



भारतानुष केन्द्रीय बारानीकृषि अनुसन्धानसंस्थान

ICAR - Central Research Institute for Dryland Agriculture

संतोषनगरसैदाबादपोस्ट हैदराबाद ५०००९१ Santoshnagar, Saidabad P.O. Hyderabad 500 059

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F. No: 2-1/(86)/NICRA/2018-19/SP

Date:07-01-2019

Tender Enquiry for "Genotyping by Sequencing (GBS) Analysis Services"

On behalf of the Director, ICAR-CRIDA invites **ONLINE** Tenders under Single Bid System for "Genotyping by Sequencing (GBS) Analysis Services".

Sl.No.	Name of the Item and specification	No.of Samples
1	Genotyping by Sequencing (GBS) Analysis Services (Refer column technical specifications)	96

TERMS & CONDITIONS

- Submission:** Only bids received on e-procurement portal will be considered for opening. Bids in any physical form sent through fax/email/courier/post/delivered personally will not be considered.
- Download of Tender Document:** Tender Document with full details can be downloaded from CRIDA Website (<http://www.icar-crida.res.in>) or the Government of India, Central Public Procurement Portal (<http://www.eprocure.gov.in>) and in such cases, participation in the tender will be subject to remittance of the prescribed Bid Security along with the Technical Bids.
- Tender ID:** Shall be notified on the website (<http://www.icar-crida.res.in>)
- Suppliers/service providers who desire to participate in such tenders in future may bring it to the notice of Procuring Entity and may register in CPPP through DSC
- The bidders should have a valid registration of the firm with GOI/any state govt.
- This institute will not be responsible for any delay in enrollment or submission of the offer/uploading the offer on above mentioned e-procurement portal for any reason whatsoever. Hence vendors are advised to register in the e-procurement website <https://eprocure.gov.in> & enroll their Digital Signature Certificate (Class-II or above) and upload their quotations well in advance to avoid last minute problems.
- Bid Security:** Bid Security (**also known as Earnest Money**) is to be deposited by all the bidders except Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or registered with the Central Purchase Organization or the concerned Ministry or Department. The bidders should furnish bid security of **Rs.13,000/- (Rupees Thirteen Thousand only)** along with their bids. The bid security will be accepted in the form of Account Payee Demand Draft, Fixed Deposit Receipt, Banker's cheque or Bank Guarantee from any of the Commercial Banks or payment online in an acceptable form. The bid security is normally to remain valid for a period of forty-five days beyond the final bid validity period. Bid securities of the unsuccessful bidders shall be returned. EMD should reach this office on or before Tender closing date and time
- Delivery Schedule:** Unless otherwise specified, No 'part supply/service' is allowed.
- Payment:** No advance payment is permissible. Payment will be made only after completion of the service" is accepted by the indenter. Our normal payment terms are within 30 (thirty) days on receipt and acceptance of material at our site in good condition.
- Place of Service:** The service is to be done at Central Research Institute of Dry Land Agriculture, Hyderabad, Telangana.
- Attested copies of **Document regarding registration/Certificate of incorporation of the firm** issued by the appropriate government to be enclosed.
- This Institute is exempted from payment of Customs charges Vide Govt.of India, Ministry of Science and Technology, Deptt.of Scientific and Industrial Research, vide

Letter No. **TU/V/RG-CDE (372)/2016, dated 18-10-2016 (Valid upto 31-08-2021).**

13. The service provider company name and the name of the service must be clearly specified. Please quote whether your organization is large scale industry or small scale industry. If you have NSIC/MSME/MSI/DGS&D Certificate, please attach it to the quotation. Mention your registration details.
14. All service providers are subject to inspection and approval before acceptance. Manufacturer/ supplier warranty certificates and manufacturer/Government approved lab test **certificate shall be furnished along with the supply**, wherever applicable.
15. The Director of the institute reserves the right to modify the quantity specified in this enquiry. The prices quoted should be firm till the supplies are completed. Please quote the rates in words and figures. Rates quoted should be inclusive of all transportation, installation and commissioning of the supply and any other charges. Prices quoted for free delivery at destination will be given preference. If there is no indication regarding the FOR, in the quotation, then it will be considered as FOR destinations. Price quoted should be net and valid for a minimum period of **three months** from the date of opening of the quotation.
16. No part supply/service is accepted. Guarantee/Warranty/Expiry period should clearly indicated
17. Payment of GST is primarily the responsibility of the seller and will not be paid unless the percentage value is clearly mentioned in the quotations. If no indication regarding CGST/SGST is recorded in the quotation, the CGST/SGST will be considered as included
18. **Acceptance of tender:** Director, CRIDA reserves the right to accept or reject any of the tenders either in part or in full without assigning any reason thereof.
19. **Specifications:** Full specifications of the item/service quoted should be indicated in the tender along with illustrated pamphlets, drawings etc. wherever available. The supplier has to submit the compliance statement on the technical specifications in the prescribed format enclosed to this schedule.
20. If the deliveries are not maintained and due to that account Procuring Entity is forced to buy the material at your risk and cost from elsewhere, the loss or damage that may be sustained there by will be recovered from the defaulting supplier
21. In case your quotation is accepted and order is placed on you, the supply/service against the order should be made completely within the period stipulated in the order. The Government of India reserves the right to recover any loss sustained due to delayed delivery by way of penalty. Failure to supply the material within the stipulated period shall entitle Procuring Entity for the imposition of penalty without assigning any reasons @ 1/2% (half percent) of the total value of the item covered in order as penalty per day subject to a maximum of 5% (five percent) unless extension is obtained in writing from the office on valid ground before expiry of delivery period.
22. **Dispute clause:** Any dispute relating to the enquiry shall be subject to the jurisdiction of the court at Hyderabad only
23. The tender document should invariably be filled in and duly signed by the authorized signatory by affixing the company/firm seal on every page of tender and the terms and conditions should strictly be followed before submitting the tender.
24. Quotation which does not conform to the above terms and conditions will not be considered. The Director, Central Research Institute for Dry land Agriculture, reserves the right to accept or reject any or all quotations without assigning any reasons thereof.

