

**Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya
Gwalior (M. P.)**

TENDER No. : 01

**E-TENDER DOCUMENT FOR
PROCUREMENT OF
ONE AGRICULTURE DRONE FOR
KRISHI VIGYAN KENDRA, KHANDWA**

**FOR THE YEAR
2022-23**

**KRISHI VIGYAN KENDRA,
B.M.COLLEGE OF AGRICULTURE,
JASWADI ROAD, KHANDWA (M.P.)**

Phone No.- 0733-2222119, 9424095701

Email id – kvk.khandwa@rvskvv.net

Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior (M. P.)
B. M. COLLEGE OF AGRICULTURE, KHANDWA
KRISHI VIGYAN KENDRA, KHANDWA

No./KVK/2022-23/408

Date:19.12.2022

INVITATION FOR BIDS

1. The Sr. Scientist & Head, Krishi Vigyan Kendra, B. M. College of Agriculture, Jaswadi Road, Khandwa (M. P.) invites Online bids from Manufacturers or Authorized dealers **FOR PROCUREMENT OF ONE AGRICULTURE DRONE FOR KRISHI VIGYAN KENDRA, KHANDWA** as below:

S. No	Description	EMD	Bid Document Price
01	PROCUREMENT OF ONE AGRICULTURE DRONE FOR KRISHI VIGYAN KENDRA, KHANDWA	INR 20,000.00 (Rs. Twenty Thousand only)	INR 5,000.00 + Processing Fees (Rs. Five Thousand only)

2. Online e-tenders through <https://mptenders.gov.in> are invited as per key dates from Manufacturers or their Authorized Dealers for "**PROCUREMENT OF ONE AGRICULTURE DRONE FOR KRISHI VIGYAN KENDRA, KHANDWA**", at B.M. College of Agriculture, Jaswadi Road, Khandwa, Madhya Pradesh. Tender document and other details are available at the websites <https://mptenders.gov.in>.
Cost of Tender document {(Rs. 5000/- + Processing fee) Non refundable} is to be paid online only on <https://mptenders.gov.in>.
3. In all respect hard copies of the documents as indicated in the check list and in (Annexure-II) and in the manner directed therein, must be received at the office of the undersigned by Speed Post only latest by 17:30 HRS on 11.01.2023.
4. All future Corrigendum/ Amendments/ Changes, if any will be issued and made available only on our portal www.rvskvv.net and MP E tender portal *i.e.* <https://mptenders.gov.in>.

Sr. Scientist & Head,
Krishi Vigyan Kendra,
B. M. College of Agriculture,
Jaswadi Road, Khandwa M.P. 450001

TENDER ON "PROCUREMENT OF ONE AGRICULTURE DRONE FOR KRISHI VIGYAN KENDRA, KHANDWA"

DISCLAIMER

All information contained in this tender or Expression of Interest (EOI) provided/ clarified are in the good interest and faith. This is not an agreement, and this is not an offer or invitation to enter into an agreement of any kind with any party.

Though adequate care has been taken in the presentation of this tender document, the interested firms shall satisfy it-self that the document is complete in all respects. The information published in this document is not intended to be exhaustive. Interested Bidders are required to make their own enquiries and assumptions wherever required.

Intimation of discrepancy, if any, should be given to the specified office immediately. If no intimation is received by this office by the date mentioned in the document, it shall be deemed that the tender document is complete in all respects and firms submitting their bids are satisfied that the tender document is complete in all respects.

Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa reserves the right to reject any or all of the applications submitted in response to this tender document at any stage without assigning any reasons whatsoever. Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa also reserves the right to withhold or withdraw the process at any stage with intimation to all who have submitted their bids in response to this tender.

Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa reserves the right to change/ modify/ amend any or all of the provisions of this tender document without assigning any reason. Any such change would be communicated to the bidders by posting it on our portal www.rvskvv.net and MP E tender portal.

Information provided in this document or imparted to any respondent as part of tender process is confidential to Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa and shall not be used by the respondent for any other purpose, distributed to, or shared with any other person or organization.

Sr. Scientist & Head,
Krishi Vigyan Kendra,
B. M. College of Agriculture,
Jaswadi Road, Khandwa M.P. 450001

KEY DATES AND TIME FOR THE TENDER
"PROCUREMENT OF ONE AGRICULTURE DRONE
FOR KRISHI VIGYAN KENDRA, KHANDWA"

S. No.	Task	Date & Time
1.	ONLINE BID DOCUMENT SALE START DATE	21.12.2022 10.00 HRS
2.	ONLINE BID DOCUMENT PURCHASING END DATE	09.01.2023 17.00 HRS
3.	BID CLOSING DATE FOR SUBMISSION OF ONLINE BIDS	11.01.2023 17.30 HRS
4.	DATE FOR SUBMISSION OF HARD COPY OF DOCUMENTS AS INDICATED AND THE MANNER AS DIRECTED IN THE CHECK LIST BY SPEED POST ONLY.	11.01.2023 17.30 HRS
5.	ONLINE OPENING OF THE TECHNICAL BIDS	12.01.2023 17.30 HRS
6.	ONLINE OPENING OF THE FINANCIAL BIDS	13.01.2023 16.00 HRS

Sr. Scientist & Head,
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Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior (M. P.)
B. M. COLLEGE OF AGRICULTURE, KHANDWA
KRISHI VIGYAN KENDRA, KHANDWA

GENERAL TERMS & CONDITIONS FOR TENDER

Online bids are invited from **Manufactures or their Authorized Dealers** for "PROCUREMENT OF ONE AGRICULTURE DRONE FOR KRISHI VIGYAN KENDRA, KHANDWA" at **B.M. College of Agriculture, Khandwa**. Bids will be opened at **Dean B.M. College of Agriculture, Khandwa -450001 Madhya Pradesh though online mode on the MP Govt's E-tender portal**.

