

**Centre for Agricultural Research and Innovation (CARI)**  
**Department of Agriculture**  
**Guru Nanak Dev University, Amritsar**

Ref. 858 /CARI

Dated 08/01/2026

**NOTICE, INVITING QUOTATION**

Subject: Sealed quotations for the purchase of photosynthesis meter (Photosynthetically Active Radiation (PAR) Measurement System): -

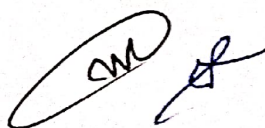
Sr.No.	Particulars & Specifications		QTY.
	Technical Specifications for Purchase of <u>photosynthesis meter</u> (Photosynthetically Active Radiation (PAR) Measurement System)		1 NO
Sl. No.	Parameter	Specification Required	
1	Instrument Type	Photosynthetically Active Radiation (PAR) / PPFD Measurement System	
2	Sensor Type	Line Quantum Sensor	
3	Measurement Principle	Quantum sensor for PPFD ( $\mu\text{mol m}^{-2} \text{s}^{-1}$ )	
4	Spectral Range	370 nm to 650 nm	
5	Measurement Area	Minimum 70 cm line sensor	
6	Number of Sensors	At least 10 quantum sensors evenly spaced ( $\approx 7$ cm spacing)	
7	Measurement Range	Up to at least $2500 \mu\text{mol m}^{-2} \text{s}^{-1}$	
8	Non-linearity	Less than 1% up to full measurement range	
9	Measurement Repeatability	$\leq 0.5\%$	
10	Response Time	Less than 1 millisecond	
11	Field of View	$180^\circ$	
12	Display	LCD digital display	
13	Data Output	Real-time PPFD reading	

14	Portability	Field portable, hand-held meter
15	Sensor Configuration	Separate sensor bar connected to handheld display via cable
16	Power Supply	Battery operated
17	Operating Temperature	-10°C to +60°C
18	Environmental Suitability	Outdoor field use, greenhouse and growth chamber compatible
19	Typical Applications	Incoming, reflected and transmitted PPFD measurements over plant canopies
20	Temperature Measurement (if integrated)	-20°C to +60°C
21	Temperature Accuracy	±0.5°C (0°C to 45°C)
22	Relative Humidity Range (if integrated)	5% to 95% RH
23	Relative Humidity Accuracy	±2.5% RH
24	Calibration	Factory calibrated with calibration certificate
25	Standards Compliance	Traceable to international standards
26	Accessories	Sensor bar, handheld meter, connecting cable, batteries, carry case
27	Documentation	User manual, calibration certificate
28	Warranty	Minimum 1 year comprehensive warranty
29	Installation & Demonstration	On-site demonstration/training to be provided



### Terms & Conditions:

1. Quotations should be address to **Coordinator, CARI, Department of Agriculture (Near U I T building), Guru Nanak Dev University, Amritsar- 143005**, so as to reach this office **27 January, 2026 (Tuesday)** at 4.30 p.m. under registered speed post duly super-scribed on the envelope "Quotation for photosynthesis meter (Photosynthetically Active Radiation (PAR) Measurement System)"
2. Rates should be inclusive of all taxes, duties, installation and levies in Indian Rupees F.O.R. G.N.D. University, Amritsar, otherwise quoted price will be treated as all inclusive. Rates should be written both in words and figures.
3. The institutional discount should be mentioned clearly.
4. The Quotations shall be written legibly and free from erasing and over-writing. Corrections, if any, should be duly attested by authorized signatory.
5. Bids received within the due date only will be entertained.
6. The quotation should be valid for a period of 60 days for acceptance from the date of opening of the bids.
7. Bidders cannot withdraw their offer once it is submitted.
8. The vender may quote the items, which meets the requirements and specification along with the layout, make, model, material specifications, dimensions, brochures, photo catalogues of items along the quotation.
9. GNDU Committee also reserves the right to accept/reject the offers or cancel the whole proceedings without assigning any reason whatsoever. In case of any dispute, the matter will be referred to Vice-Chancellor, Guru Nanak Dev University, Amritsar
10. Decision will be binding and final. Bidders are not entitled to claim any damage or compensation in case of such cancellation.
11. Jurisdiction: The disputes, legal matters, court matters, if any shall be subject to Amritsar Jurisdiction only.
12. The delivery of photosynthesis meter (Photosynthetically Active Radiation (PAR) Measurement System) in the Department of Agriculture in G.N.D. University shall be made within 20 working days of the issue of supply order, failing which the order will be withdrawn.
13. All materials shall be new, unused, and of standard make.
14. The bill payment process will be started as per institutional norms after the purchase of photosynthesis meter (Photosynthetically Active Radiation (PAR) Measurement System)



Co-ordinator  
Centre for Agricultural Research  
and Innovation (CARI)