

# BIHAR ANIMAL SCIENCES UNIVERSITY

Bihar Veterinary College Campus, Patna - 800 014, Bihar

[www.basu.org.in](http://www.basu.org.in)

## NOTICE INVITING TENDER (NIT)

### E-PROCUREMENT MODE

<https://www.eproc.bihar.gov.in/BELTRON>

**TENDER NOTICE No.: – 06/CPC/BASU/2020-21**

**Dated: 13/11/2020**

1. Bihar Animal Sciences University, Patna invites online tenders (<https://www.eproc.bihar.gov.in/BELTRON>) in Two Bid System (Technical Bid and Financial Bid) from Reputed, Eligible and Qualified Firms/Manufacturer/Suppliers of following Goods.

| S. No. | Brief Description of Goods | Place of supply & Installation          | Quantity  | Amount of Bid Security/ EMD in INR |
|--------|----------------------------|---|-----------|------------------------------------|
| 1.     | Ovum Pick-Up Device        | Bihar Animal Sciences University, Patna | 01        | INR 1,00,000.00                    |
|        |                            | <b>Total</b>                            | <b>01</b> |                                    |

2. Schedule of Requirement: -

| Sl. No. | Activity   | Date/Time : Duration   |
|---------|--|--|
| 1.      | Online Sale/Download date of Tender documents        | From 17/11/2020 to 09/12/2020 (15:00 Hrs.)<br>( <a href="https://www.eproc.bihar.gov.in">https://www.eproc.bihar.gov.in</a> )              |
| 2.      | End Date/Time for submission/ uploading of offer/Bid | 10/12/2020 upto 16.00 Hrs.<br>( <a href="https://www.eproc.bihar.gov.in">https://www.eproc.bihar.gov.in</a> )                              |
| 3.      | Submission of EMD in Hard copy (Original)            | Before the time of opening of technical bid (Procurement Office, Administrative Building, Bihar Animal Sciences University, Patna-800 014) |
| 4.      | Date & time for opening of Technical Bid             | 11/12/2020 at 15.20 Hrs.<br>( <a href="https://www.eproc.bihar.gov.in">https://www.eproc.bihar.gov.in</a> )                                |
| 5.      | Contact person/Nodal Officer for queries             | Director Procurement, Bihar Animal Sciences University, Patna  |
| 6.      | Financial Bid Opening Date and Time                  | It will be intimated later on<br>( <a href="https://www.eproc.bihar.gov.in">https://www.eproc.bihar.gov.in</a> )                           |

3. Tender enquiry documents containing detailed specifications along with terms and condition can be downloaded from the e-Procurement Portal <https://www.eproc.bihar.gov.in/BELTRON>.
4. EMD must be enclosed with the hard copy of Technical Bid of the Tender in the form of **Demand Draft** from any Nationalised Bank in favour of **FINANCE COMPTROLLER, Bihar Animal Sciences University, Patna. EMD paid through manual mode only**. No interest is payable on Bid Security. Tenders without EMD shall be summarily rejected.
5. In the event of any of the above mentioned dates being declared as a holiday/closed day for BASU, Patna, the tender will be opened on the next working day at the prescribed venue and time.
6. Tenderers need not to present at the time of opening of tender as all procedures will done on online mode <https://www.eproc.bihar.gov.in/BELTRON>
7. This Tender Enquiry Document is not transferable.

## TERMS AND CONDITIONS

1. The technical and financial bids should be submitted through online mode as mentioned respective stage “Technical bid” / “Financial bid” as applicable.
2. The bidder must provide either the **Original Equipment Manufacturer (OEM) or their Authorized Distributor Certificate on their letter head in prescribed format (Annexure- I)**. If the same is not provided with Technical Bid the tender will be summarily rejected.
3. The vendors must have executed same nature of work in the **last 3 years**. The user list of such institutions, with name of equipments and the cost may also be supplied with the bids. Recent orders in government organization should also be enclosed.
4. The Financial Bid should include the cost of main Equipment/items and its essential accessories at F.O.R delivery including of all taxes, GST, charges for insurance and transportation of the goods, agency commission, installation & commissioning, training charges etc. if any.
5. The printed literature and catalogue/brochure giving full technical details should be included with the technical bid to verify the specifications quoted in the tender. The bidders should submit copies of suitable documents in support of their reputation, credentials and past performance.
6. Price bids of only those bidders will be opened whose technical bids are found suitable by the committee appointed for the purpose. Date and time of opening of price bids will be decided after technical bids have been evaluated by the committee. Information in this regard will be placed on the website or e-mail. No separate information will be send to the firms. In exceptional situation, an authorized committee may negotiate price with the qualified bidder quoting the lowest price before issuing the purchase order.
7. **Earnest Money Deposit (EMD):** Bidder needs to submit the refundable EMD of **INR 1,00,000.00** (Rupees One lakh) only in the form of **Demand Draft** from any Nationalised Bank in favour of **FINANCE COMPTROLLER, Bihar Animal Sciences University, Patna**. The **original hard copy of EMD submitted through manual mode only**, however, scan copy of EMD document uploaded on e-procurement portal. Failure to submit the EMD on due date will lead to the rejection of the tender.

