



# BIDHAN CHANDRA KRISHI VISWAVIDYALAYA

COLLEGE OF AGRICULTURE, SUSUNIA  
CHHATNA, BANKURA, WEST BENGAL.

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**Tender ID: 2023\_BCKV\_484842\_1** **E-Tender**

The Principal Investigator project entitle "Development of Soil, Plant and Water Testing Laboratory for Sustaining Soil Health and Agricultural Productivity in the Red & Laterite Zone of West Bengal" **College of Agriculture, Susunia, Chhatna, Bankura(Extended campus of BCKV)**are invited online quotations from the bona fide suppliers/ vendors for supplying the different Instruments as per pacifications stated below within **fifteen (15)days of publication**. Please mention terms & condition clearly against each item, if any, for supplying the Instruments.

i) Price: The price of instruments including the imported ones should be quoted in each unit (including taxes and duties etc). However,quoted rates must be for destination including packing, insurance and delivery charges up to **College of Agriculture, Susunia, Chhatna, Bankura(Extended campus of BCKV)**West Bengal with satisfactory of good condition.

ii) EMD: Vendors are required to pay the Demand draft amounting Rs. 10000/-(Rupees ten thousand) only (**xerox copy**) as specified along with their quotations. Without EMD quotations will not be considered for technical comparison. Demand Draft must be in favour of "**Bidhan Chandra Krishi Viswavidyalaya**" payable at Kalyani (IFSC: SBIN0001082). Supporting document regarding exemption of demand draft must be submitted.


iii) Supporting Documents:

- Bid papers should accompany authorization certificate from original manufacturer, trade license, GST registration etc.
- Photocopy (Self attested) of the original supporting document in favour of the specification – claim for each item must have to be submitted separately.
- User list along with certificate from reputed users also need to be submitted.

Price bid of the vendors will be compared only if technical specificity as appended against each item is fulfilled. The Viswavidyalaya reserves the right to accept or reject any tender without showing reason.

**N.B : Please read the carefully terms and conditions of items.**

Chairman, CTC, BCKV

  
Principal Investigator  
"Development of a soil, plant and  
water testing laboratory....Red and  
laterite zone of West Bengal"-RKVY  
(RAFTAAR), COA, Susunia, BCKV  
Bankura, West Bengal

