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KERALA AGRICULTURAL UNIVERSITY
DEPARTMENT OF OLERICULTURE
COLLEGE OF HORTICULTURE
Vellanikkara, KAU P.O. 680656, Thrissur District

No.Oleri 127/2014

Dated 14.02.2017

TENDER NOTICE

Sealed tenders are invited for the supply of the following item at Department of Olericulture, Kerala Agricultural University, Vellanikkara, Thrissur as per the specifications and terms & conditions detailed below.

Sl. No.	Item	Quantity (No.)
1.	<u>Mastercycler Gradient type</u> (Detailed specification attached)	1

Cost of Tender Forms

Particulars	Original (Rs.)	Duplicate (Rs.)
Supplies costing above Rs.50,000/- and upto Rs.10 lakhs.	0.2% of the quoted amount rounded to the nearest multiple of 100, subject to a minimum of Rs.400 and maximum of Rs.1500+VAT as applicable	50% of the cost of the original upper rounded to the nearest multiple of Rs.100+VAT as applicable

Last Date of Receipt of Tender : 28.02.2017; 3:00 pm.

Date and Time of opening of Tender : 28.02.2017; 3:30 pm.

Sd/-

PROFESSOR & HEAD

Specifications of Mastercycler Gradient type

1. Universal Block should allow usage of 96 x 0.2ml PCR Tube, 71 x 0.5 ml PCR Tube, One 8x12 PCR plate without any adapter or accessories
2. System should be open to accommodate any brand PCR consumables of any of the above mentioned consumable formats.
3. Capability to test 12 different temperatures simultaneously across gradient range of 1-20°C. Ramp rates should be identical both during gradient and normal PCR run.
4. SteadySlope Gradient Technology ensures ramp rates - identical in both gradient and normal operation
5. Heating and cooling should be via Peltier technology.
6. Possess Triple Circuit Technology, ensuring precise temperature control.
7. Temperature control range should be from 4 °C to 99°C
8. User preferable modes like, "Fast, Standard and Safe" on Temperature Control.
9. Lid Temperature should range from 37°C – 110 °C
10. Block Temperature Accuracy $\pm 0.2^{\circ}\text{C}$
11. Block Homogeneity should be 20° C to 72° C: $\pm 0.3^{\circ}\text{C}$, 95° C: $\pm 0.4^{\circ}\text{C}$
12. Temperature control speed 5°C/s. (3 °C/s (heating) and 2 °C/s (cooling))
13. Lid descent and closing pressure should accommodate consumables of user option without any adapter or accessories (- Flexlid technology with Thermal sample Protection)
14. Larger display for intuitive graphic programming.
15. For enhanced security system should have administrator and user login with or without PIN. Instrument should have software based booking schedule allowing users to reserve the instrument in advance.
16. Preprogrammed template for easy selection of PCR (temperature) protocols viz., 2 step PCR, 3 Step PCR, Gradient PCR, Long Range PCR, Low volume PCR, RT, RT-PCR, Incubation, Cycle sequencing, Touch down PCR, Hot Start PCR, Hot Start PCR manual, Large volume PCR, Nested cycles, reduced ramping, simulate Mastercycler.
17. Allows Time or Temperature increment with cycles in PCR program.
18. Allows ramp rate adjustments from 0.1° C to 3.0° C to meet critical amplification conditions.
19. Allows a maximum of 20 steps and 99 cycles for PCR program customization.
20. Auto Restart facility to resume run with user defined time interval when power fails.
21. Instrument should indicate the status of the step, cycle and remaining runtime during the run
22. Runtime display should show the remaining time in larger font for better visibility.
23. System memory should be more than 100 User folders and more than 700 programs
24. Two USB ports for Protocol transfer, Self-test, USB, printer / mouse.
25. Log book function for error messages and new calibration.
26. Possess E-mail Notification.
27. Power save Standby function.
28. Cooling vents at bottom and rear allowing to place other instruments in limited bench space.
29. Have option to connect up to TWO modules with the main system for ultimate throughput.
30. Optional Self-test dongle to check functionality of all 6 peltier elements.
31. Interface: Ethernet, CAN in, CAN out
32. Calibration according to NIST (USA), DKD/PTB (Germany) UKAS/NPL (UK)