8. **While sending rates, the firm shall give an undertaking to the effect that “the terms /conditions mentioned in the Inquiry Letter/Tender Notice against which the rates are being given are acceptable to the firm”. In case the firms do not give this undertaking, their rates will not be considered.**
9. All disputes shall be subject to Patna Jurisdiction only.
10. All tenders in which any of the prescribed conditions is not fulfilled or any condition is put forth by the tenderer shall be summarily rejected.
11. **Bihar Animal Sciences University, Patna reserves the right to cancel the tender at any point of time without assigning any reason.**
12. **The offer submitted by Telegram/E-mail/Speed post shall not be considered. No correspondence will be entertained in this matter.**
13. **Duly signed hard printed copy of all tender documents (submitted on e-procurement portal) should be submitted by the tenderer to Procurement Office, Administrative Building, Bihar Animal Sciences University, Patna-800 014 latest by 10/12/2020.**
14. **Bidders must submit duly stamped envelope (for registered/speed post) with complete postal address for refund of EMD documents.**
15. **Manual and Documents:** All manuals necessary for operating and servicing the equipment (including details of electronic circuits) will have to be provided along with the instrument.
16. Bidders should go through the tender terms, conditions and specifications carefully and fill in the attached compliance statement accurately and unambiguously. They should ensure that all the required documents are furnished along with the bid.
17. **Signing of Tender documents:** A person signing the tender form or any document forming part of the tender on behalf of another person should have an authority to bind such other person and if, on enquiry it appears that the person so signing had no authority to do so, Bihar Animal Sciences University, Patna may without prejudice, cancel the contract and hold the signatory liable for all costs, consequences and damages under the civil and criminal remedies available.
18. The tenderer should sign and affix his firm’s stamp at each page of the tender and all its annexure as the acceptance of the offer made by tenderer will be deemed as a contract and no separate formal contract will be drawn. **No page should be removed/ detached from this notice inviting tender.**

## **SPECIAL TERMS AND CONDITIONS FOR TENDERERS**

The following terms and conditions should be complied with during submitting tender:-

1. Online <https://www.eproc.bihar.gov.in/BELTRON> tender invited in two bid systems.
2. Tenders should be submitted to the e-Procurement Portal <https://www.eproc.bihar.gov.in/BELTRON> only.
3. GST Registration Certificate self-attested copy should be enclosed.
4. Delivery schedule with definite date of delivery at destination taking into cognizance of transit facility must be indicated. This contractual delivery date/ period should be inclusive of all the lead time.
5. The tenderer submitting his tender would be deemed to be considered and accepted all the terms and conditions. No enquiries, verbal or written shall be entertained in respect of acceptance or rejection of the tender.
6. Bihar Animal Sciences University, Patna reserves the right to cancel/ reject in or any part of the tender, which generally do not fulfil the conditions stipulated in the tender without assigning any reason.
7. Any action on the part of tenderer to influence anybody of the university shall make his/ their tender liable for rejection.
8. In case of placement of purchase order, the vendor (the tenderer whose tender is accepted) may comment on the purchase order within **10 days** from the date of dispatch of purchase order otherwise it seems that offer is acceptable to the vendor. Notwithstanding any other provision, the terms & conditions and any other provision included, in the purchase order will be treated as binding with "Errors & Omissions Expected". However, if the vendor notices of the order, he must bring the same in to the notice of tender/ quotation and seek clarifications within the above stipulated time. Vendor will have to bear the responsibility for failure to take this action.
9. Bihar Animal Sciences University, Patna may in writing make any revision or change in the purchase order, including additions or deletions from the quantities originally ordered or in the specifications or drawing. If any such revisions/ changes affect the price or delivery, the same shall be subject to the adjustment of price/ delivery, wherever required on a reasonable basis by mutual agreement in writing which should be communicated.
10. The institute reserves the right to cancel the purchase order or any part thereof shall be entitled to revise the contract wholly or in a part by written notice to the vendor if:-