*for upload in tender  
in BCKV, Website  
01/03/23*

Sl. No.	Name of Instruments	Specification
1	<b>Environmental Shaker</b>	Outer ms powder coated , inner ss304 , vetical model , 10x250ml , 3 no ss ware mesh tray ,shaking speed 40-370rpm,vfd controlled (with outpully)temp-4-60 degc , humidity-45-95% , touch screen hmi +iot+ plc+rfid lock based (temp+humidity+rpmgraph,data analysis+history-3yrs+rs 485 interface for data print, software) all should be in one screen& controlled. Product should be iso9001-2015,ce certified
2	<b>Horizontal Autoclave</b>	Redial locking double walled outer ss304 , inner ss 304, capacity-52 ltr,with boiler, automatic(programmable sterilization timmer high temp safety alarm, automatic cycle abortion at high temp limit, computed saturated stem pressure indication, independents air exhaust and sterilization set points with rs485 interface with 21cfr software for pc recording. Product should be iso9001-2015,ce certified
3	<b>Hot Plate</b>	Size 420 x 320 x 130 mm Ht. Weight 9 kg, Voltage 230v (50Hz),Temperature 250°C maximum Uniformity +/- 2°C.Temperature rise 6°C per minute
4	<b>Laminar Air flow chamber</b>	design so as to meet the requirement of us federal staandard209b, class 100, ulpa filter 99.99%, moc-outer ss304, inner table -ss304(polish), uv light , prefilter,digitalmagnehilic, size-2x2x2 ft; Product should be iso9001-2015,ce certified
5	<b>Mechanical Soil Auger</b>	<p>Sample ring kit, standard set to a depth of 2 m For soil sample rings Ø 60 mm. Soil sample ring kits are used for a variety of tests, including bulk density determination of soil. Soilsamplerkits</p> <p>The various sets are different from each otherbecause of the ring holder applied, the diameter ofthe rings connection, the selected and the samplingmethod. The sample sets with the postfix SA are applied tofill the soil sample rings in soft soils above thegroundwaterlevel.</p> <p>The samples can be taken on the surface, in boreholes or in profile pits. The open ring holder in thisset is fitted with a bayonet connection and is drivenintothesoilmanually.</p> <p>The set, among other items, contains: an open ringholder,anEdelman-andaRiversideauger,ahandle and extension rods, an aluminium casewithsoilsamplerings,variousaccessoriesandacarryingbag. ThesamplesetwiththepostfixSAcanbeobtainedforsailsampleringswithadiameterof 53and60mm.Themostcommonlyapplied(standard)diameteris53mm.</p> <p>Thesearethensusedfor,forexample:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Themoisturecontentatvariousmoisturetensions,fromwhichapF-curvecanbemade.</li> <li><input type="checkbox"/> Thewaterpermeability.</li> <li><input type="checkbox"/> Theairpermeability.</li> <li><input type="checkbox"/> Theweightbyvolume.</li> <li><input type="checkbox"/> Thedensity.</li> <li><input type="checkbox"/> Thesoil-water-airrelationshipatfieldcapacity.</li> <li><input type="checkbox"/> Theporedistribution.</li> <li><input type="checkbox"/> Theoxygendiffusion.</li> </ul> <p>Soilsampleringsaretransportedinspecialaluminiumcases,strongandresistantagainsthumidityandheat.</p> <p>Core cutter method according to DutchRAW standard 2000,test 4.4</p> <p>The set with the equipment for the core cuttermethod is used for other applications as the soilsamplerkitsdescribedbefore.Thesetisespeciallyusedforworksofcivilengineeringconstruction. Thecorecuttermethodisusedforthedeterminationof the density and the soil moisture content ofembankment- or foundation material accoring totheDutchRAW-standard2000.</p> <p>With a drop weight and a guide cylinder a specialstainlesssteelsampling,withadiameterof 95.7x102mmandaheightof81.5mm,ishammeredintothesoilsurface.</p> <p>The sampled material is transported to the labora-tory, where after weighing and drying, the densityandsoilmoisturecontentisdetermined.</p>
6	<b>Microwave digestion system</b>	<p>InternalVolume :67L. ofvessel : 6</p> <p><b>MicrowaveOutput : 1800W, Temperature range: 100~250°C</b></p> <p>Operatingpressure : 40 bar. Operatingpressure : PTFE-TFM,FluoroPolymer</p> <p>BatchProcessPerTime :min.1pcs-max.14pcs. MicrowaveFrequency : 2450MHZ</p> <p>Display : 7inchVGAcolortouchscreen</p> <p>EnvironmentalCondition : Temperature -15~35°C , Humidity - &lt;85%</p>

