

**RAJMATA VIJAYARAJE SCINDIA KRISHI VISHWA VIDYALAYA,
COLLEGE OF AGRICULTURE, GWALIOR – 474 002**

TENDER NOTICE

Sealed tender are hereby invited for supply of equipments/instruments from manufacturer/Authorized dealer. The last date for submission of tender is 1300 hours on 23.Dec. 2011.by registered /speed post/courier. The tender will be opened on 23-12-2011 at 1500 hours. Tender received after due time & date will not be entertained. The Dean, College of Agriculture, Gwalior, reserves the right to accept or reject any or all the tenders without assigning the reasons there of and to split of the tender as deemed fit. Interested firms may collect the tender form along with specification from the office of the Dean on or before 15 Dec.2011 at 1300 hours. The cost of tender form is Rs. 1000/-. Earnest Money Deposit will be 3% of the cost of equipments/ instruments The tenderers' may download the form and specification of the instruments from vv.web site r v s k v v .nic . in

Name of the item

1 Corcyra cage, **2** Corcyra cage (water proof plywood),**3** Moth Breeding cage ,
4 ,Moth mating chamber **5** .Breeding nest for chrysapa,**6** Corcyra egg Laying cage,**7**
Corcyra Egg Sterilization chamber,**8** Corcyra rearing system, **9**. Digital top pan
balance, **10**. PH Meter, **11** Autoclave(Vertical), **12** Microwave Oven,**13** Hot Air Oven,
14 Electronic top pan balance, **15** UV Visible Spectrophotometer, **16** Centrifuge
Machine, **17** Rotary flask shaker **18** Insect stretching board (Adjustable),**19** Insect
specimen tube cabinet, **20** Aspirator, **21** Egg Clearing machine **22** ,Trichogramma
parasitization container 2 Kg. capacity , **23** Room heater,**24** BOD Incubator, **25** Water
distillation unit, **26** Multi cavity and rearing trays ,**27** Autoclave(Horzjontal) **28** ,Cooking
Equipments,**29** Bottle Sealer, **30** Haemocytometer, **31** Fermenter, **32** Auto packer and
labeler,**33** Rotary mixer.

**DEAN
College of Agriculture,
Gwalior 4**

COLLEGE OF AGRICULTURE, GWALIOR – 474 002

Tender No.	
Date of Publication	
Last Date of Accepting Tender	
Date of Issue of Tender Form	
Seal of the Issuing Office	
Amount of fee deposited for issuing tender form	
Details of money receipt No. & Date	
Signature of the person issuing the tender	
DETAILS OF TENDER FORM	
Name of the firm quoting the rates	
Registered address of the firm	
Name of the proprietor with telephone No.	
Whether manufacturer/ authorized stockist	Manufacturer/ authorized stockiest

RAJMATA VIJAYARAJE SCINDIA KRISHI VISHWA VIDYALAYA, COLLEGE OF AGRICULTURE, GWALIOR – 474 002

TERMS AND CONDITIONS

Tender No.		
Date of Publication		,
Date of issuing the tender form		
Last date for submission of the tender		
Date and Time of opening of Tender		

1. Only the manufacturer and their authorized sales/ service agent need submit the tender. The firms submitting the tender will have to submit a certificate of manufacturing of the unit / authorization certificate of the manufacturer. The tenderer should have service center with trained personnel to undertake servicing at Gwalior and other places in western M.P.
2. No person or firm shall submit more than one tender for the same item.
3. Broad based specification of the system / equipment is given along with the tender form. The tenderer should take note of it and if there are additional specification, which needs attention, should be mentioned in the specification.
4. The tenderer must submit the tender form issued by the office in original, tender document, signed copy of the terms and conditions duly stamped along with requisite EMD in a sealed cover, in the Office of the Dean, College of Agriculture, Gwalior 474002 by registered or speed post / courier
5. Belated tenders due to postal or any other delay will not be considered.
6. The EMD (Earnest Money Deposit) valid for six months from the date of issue should be in the form of A/C Payee DD / Banker's Cheque/ Fixed Deposit Receipt of a nationalized / Schedule Bank in favour of "Dean, College of Agriculture, Gwalior" payable at Gwalior. In absence of EMD in the prescribed form, the tender will not be considered. The EMD will be forfeited in case the tenderer fail to execute the order in specified time.
7. The tender offer should have validity for the period of 180 days.
8. The rates quoted should be inclusive of Sales Tax, F.O.R., College of Agriculture, Gwalior 474002 inclusive of packing & forwarding, loading, unloading and handling charges, freight, insurance, full risk coverage etc. The RVSKVV is exempted from Excise duty.
9. In case of imported item the CIF value should be Mumbai or Delhi Airport. The tenderer must specify the custom clearance and transportation charges.
10. Break of the prices for the main item and its accessories should be given separately. The tenderer should also specify the probable period of delivery of the equipment.
11. The tenderer should install the equipment and provide free training to the Scientist / Teachers pertaining to the use of the equipment.