Yours Sincerely

(Saurabh Meena)
Stores and Purchase Officer

CHECK LIST

Please give page numbers to the tender document and all enclosures and also verify the following documents before submission of the tender in the sequence listed below, to avoid rejection or disqualification of your tender.

PLEASE NOTE THAT ALL RELATED PHOTO COPIES MAY PLEASE BE ENCLOSED WITH THE TENDER DOCUMENT AS A PROOF

*S.No.	*List of the Documents to be enclosed with the Tender	*Page No.	*Enclosed (Yes/No)
1.	Entire tender document with seal and sign of bidder		
2.	Bid Security		
3	Name of the firm, Full address with Post Box No. and Telephone No and mobile number if any:		
4	Tender acceptance letter		
5	Compliance of the Technical Specifications of services and technical literature and scope of the services		
6	Attested copies of Document regarding registration /Certificate of incorporation of the firm issued by the appropriate government to be enclosed.		
7	Certificates of GST of the firm issued by appropriate Government		
8	NSIC/SSI certificates registered with NSIC (if applicable) to be enclosed		
9	Any other document or information as required in the tender document.		
	Total pages of your entire Tender Document including Enclosures	No.of Total Pages : _____	

Certified that the above information is correct and the firm is willing to accept all the terms and conditions of the tender document.

Signature and Seal of the Bidder: _____

Business Address: _____

Tender Acceptance Letter
(To be filled by bidder on firm/Company Letter Head)

To
The Director
Central Research Institute for Dry Land Agriculture

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: _____

Name of Tender/Work: _____

Dear Sir,

1. I/ We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely: _____ as per your advertisement, given in the above mentioned website(s).
2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like annexure(s), schedule(s), etc.,), which will form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/ organizations related to this tender too have also been taken into consideration, while submitting this acceptance letter.
4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.
5. I / We do hereby declare that our firm/company has not been blacklisted /debarred by any Govt. Department/Public Sector undertaking.
6. I / We certify that all information furnished by the our firm/company is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,
(Signature of the Bidder, with Official Seal)

4. SCHEDULE OF REQUIREMENTS & FULL TECHNICAL SPECIFICATIONS WITH COMPLIANCE

(Should be submitted duly printed on the letterhead of the bidder separately for each item and option)

TECHNICAL SPECIFICATIONS – “Genotyping by Sequencing (GBS) Analysis Services”

Title: Genotyping by sequencing (GBS) analysis of maize Recombinant Inbred Population and their parents for QTL identification and candidate gene prediction

S. No.	Item	Technical specification
1	Crop	Maize
2	Stage	Seedlings
3	No. of samples	96 (DNA samples will be provided by us)
4	DNA purity checking	Quality and quantity checking
5	Library preparation	Standard protocols using double digestion for preparation of barcoded libraries. Purity checking of Library
6	GBS Sequencing	Paired end sequencing (2x150bp) Illumina Hiseq 2500 platform Coverage: 10X
7	Bioinformatics analysis	QC of sequencing data Sequencing quality distribution Sequencing error rate GC content Sequencing data filtration Summary statistics of sequencing data GBS output statistics using BWA Mapping statistics with reference genome
	SNP detection and annotation	Upstream, Exonic, Intronic, Splicing, Downstream Intergenic, transitions. Transversions. Ts/tv, Heterozygosity rate : The rate of heterozygous SNP in genome, In database SNP (%), Common SNP
	QTL map generation and candidate gene identification	Mapping to the reference genome, using BWA Marking duplication and sorting the bam files Calling SNP using Samtools Functional annotation of significant SNPs. Physical location of QTL's, Synteny map. QTL marker generation and analysis for candidate gene selection using composite interval mapping and LASSO method All other relevant bioinformatics support has to be provided till the preparation of manuscript for publication Data storage for 6 months
8	Deliverables	Detail technical note should be provided for Bioinformatics Analysis. Final report should contain Statistics of raw reads Provide all data files in suitable formats used for different bioinformatics analysis in the project and for submission in NCBI database. Quality control of sequencing data Sequencing quality distribution Sequencing error rate distribution GC content distribution Sequencing data filtration

		<p>Statistics summary of sequencing data</p> <p>GBS tag output statistics</p> <p>Statistics of mapping with reference genome</p> <p>SNP detection and annotation</p> <p>SNP detection by clustering and quality distribution of SNPs</p> <p>Functional annotation of significant SNPs.</p> <p>Physical location of QTL's, Synteny map.</p> <p>SNP list for each tags</p> <p>Tables, Graphs, Related figures.</p> <p>Should be ISO certified company for next generation sequencing and bioinformatics services.</p> <p>Please provide proof of working with government institutes where your services were used recently to generate next generation sequencing data using Illumina HiSeq2500.</p>
	Duration of the project	4 months