## Central Research Institute for Dryland Agriculture Hyderabad 500 059

F.No.9-1(9)NICRA-2012ST

Date: 17.07.2012

## Proceedings of the Pre-Bid Meeting for Procurement of FATE and CTGC Facilities held on 17<sup>th</sup> July 2012 at 1100 hrs

As per the scheduled programme, the pre-bid meeting was held on 17-07-2012 at 1100 hrs and the following members attended the meeting:

Dr.G.R.Korwar, Head, DRM, Chairman Dr.M.Maheshwari, Head, DCS Dr.K.L.Sharma, Principal Scientist Dr.S.Desai, Principal Scientist Dr.M.Vanaja, Principal Scientist Dr.I.Srinivas, Senior Scientist Dr.M.Srinivasa Rao, Senior Scientist Mr.Ashish Roy, Chief Administrative Officer Mr.SKC Bose, Senior Finance and Accounts Officer Dr.K.Ravindranath, Head, Instrumentation & REPP, IICT – External Expert Dr.S.S.Rao, Principal Scientist, Dir. of Sorghum Research – External Expert

At the outset, the Chairman welcomed the members of the committee and introduced the outside technical experts to all the members of the committee. In response to the pre-bid meeting, only one firm viz., M/s.Sheel Biotech Ltd., New Delhi represented by Mr.Anupama Raj attended. Dr.K.Ravindranath, Head, IICT and external expert asked the firm representative whether they have gone through the bid document and understood the concept of the project. The firm said that specifications are clear. Whatever minor doubts raised are clarified by the Committee.

Thereafter, the committee had detailed discussions on the subject and took the following decisions:

- 1. As the attendance for the pre-bid meeting was poor and since it is a turn-key project where extensive technical issues are involved, it was decided that all the prospective bidders have to make technical presentation on the project concept and its execution including the detailed specifications of the hardware and software before the actual bids are submitted.
- 2. Therefore it was decided to postpone the bid submission date and first have the oral presentation on technical specifications. This technical presentation will be held on 24<sup>th</sup> July 2012 at 1030 hrs at CRIDA where details on conceptual design of the project, specifications of different components,

process flow diagram, performance guarantee certificate, past experience in implementing the relevant project, are to be explained by the bidders. Any other queries raised by the technical Committee have to be clarified.

- 3. Based on the thorough review of the bid document, the committee made few changes in the bid document to make it more clear to the bidders. These are listed in Annexure I.
- 4. During the technical presentation scheduled on 24<sup>th</sup> July, 2012, any further issues/minor refinements, if required in the bid document will be finalized and the final specifications will be placed in the CRIDA Website on 25<sup>th</sup> July 2012 along with new schedule of submission and opening of bids.

The bidders may also note the following points while submitting the technical bids:

- The bid should include additional two year on- site maintenance cost after the one year free mandatory warranty period from the date of final commissioning for the total system. This cost may be shown separately in the bid document
- The EMD for FATE facility is Rs.7.00 lakhs and CTGC is Rs.2.50 lakhs.

Chairman

## Annexure: I

## Item wise clarifications/refinements in the specifications:

Item	Clarifications in the specifications of FATE facility
No.	· · · · · · · · · · · · · · · · · · ·
1	Provision should be made to adjust the height of FATE rings through hydraulic lifting depending on the crop growth.
2	The heating should be provided through infrared heaters 24 per ring with 5000 watt capacity of I.S make for temperature elevation with weather proof arrangement and thyristor power pack for better control. The entire heating unit should have an appropriate hydraulic lifting arrangement according to the crop capopy height.
3	$CO_2$ tank should meet the I.S. code 2825 (1969). Supply line of PU tubing with 3/4 " diameter to bear the 5 kg/cm <sup>2</sup> pressure should be provided to produce a flow rate of approximately 25 kg/hr with appropriate vaporizer and pressure regulatory system.
4	Temperature control should be done by monitoring at 6 points with an accuracy of $0.1$ <sup>0</sup> C in each ring and the CO <sub>2</sub> should be monitored at 4 points. All the process data of temperature and CO <sub>2</sub> concentration should be controlled through PLC and SCADA. The data should be logged continuously and output should be compatible with M.S. excel.
5	No change
6	No change
7	The weather station data should be interfaced with SCADA and PLC for monitoring CO <sub>2</sub> supply and temperature control
8	The soil moisture and temperature data should be logged in to the Data Management system.
9	No change
10	UPS system with 5 KVA Capacity of APC or equivalent brand.
11	The cost of two years on-site maintenance charges after the one year mandatory warranty period should be quoted separately.
12	No change
13	No change

Item	Clarifications in the specifications CTGC facility
no.	
1	The poly carbonate sheet should be B.I.S. make. The fabrication drawings should be submitted to the CRIDA for approval before initiating fabrication.
2	12 no. temperature sensors controlled by RTD/thyristers appropriately located to control and maintain the temperature gradient of $5\pm0.5^{\circ}$ C with reference to ambient temperature. Each chamber should be provided with 4 blowers and 4 exhausters of suitable capacity to maintain the gradient.
3	CO <sub>2</sub> supply lines with 12 port manifold with 12 cylinders (45 kg capacity)and regulators
4	No change
5	The humidity control should be done by providing 6 humidifiers and dehumidifiers with 12 sensors.
6	The provision for measuring $CO_2$ concentration should be made through 6 sampling points in each chamber and should be interfaced to SCADA and PLC
7	Temperature gradient in each chamber should be provided through 100 W of 100 no. of ceramic infrared heaters with thryrister power packs
8 to 14	No change

ĩ