12. A list of the organizations where the similar type of equipment is supplied by the tenderer around in M.P. should be enclosed with the tender.
13. Each tender must be accompanied with the technical literature of the equipment failing which the tender will not be considered.
14. The tenderer should have give the warranty minimum for 2 years to provide service/ maintenance from Gwalior office at free of cost during warranty period.
15. If desired in the specification the tenderer should quote the comprehensive AMC charges for another 3 years.
16. The tender will be opened on 23.12.2011 at 15.00 hrs by the members of the College level purchase committee in the Office of Dean, College of Agriculture, Gwalior 474002. The tenderer can depute his authorized representative to be present at the time of opening of the tenders.
17. The Dean, College of Agriculture, Gwalior reserves the right to extend the due date and the date of opening of the tender.
18. If required the tenderer will have to arrange a demonstration of the equipment or system without any charges or obligations.
19. The EMD shall be released after 50 days from the date of opening of the tender.
20. The tenderer will arrange to supply the equipment as per the specifications within 30 days/ specified period of delivery from the date of issue of order failing which the order will be treated as cancelled.
21. The standard terms and conditions of payment acceptable are – payment in full will be made after the contract is effective in full and to the satisfaction of the authority. The payment will be released to the firm supplying the equipment only on successful installation.
22. In case of the equipment to be imported the import license, CDE certificate and other required papers as per the Govt. procedure will be made available to the supplier or importer.
23. If so desired the tenderer should have to enter into an agreement.
24. Any deviation, variation or non-compliance by the tenderer shall be considered as breach of contract and the undersigned reserves the right to forfeit the amount of the EMD in part or full and to take action as per legal arrangement.
25. The Dean, College of Agriculture, Gwalior, reserves the right to accept or reject any or all the tenders without assigning the reasons thereof and to split of the tender as deemed fit.
26. Should there arise any dispute, the Vice Chancellor, RVSKVV, Gwalior shall be the sole Arbitrator whose decision in the matter shall be final and binding.

The tenderer shall have to give an undertaking that the terms and conditions as mentioned above are acceptable to the tenderer by providing a signed and dully stamped copy of the terms and conditions

**Dean,
College of Agriculture,
Gwalior 474002**

Specification for purchasing the equipments for project under experiential Learning On Enterpnuership in production of bio fertilizer, bio pesticides and bio control agents

1 Corcyra cage : Mode of MDF planks, Top lids fits well in the main box and detachable, Lid provided with 20 mesh iron wire –mesh secured with beading . provided with handle on sides well finished Size 43x23x12 CM.

2 Corcyra Cage: (waterproof plywood): Some on Ri 86-01 but made of proof plywood instead of MDF Size 38x38x10 CM.

3 Moth Breeding cage : Made of synthetic mesh cloth insect parasite proof

Round shape. Bottom open so as to keep if on plant Pot.

4 Moth mating chamber : Mode of synthetic, mesh cloth insect parasite proof shape. Completely enclosed with 18” long zipper on side.

5:Breeding nest for chrysapa : Teakwood frame with screen net on sides and collapsible Cover on can be fixed in position with help of levers, top siding

Plank of MDF covered with block cloth from inside and spirit polished from outside A spare plank supplied for outside. A spare plank supplied for replacement Combs for removal of insect from plank Beautiful spirit polish finish. Size 60x30x30 CM.

6 Corcyra Egg Laying cage : Frame made of MDF sheet planks, Fine wire mesh provided On top & bottom. On one corner on top. a Rounded opening 3cm. dia is provided which can be closed with wooden plug on one side. A rounded opening 11cm. with on arrangement for drop closure with the help of MDF sheet cover is provided for manually putting in/ taking out the material. Overall Size 35x25x18 cm.

