. in the Division of Vegetable Science by prescribed committee.

Quotation shall satisfy the following conditions:

1. The rates quoted shall be valid for a minimum period of **180** days from the last date fixed for the online submission of bid.
2. The rates quoted in INR shall be free cost of delivery and installation at the Division of Vegetable Science, ICAR-IARI, New Delhi-110012. Costs of imported item/equipment manufactured in abroad, should be quoted in the currency of manufacturing country on FOB basis and showing price upto CIF. Quotation in Indian Rupees will be accepted if the good/equipment is manufactured in India, otherwise the bid will be liable to reject.
3. Custom Duty Exemption Certificate (**CDEC**) will be issued only when the bid is quoted in foreign currency in case of foreign made items only and meant for IARI.
4. In case the bid is offered in Indian Rupees on FOR value basis than CDEC/DSIR certificate will not be given by the institute at all. However, GST as applicable will be paid by the Institute as per rule.
5. The successful bidder will have to provide the original Performa invoice from the foreign principal (duly signed in ink), in case of imported item/equipment, within **15 days** of the date of receipt of purchase order, otherwise the purchase order will automatically stand cancelled without any further communication.
6. Full specification of the item/equipment quoted for shall be given in the quotation along with scanned copy of literature/pamphlet/drawing etc. Scanned copy of User list of the quoted equipment may also be additionally provided for reference.
7. If taxes, duties or any other charges over and above the rates quoted leviable, actual percentage of such taxes/duties/other charges should be clearly indicated.
8. If the bid is submitted by the authorized dealer on behalf of the Manufacturer/OEM, than scanned copy of valid authorization certificate of the Manufacturer/OEM must be provided otherwise bid will not be considered.
9. As per CVC's guide lines No. 12-02-6 CTE-SPJ (1)-2/161730 (Circular No. 3/1/12 dated 13/01/12), in a tender, either the Indian Agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender. Further if an agent submits bid 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.

10. Supply is to be made by any convenient mode of transport at supplier's risk unless otherwise specified.
11. In case the material is supplied through an authorized agent, manufacturer shall be responsible for the successful installation of the equipment. The manufacturer shall be liable to any penal action for the shortcomings of the authorized agent. Any payment that is to be made separately to the agent shall be clearly mentioned in the quotation.
12. The bid should be accompanied with **earnest money of Rs. 25,000/-(Rupees Twenty Five Thousand only)** in the form of **D.D. /Pay Order/Fixed Deposit Receipt/Bank Guarantee** from commercial bank drawn in favour of Director, IARI. The original EMD should be submitted to the tender inviting authority on or before last date and time of online bid submission. The detail of DD/Pay order/FDR/Bank Guarantee physically sent should tally with the details available in the scanned copy and data entered during the bid submission time otherwise the uploaded bid will be rejected.
13. No interest on security deposit and earnest money deposit shall be paid by the institute to tenderer.
14. The EMD shall be refunded to the unsuccessful bidders after finalization of the quotation. In case of successful bidder, it can be adjusted towards security deposit which is **5-10%** of the order value in the form of **D.D./Pay order/Fixed Deposit Receipt/Bank Guarantee** from commercial bank drawn in favor of Director, IARI and shall remain valid for **60** days beyond the date of completion of all contractual obligation of supplier including warranty obligation for the equipment/goods costing Rs. 1.00 Lakh(Rs. One Lakh) or more. Here would however, be no performance security deposit for equipment/goods costing less than Rs. 1.00 Lakh (Rs. One Lakh).
15. **One year** warranty has to be invariable provide by the firm. In case, there is any variation in the warranty period given in the specification of the item/equipment, the warranty period shall be the final as given in the specification.
16. Payment will be made by mode of e-payment to the supplier/firm after satisfactory completion of work and receipt of pre-receipt bills in triplicate. In case of foreign currency payment shall generally be made through LC directly to the manufacturer.
17. The Director IARI, New Delhi reserves the right to accept or reject any or all the quotations either in full or in parts without assigning any reason.
18. Quotations not complying with the above conditions are liable to be rejected.
19. Original EMD shall be send/deposited at administrative office Room No.26 of the Division of Vegetable Science, ICAR- IARI, New Delhi-12.
20. TIN/VAT/PAN/CST/GST /ISO Nos. may be given on the Quotation.
21. AMC/CMC charges shall not be included for the evaluation of the financial/commercial bids.
22. Financial Bid will be opened of those firms who qualify in Technical bid.
23. There will be no exemption for paying earnest money. However, Firms registered with the Central Purchase Organisation/NSIC only are exempted submitting bids without EMD. (Scanned copy of registration must be attached therewith without which it will not be considered)
24. In case, any dispute arising out of this contract shall be subject to the jurisdiction of Indian laws & court, at New Delhi. Sole arbitrator is appointed by the Secretary, ICAR, New Delhi. His decision will be final and binding to both parties (supplier and Purchaser).

25. The successful bidder has to execute the indented material as mentioned in the supply order placed with them within the stipulated period as given in the supply order placed by the unit/Division of this Institute failing which 2% per week and maximum of 10% deduction as liquidated damage charges will be made from the bill in case the material is not supplied within the given stipulated period.