1. A complete set of bidding documents may be purchased online by any interested eligible bidder on the submission of online Tender Fee **Rs. 5000/- + Processing Fee (Rs. Five Thousand only + Processing Fee)** online to <https://mptenders.gov.in>. Tender without online fee will be rejected.
2. Manufacturer's certificate / Authorized Dealer certificate issued by the manufacturer should be given. **In absence of Manufacturer Certificate (If bidder is Manufacturer) or Authorized Dealer certificate (If bidder is authorized dealer), the tender will be rejected.**
3. The Online tender should contain scanned copies of documents as indicated in the check list.
4. Please note that the fact that the bidder has signed the form "A" (Annexure-III) will mean that the bidder has completely accepted these tender rules and that the bidder agrees to abide by these tender rules. No deviation from tender rules will be accepted under any circumstances even if the tenderer may mention his own condition in his tender. The tender rules and clause usually printed on tenders or bills will not be binding on this institute. If form "A" is signed by bidder in token of his acceptance, it is expected that he should not mention any other tender conditions. **The contents of the form "A" should not be changed or amended. In other words tenders on stipulated conditions will not be acceptable by this office.**
5. **It should be noted that all mandatory documents must be uploaded on the portal. Hard copies of uploaded documents in a way as indicated in the check list should reach the undersigned within the specified time limit. Hard copies of any other document other than those that have been uploaded will not be considered. If the original hard copy of the desired documents are not submitted in the office of the purchaser within the specified time mentioned in the key dates and time, the tender shall be rejected at the time of opening of the technical bid.**

6. The manufacturer must have experience of executing such projects for which the bidder is quoting the prices during the last three years. The bidders quoting as authorized dealer of manufactures meeting with the above requirement in full can be considered only if the bidder as authorized dealer has supplied, installed and commissioned satisfactorily at least three such projects/works in previous years. This information should be submitted as Annexure - V.
7. No deviation statement should be submitted in respect of technical specifications in the prescribed format. **No other format will be accepted. In absence of "No deviation statement", the tender will be rejected.** This information should be submitted as Annexure – VIII.
8. The rates should be quoted in format of price schedule shown only on the MP E tender portal in given BOQ. **Rates quoted in any other format will be rejected.**
9. The Bidder should furnish data to support that he has the financial capacity to perform the contract. For this the bidder should submit documents for Annual Turnover along with audited balance sheet duly certified by the Chartered Accountant (Please refer Check list Sr. No. 10 and11).
10. Tender should be accompanied by Earnest Money of Rs. 20,000/- (Rs. Twenty Thousand Only) in the form of original Bank Guarantee / FDR (for 1 year) in favor of RVSKVV A/C KHANDWA. Earnest Money submitted in any other form will not be accepted and the tender will be rejected. Scanned copy of EMD should be uploaded as directed.
11. Earnest Money/ Security Deposit to this office in previous tenders will not be adjusted towards the present supply/work and no request will be entertained in this regard.
12. The bidder must submit the copy of GST registration and PAN card, otherwise the tender will be rejected. (Please refer Check list Sr. No. 8 & 9).
13. As per Madhya Pradesh Store Purchase Rules clause no 25.3.1, industries registered as Micro and Small scale industrial units with Director of Industries, Government of Madhya Pradesh, Bhopal only will be exempted from depositing the Tender Fee of Rs. 5000/- (if units is producing similar items); however they should upload a true copy of the certificate for claiming the above exemption. Firms registered with Central Govt. or with state government (Govt. of MP) may be exempted from depositing Tender Fee as per rule.
14. Performance Security Deposit of 5% of the total value of the order in the form of Bank Guarantee will have to be deposited by the successful bidder before the final orders are placed with him. Security Deposit (Bank Guarantee) should be submitted in favor of the RVSKVV A/C KVK, KHANDWA. If the demanded security deposit of 5% is not deposited by the specific period the Earnest Money already deposited with the tender is liable to be forfeited. Security deposit form is shown in Annexure-X.