7 Corcyra Egg Sterilization Chamber : Sterilization chamber made of mild steel and is divided into two equal ports by horizontal partition. Each partition Provided with drawer which has a semi circular base in the inner surface of the semicircular base the drawer is provided with longitudinal flanges of 2mm thick and 9cm. apart. These flanges prevent the other from the curve face. The ceiling of each drawer is provided with a UY Tube light Each tube light is connected with a timer .

8 Corcyra Rearing system : Fabricated of iron angle frame for keeping crushed jowar, 13 Not sheet trays of size 45x45x5cm. one provided Funnel shopped try Of to the collection

confiner, Beautifully painted . Transparent polyhene sheet and block colour region cloth for covering the structure.

(9)Digital top pan balance:

Capacity : 200g. and Readability: 0.1 mg. Repeatability: 0.1 mg. and Linearity: 0.2mg. unit selection g or ct, and percent weighing.

With draft shield, port for connection to external printer, Automatic Calibration (internal) and over-load protection. Pan Size : 90mm.

(10)pH Meter:

Microprocessor based table top model with 16 x 2 Alpha numerical LED display, pH Range: 0 to 14, Resolution : 0.01, mV Range : 0 to +/- 1999.9 Resolution: 0.1 mV, Automatic Temperature compensation from 0 to 100° C, Storage Capacity up to 100 sample.

(11)Autoclave

Vertical model, Outer M.S. inside Stainless Steel, digital temperature indicator, Timer, Automatic low water cut-off device, with safety valve, pressure release valve, water level indicator, paddle lifting device etc. size 350 x 550mm Capacity: 50 liters, load 3.0 kw
Optional: Automatic pressure control switch.

(12) Microwave Oven

Microwave oven for laboratory use. Cavity made of Stainless Steel fitted with light Energy Regulator to control Microwave Power Levels. Count-down Timer & Audio-visual Alarm. Cavity size: 30 litre approx.

(13) Hot Air Oven

Universal type high temperature oven having a path of forced circulating hot air between the inner chamber made of 304 grade SS and insulation. Microprocessor based PID Digital temp. Indicator-cum-Controller with Digital timer and Buzzer for temperature from 5 degree C above ambient to 300 degree C. Inner Chamber size : 605x605x605mm /605x605x910mm.

(14) Electronic top pan balance: Automatic calibration with built in weight capacity 600 g max minimum unit 0.1 g, respectively. Stainless steel pan size 160 x 148 mm high stability & sensitivity with high speed applicable for 150, GLP standard operatable on 230 Volts AC adopter and dry battery to be provided.

(15) UV Visible Spectrophotometer: Double Beam Spectrophotometer

Coma aberration elimination from the concave diffraction grating achieves a high resolution 1.5 nm spectral bandpass and certifies compliance of the stringent European Pharmacopoeia standards.

- Photometry Mode. Perform quantitative analyses in either absorbance or transmittance modes. Select from single wavelength, up to 6 different individual wavelengths, nucleic acid/protein A260/ A280 ratios and set up calibration curves with up to 20 standards for concentration measurements.
- The fully equipped and capable of executing all functions in stand alone mode. Simply connect a standard laser printer for direct printouts of data and graphs.
- To ensure optimum instrument performance, self-diagnosis incorporating a number of parameters and wavelength calibration are automatically initiated upon start-up.

Technical Specifications:

Optics: Concave diffraction grating / Double Beam Principle

Wavelength Range: 190nm -1,100 nm

Spectral Bandwidth: 1.5 nm

Stray Light: $\leq 0.05\%$ (220nm NaI, 340nm NaNO₂)

Wavelength Accuracy: $\pm 0.3\text{nm}$

Photometric Range Absorbance: -3 to +3% T: 0% to 300% T

Wavelength Scan Speed: 10, 100, 200, 400, 800, 1,200, 2,400, 3,600 nm/minute

Baseline Stability: 0.0003 Abs/hr (500nm, after 2 hours)

Noise Level: 0.0003 Abs (500nm)

Light Source: Tungsten-Halogen and Deuterium Lamps

Light Source Switching: Automatic switching selectable from 325nm to 370nm

Detector: Silicon Photodiode

Display: Back-lit LCD 165(W) x 122(H) mm

Dimensions: 505(W) x 705(D) x 225(H) mm

Net Weight: 29Kg

Gross Weight: 35Kg

Power Requirements: 110 - 220 V selectable, 50/60Hz

(16) Centrifuge Machine: Centrifuges are widely used in auxiliary laboratories in industry. Educational & Research institutions Bio Technology. Medical Laboratories Hospitals, Blood Banks, Pharmaceutical Laboratories and agriculture soil testing for determination of moisture equivalent of soil. It is also suitable for cosmetics and food products. Centrifuge rotors & carriers are also suitable for use with Variety of Falcon & Vacutainer Tubes.