The scanned copy of following documents must be furnished with the technical bid failing which tender will not be accepted at all.

1. Scanned copy of TIN/VAT/LST/CST/GST.
2. Scanned copy of Pan Card.
3. Scanned copy of current authorization letter issued from manufacturer/principal Firm in original.
4. Scanned copy of Earnest Money Deposit (EMD) or scanned copy of registration from Central Purchase Organization/NSIC.
5. Scanned copy of brochure/literature/pamphlet/drawing.
6. Scanned copy of user list for AAS.
7. Scanned copy of self certification that the firm has not been debarred/black-listed by the Govt. Department/court of law for doing business in India and no criminal legal suit is pending or contemplated against it.
8. Scanned copy of compliance statement in accordance with the tender technical specification.
9. Scanned copy CE and ISO certificate.
10. Scanned copy of the tender document duly signed by the concerned firm accepting the same.

Description of the item	Qty. Required
Atomic Absorption Spectrophotometer as per specifications at annexure-I	one

Copy uploaded on IARI website: www.iari.res.in & CPP Portal website (www.eprocure.gov.in).

**Asstt. Admn. Officer
Division of Vegetable Science**

Specification for Atomic Absorption Spectrophotometer

The atomic absorption spectrophotometer (AAS) should be true double beam system with flame mode and background correction capacity. The detail specifications should match or better than the given below:

1. **Monochromator:** Ebert-Fastie/Litrow/Czerny-Turner motor design with automatic wavelength selection and peaking; Focal length : >250 mm; holographic based diffraction grating at least 1,800 line/mm with dual blazed profile; Wavelength range: 185-900 nm; Reciprocal linear dispersion: 1.6 or more.
2. **Spectral bandwidth:** Computer controlled adjustable variable slits in range of 0.2 to 2 nm.
3. **Lamps: (a)** Standard hollow cathode lamps 6 or more turrets (preferred 8 turrets) with built-in-power supplies. Automatic lamp selection and alignments. One lamp for measurement and next lamp for automatic warm up. System shall have hollow cathode lamps (HCLs) or flexibility of using other efficient/super lamps in future.
4. (b) All safety interlocks built-in and additional feature like Burner head Interlock, nebulizer/end cap interlock and drain interlock to be built-in.
5. **Background Correction:** System should provide high intensity deuterium arc lamp for background correction for flame part.
6. **Detector:** Wide range segmented PMT /SSD detector, including low noise provisions
7. **Corrosion resistance:** All-optics should be with shield/conformal coated and instrument should be completely resistant to corrosion.
8. **Sample introduction system:** The system should have a high sensitivity nebulizer system including impact bead and flow spoiler with corrosion resistance against the acids like 5% hydrofluoric acid, hydrochloric acid and nitric Acid. Corrosion resistant spray chamber. Autosampler for flame should have not less than 50 or more positions for samples.
9. **Accuracy and sensitivity:** Sensitivity of the instrument for flame operation should not be less than 0.7 A with the precision of <0.5% RSD from 5 second integration for 5 ppm Cu standard or better. Provide published application rate on this.
10. **Automatic Gas Control Module:** Instrument should have automatic gas control system, auto ignition and automatic fuel enrichment. It should have separate fuel and oxidant flow measurements.
11. The system should have high sensitivity corrosion resistant all-titanium burner, platinum-iridium capillary and titanium or Pt/Ir nebulizer. The system shall be quoted with acetylene gas 10 cm burner head separately or built in.

12. **PC Software includes:** The PC software package should be windows based true multitasking with a provision of calibration, recalibration, data storage, data correction, signal graphics, quality control measures, post data run, complete quality control protocols, comprehensive report generation, statistical parameters and all necessary features.
13. **Computer System:** Windows based Branded Computer with Laser Jet Printer.
14. **UPS:** Online UPS with 5 KVA having a minimum of 30 minutes with full Battery back-up.
15. **Warranty:** 2 Years after successful installation.
16. **CMC:** Two Years Comprehensive Maintenance Contract (CMC) after completion of Warranty period (quote cost separately).
17. **Training:** 10 days on-site training for complete operation of instrument after installation free of cost.
18. The above specifications should be supported by a printed and authentic technical literature.
19. Technically successful bidders need to give demonstration of instrument for confirmation of the specification on free of cost.
20. Instrument should be CE and ISO certified.
21. List of users of the instrument in India should be given with contact details.
22. Any other Accessories, if required for installation and successful operation of AAS should be quoted.
23. Manufacturer should have facility in Delhi to provide service for smooth functioning of the instrument after sales.
24. System can be upgraded with 21 CFR software compliance.

25. The items to be quoted as follow:

- i. Coded single element hollow cathode lamps for elements Fe, Zn, Ca, Mn, Mg, K, Na and Cu and their standards (1000 ppm)
- ii. Fully PC controlled system
- iii. Noise less Air compressor, gas cylinder with regulator, PC/printer and fume hood should be included in the quote
- iv. The system shall be quoted with Installation Qualification/Operational Qualification (IQ/OQ) documents for performance verification at the time of installation.