15. As per Madhya Pradesh store Purchase Rules clause no 25.3.2, industries registered as Micro and Small scale industrial units with the Director of Industries, Government of Madhya Pradesh, Bhopal only will be exempted from depositing the Earnest money (if unit is producing similar items); however they should upload and submit a true copy of the certificate for claiming the above exemption. Firms registered with Central Govt. or with other state Government may be exempted from depositing earnest money.
16. Delivery Period will be 30 days from the date of purchase order.
17. The successful bidder should execute the project for **"PROCUREMENT OF ONE AGRICULTURE DRONE FOR KRISHI VIGYAN KENDRA, KHANDWA"** complete in all respects within the prescribed delivery period specified in the order. If the bidder faces difficulty in executing the work within the delivery period and is not extended by the purchaser then the order may be cancelled and the security deposit equivalent to 5% of the value of the order will be forfeited.
18. Bidder should give all relevant specifications about every item. "Specification as given in catalogue" quoted in tender by the bidder will not be accepted. Full specification must be written in tender positively and should also be supported by illustrative pamphlets and all other relevant literature and catalogues.
19. The purchaser shall have the power to extend the time limit.
20. The undersigned may get the items inspected by the third party/ Govt. officers/ such person or persons he deems fit, before supply at site or after supply at the institute. The purchaser reserves the right to reject such items which do not come up to the specification. The decision of the under signed will be final in such cases. The rejected items will be returned on the bidder's cost.
21. Technical Specifications of the items are shown in Annexure-IX.
22. The Tender and rates quoted by the bidder will be valid up to 180 days from the date opening of the tenders . All order placed up to this date on the rates quoted will be binding on bidder.
23. Rates should be quoted F.O.R. destination as above.
24. All consignment must be dispatched freight paid. "To pay" Railway Receipt/ Freight Receipts will not be accepted.
25. The undersigned reserves the rights for any changes/ cancellation/rejection of any part or whole tender, without assigning any reason what so ever.
26. Onsite Warrantee/ Guarantee of item should be ensured for period of minimum 3 years from the date of delivery. The successful bidder will have to submit the Guarantee certificate of the item as per Annexure-XII, with the invoice/ bill of the item.

27. 90% of the payment will be made, within one month from the successful demonstration and the training (as per Sr. No. 2 (i) and (ii) of the Terms and Conditions) and remaining 10% of the payment will be made within one month after completion of the training at RPTO (as per Sr. No. 2 (iii) of the Terms and Conditions).
28. Contract agreement form for successful bidder is shown in Annexure-XI.
29. Any bid received after the deadline for submission of bids will be rejected.
30. Approval/decision of Purchase Committee will be final and binding to the bidder/ supplier.
31. It must be noted that normally all correspondence and transactions will be made only with the parties whose tenders have been accepted and not with anybody else.
32. Any dispute arising out of this tender or supply or any other matter will fall under the civil jurisdiction of High Court Indore Bench only.
33. The bidder will have to submit hard copies of all documents that have been uploaded while submitting the online bid within the time limit as specified in '**KEY DATES**'. Only after receiving all the documents including those not uploaded but required as specified elsewhere and subsequent verification of the same, the purchase order will be issued.
34. Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa reserves the complete right to change any schedule of bidding process. All the future Corrigenda/Information shall be posted on our portal www.rvskvv.net and the e tender portal only.

Sr. Scientist & Head,
Krishi Vigyan Kendra,
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Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior (M. P.)
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SPECIFIC TERMS & CONDITIONS FOR TENDER

1. Specific terms for drone

- (i) As per the Drone Rules 2021, “a type certificate is issued for specific type of Unmanned Aerial Vehicle (UAV) or drone by the Directorate General of Civil Aviation (DGCA) on the recommendation of the Quality Council of India (QCI) or an authorized testing entity”, the supplier needs to provide the details of model and make along-with the corresponding type certificate by the DGCA.
- (ii) The supplier should provide UAV (drone) with UIN or assist in obtaining the UIN
- (iii) All DGCA guidelines must be fulfilled
- (iv) Unmanned Aerial Vehicle (UAV) or drone system for spraying application should be provided as full and complete and as per specifications provided in Table 1, along with all the software (required for complete mapping, drone deploying for flight planning and all other operations required for the drone spraying in any of the designated flight modes) installable on laptop, mobile or other appropriate devices.
- (v) The other necessary accessories and software should be provided for data processing and analysis and complete drone spraying other than specified in Table 3.
- (vi) The detailed manufacturers operating manual, maintenance guideline should be provided with system

2. Training for drone operation

The training should be provided by the supplier as below:

- (i) The supplied complete drone system should be demonstrated on site
- (ii) The training to at least 2 designated participants for at least two days for acquainting with drone including various components, spraying system and accessories provided with drones and addressing different queries raised by the participants (either on-site; supplier’s facilities or KVK, Khandwa.
- (iii) The training should be provided to at least one participant RPTO (Remote Pilot Training Organization) for obtaining the drone pilot license attached to KVK, Khandwa.

3. Earnest Money Deposit (EMD)

The bidder shall submit Earnest Money Deposit (EMD) of INR 20,000/- (Rupees twenty Thousand Only). Copy of which shall be uploaded on the portal and hard copy should be deposited alongwith submission of tender documents.

- (i) The Bid Security (EMD) shall be in Indian Rupees (INR) and shall be in favor of "RVSKVV A/C KVK, KHANDWA".
- (ii) The EMD shall be valid for at least 180 (one eighty) days from the date of submission of proposal. No interest shall be payable on Bid Security under any circumstances.
- (iii) Unsuccessful bidder's EMD will be released as promptly as possible by the portal.
- (iv) The successful bidder's EMD will be released upon submission of Performance Bank Guarantee by the bidder.
- (v) The EMD will be forfeited at the discretion of tender on account of one or more of the following reasons:
 - The Bidder withdraws its Proposal during the period of proposal validity.
 - Bidder does not respond to requests for clarification of its proposal.
 - The Bidder fails to deliver the goods within the stipulated time as mention in this tender.
 - The EMD shall be exempted for bidders having a valid certification of registration under single point registration scheme as per allowed exemption.

