

भारतीय कृषि अनुसंधान संस्थान पूसा नई दिल्ली.110012
ICAR-Indian Agricultural Research Institute, Pusa, New Delhi-110012
सस्य विज्ञान संभाग
DIVISION OF AGRONOMY

मिसिल संख्या /File No. 1-35/19-20/

दिनांक Dated 13.01.2020

निविदा सूचना

निदेशक भा.कृ.अ.प.-भारतीय कृषि अनुसंधान संस्थान नई दिल्ली द्वारा निम्नलिखित वैज्ञानिक उपकरण/ वस्तु की आपूर्ति एवं कार्य हेतु प्रतिष्ठित निर्माताओं/ अधिकृत डीलरों/ आपूर्तिकर्ताओं से दो बोली प्रणाली (तकनीकी एवं वित्त बोली) के अन्तर्गत सील बंद ऑनलाइन क्यूटेशन आमंत्रित की जाती है। क्यूटेशन/ निविदा प्रस्तुत करने की अंतिम तिथि 04/02/2020 समय 1.00 बजे दोपहर तक। क्यूटेशन/ निविदा को दिनांक 05.02.2020 को समय 15.00 बजे निर्धारित समिति के समक्ष खोली जाएगी। Online Quotations are invited from reputed Manufacture/Dealer/Supplier in two bid system (Technical bid & Financial bid) for purchase of following Scientific Equipment/Items on behalf of Director ICAR-Indian Agricultural Research Institute, New Delhi. The last date for submission of Bid 04/02/2020 at 1300 hours. The bid will be opened on dated 05/02/2020 at 1500 hrs by the prescribed committee.

विस्तृत नियम व शर्तों को भा.कृ.अ.सं. की वेबसाइट www.iari.res.in पर देखें एवं ऑनलाइन के लिए www.eprocure.gov.in देखा जा सकता है। *Please visit www.iari.res.in for Details Rules and Regulation and Log on www.eprocure.gov.in for online.*

क्रम संख्या. No.	वैज्ञानिक उपकरण/ वस्तु का नाम Name of Scientific Equipment/ Item	मात्रा Quantity
1.	N-Distillation Unit	One

बोली लगाने के निर्देश और नियम एवं निविदा की शर्तें Instructions to the bidder and terms & conditions of tender:

- 1- आपके द्वारा दी गयी मूल्य दर क्यूटेशन प्राप्ति हेतु निर्धारित अन्तिम दिन से कम से कम 180 दिनों तक मान्य होगी। The rates quoted shall be valid for a minimum period of 180 days from the last date fixed for submission of bid.
- 2- क्यूटेशन में दर्शायी गई दरों में भा.कृ.अ.सं. नई दिल्ली के संभाग/ ईकाई सस्य विज्ञान संभाग ए भा.कृ.अनु.संस्थान नई दिल्ली-110012 में सामान/ सामग्री की निशुल्क आपूर्ति अथवा स्थापन शामिल होगा। हांलाकि विदेशी मुद्रा में दर्शाए गए उपकरण को एफ.ओ.बी. आधार पर दर्शाया जाए। अन्यथा आपकी निविदा शामिल नहीं की जाएगी। The rates quoted shall be free of cost delivery and installation at the Division/Unit of Agronomy, IARI, New Delhi – 110 012. However, equipment rates quoted in foreign currency must be quoted on FOB basis otherwise quotation will not be entertained.

