



**ROYAL GOVERNMENT OF BHUTAN
MINISTRY OF AGRICULTURE
DEPARTMENT OF LIVESTOCK**

NATIONAL HIGHLAND RESEARCH & DEVELOPMENT CENTER, BUMTHANG

OPEN TENDER DOCUMENT FOR SUPPLY OF:

Equipment for Establishment of Yak Semen Processing Lab

FOR ONE YEAR

CHECK LIST

1. Terms and conditions
2. Valid license/Tax Clearance Certificate
3. Earnest Money
4. Quotation rate column should be checked before submission.
5. Original documents and copies properly marked
6. Attached leaflet/pamphlet of the items. Should be properly marked with label/no. against each individual item.

Note: The Tender documents will not be excepted if any of the above Documents are missing.

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NH-RDC, Jakar
MoAF Bumthang**

Terms and Conditions:

1. The NHRDC, Jakar tender committee (TC) shall not be bound to accept the lowest or any particular tender. It shall have the right to reject in part or in whole if any or all tender without assigning any reasons.
2. The Tender documents can be obtained from the Administration section at Nu. 300/- with effect from September 06. 2021.
3. Sealed quotation should be filled with the firms quotation form and addressed to the Program Director, NHRDC, Jakar, Bumthang.
4. Please quote the rate of materials which could be supplied by your firm only, quality/genuineness of the materials will be the primary criteria for award of the supply order.
5. The sealed quotation should reach **on or before September 27, 2021 at 10.30am**, and shall be opened on the same date at 2.00PM at NHRDC's meeting hall.
6. Earnest Money deposit (EMD) of Nu. 30,000.00 should be submitted in draft drawn in favour of Program Director NHRDC, Jakar, should accompany the bid.
7. The quotation without earnest money deposit will not be entertained.
8. The rate should be inclusive of all Taxes and delivered at NHRDC, Jakar, Bumthang.
9. The rate should be valid for the period of one year
10. Any materials not conforming to the specification shall be rejected by the Tender Committee and will be returned at the supplier's cost.
11. Supply of materials shall be completed on or before 45 days from the date of issue of supply order, failing to supply the materials within the stipulated date, the liquidated damage/penalty shall be imposed as per the procurement norms.
12. Your bill/invoice for the full/port quality may be submitted to this office in favour of Program Director. The payment shall be made accordingly as per rule.
13. EMD will be forfeited, in case the bidder cannot supply the materials at the quoted rate.
14. Sealed quotation should have enclosed the BIC code No. copy of Valid Trade license and Tax Clearance Certificate as per tender procedure.
15. The purchaser reserves the right in all respects.
16. In the event of dispute over the issues not covered by the above terms and Conditions, the Procurement Rules and Regulations 2019 shall be referred to and its content with regards to the situation will be considered final and binding.
17. The decision of the tender committee is final and binding.
18. In each and every page there should be seal and signature.

List of Equipment/Items/ Consumables required for Yak Semen Processing Lab.

Sl#	Particulars	Specification	Price/Pcs/set	Remarks
1	Warm Stage with Warm plate for Microscopes	Temperature Control LED 220/ 240 V, 50 / 60 Hz, 60 VA Warm plate suitable for most commercially available microscopes and to be mounted directly on top of the microscope stage, suitable for microscope slides with preset temperature 37°C		
2	Scan Stage with heating system and Controller HT 300W	Warm plate suitable for most commercially available microscopes and to be mounted directly on top of the microscope stage and suitable for microscope slides with preset temperature 37 degree C		
3	Automatic Straw Filling sealing machine	MPP Uno, automated filling and sealing machine Fills and seals one straw at a time (approx. 4000 straws / hour). Easy to change between straws sizes (0.25 and 0.5 ml). Exchangeable hopper with 2200 straw capacity for 0.25 ml and 1300 straw capacity for 0.5 ml., Ultrasound sealing unit., Integrated vacuum pump and sensor for for vacuum adjustment., PLC microprocessor controls., Power supply: 110 V/60 Hz or 230 V/50-60 Hz		
4	Accessories for Automatic straw filling sealing machine	MPP Uno filling nozzle with 1 needle for 0.25 ml straws		
5		MPP Uno suction nozzle with 1 needle for 0.25 ml straws		
6		MPP Quattro and MPP Uno straw hopper for 0.25 and 0.5 ml straws		



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7		Semen Cone 200 ml, disposable, 100/bag		
8		Straw Seal Tester to check sealing of straws (0.25 ml/0.5 ml)		
9		Washer for all filling and suction nozzles, 5000/bag		
10		MPP Uno/Quattro filling and suction tubing 380mm, 100/bag		
11	Specto Photometer for determining sperm concentration	Photometer SDM 6 with integrated printer and touch screen display, Used to determine semen concentration for bovine incl. dose calculation. Program for display of extinction. Serial interface for data transfer. Digital display: result in billion of sperm/ml. Print out includes the following data: sperm quality and quantity, volume of diluent required and sperm per dose. 110 - 230 V/ 50 - 60 Hz.		
12	Semen Diluter	Microlab 500 Diluter/Dispenser System for accurate dilution of bovine semen Consist of Reagent/Diluent Syringe: 25 mL to 25 mL (TLL- or TLLX-type), Reagent/Diluent Volume Range: 1 mL–25,000 mL, Sample Syringe: 25 mL to 1 mL (DX-type), Sample Volume Range: 1 mL–1,000 mL, Accuracy and Precision: 3 99% within 1% at 10% of syringe stroke, Resolution: .1% of syringe drive, Volume Increments: .1% of total syringe volume; adjustable, Speed: 1 to 250 seconds per full syringe stroke; adjustable		
13		Cuvettee for SDMS photometer 4 ml (100/pkt)		
14	Spare parts for Specto	Pippette for dilutor, micropippette tip,		

