भाकृअनुप - भारतीय कदन्न अनुसंधान संस्थान
ICAR – INDIAN INSTITUTE OF MILLETS RESEARCH
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F. No. 1-**874/17-18/ST** Dated: 04.01.2018

NOTICE INVITING TENDER THROUGH E-PROCUREMENT

Online Bids are invited from the interested bidders under two bid system for procurement of "Equipment " at Indian Institute of Millets Research, (IIMR), Rajendranagar; Hyderabad-500030. Manual bids shall not be entertained at all.
Tender documents may be downloaded from e-Procurement website of CPPP https://eprocure.gov.in/eprocure/app as per the schedule as given in CRITICAL DATE SHEET as under:

CRITICAL DATE SHEET

Tender No.	F.NO. 1-874/17-18/ST
Date and Time for Issue/Publishing	04.01.2018 at 3.00 PM
Document Download/Sale Start Date and Time	05.01.2018 at 9.15 AM
Bid Submission Start Date and Time	05.01.2018 at 09.15 AM
Bid Submission End Date and Time	25.01.2018 at 14.00 PM
Date and Time for Opening of Bids	27.01.2018 at 11.00 AM
Address for Communication	Director, Indian Institute of Millets Research, (IIMR), Rajendranagar; Hyderabad-500030,

List of the Equipments

Sl. No	File Num	Equipment Name
01	1-868/17-18/ST	Leaf Area Meter
02	1-869/17-18/ST	Chlorophyll Fluorescence Meter.
03	1-874/17-18/ST	96-Well Thermal Cycler with UPS
04	1-875/17-18/ST	Grinding Mill system.

Sr. Administrative Officer.

1. SPECIFICATIONS FOR LEAF AREA METER

- Leaf area meter should be able to measure the leaf area of non-destructive sample in the field as well as of plucked leaves in the laboratory.
- Portable, should measure non -destructive leaf area directly and should not involve steps of recording the image of each leaf and then make analyse of the leaf measurements
- Leaf area of plucked samples (destructive) in the laboratory using Conveyer Belt Accessory with transparent and rugged clear vinyl belts, moving with calibrated constant speed.
- Resolution leaf area should be 1mm^2 or less with a accuracy within +/-2%;
- LCD display with a capacity of displaying leaf area >1000000 cm^2, leaf length>100000 cm leaf Width: >10 cm
- Should be able to store data >10000 leaf samples measurements
- Internal memory 2MB or more
- Battery- Internal, rechargeable and should able to work continuously for 10 or more hours
- Data transfer- RS-232/ USB Serial Cable, Appropriate Software for Computer
- Original Brochure or photocopy of Original Brochure

2. TECHNICAL SPECIFICATIONS FOR CHLOROPHYLL FLOURESENCE METER

- The instrument should portable, should measure pulse modulated fluorescence emission under ambient light conditions in the field.
- The chlorophyll fluorescence meter should be able to measure, Dark adapted parameters- Fo, Fm, Fv, & Fv/Fm; Light Adapted parameters-Fs, Fm', Fo', Fv', Fv'/Fm', ϕpsII & ETR and Quenching Coefficients- qP, & NPQ.
- Light Sources: All of the light sources required for modulated measurement of common chlorophyll fluorescence parameters should be available within the instrument
- It should be light weight between 2.0-2.5 kg including battery
- Power supply: Field swappable battery system, 2.0 Ahr lead acid batteries, at least two extra batteries
- Data memory: Flash memory 8 MB or more, providing memory for up to 30,000 data points or more.
- Display: LCD display, Touch screen-operated
- Leaf clips: Leaf-clip with integral PAR /temperature sensor, 25 dark adaptation clips with fibre-optic adapter
- Data acquisition & data analysis software
- Original Brochure or photocopy of Original Brochure

3. TECHNICAL SPECIFICATIONS FOR **96-WELL THERMAL CYCLER WITH UPS**

Equipment	Specifications
Gradient Thermal Cycler (96-well) with Accessories	• Thermal Block: Alloy / Aluminum blocks, Peltier heating technology • Sample Capacity: 1 × 96-well plate, 96 × 0.2 ml tubes • Max Block Ramp Rate: 3 - 4°C/sec • Max Sample Ramp Rate: 2.5 - 3.5°C/sec • Temperature Accuracy: ≤0.25°C • Temperature Range: 4.0°C to 99.0°C • Temperature Uniformity: < ±0.4°C • PCR Volume Range: 10-80 µl • Gradient PCR: capable of testing at least 6 different temperatures simultaneously • Program Methods: Pre-programmed standard methods (>500 programs) and customizing new programs • Display interface: Graphic User Interface with touch screen • Warranty: Two years • Auto Restart facility when resuming after power failure • UPS (minimum 2 KVA) offering power back-up for a period of 1 hour

4. TECHNICAL SPECIFICATIONS FOR G**RINDING MILL SYSTEM:**

Grinding mill for dry and green fodder of Sorghum, Pearl millet, other millets and plant material:

- Power: electric motor of minimum 1.5 kW drive, 230 V and 50 Hz along with MCB, control switch box and power cord of appropriate rating
- Should have a vertical feeding funnel with feed rate controller
- The mill should accept input material up to 50 mm X 70 mm
- The ground material should exit from bottom of the mill through the screen
- The grinding head should not retain the material after milling
- Should be able to grind soft, medium-hard fibrous materials
- Suitable collection receptacle should be provided for collecting ground material along with one spare filter hose and receptacle
- Strainer screens with pore size of 0.8-1.0 mm, 2.0-4.0 mm, 5.0-8.0 mm, 10.0-12.0 mm should be provided

- A spare set of grinding bits should also be provided with the mill
- Should be safe to operate with motor brake, central locking device and electronic safety check
- Should have push fit rotors for easy cleaning of the chamber and to retrieve the sample completely
- Should have base frame for mounting the mill and collection system
- Warranty should be provided for a minimum of 1 year from all manufacturing defects
- Complete installation along with electrical connections and demonstration with customer samples should be provided at our laboratory
- Technical brochure along with specifications must be provided for evaluation and should match with the specifications detailed in the manufacturer website