- 3- यदि सामान विदेश-निर्मित है और दर विदेशी मुद्रा में दिया गया है तो ऐसी परिस्थिति में कस्टम ड्यूटी छूट प्रमाणपत्र (सी.डी.ई.सी.) जारी किया जाएगा जो कि केवल भा.क.अ.सं. के लिए ही मान्य होगा । 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- क्यूटेशन में संबंधित सामान का पूरा विवरण दिया जाएगा । Full specifications of the item/article quoted for shall be given in the quotation.
- 5- उपरोक्त दिए गए दर में यदि किसी भी प्रकार का अतिरिक्त कर/ टैक्स/ ड्यूटी लगाया जाना है तो उसका संकेत स्पष्ट रूप से दिया जाना चाहिए 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.
6. बोली के साथ बतौर बयाना राशि रु 10,000/- (नौ हजार) नीचे दायी गई राशि के अनुसार लगाई जाए । डिमांड माँग ड्राफ्ट/ भुगतान आदेश/ मियादी जमा रसीद/ बैंक गारंटी को निदेशक भा. कृ. अनु. संस्थान , नई दिल्ली-110012 के नाम किसी भी राष्ट्रीयकृत बैंक में देय हो अवश्य संलग्न होना चाहिए। जिसके बिना , क्यूटेशन पर विचार नहीं किया जायेगा। बयाना राशि की मूल प्रति सीधे तौर पर संबंधित निविदा आमंत्रित अधिकारी को आखिरी तारीख तक या ऑफलाइन दर जमा करने से पहले पहुंच जानी चाहिए। डिमांड माँग ड्राफ्ट/ भुगतान आदेश/ मियादी जमा रसीद/ बैंक गारंटी से संबंधित सभी जानकारी व्यक्तिगत रूप से भेजी जानी चाहिए , इस संबंध में प्राप्त स्कैन कॉपी/ या जो डाटा आपूर्तिकता द्वारा दर जमा करने के दौरान दिया गया है उससे मिलान किया जाएगा अन्यथा इस क्यूटेशन को रद्द माना जाएगा। EMD must be attached for Rs.10,000/- (Rupees Ten thousand only) in the form of D.D./Pay Order/Fixed Deposit Receipt/Bank Guarantee from commercial bank drawn in favour of Director, IARI payable at New Delhi. The original EMD should be submitted to the Tender Inviting Authority on or before the last date and time of offline bid submission. The details of D.D./Pay Order/Fixed Deposit Receipt/Bank Guarantee physically sent, should tally with the details available in the scan copy and the data enter during the bid submission time otherwise the uploaded bid will be rejected.
7. इस संस्थान द्वारा निविदाकर्ता को किसी भी सुरक्षा जमा राशि और बयाना राशि पर ब्याज नहीं दिया जाएगा। No interest on security deposit and earnest money deposit shall be paid by the Institute to tenderer.
8. क्यूटेशन प्रक्रिया पूरी होने के पश्चात असफल बोलीदाताओं को उनकी जमा की गयी बयाने की राशि वापस कर दी, जायेगी जबकि सफलतम बोलीदाता के मामले में यह राशि नियम के अनुसार सुरक्षा जमा के रूप में समायोजित की जा सकती है जो कि ऑर्डर के राशि की 5-10 प्रतिशत होगी और यह डिमांड माँग ड्राफ्ट/ भुगतान आदेश/ मियादी जमा रसीद/ बैंक गारंटी निदेशक भा. कृ. अनु. संस्थान नई दिल्ली-110012 के नाम किसी भी राष्ट्रीयकृत बैंक में देय हो, जिसकी वैधता सभी कार्य को पूरा करने के 60 दिनों साथ के साथ उपकरण/ सामान जिसकी कीमत (रु 1.00 लाख या इससे अधिक) की गारंटी भी शामिल होगी । हालांकि जो उपकरण रु 1.00 लाख से कम है उस परिस्थिति में किसी भी प्रकार का निष्पादन जमा राशि

नहीं दी जाएगी। 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 favour of Director, IARI payable at New Delhi 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 lakhs (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).