	Photometer & Semen Diluter	40 µl (1000/pkt)		
15		Paper roll for SDMS 5, 6 rolls/pkt, Spectrophotometer Printer Paper rolls for Printing paper used with Spectrophotometer SDMS 5		
16	Automatic Straw Printing machine	EasyCoder, automatic printer for 0.5 and 0.25 ml straws Comes with: Software inclusive of PC), Prints 1 to 3 lines per straw., Printing of barcodes, logos and special characters., Clean and odourless working without ink and without solvents., Easy to maintain and repair., Print speed: approx. 3600 straws/hour., Includes color ribbon, black, 200 m/roll, Ref. 13038/0010., Power supply: 110/230 V, 50-60 Hz		
17	Color Ribbon (Black)	200 m/ roll, For EasyCoder Straw printer		
18	Magnetic stirrer	Magnetic Stirrer with hot plate LED Digital Hotplate Magnetic Stirrer Hot Plate with Ceramic Coated Lab Hotplate, 280 degree C Stir Plate, Magnetic Mixer 3,000mL Stirring Capacity, 200 to 1500 rpm, Stirring Bar Included		
19	Digital weighing balance	500g & 001mg		
20	Distribution Rake 100 / 175 straws	Freezing Rack Turbo for 0.5 ml / 0.25 ml straws, capacity: 100 straws / 175 straws		
21	Distribution Block 100 /175 straws			
22	Hot Air Oven	Universal Oven UN55plus, Memmert 50 Litres Capacity, Precise drying, heating, ageing, burn-in and hardening in research, science, industry and		

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		quality assurance.		
23	Autoclave 60lts	High Pressure Steam Sterilizer, Autoclaves sliding door type series ES-315, Operating temperature range (during sterilizing)105 - 132°C		
24	Distillation set	Water Distillation Unit		
25	Plain Microscope Glass Slide	50 pcs pkt, 75mm x 25mm & 76mm x 26mm, 1 mm thick and Pre-cleaned Transparent, dust free, SPECIAL SUPER DELUX		
26	Microscopic Cover Glass / Slip	Pkt, 22 mm x 22 mm square, 10 gms, high quality, dust free (Blue star / Gold coin)		
27	French mini straw (White / transparent, orange, green colours)	0.25 ml (2000 / pkt), Durable, Flexible and able to withstand heat and cold treatments during straw printing, auto filling sealing and cryo preservation		
28	Sodium Chloride 500gm	Common salt, Anhydrous, free flowing, ACS reagent >99%		
29	Eosin water soluble Powder 30 gm	To stain and differentiate between dead and living spermatozoa		
30	Nigrosin water soluble powder 30 gm	To stain and differentiate between dead and living spermatozoa		
31	Water Boiler	Electrical water boiler, 5 L capacity		
32	Measuring Cylinder	50 ml		
33	Measuring Cylinder	250 ml		
34	Measuring Cylinder	500 ml		
35	Beaker	50 ml		
36	Beaker	100 ml		
37	Beaker	250 ml		

38	Conical flask	250 ml		
39	Conical flask	500 ml		
40	Conical flask	750 ml		
41	Conical flask	1000 ml		
42	Glycerol	500 ml bottle, 98% purity		
43	BioXCell, animal protein free Semen extender	100 ml, Freezing Media for Bovine semen, Animal protein free Bovine Semen Extender, contains an antibiotic mix of Lincomycin, Spectinomycin, Gentamycin and Tylosin.		
44	Oxyfree II (Antibiotic)	50 gm vial		
45	Rectified spirit	450 ml, 98% purity		
46	Hand sanitizer	500 ml, Liquid type		
47	Phenol	450 ml		
48	Disinfectant for Lab	Litres, Scented / Laboratory refresher		
49	Ezee	Litres, for washing lab appliances		
50	LN ₂ Container (Transport Can)	55 Litres capacity, With side ring & bottom pad for LN ₂ Storage (Export Quality)		
51	LN ₂ Container (Reserve Can)	35 Litres capacity, With side ring & bottom pad for LN ₂ Storage (Export Quality)		
52	LN ₂ Container (Semen Bank)	35 Litres capacity, With side ring, bottom pad and Canisters inside for storage of Frozen semen (Export Quality)		
53	LN ₂ Container (For Mobile AI)	3 Litres capacity, With Canister inside & carrying belt for semen storage & mobile AI (Export Quality)		

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