4. Performance Security

- (i) Performance security shall be deemed to be an amount equal to 5% of the contract value.
- (ii) The selected proposer will furnish a Bank Guarantee in the form of BG/DD/Pay Order substantially in the specified form by scheduled Banks as performance security towards this contract.
- (iii) The Successful proposer shall at his own expense, deposit with Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa within fifteen (15) working days of the date of notice of award of the contract or prior to signing of the contract, whichever is earlier, an unconditional and irrevocable Performance Bank Guarantee from a Scheduled Bank acceptable to Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa payable on demand, for the due performance and fulfillment of the contract by the selected proposer.
- (iv) The performance bank guarantee shall be valid till the Expiry of Agreement plus Three months, subject to time-to-time renewals.

- (v) The Performance Bank Guarantee may be discharged/ returned by the Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa upon being satisfied that there has been due performance of the obligations of the selected proposer under the contract. However, no interest shall be payable on the Performance Bank Guarantee.
- (vi) In the event of the selected proposer being unable to service the contract for whatever reason, Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa would evoke the tender. Notwithstanding and without prejudice to any rights whatsoever of Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa under the Contract in the matter, the proceeds of the tender shall be payable to Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa as compensation for any loss resulting from the selected proposer's failure to complete its obligations under the Contract.
- (vii) Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa shall notify the selected proposer in writing of the exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which the selected proposer is in default.
- (viii) Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa shall also be entitled to make recoveries from the selected proposer's bills, performance bank guarantee, or from any other amount due to him, the equivalent value of any payment made to him due to inadvertence, error, collusion, misstatement.

5. Eligibility Criteria

Bids of those Bidders who have not submitted the requisite cost of bidding document and EMD (as per Instructions to Bidders (ITB)) shall not be considered for evaluation. The bidders must fulfill the following minimum Qualifying Criteria: -

- (i) In case a dealer is participating in the tender on behalf of one manufacturer, he/she is not allowed to participate/ quote on behalf of another manufacturer in this tender or in a parallel tender for the same item. All such bids with same make/ manufacture will be rejected.
- (ii) Bidder must produce with their Bid – PAN, Goods & Services Tax Identification No. (GSTIN).
- (iii) Indian manufacturers should be registered with company of Law Affairs under Company's Act.

S. No.	Basic Requirement	Specific Requirements	Documents Required
1	Legal Entity	The Bidder should have a legal entity registered in India.	Copy of Certificate of Incorporation/Registration under Companies Act, 1956/2013.
2	Turnover	The bidder shall have a turnover of minimum INR. 50,000,00/- (INR. Fifty lac only) from the sale and supply of Drone/UAV in any one of the previous two financial years for 2020-21 or 2021-22.	Audited and Certified Balance Sheet and Profit/Loss Account for the last 2 (Two) Financial Years. Certificate from the Statutory Auditor/CA on turnover details from the “business areas” over the last 2 (Two) audited financial years 2020-21 or 2021-22.
3	Net Worth	The Bidders should have positive net worth as per the audited consolidated financial statements in each of the last 2 (Two) financial years (2020-21 or 2021-22).	Certificate from the Statutory Auditor on net worth.
4	Blacklisting	As on date of submission of the proposal, the Bidders shall not be under a declaration of ineligibility for corrupt or fraudulent practices or Blacklisted with any of the State government/ Central Government / semi government / PSU / Municipal agencies in India at the time of submission.	Undertaking by the authorized signatory as per the format given as Annexure VII.
5	Experience	The Bidders should have successfully completed at least Two projects of supplying of Drone of the higher or equal technical specification in last 2 (Two) years.	Copy of work order + Completion Certificates from the client followed by undertaking as per the format given as Annexure V.

6. Instruction to Bidders regarding submission of Technical Bid

The Technical Proposal should contain the following information:

- (i) Technical Bid proposal form has to be submitted along with self-attested copies of required documents with the seal as per the format and documents specified at 'Annexure II' in the tender document.
- (ii) Qualification of Bidder as detailed in 'Annexure IV & V' (Company Profile along with documentary evidence of services offered and all relevant enclosures.)
- (iii) Any additional information that the bidder may think fit but not included elsewhere in the proposal, which will help the organization to assess the capabilities of the supplier.

7. Instruction to Bidders regarding submission of Financial Bid

- (i) The bidder shall quote the rate only on the MP e tender portal in the prescribed format.
- (ii) The price/ rate must be indicated without any taxes.
- (iii) Deviation, if any from given particulars/specifications shall not be accepted.
- (iv) The bid value or rate quoted by the bidder shall not be mentioned in any other documents (uploaded on the portal as well as in the hard copies to be sent).
- (v) The price should be inclusive of the supply of the UAV/drone as per specifications and terms and conditions; training, warranty and delivers as specified in terms and conditions.

8. Validity of Bids

The bids shall be valid for a period of 90 days from the date of opening of bids. A bid for a shorter period of validity shall stand rejected.