- (a) The vendor fails to comply with the terms and conditions of the purchase order including specifications and other technical requirement.
  - (b) The vendor becomes bankrupt or goes into liquidation.
  - (c) The vendor fails to deliver the goods in time and or does not replace the rejected goods promptly.
  - (d) A receiver is appointed for any of the property owned by the vendor.
11. Upon the receipt of the said cancellation notice, the institute shall discontinue all works of the purchase order and matters connected with it.
12. Supply order will be issued as per the requirement of the institute. The supplier will have to supply ordered materials within the delivery time mentioned in the supply order.
13. Unless otherwise specified in the order, the order price shall remain firm and will not be subject to escalation of any description during the dependency of the order, notwithstanding the change in the cost of material and components he/they may take clearance while the order is under execution even if the execution of the order for any reason whatsoever.
14. The institute may its option, reject such defective materials at the vendor's expense in which event the vendor shall, without any cost to the Institute and as promptly as possible, remove such materials and furnish and install proper and acceptable material.
15. In the event of delay delivery and/or unsatisfactory manufacturing progress and supply, the Institute has the right to cancel the purchase order as whole or in part without liability for cancellation charges.
16. Timely delivery as mentioned in purchase order shall be in the essence of the order and no variation shall be permitted except with prior authorization in writing from the Institute.
17. In the event of delay in making delivery on the part of the vendor, it will be at Institute discretion to receive delivery with a reduction in price of the article/or equipment.
18. Forced measure shall mean and be limited to the following: -
- (a) Any war/hostilities
  - (b) Any riot or civil communication
  - (c) Any earthquake, flood, tempest, lighting or other natural physical disaster.
  - (d) Any strike or lock up (Only those exceeding ten continuous days' duration) affecting the performance of the vendor's obligation.

The seller shall advise the Institute by Registered Letter duly certified by local chamber of commerce of statutory authorities the beginning and end of the above caused of delay within 7 days of occurrence and cessation of such forced measure concern. In the event of delay lasting over one month, if arising due to our cause of force measure, the Institute reserves the right to cancel the order.

19. No payment shall be made for rejected materials nor would the tenderer be entitled to claim for such items.
20. Rejected materials would be removed by the tenderer from the site within two weeks or the date of rejection at their own cost. In case they are not removed they will be auctioned at the risk and responsibility of the suppliers without any further notice.
21. In case of not honouring the supply order, the Institute will have the right to impose penalty as deemed fit and to resort to make purchase at the suppliers cost and risk and his security deposit may be forfeited in favour of the Institute cost and risk.
22. Taxes & Levies - rates of inclusive of all taxes, duties and GST. No extra payment will be made by the BASU, Patna in this regard.
23. Disputes, if any, arising between the Institute and the bidder out of or in connection with the terms and conditions contained herein shall be referred for arbitration to the Patna jurisdiction. Disputes shall be decided keeping in view of the terms and conditions of the tender and Bihar financial rules applicable to the Institute.
24. **At present Bihar Animal Sciences University, Patna does not have DSIR Certificate. So, price should be quoted considering this point.**
25. **Minimum two years' warranty from the date of installation will be provided.**
26. No Advance payment shall be made.
31. For delay in supply, BASU will charge liquidated damage @0.5% per week maximum 10% after which the order will be cancelled.
32. **Performance Guarantee: The vendor shall furnish unconditional Performance Bank Guarantee (PBG) @ 7.50% of the order value for the entire period of warranty i.e. 26 months and should be submitted at the time of supply the order in the form of Bank Guarantee (Annexure-II)/ Fixed Deposit Receipt (FDR)/ Term Deposit Receipt (TDR) in favour of "Finance Comptroller, Bihar Animal Sciences University, Patna".**

## **TENDER FORM**

To,

The Director-Procurement,  
Bihar Animal Sciences University, Patna-14

Subject: Tender Notice No.: .....

Sir,

I have gone through the terms and conditions laid down in the tender documents and accept the same.