9. फर्म द्वारा तीन वर्ष की वारंटी प्रदान की जाएगी। यदि सामान/ उपकरण के विवरण में वारंटी की अवधि में किसी भी प्रकार परिवर्तन है तो उस वारंटी को अंतिम माना जाएगा। Three year warranty has to be invariable provided 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.
10. कार्य के पूरा होने के बाद फर्म/ पूर्तिकता को तीन पूर्व रसीद बिल प्राप्त होने के बाद भुगतान e-payment के माध्यम से किया जाएगा। Payment will be made by mode of e-payment to the supplier/firm after satisfactory completion of work and receipt of pre-receipt bills triplicate.
11. निदेशक, भा. कृ. अनु. संस्थान, नई दिल्ली के पास बिना कारण बताये सभी क्यूटेशनओं को पूर्ण या आंशिक रूप से स्वीकार या अस्वीकार करने के अधिकार प्राप्त हैं। 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.
12. उपरोक्त शर्तों का पालन न करने वाली क्यूटेशनों को अस्वीकार करने के लिये उत्तरदायी होंगी। Quotations not complying with the above conditions are liable to be rejected.
13. GST/PAN Nos. के स्कैन कापी को क्यूटेशन के साथ में संलग्न किया जाए। Scanned copy of GST/PAN Nos. may be attached with the bid.
14. किसी कारण अनुबंध में कोई विवाद उत्पन्न होने पर भारतीय कानून और न्यायालय, नई दिल्ली की अधिकारिता के अधीन होगा। सचिव, भारतीय कृषि अनुसंधान परिषद द्वारा एकमात्र मध्यस्थ नियुक्त किया गया है, जिसका निर्णय दोनों पार्टियों (Supplier और Purchaser) पर अंतिम माना जाएगा। 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 on both parties (Supplier and Purchaser)

15. सफल बोलीदाता को सौंपे गए कार्य को निर्धारित आपूर्ति आदेश के भीतर कार्य करना होगा जैसा आपूर्ति आदेश में दर्शाया गया होगा यदि ऐसा नहीं किया जाता तो कम से कम 2% तथा अधिकतम 10% की क्षति नष्ट कटौती के रूप में उनके बिल से काटी जाएगी। The successful bidder has to execute the indented items as mentioned in the supply order placed with them within the stipulated period as given in the supply order placed by this office failing which 2% per week and maximum of 10% deduction as liquidated damage charges will be made from the bill in case the job is not completed within the given stipulated period.
16. फर्म को इस कार्य/ क्षेत्र में 3 वर्ष के अनुभव का प्रमाण पत्र संलग्न करना चाहिए । Firms should have 3 years experience in this line, proof should be enclosed.

क्रम संख्या Sl. No.	विवरण/ उपकरण मद की विशिष्टता Description / Specification of the Equipment/ Item
	N-Distillation Unit
	The following documents must be furnished with the technical bid failing which tender will not be accepted at all.
1.	Copy of GST and PAN Card
2.	ISO Certificate
3.	Current Authorization letter issued from Manufacturer/Principal Firm in original
4.	Literature/pamphlet/drawing etc. along with.
5.	Technical specification of equipment/item along with compliance statement in accordance with the tender technical specification
6.	The tender documents duly signed by the concerned firm accepting the same should be attach with technical bid
7.	Firms should 3 years experience in this line, proof should be enclosed
8.	EMD must be attached for Rs. 10,000/- (Rupees Ten Thousand only) in the form of D.D./Pay Order/Fixed Deposit Receipt/Bank Guarantee from commercial bank drawn in favor of Director, IARI payable at New Delhi. The original EMD should be submitted to the Tender Inviting Authority on or before the last date and time of offline bid submission. The details of D.D./Pay Order/Fixed Deposit Receipt/Bank Guarantee physically sent, should tally with the details available in the scan copy and the data enter during the bid submission time otherwise the uploaded bid will be rejected.
9.	Certificate as to whether the firm/distributor has been currently/blacklisted in the past banned from doing business with any public funded organization

(सहायक प्रशासनिक अधिकारी)
Asstt. Admn. Officer

Technical Specifications of N Distillation

I. Automatic Nitrogen/Protein Estimation System (Digestion, Scrubber and Distillation System)

A robust and compact systems with fully automatic digestion, scrubber and distillation) with following specifications

Automatic Digestion System:

- Twenty sample-tube places (holes) for 250 ml capacity tubes, PC Compatible Block Digestion System with all essential accessories including digestion tubes (40 nos.), SS insert rack, exhaust manifold, suction assembly, safe disposal of acid fumes
- The system should have 2 Ports in the motherboard, one of PC connectivity and other for direct connection to remote mouse/ data logger/ memory stick for data storage with separate port in mother board apart from PC port
- TFT Graphic Touch Screen Display with a wireless mouse to operate at a distance of 2-3 mtrs.
- Temperature Control Range: Room temperature to 450 °C, Temperature accuracy: ± 0.5
- Icons to represent output of heating process in touch screen display (about 70 programs, about 12 ramps)
- PC software should have capacity to performs Live graphical representation of time /temperature gradient on touch screen display
- Direct USB Port for PC with live process view on touch screen display of various stages with print options,
- Remote control module for wireless data monitoring, control and transfer to PC at a distance of 20-30 feet
- Unit should be upgradeable to Data Logger Module & Auto lift Module

Automatic Scrubber System:

- **Four stage fully automatic microprocessor based programmable acid neutralization scrubber.**
- Digital display integrated online with motherboard of digestion system with inbuilt magnetic suction pump for water re circulation
- Auto start on operation of digestion system, should automatically stops on completion of digestion cycle with a delay time of about 5 minutes, auto-fill error in case of absence of inlet water
- Non corrosive centrifugal suction pump with inbuilt self priming feed pump for water re circulation,
- FRP Tank, Containers for Alkali and Water,
- Electrical Requirement: 230v/50Hz Mains.
- Auto indication of drain cycles, inadequate water level

Automatic Distillation Unit

- Auto-sequencing Programmable Microprocessor based Distillation with inbuilt software, Colour Touch Screen high resolution TFT LCD Display,
- Auto Intelligent run of programmable steps, Addition of Boric Acid, Dilution, KMNO₄ added for Available N, Alkali Addition, Steam Processing, Residue Removal, Process over indication with inbuilt delay time features,
- Auto Titration Connectivity feature for future upgradation, Aspiration of Receiver Residue with inbuilt mini printer for instantaneous results on input of titre value with inbuilt formula

for N, Available N, Ammonical N, etc. without connecting to pc. Complete Automatic safety features.

- The suction module of waste residue should be door mounted for easy serviceability.
- Facility to program and control distillate volume for determination of available nitrogen
- Auto sensing of “NO WATER” condition in condenser & steam generator with alarm & signal to alert user.
- Auto deactivation of operation after warning in case of user non availability
- Enables Automatic monitoring and measuring of high temperature in distillate with sensor for auto warning signal and safety alarm to alert user to control distillate temperature. Temperature displayed digitally.
- Auto reagent Level Sensor with Alarm for Reagents, Stainless steel non corrosive steam Generator
- The control panel unit along with inbuilt temperature controller, timer, mother board and SMPS should be isolated in separate compartment to protect electronics from wet chemistry & acid/ alkali process area for longevity and safety of all electronic components.
- Nitrogen level : 0.2 to 200 mg Nitrogen
- Nitrogen Reproducibility: $\pm 0.1-0.2\%$ RSD , Nitrogen Recovery : $> 99\%$
- Electrical Requirement: 220-230V single phase 50Hz A.C

Company should have good performance track record of at least 8-10 years with references of users of similar equipment. The instrument shall strictly confirm to the specifications with relevant brochure. The company should be a reputed supplier should have not been blacklisted or should not have any adverse remarks in the past. Spares should be made available for minimum period of **10** years after the warranty period by the supplier.