9. Bid evaluation

Tender will be opened on the portal in online mode only. Any bidders, who wish to be present, may be present at the time of bid opening. The Technical Bid evaluation committee constituted by the competent authority of the University shall evaluate the proposals. This may involve the representations from field and/or other department's experts. The decision of the bid evaluation committee in the evaluation of the Technical and Financial bids shall be final. No correspondence will be entertained outside the process of negotiation/ discussion with the committee. The committee may also physically verify the Drones of all the bidders before completing technical evaluation bid process.

10. Preference to Make in India (MII) product (For bids < 200 Crore):

Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is 50%. If the bidder wants to avail the Purchase preference, the bidder must submit a certificate regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted.

11. Purchase preference to Micro and Small Enterprises (MSEs):

Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail the Purchase preference, the bidder must be the manufacturer of the offered product.

12. Award of Contract

(a) For purchase of Drones:

From the technically qualified bidders, the Bidder who has submitted the lowest financial bid, shall be selected as L1 and liable to called for further process leading to the award of work order.

If L1 is Class-I Local supplier, the contract of full capacity will be awarded to L1. If L1 bidder is not a Class-I local supplier, 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the Class-I local supplier will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local suppliers quoted price falling within the margin of 20% of L1 bidder and contract for that quantity shall be awarded to such Class-I local supplier subject to matching the L1 price. In case he bidder fails to match the L1 price, the next Class-I local supplier within the margin of 20% shall be invited to match the L1 price for remaining quantity and so on.

If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L1 + 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for 25%(selected by Buyer) of total quantity.

(b) For Empanelment of Drone Suppliers under the Scheme:

From the technically qualified bidders, all the bidder within 20% margin of L1 bidder will be empaneled and listed for supply of drones along with the cost of drone and the purchasers of drone with financial assistance under the Government Scheme will have the liberty to choose any drone from the enlisted suppliers.

13. Penalty for delayed Supply of Drone:

The Drone as per the given indicative specifications in Annexure - IX should be supplied within 30 days of issuing of the purchase order, failing which a penalty equal to 0.1% of indent cost per day of delay will be imposed and recovered from payment due to the supplier. In case the successful bidder fails to supply the material even after the lapse of 2 weeks from the time period given for delivery of goods, the organization may choose to cancel the work order and purchase the same from the L2 bidder at the risk and cost of the successful bidder.

14. PRICE SCHEDULE & TERMS OF PAYMENTS

- (i) All applicable taxes & duties including GST, other levies and charges etc. should be mentioned clearly.
- (ii) It is hereby confirmed that, except as otherwise stipulated in the tender specification and statutory variations permitted as per the contract, the above unit rates and other charges as mentioned in this schedule, will remain firm till the subject supplies are completed. Further, it is confirmed that no other charges would be payable by the bidder, in connection with our execution of the resultant Purchase Order.

15. Purchaser's Rights

The Sr. Scientist & Head, Krishi Vigyan Kendra, RVSKVV, Khandwa :

- (i) Reserves the right to accept/reject any or all the Bids in whole or in part and annul the bidding process without assigning any reason whatsoever.
- (ii) Reserves the right to award the supply orders in parts to more than one Bidder.
- (iii) Reserves the right to relax/withdraw any of the terms and conditions mentioned.
- (iv) Reserves the right to blacklist a bidder for a suitable period in case the firm fails to honor its bid without sufficient grounds.
- (v) Reserves the right that the actual quantities of Drones that may be purchased may vary. It shall in no way be binding to purchase the exact number of quantities as indicated in the Tender Document.

16. Terms of Payments

90% of the payment will be made, within one month from the successful demonstration and the training (as per Sr. No. 2 (i) and (ii) of the Terms and Conditions) and remaining 10% of the payment will be made within one month after completion of the training at RPTO (as per Sr. No. 2 (iii) of the Terms and Conditions)

17. Mode of Payments

- (i) Payment against bill/Invoice shall be released only after execution of the supply order and the quality of the items are found to the satisfaction.
- (ii) Payment will be made directly to the supplier through NEFT/ RTGS. No request for other mode of payment will be entertained.
- (iii) No advance payment will be made in any case.
- (iv) No other charges towards transport or service charges or by whatsoever name called shall be payable.

18. Genuineness of Supplied Drone

- (i) The Drones supplied shall be in original sealed packing from the manufacturer.
- (ii) In case of any manufacturing defect of any shape/kind, the Drones shall have to be immediately replaced with a new one.
- (iii) The supply shall be completed within the delivery time as specified in section “Penalty for delayed Supply of Drones” of the Tender Document from the date of placement of Purchase Order.

19. Cancellation of procurement process:

- (i) If any procurement process has been cancelled, it shall not be reopened but it shall not prevent the procuring entity from initiating a new procurement process for the same subject matter of procurement, if required.
- (ii) A procuring entity may, for reasons to be recorded in writing, cancel the process of procurement initiated by it at any time prior to the acceptance of the successful Proposals.
- (iii) The procuring entity shall not open any Proposals after taking a decision to cancel the procurement and shall return such unopened Proposals.
- (iv) The decision of the procuring entity to cancel the procurement and reasons for such decision shall be immediately communicated to all proposers that participated in the procurement process.
- (v) If the proposer whose bid has been accepted as successful fails to sign any written procurement contract as required or fails to provide any required security for the performance of the contract, the procuring entity may cancel the procurement process.