I am hereby submitting the technical bid and enclosing the documents as per details given below:

### **CHECK LIST**

1. EMD detail
2. This EMD is being enclosed (along with the technical bid).
3. List of procurement agencies of repute to whom the Tender item have been supplied during last two years with proof.
4. Authorized distributor certificate issued by original manufacturer of the equipment/item in format mention (Annexure- I).
5. Attested copies of GST registration.
6. Attested copies to PAN (Permanent Account Number).
7. Audited balance sheet of the firm of the last three years.
8. Income Tax Return copy of the last three years.
9. Address Proof.
10. Experience certificate of the last three years.
11. Enclosure of detail technical specification and other required documents.
12. Certificate that firm possess its Service Centre in Patna/Pan India.
13. Tender Documents duly signed on all pages.

Certified that each and every page of the tender documents are serially numbered and signed by me.

Yours faithfully,

Nature and Name of the authorized Signatory with seal

Designation

Name of the company (Tenderer)



**TECHNICAL BID**

1. (a) Name of the Tenderer: .....

(b) Status of the Tenderer: .....

(i) Manufacturer/Importer: .....

(ii) Proprietorship: .....

2. Partnership/Company

Full Postal Address .....

.....

.....

.....

3. Telephone No.: .....

4. Mobile No.: .....

5. Fax No.: .....

6. e-mail Address:.....

7. (a) Names of agencies with whom: .....the tenderer is registered.

(b) Names of procurement agencies to whom: .....

Items have been supplied during last 2 years:.....

8. Bank details of the bidder:.....

Name of Account Holder:.....

Name of Bank:.....

Bank Account No.:.....

IFSC & MICR Code:.....

Address of the Bank:.....

I am enclosing duly signed Technical specification of the items offered in response of this Bid.

Seal & Signature of Bidder

**Technical Compliance of the Bidder with reference to the ‘Specification of Equipments’  
(Separate form to be used for each item offered)**

Name of the Bidder/Tenderer:

Tender No.:

Name and Model No. of offered goods/equipments:

Make:

| Sl. No. | Technical specification From Bihar Animal Sciences University   | Features available in equipments<br>Yes or No | Any deviation from Specification, if any | Corresponding part number/ datasheet/ page no. in broacher in support of specification |
|---------|---|---|--|--|
| 1.      | Sector scan Ultrasound with different MHz capacity ultrasound probes, intra vaginal probe for TVOR (Trans Vaginal Oocyte Retrieval) with its accessories, photography and recording system. Unit with Trans vaginal oocyte retrieval attachment with its accessories and Oocyte pickup pump with oocytes pickup assembly for biopsy attachment for oocyte aspiration. |   |  |  |
| 2.      | <b>General Description:</b><br><b>•System Dimensions:</b> The unit should be portable and lightweight color Doppler scanner, with interchangeable long-lasting battery. System  |   |  |  |

weight should not exceed 6.0 Kg excluding cart and accessories.

• **Battery Backup:** The system should have inbuilt inter changeable battery operation with minimum backup of 2Hrs to ensure maximum scans in remote locations that are short of power outlet. Works on extractable interchangeable battery, shall have external power supply.

• **Display:** LCD/LED High Definition monitor of about min 15 inches (touch screen) or more with a wide viewing angle, 256 level of grey, Integrated HDD (500G), touch key, echo touch pad for direct access to selected imaging mode function and progressive hardware with updates (FPGA). The machine should have Digital beam former, Original veterinary software, Dual beam computing, approx. 90 true emission channels, 192 reception channels, Multi-zone focusing,

Continuous dynamic focusing in receive, booting time of < 30 seconds. Shall have Digital Brightness Adjustment, VGA Format, MI - Mechanical Index and TI - Thermal Index, portrait or landscape mode.

**•System Sanitization:**

Systems should be able to sanitize which should be liquid proof as the system will be used in different Outdoor Dusty environments. There will be high possibility of the system coming in contact with splashes of dung, dust and other types of contamination.