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		<p><b>Insulationclass:</b>  DigestionTankMaterial:TFM, PEEK, POM  Minimumfillingvolume :0.5ml. Minimumcapacityofvessel : 30ml  Temperaturemeasurement :PT100. Max.Pressure : 1000psi(7MPA)  Max.Temperature :250°C. Powersupply :AC220V/50HZ,singl. e-phase10A  NewIntelli-Systemdesignedforvirtuallyeffortlessoperation  LargeCavitytodigestmaximumnumberofsamplatatime  Large7-inchscreenwithintegratedgraphicalUleasestheprocedurefromstarttofinish  Efficientandprecisepowerdelivery foroptimumresults  SystemprovidesPre-SetModesfor theuser'sease  FullMetallicConstructionforstructuralstrength&amp;rigidity  ConversionofconventionalconditionstoMicrowavedigestionparametersisprovidedbythesystem --- Safety/securityandovershootwarningsfortheuser  IntelligentInternalSensorscut-offsystemfunctioningforuser'ssafety  PiezoelectricpressuresensorforaccuratemonitoringofPressureinsidethevesselduringthedigestion&amp;helpsinacompletedigestionprocess.  Allvitalinformationsuchasreal-timetemperature, Pressure,Digestion graphsaredisplayed.  ---- Integratedstep-by-stepguidancefordigestion  Optimizedpositionofmagnetronforlow-trajectoryMicrowaveintroduction  DynamicadjustmentofMicrowavepowerbasedondigestionavoidst temperatureovershoots. -  --Non-pulseandcontinuousheatingcontrollablein 1 wattincrements  Temperaturesensorsprovideforastabletemperatureholdtime  MultiLayerchemicalresistancecoatinginsidethecavityimprovestheservicelifeand safetyofsystem  IntegratedPlatinum(Pt)resistance  temperaturesensorforaccuratemeasurementofTemperatureinsidethevessel  OutervesselofourdigestionsystemarememadeofUltraStrengthComposite Fiberisinvincible inanti-explosion,corrosionresistant,hightemperatureandpressureresistant  The machine owns self-test function. Automatic judge fault states to prevent accidents(such as abnormal sound check,abnormal temperature check and equipment running check etc.) Also it has door state monitoring function, the machinecannot startuntilthedoorclosedcorrectly  Inner vessel are made up of TFM which with stand High Temperature &amp; Acid Resistant  Every Digestion vessel is placedhorizontally in the vessel frame, so the vessel frame has enough strength for balancing vertical. expansive forces whentheinternalpressurerisescontinuously  High power anti-corrosion axial fan which owns high efficiency cooling, Only 20 minutes to decreasing temperature of200°Cto70°C  With IOT all data should be on mobile/laptop through wifi</p>
7	<b>Precision drier</b>	Precision dryer :outer ms powder coated , inner polish ss304 ,temp range-ambient to 250deg c +/-1 degc,ss wire mesh tray 3 pc, blower , size-24x36x36, touch screen hmi + plc+rfid lock based temp. Controlled (temp graph,data analysis+history-3yrs+rs 485 interface for data print, software
8	<b>Refrigerator-temperature control</b>	Touch screen hmi + plc+rfid lock based temp. controlled ,outer should be ss 304 polish 1.6mm thick , inner 304 polish, temp range -4 degc to 40 degc , (temp graph,data analysis+history-3yrs+rs 485 interface for data print, software), insulation-puf internal capacity- 160ltr. Product should be iso9001-2015,ce certified
9	<b>Top loading balance</b>	<p><b>Capacity:</b>220g to 6200g (depending on model)  <b>Minimum Display:</b>0.001g to 1g (depending on model)  <b>Linearity:</b>0.002g to 1g (depending on model)  <b>Calibration Type:</b>Manual</p>
10	<b>Vertical</b>	Outer SS, Inner SS(thick) , Capacity-40 Ltr , Automatic(Programmable Sterilization

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	<b>Autoclave</b>	timer High temp safety alarm, automatic cycle abortion at high temp limit, computed saturated steam pressure indication, independent air exhaust and sterilization set points with RS485 interface. Pressure-5-20psi . Product should be iso9001-2015,ce certified	
<b>11</b>	<b>Digital Room Thermometer</b>	Measuring Parameters	Relative Humidity and Temperature
		Temperature	0 to +50 °C ±0.5 °C (at +25 °C) 0.1 °C
		Humidity	10 to 95%RH ±3 %RH 0.1 %RH
		Display	LCD Display with size 2 lines
		Operating Temperature	0 °C to +50 °C
		Storage Temperature	-40 to +70 °C
		Measuring Rate	18 Seconds
<b>12</b>	<b>GPS Machine</b>	Standard Survey and Mapping type GPS	

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