- (vi) If a proposer is convicted of any offence under the Act, the procuring entity may: -
 - (a) Cancel the relevant procurement process if the bid of the convicted proposer has been declared as successful but no procurement contract has been entered.
 - (b) Rescind (cancel) the relevant contract or forfeit the payment of all or a part of the contract value if the procurement contract has been entered into between the procuring entity and the convicted proposer.

20. Exclusion of Bids/ Disqualification

The procuring organization shall exclude/ disqualify a bid, if: -

- (i) The information submitted, concerning the qualifications of the proposer, was false or constituted a misrepresentation; or
- (ii) The information submitted, concerning the qualifications of the proposer, was materially inaccurate or incomplete; and
- (iii) The proposer is not qualified as per eligibility criteria mentioned in the bidding document.
- (iv) The bid materially departs from the requirements specified in the bidding document or it contains false information.
- (v) The proposer, submitting the bid, his agent or anyone acting on his behalf, gave or agreed to give to any officer or employee of the procuring entity or other governmental authority a gratification in any form, or any other thing of value, so as to unduly influence the procurement process;
- (vi) A proposer, in the opinion of the procuring entity, has a conflict of interest materially affecting fair competition.
- (vii) A bid shall be excluded/ disqualified as soon as the cause for its exclusion/ disqualification is discovered
- (viii) Every decision of Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa to exclude a bid shall be for reasons to be recorded in writing and shall be:
 - (a) Communicated to the concerned proposer in writing.
 - (b) Published on website (www.rvskvv.net).

21. Warranty and Service Support:

03 (three) Years Comprehensive Warranty from the date of delivery of the said goods /stores /articles to the purchaser and notwithstanding the fact that the purchaser (Inspector) may have inspected and /or approved the said goods/stores/articles.

The supplier should also provide service support for pilot training

The supplier should have the Service Centre established and the schedule of onsite service that will be required to be adhered to is:

- a) Response time after information within 2 days.
- b) Maximum time for repair/ replacement will be one week.

22. Packing:

The UAV/drone is to be securely packed as per appropriate standard to avoid damages in transit. The packaging charges, if any should be included in total cost.

23. Transportation charges:

The delivery needs to be FOR destination and all corresponding transportation charges should be borne by the manufacturer/supplier.

24. Insurance:

All drones should have mandatory Insurance thus a Comprehensive Insurance cover of Drone for a period of 1 year after completion of installation, commissioning and testing of Drones at respective consignee location, shall be in supplier's scope and responsibility for lodging/settling any claim with the underwriter shall be of supplier only.

Sr. Scientist & Head,
Krishi Vigyan Kendra,
B. M. College of Agriculture,
Jaswadi Road, Khandwa M.P. 450001

CHECK LIST

Scanned copies of documents at Serial Nos. 1 to 15 (as applicable) are to be uploaded on the portal in the given sequence as well as hard copies of these documents must be sent through registered or speed post in an envelop superscribed “**Tender for procurement of one agriculture drone for Krishi Vigyan Kendra, Khandwa**” to "The Senior Scientist and Head, **Krishi Vigyan Kendra**, B. M. College of Agriculture, Jaswadi Road, Khandwa (M. P.) 450001 by the due date and time as indicated in the key dates schedule.

Successful bidder shall submit documents at sr.nos 16 to 18 at the time of issuing the purchase order alongwith the bill of cost.

1. Covering letter (Annexure- I)
2. Tender documents duly signed on each page
3. Receipt of Tender Fee or Exemption certificate
4. Bank Guarantee / FDR (EMD) or Exemption certificate
5. List of documents submitted for technical bid (Annexure-II)
6. Form “A” (Annexure-III) indicating that the bidder has completely accepted and agrees to abide by the tender rules.
7. Details of the bidder/ organizational details (Annexure-IV)
8. Copy of GST registration.
9. Copy of PAN Card.
10. Document indicating Turnover during the last three years certified by C.A.
11. Copy of Profit and Loss (Balance Sheet) for the last three years.
12. Qualification of the bidder and information of similar work undertaken and executed (Annexure-V)
13. Manufactures / Authorized Dealership certificate (Annexure-VI).
14. Declaration for not being blacklisted (Annexure-VII).
15. No Deviation Statement for Technical specifications (Annexure- VIII).
16. Security Deposit Form (Annexure -X).
17. Contract Agreement (Annexure -XI).
18. Guarantee Certificate (Annexure- XII).

Sr. Scientist & Head,
Krishi Vigyan Kendra,
B. M. College of Agriculture,
Jaswadi Road, Khandwa M.P. 450001

COVERING LETTER

{to be submitted on the letter head of the bidder}

To,

Dear Sir,

We, the undersigned, offer to sell One Agriculture Drone to the Sr. Scientist & Head, Krishi Vigyan Kendra, Khandwa in accordance with your Tender entitled, "PROCUREMENT OF ONE AGRICULTURE DRONE FOR KRISHI VIGYAN KENDRA, KHANDWA" with tender ID "2022_RVSKV_238672" dated and our Proposal. We are hereby submitting our Proposal as per the requirements mentioned in the tender.