**•System Architecture:**

System should be designed on Non-Windows architecture to avoid hanging up, slowing down, data corruption, and enable fast boot-up, multilingual *etc.*

**•System Durability:**

System should have longer durability in the working environment having

|    |   |  |  |  |
|----|---|--|--|--|
|    | <p>dung/dust/dirt/extreme weather conditions etc.</p> <ul style="list-style-type: none"> <li>• It will be supplier's responsibility to recommend suitable voltage protection measures like UPS/ Stabilizer if required. It should be quoted as standard part of supply. No payments towards claims of failure in system due to voltage fluctuation shall be entertained. All such rectifications shall be done free of cost during Warranty/CMC period.</li> <li>• <b>Customized Trolley:</b> Should be part of standard supply.</li> </ul> |  |  |  |
| 3. | <p><b>Applications:</b></p> <ul style="list-style-type: none"> <li>• Ultrasound guided trans-vaginal oocyte aspiration in bovine.</li> <li>• Pregnancy diagnosis in bovine.</li> </ul>  |  |  |  |
| 4. | <p><b>Scanning Formats:</b></p> <p>Curved Array (OPU Convex Probe) and Linear Array.</p>  |  |  |  |
| 5. | <p><b>Standard Transducers:</b></p> <p>(to be quoted along with the system as per the following tabulation);</p> <ul style="list-style-type: none"> <li>• <b>Linear Array Probe:</b></li> </ul>   |  |  |  |

having 5.0 MHz -10.0 MHz frequency for Trans-rectal Imaging In bovine. Compatible with the Ultrasonography unit being provided.

• **OPU Convex probe:**

Should have 5.0-10.0 MHz for ultrasound guided trans-vaginal oocyte aspiration in bovine with OPU attachments having following specifications.

- Frequency wideband 6.5 MHz (B image : 5.0 – 6.5 – 7.5- 10.0 MHz)
- No. of elements aprox. 128, Pitch 0.209 mm
- ROC (radius of curvature) aprox. 10mm, Ouv. Trans 8mm
- Focus lense aprox. 35mm, field of view (FOV)-150u
- Length of guide aprox. 61.5 cm
- Weight aprox. 1 kg
- Length of cable 200 cm or more
- Biopsy guide graduated fine (mm), orientation of image (Up/down - Left/ right)

|    |   |  |  |  |
|----|---|--|--|--|
|    | ➤ Compatible with the Ultrasonography unit being provided.  |  |  |  |
| 6. | <b>Imaging modes:</b> Should have B mode, B/B mode (Dual B), M mode, Colour Flow Mapping (CFM) Velocity and Pulsed Wave Doppler (PW), PW simplex 1.00.  |  |  |  |
| 7. | <b>B Mode imaging:</b> Should have features B Frequency: 3 frequency steps for each probe, Large image 504 x 384 in B and Dual Image for the linear probes; Cross Beam in B and Dual mode on linear probes, TGC: 3 levels - TGC curve adapted to depth 8 adjustable zone, and highlight - Easy TGC shortcut; Focus zone position: 5 selectable focus points for each focus (probe dependent); Zoom: Adjustable ROI (Region of Interest) - Full screen Zoom: 3 steps selectable - 1.5; 2; 3; Biopsy guide; Orientation of image: - Up/down - Left/right, 90 <sup>0</sup> / 180 <sup>0</sup> / 270 <sup>0</sup> . Selectable; |  |  |  |

|     |   |  |  |  |
|-----|---|--|--|--|
|     | Automatic focus and frequency according to depth.   |  |  |  |
| 8.  | OPU Probe holding assembly unit with all necessary attachments including Short needle tubing, Long needle tubing, Specific short needle-100 nos, Transportation case, Cannulas:12 - 17 - 18' gauge etc.   |  |  |  |
| 9.  | <b>Image Management:</b><br>Compatible image Analysis Software to archive and analyse the stored images on Personal Computer via USB / Ethernet port or an external memory device such as Flashcard / USB pen drive etc. This will enable easy reporting and efficient data management system. Compatible thermal printer for printing USG Images should be provided with the unit. |  |  |  |
| 10. | <b>Image Storage:</b> Onboard storage of photographs, images. Storage, recording of Images in BMP/ JPG and Loops in   |  |  |  |



|     |  |  |  |  |
|-----|--|--|--|--|
|     | AVI format should be possible.   |  |  |  |
| 11. | <b>Voice Control:</b> echo voice – voice control of main image adjustments. In B mode: depth probe frequency, focus, general gain and freeze should be there.  |  |  |  |
| 12. | Trans-vaginal Oocyte Aspiration Pump with temperature controlled tube holder and all other necessary attachments compatible with the OPU Unit being provided for ultrasound guided trans-vaginal oocyte aspiration in bovine.  |  |  |  |
| 13. | <b>Other Standard accessories:</b><br>Transportation case, Charger for standard battery supplied, Instructions manual etc.   |  |  |  |
| 14. | <b>Warranty:</b><br><ul style="list-style-type: none"> <li>•The System should be covered with onsite warranty for minimum two years commencing from the date of installation.</li> <li>•The Linear (Per-rectal) probe and OPU Probe being a intra-operative</li> </ul> |  |  |  |

