

## TENDER

Quotations for the following instruments are invited from licensed suppliers/manufacturers under the ICAR funded Project (NFBAFARA/GB-2019/2011-12) entitled “Genetic Manipulation Based Enhancement of microbial phosphate and nitrate remediation for waste water treatment”:

### 1. PCR System and accessories

A. Thermal cycler (96 well format, Ramp time Plus / minus 5 seconds, temperature range: 4 – 99.9 degree centigrade, reaction volume of 10 – 100  $\mu$ L, touch screen for easy navigation and operation. Instrument must be provided with two years of comprehensive warranty).

B. UV transparent agarose midi horizontal gel set with combs and accessories.

C. Power supply, minimum 100 mA / maximum 300 V, digital display, variable constant current and voltage with timer, Auto Cut- Off Function.

### 2. Green House with power backup and accessories

**For Green House Manufacturers preference will be given to the ISO certified companies with experience in manufacturing of green houses at national level**

#### A. Green House

Containment Facility (Transgenic Greenhouse) as per Govt of India (Department of Biotechnology) norms, Green House design in compliance for GM Crops. Antivirus™ screening and melon aphids, and whiteflies. Should have the capacity to withstand heavy storms and gale. Size 243cubic meter (80sqmtr), dome shaped Structure mainly of GI iron pipe 47x47mm GI sq pipe  $\pm$  1mm.with suitable size entrance room including all required civil and electrical work. Door size should be 6 ‘3”x 3ft with basic locking system. Doors made up of aluminum. Roof screen -70:30 color green/black rollable and provision for fixing the net. Exhaust fan should be available in the entry. Air curtain at the entrance of both chambers. Temperature control between 22 – 30°C with suitable number of ACs and heating systems to control temperature during the hottest days at Kolkata (External temperature ranges between 5-50°C during the year), Humidity control to 90-95% RH with microprocessor controlled fogging systems. Humidity and temperature controller with suitable microprocessor based control panel with Photo periodic Controller. Suitable light arrangement with PAR lights. Clear multiwall 3 layer 6mm thickness UV stabilized polycarbonate sheet to be used for construction of Green House. Concrete floorings with anti slippery tiles and 5nos of G.I. benches size 5 ft x 2.5 ft x 3 ft. Required negative pressure system to be provided as per the specifications of the GOI for physical containment facility, washbasin and water facility to be provided inside the Green House.

Green house should be equipped with one lux meter range 0 to 50K lux to measure the light intensity, one mini plant photosynthetic protein analyzing apparatus, 2ft x 2ft Laminar air flow for culture transfer, a trolley size 24 inch x 16 inch x 24 inch movable to carry cultures inside the greenhouse and castor racks with 4 working shelves with PAR - one no.

B. Power backup system 35KVA with auto on/off system.

Registrar

Important Notes:

1. Last date & time of submission of proposals - 30.12. 2011 15:00 hrs.
2. Opening of the proposals- 2.01. 2012 15:00 hrs.
3. Vendors are asked to submit the authentication for the dealership for the respective companies and the user list along with a)Copy of Trade License b)Pan Card c)Copy of income tax filed in the last financial year (2010-2011) d) Clearance of professional tax
4. Package deal shall also be entertained.
5. Product valuation in terms of quality and esteemed make will also be considered.
6. No proposal will be entertained after last date of submission.
7. Party should have the capability to install the equipment within 30 days of ordering
8. Proposals need to be addressed to **The Registrar, West Bengal State University with attention to: Dr. Krishna Ray**