Terms and conditions

1. Tender should be submitted in the prescribed forms which can be downloaded from the website : www.kau.in/tenders
2. Sealed cover containing the tender should be superscribed “**Tender for the supply of Mastercycler Gradient type**” and should be addressed to **The Professor and Head, Department of Olericulture, College of Horticulture, Kerala Agricultural University, KAU PO, Vellanikkara, Thrissur District 680656, Kerala State**
3. Each tender should be accompanied by **Tender fee and Earnest Money Deposit (EMD) of 1%** of the total rupee equivalent cost of the quoted items (subject to minimum of Rs.100/-) by way of **two crossed Demand Drafts separately** for tender fee and EMD drawn in favour of **The Professor and Head, Department of Olericulture, College of Horticulture, Kerala Agricultural University, KAU PO, Vellanikkara, Thrissur District 680656** payable at State Bank of Travancore, KAU campus Branch. Late and incomplete tenders and tender without EMD and agreement will not be accepted.
4. The tender should be accompanied by an agreement in Kerala stamp Paper worth Rs.200/- (Rupees Two hundred only) and format can be downloaded from the above website. Withdrawal of tender should after its acceptance or failure to supply the equipment or not according to the specifications will entail cancellation of the tender.
5. The successful tender should execute an agreement in Kerala Stamp Paper worth Rs.200/- (Rupees Two hundred only) and furnish a **Security deposit of 5%** of the cost of the equipment quoted in the form of term deposit/bank guarantee/demand draft drawn in favour of **The Professor and Head, Department of Olericulture, College of Horticulture, Kerala Agricultural University, KAU PO, Vellanikkara, Thrissur District 680656** payable at the State Bank of Travancore, KAU campus Branch, when directed from this office. The format for the agreement can be downloaded from the above website. Firms who are exempted from the payment of EMD should furnish copy of the currently valid certificates from store purchase departments, Govt. of Kerala.
6. The cost of the item, tax and other charges should be separately stated.
7. The exact specifications, details of make, model, name of manufacturer, warranty details etc. of the items must be clearly specified. Copies of detailed technical literature and illustrated brochures of the units quoted are to be included along with the offer. Details of maintenance service contract offered after expiry of normal warranty, spare-parts availability and aftersale- service facilities available should be indicated. Offers without these are liable to be rejected.
8. In the case of electrically operated equipments the circuit diagram will have to be supplied.
9. The decision of the undersigned in finalizing the tenders will be final and binding.

10. Prices quoted should be valid up to 31st March 2017 or beyond.
11. If any Bandh/Harthal/Strike/any unexpected holidays occurs on the date of opening of tender, the tender will be opened at the same time on the next working day.
12. On acceptance, the supply order will placed and invoice should be addressed to **The Professor and Head, Department of Olericulture, College of Horticulture, Kerala Agricultural University, KAU PO, Vellanikkara, Thrissur District 680656**. The payment will be effected only after the satisfactory supply, installation of the item at Department of Olericulture, College of Horticulture, Kerala Agricultural University, Vellanikkara, Thrissur in working condition and necessary demonstration by authorized service personnel.
13. The successful tenderer should supply the items to **The Professor and Head, Department of Olericulture, College of Horticulture, Kerala Agricultural University, KAU PO, Vellanikkara, Thrissur District 680656** within two weeks from the date of receipt of the supply order. The Professor and Head, Department of Olericulture, College of Horticulture, Kerala Agricultural University, KAU PO, Vellanikkara, reserves the right to remove the defaulted name from the list of suppliers permanently or for a specific period.
14. Tenders insisting payment in advance either full or part releasing the documents through bank are liable for rejection.
15. List of users giving the exact address of the contact persons and the model number of the units available at these locations have to be provided. Evidence of exclusive/authorized distributorship from foreign principals should be provided along with the offers for overseas product.
16. The Professor and Head, Department of Olericulture, College of Horticulture, Kerala Agricultural University, KAU PO, Vellanikkara, Thrissur has the right to accept or reject any or all of the offers without assigning any reason.
17. All the rules and regulations applicable to Government tenders will be applicable to this Tender also.

Sd/-
Professor & Head