|     |   |  |  |  |
|-----|---|--|--|--|
|     | probe can be offered with minimum two year warranty or more shall be preferred.   |  |  |  |
| 15. | <b>Certifications:</b> Systems should possess CE, IEC Standards and ISO Certificates, Original Equipment Manufacturer Certificate, quality certifications etc. Vendor to attach respective certificates copies. |  |  |  |

Seal & Signature of Bidder

**Price Schedule form:** Price Schedule for Goods Being Offered from India/abroad in INR  
(Separate form to be used for each item offered)

Name of the Bidder/Tenderer:

Name & Model No. of offered goods:

Tender No.:

Make:

## Annexure- I

### MANUFACTURER'S AUTHORISATION FORM

To,

**The Director Procurement,  
Bihar Animal Sciences University,  
Patna-800014**

Dear Sir,

Ref. Your Tender Inquiry No....., dated.....

We, ..... who are proven and reputable manufacturers of..... (*Name of equipment offered in the tender*) hereby authorise Messrs..... (*Name and address of the supplier*) to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred tender inquiry for the above..... (*Name of equipment offered in the tender*) manufactured by us.

We further confirm that no supplier or firm or individual other than Messrs. .... (*name and address of the above agent*) is authorised to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred tender inquiry for the above ..... (*Name of equipment offered in the tender*) manufactured by us.

We also hereby confirm that we would be responsible for the satisfactory execution of contract placed on the authorised agent.

We also confirm that the price quoted by our agent shall not exceed than that which we would have quoted directly.

**Note:-**

- (i) This letter of authorisation should be on the letter head of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.
- (ii) Original letter may be sent.

**Annexure-II**

**MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY**

To,  
The Finance Comptroller,  
Bihar Animal Sciences University,  
Bihar Veterinary College Campus, Patna-14

WHEREAS ..... (name and address of the supplier) (hereinafter called “the supplier”) has undertaken, in pursuance of contract no..... dated ..... to supply (description of goods and services) (herein after called “the contract”).

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of **Rs.-----/-** ( -----), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed thereunder or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until the ..... day of ....., 2020.

.....  
(Signature of the authorized officer of the Bank)

.....  
Name and designation of the officer

.....  
.....  
Seal, name & address of the Bank and address of the Branch

## Specification of Ovum Pick-Up Device (n= 01)

"Sector scan Ultrasound with different MHz capacity ultrasound probes, intra vaginal probe for TVOR (Trans Vaginal Oocyte Retrieval) with its accessories, photography and recording system. Unit with Trans vaginal oocyte retrieval attachment with its accessories and Oocyte pickup pump with oocytes pickup assembly for biopsy attachment for oocyte aspiration".

### **1. General Description:**

- **System Dimensions:** The unit should be portable and lightweight color Doppler scanner, with interchangeable long-lasting battery. System weight should not exceed 6.0 Kg excluding cart and accessories.
- **Battery Backup:** The system should have inbuilt inter changeable battery operation with minimum backup of 2Hrs to ensure maximum scans in remote locations that are short of power outlet. Works on extractable interchangeable battery, shall have external power supply.
- **Display:** LCD/LED High Definition monitor of about min 15 inches (touch screen) or more with a wide viewing angle, 256 level of grey, Integrated HDD (500G), touch key, echo touch pad for direct access to selected imaging mode function and progressive hardware with updates (FPGA). The machine should have Digital beam former, Original veterinary software, Dual beam computing, approx. 90 true emission channels, 192 reception channels, Multi-zone focusing, Continuous dynamic focusing in receive, booting time of < 30 seconds. Shall have Digital Brightness Adjustment, VGA Format, MI - Mechanical Index and TI - Thermal Index, portrait or landscape mode.
- **System Sanitization:** Systems should be able to sanitize which should be liquid proof as the system will be used in different Outdoor Dusty environments. There will be high possibility of the system coming in contact with splashes of dung, dust and other types of contamination.
- **System Architecture:** System should be designed on Non-Windows architecture to avoid hanging up, slowing down, data corruption, and enable fast boot-up, multilingual *etc.*
- **System Durability:** System should have longer durability in the working environment having dung/dust/dirt/extreme weather conditions *etc.*
- It will be supplier's responsibility to recommend suitable voltage protection measures like UPS/ Stabilizer if required. It should be quoted as standard part of supply. No payments

towards claims of failure in system due to voltage fluctuation shall be entertained. All such rectifications shall be done free of cost during Warranty/CMC period.