We hereby declare that:

- a) All the information and statements made in this Proposal are true and we accept that any misinterpretation or misrepresentation contained in this Proposal may lead to our disqualification by the Client.
- (b) We meet the eligibility requirements as stated in this tender, and we confirm our understanding of our obligation to abide by the policy in regard to corrupt and fraudulent practices.
- (c) Our Proposal is binding upon us and subject to any modifications/ amendments made before the date of submission.
- (d) Our Firm /Company do not face any sanction or any pending disciplinary action from any authority against our Firm /Company.
- (e) We understand that the Client is not bound to accept any Proposal that the Client receives.

Thanking you,

Authorized Signature {In full and initials}: Name and Title of Signatory:

Name of Bidder (Firm/ Company's name):

In the capacity of:

Address:

Contact information (phone and e-mail):

Date: _____

Place: _____

ANNEXURE-II

LIST OF DOCUMENT SUBMITTED FOR TECHNICAL BID

S. No.	Document	Complied (Y/N)
1	Details of Bidder/ organizational details in Annexure - IV:	
2	Copy of Certificate of Registration / Incorporation Certificate along with MoA certifying that the Bidder is a legal entity registered in India.	
3	Documentary evidence by the supplier for being the Original Equipment Manufacturer (OEM) or authorized dealer designated by OEM for selling the proposed make and model (Annexure-VI)	
4	Certificate from CA for net worth	
5	Audited financial statements for bidder's turnover by CA	
6	Tax registration Certificate from authorities as appropriate, Copy of GST registration and Permanent Account Number (PAN)	
7	Copy of Profit and Loss (Balance Sheet) for the last three years.	
8	Enclosed copies of Brochure of proposed make and model of drone	
9	Undertaking by bidder for not being blacklisted in format enclosed as Annexure VII	
10	Bank Guarantee / FDR (EMD) or Exemption certificate	
11	Receipt of Tender Fee or Exemption certificate	
12	Form-A (Annexure III)	
13	No Deviation Statement for Technical specifications (Annexure VIII)	
14	Information of similar work undertaken and executed (Annexure V)	
15	All remaining Annexure	

DECLARATION

I hereby certify that the information furnished above is full and correct to the best of our knowledge. The self-attested copies of required documents as mentioned in **Annexure II and in checklist** of the Tender Document have been submitted. All documents submitted have been numbered and self- attested with the seal of the Firm/Agency/Company. We understand that in case on non- submission of required documents, the bid shall stand rejected. We understand that in case of any deviation found in the above statement at any stage, the company will be black-listed and will not have any dealing with Sr. Scientist & Head, Krishi Vigyan Kendra, RVSKVV, Khandwa in future.

(Signature of authorized signatory)

Dated

Name & Address of Firm

Authorized Signature & Seal of the Firm

FORM -A

Ref. No. _____

Date _____

To,

The Sr. Scientist & Head,
Krishi Vigyan Kendra,
B. M. College of Agriculture,
Jaswadi Road, Khandwa M.P. 450001

I/we (Name of authorized signatory) _____

Name of Firm _____

Address _____

have read the tender rules "PROCUREMENT OF ONE AGRICULTURE DRONE FOR KRISHI VIGYAN KENDRA, KHANDWA" and I/we accept the Bidding rules supplied to me/us with the Bidding Documents.

Place:

Date:

(Signature of authorized signatory)

Name:

Designation:

Name of Firm:

Address of Firm:

Telephone & Email of Firm:

Seal of the Firm

Note : Original hard copy is to be submitted by speed post.

DETAILS OF THE BIDDER/ ORGANIZATIONAL DETAILS

S. No.	Particulars	Details
1.	Registration with appropriate Govt. Agency to do business for item related to the Tender.	
2.	Name of Organization/ Individual/ Proprietary Firm/ Partnership Firm	
3.	Entity of Organization Individual/ Proprietary Firm/ Partnership Firm(Registered under Partnership Act)/ Limited Company (Registered under the CompaniesAct–1956)/ Corporation/ Joint Venture	
4.	Address for Communication	
5.	Telephone Number with STD Code	
6.	Fax Number with STD Code	
7.	Mobile Number	
8.	E-mail Address for all communications	
9.	Details of Authorized Representative	
10.	Name	
11.	Designation	
12.	Postal Address	
13.	Telephone Number with STD Code	
14.	Fax Number with STD Code	
15.	Mobile Number	
16.	E-mail Address	

(Signature of authorized signatory)

Dated

Name & Address of Firm
& Seal of the Firm**Note :** Original hard copy is to be submitted by speed post.