- Stepless speed regulator with zero start interlock.
- Digital Speed indicator
- Dynamic Brake
- 0-99 Minutes digital countdown timer
- Imbalance detector with cut off. Safety lid interlock to prevent cover opening during centrifugation.

Technical Data:-

Max. Speed	17300
Max. RCF	27440
Max. Tube Size	100
Max. Capacity	400
WxDxH	400x500x455
Supply	220-240 Volts 50 Hz Single Phase

Rotor heads for above:-

Capacity	Speed (RPM)	RCF g
1. 6 x 50ml	12100	14240
2. 8 x 15ml	15400	20150
3. 24 x 1.5ml	17300	27440

(17) ROTARY FLASK SHAKER: Rotary flask shaker – 65 x 65 cm compact bench type table top model with platform fitted with rubber disk mounted on ball bearing crank shafts to give an orbital motion to the flask. Motor - 0.5 HP, operate able on 220/230 VAC supply, speed controlled mechanical speed controller, holding capacity- 36 flasks of 250 ml.

(18) (INSECT STRETCHING BOARD) (Adjustable); Board Adjustable along the support to obtain desired width for different size Insects. Board top & groove fitted 8mm thick EVA sheet. Groove adjustable from 0 to 12mm with the help of brass fly-nuts. Material used is teakwood and finished in spirit polish. Size: 35x12cm.

(19) (INSECT SPECIMEN TUBE CABINET) Capacity 500 specimen tube of 75mmx25mm size Cabinet frame of plyboard finished with laminated sheet. Hinged door is provided with lock handle lined with velvet provided with 5 drawers each for 100 specimen tubes.

(20) (ASPIRATOR) For collecting small insects. Intake and exhaust tubes of glass/plastic and mouth piece is of latex tubing. Glass/plastic tubes are used as container.

(21) (Egg CLEARING MACHINE)

(22) (TRICHOGRAMMA PARA SITIZATION CONTAINER); 2kg capacity

(23) (ROOM HEATER)

(24) (BOD INCUBATOR): Environmental test chambers / incubator with humidity chamber

- Internal volume 10 cubic ft/280-290 Ltrs (approximately)
- Inner chamber – stainless steel
- Temperature control - Micro Prosser/Digital
- Safety thermostat to prevent over heating
- Temperature range – 10 to $60^{\circ}\text{C} \pm 1^{\circ}\text{C}$
- Humidity – 40 to 95 % \pm 3 to 5 % with humidity sensor for direct display of humidity in present RH.
- High voltage safety cutoff for unit protection
- Chamber illumination with fluorescent or ultra violet lights.

(25) WATER DISTILLATION UNIT. ALL QUARTZ DOUBLE DISTILLATION

Specification:

All Quartz Double Distillation consist of demountable upper and lower boiler.

The lower boiler has a built in heater enclosed in a quartz boiler with a cup on top. The upper boiler has a built in quartz coil and condensing unit which is mounted on the bottle with the help of ball and socket joint.

Double walled condenser ensures separate condensation of vapours coming from the two boilers using a single cooling circuit.

The unit is mounted on a specially designed powder coated stand and is also provided with automatic cut-of device(thermal sensor) which ensures the safety of the unit.

Parameters:

- | | |
|---|--------------|
| 1. Specific Conductivity: | 0.1-0.5us/cm |
| 2. Biological Activity(Distillate quality): | Pyrogen free |
| 3. pH: | 6.0-7.0 |
| 4. Organic Matter: | Nil |

Advantage eof Demountable Model:

Easy cleaning of the first boiler since it can be dismantled from the assembly.

Ease of interchangeability as it provided with Ball & socket joint.

Boiler and cons=denser have large boiling space resulting in balance boiling and improved quality of distillate.

