

DIVISION OF GENETICS

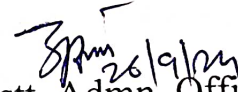
भारतीय कृषि अनुसंधान परिषद—भारतीय कृषि अनुसंधान संस्थान

No. Gen/2022-2023/28

Dated: 26th Sep. 2024

CORRIGENDUM

With reference to the Gem Bid No. GEM/2024/B/5394860 dated 24/09/2024. The specification are made which may please be accepted in place of earlier tender document.


Asstt. Admn. Officer

Specifications for walk-in plant growth chambers

Sl.	Category	Specification details
1.	Type	Walk-in Type Plant Growth Chamber
2.	Total Growth Area	≥ 5.7 m ² or more
3.	Maximum Growth Height	1700mm or more with adjustable height
4.	Door	Light tight solid doors with gasket or better
5.	Other Door Facilities	Door with interior safety latch and observation window with cover lid
6.	Outer material	Galvanized steel with plastic powder coated (long lasting) finish or better
7.	Interior material	Rust Free durable steel with epoxy paint (SS304 / SS316 or better), insulated floor for uniform humidity control or better
8.	Insulation	Panels with 80 mm thick, modular, EN 14509 high density injected polyurethane foam (PUF) or better.
9.	Temperature range	10°C to 44°C lights ON; 4°C to 44°C lights OFF or better
10.	Temp. Uniformity and accuracy	+/- 1 °C in space (the temperature distribution map is to be provided)
11.	Humidity range	40% to 80% RH or better when lights on. Humidification with ultrasonic/centrifugal/air-microspray humidifier. Should have configurable humidity safety alarms.
12.	Air circulation	Conditioned air to be directed across the plant growth modules without significantly impacting relative humidity. User specific control of air speed from the controller
13.	Total PAR light intensity required (PPFD) *1	950 μmol/m ² s or better @ 1500 mm; Intensity controllable 10-100% at the controller
14.	Type of & quantity of light source	Balanced broad-spectrum LED Light (covering all spectrum of PAR optimized white).
15.	Refrigeration system*2	Self-contained air-cooled condensing unit with hot gas bypass system or better
16.	Refrigerant	CFC – Free
17.	Controller Type	Touch screen display, scheduling for light intensity, photoperiod, diurnal settings, temperature, humidity etc. Audio-visual alarm for high and low value display set; Preferred: Controller to have maintenance service function to identify the fault in the machine
18.	Quality Certification	ISO9001:2015 certificate and CE marked
19.	Desirable: *1Type of light Fixtures (Module/panel)	The light source used should be patented/trademark technology of the plant growth chamber manufacture like scibrite/gBrite/8IIA etc. or from a global LED manufacture firm specialized in making plant growthand research lights like Osram / Valoya / Heliospectra / Fluence etc. (exact make, model & spectra to be provided with full details and description in the quote). LED modules with minimum life of upto 65000 hrs. LED modules should be configured for extreme uniform light throughout the growth area.
20.	Desirable: *2Refrigeration system	Solenoid valves are preferred for quiet and long-life operation
21.	Desirable: Humidity accuracy	+/- 2%
22.	Warranty	3 years comprehensive warranty after successful installation. For 1 week down-time, warranty will be extended by 1 month and for 1 month down-time, warranty will be extended by 1 year
23.	Accessories	All the accessories including water purifying system, UPS for controller, computer with required OEM software should be included
24.	Installations	More than 10 installations of near-similar chamber in the institutes of repute with documentary proof must be provided
25.	Manual and training	A detailed user manual to be provided along with equipment, and training should be conducted as per requirement of user
26.	Other requirements	ICAR-IARI reserves the right to accept or discard if there are any deviations in the specifications or lack of authenticity and validity of the documents presented in support of claim
27.		Authorization certificate from OEM is necessary if parent company is not quoting directly
28.		If required, bidder should arrange for demonstration of the equipment during technical evaluation

To the best of my knowledge the specifications are generic in nature.

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