Document required

- 1. Scanned copy of GST & PAN No.**
- 2. Scanned copy of EMD**

Compliance report regarding Automatic N-Distillation system

<u>Automatic Nitrogen/Protein Estimation System (Digestion, Scrubber and Distillation System)</u>	Yes	No
robust and compact systems with fully automatic digestion, scrubber and distillation) with following specifications		
<u>Automatic Digestion System:</u>	Yes	No
Twenty sample-tube places (holes) for 250 ml capacity tubes, PC Compatible Block Digestion System with all essential accessories including digestion tubes (40 nos.), SS insert rack, exhaust manifold, suction assembly, safe disposal of acid fumes		
The system should have 2 Ports in the motherboard, one of PC connectivity and other for direct connection to remote mouse/ data logger/ memory stick for data storage with separate port in mother board apart from PC port	Yes	No
TFT Graphic Touch Screen Display with a wireless mouse to operate at a distance of 2-3 mtrs.	Yes	No
Temperature Control Range: Room temperature to 450 °C, Temperature accuracy: ± 0.5	Yes	No
Icons to represent output of heating process in touch screen display (about 70 programs, about 12 ramps)	Yes	No
PC software should have capacity to performs Live graphical representation of time /temperature gradient on touch screen display	Yes	No
Direct USB Port for PC with live process view on touch screen display of various stages with print options,	Yes	No
Remote control module for wireless data monitoring, control and transfer to PC at a distance of 20-30 feet	Yes	No
Unit should be upgradeable to Data Logger Module & Auto lift Module	Yes	No
<u>Automatic Scrubber System:</u>	Yes	No
Four stage fully automatic microprocessor based programmable acid neutralization scrubber.		
Digital display integrated online with motherboard of digestion system with inbuilt magnetic suction pump for water re circulation		
Auto start on operation of digestion system, should automatically stops on completion of digestion cycle with a delay time of about 5 minutes, auto-fill error in case of absence of inlet water	Yes	No
Non corrosive centrifugal suction pump with inbuilt self priming feed pump for water re circulation.	Yes	No
FRP Tank, Containers for Alkali and Water	Yes	No
Electrical Requirement: 230v/50Hz Mains.	Yes	No
Auto indication of drain cycles, inadequate water level	Yes	No
<u>Automatic Distillation Unit</u>	Yes	No
Auto-sequencing Programmable Microprocessor based Distillation with inbuilt software, Colour Touch Screen high resolution TFT LCD Display, Enables Automatic monitoring and measuring of high temperature in distillate with sensor for auto warning signal and safety alarm to alert user to control distillate temperature. Temperature displayed digitally.		

Auto Intelligent run of programmable steps, Addition of Boric Acid, Dilution, KMNO ₄ added for Available N, Alkali Addition, Steam Processing, Residue Removal, Process over indication with inbuilt delay time features,	Yes	No
Auto Titration Connectivity feature for future upgradation, Aspiration of Receiver Residue with inbuilt mini printer for instantaneous results on input of titre value with inbuilt formula for N, Available N, Ammonical N, etc. without connecting to pc. Complete Automatic safety features.	Yes	No
The suction module of waste residue should be door mounted for easy serviceability.	Yes	No
Facility to program and control distillate volume for determination of available nitrogen	Yes	No
Auto sensing of “NO WATER” condition in condenser & steam generator with alarm & signal to alert user.	Yes	No
Auto deactivation of operation after warning in case of user non availability	Yes	No
Enables Automatic monitoring and measuring of high temperature in distillate with sensor for auto warning signal and safety alarm to alert user to control distillate temperature. Temperature displayed digitally.	Yes	No
Auto reagent Level Sensor with Alarm for Reagents, Stainless steel non corrosive steam Generator	Yes	No
The control panel unit along with inbuilt temperature controller, timer, mother board and SMPS should be isolated in separate compartment to protect electronics from wet chemistry & acid/ alkali process area for longevity and safety of all electronic components.	Yes	No
Nitrogen level : 0.2 to 200 mg Nitrogen	Yes	No
Nitrogen Reproducibility: $\pm 0.1- 0.2\%$ RSD , Nitrogen Recovery : $> 99\%$	Yes	No
Electrical Requirement: 220-230V single phase 50Hz A.C	Yes	No

Company should have good performance track record of at least 8-10 years with references of users of similar equipment. The instrument shall strictly confirm to the specifications with relevant brochure. The company should be a reputed supplier should have not been blacklisted or should not have any adverse remarks in the past. Spares should be made available for minimum period of **10** years after the warranty period by the supplier.

Asstt. Admn. Officer (Agronomy)