Compact and easy to install

Output Capacity: 2.5ltr/hr

Power rating: 4.4 KW

Cooling water consumption(approx): 140ltrs.Hr

(26) (MULTI CAVITY AND REARING TRAYS.)

(27) AUTOCLAVE (HORIJONTAI) Autoclave (Economy)

- Versatile usage
- Ergonomic Designf
- Energy Efficient
- Double Safety Radial Locking Arrangement
- Double Safety Valve Protection
- Hydraulic Testing Upto 2.5 times the working pressure

Construction:

Our vertical autoclave are double walled units. Outer body of our autoclave is constructed out of thick PCRC sheet duly pre-treated with primers and rust proofing and painted with long lasting stove enamel or elegantly powder coated.. The inner chamber is made of heavy gauge stainless steel sheet of SS-304 grade. Our autoclaves are air insulated from inside, however we

may incorporate mineral glass wool insulation if the customer desires so. The strong lid constructed out of thick steel plate which is lined from inside with Stainless steel sheet of ss-304 grade has a double safety radial locking arrangement , which ensures an easy and smooth opening and closing operation for all our autoclaves. Our vertical autoclaves are ideally suited for hospitals and research labs where safety is the first priority of the users, since it is equipped with a double safety steam release valve. At the same time we test all our autoclaves for up to 2.5 times the standard working pressure to ensure maximum safety and protection from any unfortunate incident.. All our vertical autoclave are supplied complete with pressure gauge, pressure release valve and stainless steel basket as a standard feature.

Heating:

The heating process in our vertical autoclave is done through specially designed water heaters of suitable wattage to ensure optimum sterilization time in every sterilization cycle.

Working Temperature:

As per the international standards and guidelines our vertical autoclave have a working temperature of 121oc. However for specific requirements our autoclaves can be upgraded to be used for up to 134o c.

Working Pressure:

Working pressure for our standard model vertical autoclave is 15 psi, however this can be upgraded to be used for higher pressures of up to 30 psi..

Pressure Range:

The normal pressure range of our autoclave is 5 psi to 20 psi

Technical Features of HORIZONTAL Autoclave Economy

- Hi-tech radial lock locking mechanism for ultimate ease of operation and safety.
- Steam Release valve of Stainless Steel ensuring a long life of the equipment.
- Huger grade spring loaded safety valve of brass., duly chrome plated.
- Water Indication Gauge with stainless steel enclosure
- High accuracy and reliable pressure gauge.
- Lid opening mechanism: Foot operated (Paddle) lift

Standard Models (Inner Dimensions)

Diameter (mm)
400 mm

Volume (Liters)
78 ltrs

Note: The above mentioned sizes are of our standard vertical autoclave economy series. However we are fully capable to cater to the demand of any customized size for any special application.

(28) COOKING EQUIPMENTS

(29) BOTTLE SEALER.

(30) HAEMOCYTIMETER.

(31) HYGENE FERMENTOR – Insitu Glass System

Modular system – User friendly, flexible, reliable & easy maintenance

**FIRST TIME INDIA-GLASS INSITU STERILIZATION.COMPLETE
VISUALISATION**

REACTOR ASSEMBLY

Culture Vessel

3.8lit total volume

3lit Maximum working volume

1.25lit minimum working volume

Cylindrical Borosilicate Glass vessel

HXD : 250X150mm

Mounting Stand with Base Plate

Head Plate Assembly

Top Plate dxt : 200x12mm

30mm Port-1, 18mm Port-9

Bottom Plate dxt: 200x12mm

18mm Port-1, 10mm-5

Material SS316L

Micro polished

12-Head plate fixing screws

Mixing Assembly

Stirrer Assembly with Shaft

Contamination free with Lipseals & Viton V-rings

2 smooth bearings

2 Height Adjustable Ruston Impeller with 6 blades

Baffle assembly

Material SS 316L

Aeration

Air Sparger -L type

Air outlet with Glass wool cartridge & 0.2 μ filter

SSampling

6mm Dia sample tube

Drain pipe with valve

Addition

Acid , Base & Antifoam ports

Innoculum port with septum

Heat Exchanger

Heating finger

Heat Exchanger -U-tube for cold water circulation

HOLDERS

Ph & DO sensor Holder

Foam sensor Holder

(32) AUTO PACKER AND LVELER.

(33) ROTARY MIXER.