- **Customized Trolley:** Should be part of standard supply.

## 2. Applications:

- Ultrasound guided trans-vaginal oocyte aspiration in bovine.
- Pregnancy diagnosis in bovine.

## 3. Scanning Formats: Curved Array (OPU Convex Probe) and Linear Array.

## 4. Standard Transducers: (to be quoted along with the system as per the following tabulation);

- **Linear Array Probe:** having 5.0 MHz -10.0 MHz frequency for Trans-rectal Imaging In bovine. Compatible with the Ultrasonography unit being provided.
- **OPU Convex probe:** Should have 5.0-10.0 MHz for ultrasound guided trans-vaginal oocyte aspiration in bovine with OPU attachments having following specifications.
  - Frequency wideband 6.5 MHz (B image : 5.0 – 6.5 – 7.5- 10.0 MHz)
  - No. of elements aprox. 128, Pitch 0.209 mm
  - ROC (radius of curvature) aprox. 10mm, Ouv. Trans 8mm
  - Focus lense aprox. 35mm, field of view (FOV)-150u
  - Length of guide aprox. 61.5 cm
  - Weight approx. 1 kg
  - Length of cable 200 cm or more
  - Biopsy guide graduated fine (mm), orientation of image (Up/down - Left/ right)
  - Compatible with the Ultrasonography unit being provided.

**5. Imaging modes:** Should have B mode, B/B mode (Dual B), M mode, Colour Flow Mapping (CFM) Velocity and Pulsed Wave Doppler (PW), PW simplex 1.00.

**6. B Mode imaging:** Should have features B Frequency: 3 frequency steps for each probe, Large image 504 x 384 in B and Dual Image for the linear probes; Cross Beam in B and Dual mode on linear probes, TGC: 3 levels - TGC curve adapted to depth 8 adjustable zone, and highlight - Easy TGC shortcut; Focus zone position: 5 selectable focus points for each focus (probe dependent); Zoom: Adjustable ROI (Region of Interest) - Full screen Zoom: 3 steps selectable - 1.5; 2; 3; Biopsy guide; Orientation of image: - Up/down -Left/right, 90<sup>0</sup> / 180<sup>0</sup>/ 270<sup>0</sup>. Selectable; Automatic focus and frequency according to depth.

**7. OPU Probe holding assembly unit** with all necessary attachments including Short needle tubing, Long needle tubing, Specific short needle-100 nos, Transportation case, Cannulas:12 - 17 - 18' gauge etc.

**8. Image Management:** Compatible image Analysis Software to archive and analyse the stored images on Personal Computer via USB / Ethernet port or an external memory device such as

Flashcard / USB pen drive etc. This will enable easy reporting and efficient data management system. Compatible thermal printer for printing USG Images should be provided with the unit.

**9. Image Storage:** Onboard storage of photographs, images. Storage, recording of Images in BMP/ JPG and Loops in AVI format should be possible.

**10. Voice Control:** echo voice – voice control of main image adjustments. In B mode: depth probe frequency, focus, general gain and freeze should be there.

**11.** Trans-vaginal Oocyte Aspiration Pump with temperature controlled tube holder and all other necessary attachments compatible with the OPU Unit being provided for ultrasound guided trans-vaginal oocyte aspiration in bovine.

**12. Other Standard accessories:** Transportation case, Charger for standard battery supplied, Instructions manual etc.

**13. Warranty:**

- The System should be covered with onsite warranty for minimum two years commencing from the date of installation.
- The Linear (Per-rectal) probe and OPU Probe being a intra-operative probe can be offered with minimum two year warranty or more shall be preferred.

**14. Certifications:** Systems should possess CE, IEC Standards and ISO Certificates, Original Equipment Manufacturer Certificate, quality certifications etc. Vendor to attach respective certificates copies.