QUALIFICATION OF THE BIDDER

1. Bidder Information Sheet

S. No.	Particulars	Details, Page no. (for any attachment)
1.	Name of the Entity/ Organization	
2.	Registered office address Telephone number Fax number Email	
3.	Correspondence Address	
4.	Details of the Contact Person (name, designation, address) Telephone number & Email	
5.	Year and Place of the establishment of the entity/organization	
6.	Tax Registration details	

2. Experience of supplying Drone

S. No.	Item	Details
1.	Type of the Drone (Also specify the name of OEM/Assembler/Reseller AND URL of the website/portal if any)	
2.	Work Order / Contract No.	
3.	Contract Value (In Lakhs)	
4.	Client Details	
5.	Name, Title & Address of the Client who can be contacted	
6.	No. of Drones	
7.	Year of supply	
8.	Relevant work domain of drone	

3. Information of similar work undertaken and executed

S No.	Name of the purchasing Institute / Agency	Year	Work Order / Contract No.
1			
2			
3			

(Signature of authorized signatory)

Dated

Name & Address of Firm

Authorized Signature & Seal of the Firm

Note : Original hard copy is to be submitted by speed post.

**AUTHORIZED DEALERSHIP CERTIFICATE FROM THE
MANUFACTURER**

DECLARATION

1. I,..... Son/ Daughter/Wife of Shri....., Proprietor/Director/authorized signatory of the Agency mentioned above, is competent to sign this declaration and execute this tender document.

2. I, have carefully read and understood all the terms and conditions of the tender and undertake to abide by them.

3. The information/documents furnished along with the above application are true and authentic to the best of my knowledge and belief. I/we am/ are aware of the fact that furnishing of any false information/fabricated document would lead to rejection of my tender at any stage besides liabilities towards prosecution under appropriate law.

4. Certified that (Name of the Agency) is an Authorized Dealer of (Name of OEM) for supply of

5. Certified that the agency has not been blacklisted /security deposit has not been forfeited in case of the agency during the last five years.

(Signature of authorized signatory)

Dated

Name & Address of Firm
& Seal of the Firm

Note : Original hard copy is to be submitted by speed post.

DECLARATION FOR NOT BEING BLACKLISTED

(On letter head of the Bidder)

Ref. No. _____

Date _____

To,

Dear Sir,

I/we here by solemnly declare that any of our Directors or Partners, jointly or severally and/or individually or our firm/company have not been black listed by the Central Govt. or the State Govt. or its undertakings.

I/we here by further declare that, if the declaration is found untrue, Sr. Scientist & Head, Krishi Vigyan Kendra, RVSKVV, Khandwa shall be entitled to take any action against us severally and/or individually or our firm/company in this regard in any manner that may be deemed fit by Sr. Scientist & Head, Krishi Vigyan Kendra, RVSKVV, Khandwa.

Yours faithfully,

(Signature of authorized signatory)

Dated

Name & Address of Firm
& Seal of the Firm

Note : Original hard copy is to be submitted by speed post.

NO DEVIATION STATEMENT

1. SPECIFICATIONS OF THE AGRICULTURAL DRONE

S. No.	Item	Specification of Items mentioned in Tender Enquiry	Specification of Items offered by the Bidder	Whether there are deviation from the tender specification Yes/ No	If yes, indicate the deviation & whether it is on positive side & how
(A)	Drone				
	Classification	Small			
	Category	Multi-Rotor Drones			
	No. of rotors	Hexa-copter (6 rotors)			
	Flight modes	Manual, Autonomous, A-B mode			
	Tank capacity	10 litre			
	Maximum flying speed	10 m/s			
	Maximum height of flying	30 m			
	Maximum takeoff weight	25 Kg			
	Minimum payload capacity	11 Kg			
	Endurance with maximum take-off weight of 25 kg (while working)	15-20 min (minimum)			
	Hovering time (without payload)	25.0 min (minimum)			
	Material	Carbon fiber and aviation Aluminum			
	Flight range	Minimum 1 km within the line of sight			
	Compact frame design	Foldable arms			
(B)	Spraying assembly				
	Tank material	HDPE, PP or other corrosion resistant material			
	Connecting tube material	HDPE, Fibre, PVC or better or other corrosion resistant material			

S. No.	Item	Specification of Items mentioned in Tender Enquiry	Specification of Items offered by the Bidder	Whether there are deviation from the tender specification Yes/ No	If yes, indicate the deviation & whether it is on positive side & how
	Nozzle mounting	On boom or below propeller			
	Length of boom (for boom mounted)	1.75 ~ 2.0 m			
	No. of nozzles	4			
	Type of nozzle	Flat fan spray/ Flat fan spray nozzle/ conical fan centrifugal nozzle/ Centrifugal booster nozzle/ Ceramic hollow cone high pressure atomizing nozzle with 400 to 500 ml/min flow-rate			
	Spray width/swath	3.0 ~ 5.0 m			
	Spray flow	1.2 to 4.0 lit/min			
	Droplet size	Minimum 100 µm			
	Flow meter	Measurement Range: 0.5-5 lit/min, Accuracy: minimum 10 ml			
	Spray efficiency	5-8 ha/hour			
(C)	Battery *				
	Type	Preferably Lithium Polymer			
	Capacity	16000-22000 mAh			
	Cycle	250 minimum			
	Charging time	90 min			
	Voltage	22-50 Volts			
(D)	Control Unit	Suitable flight controller CPU, compatible to be above specifications and as per DGCA guidelines			
		Intel Core i5 v Pro processor or advanced			
		Storage: Minimum 500 GB			
		Memory: Minimum 4GB RAM			
		Display: 14 inch or larger more with touch screen.			

S. No.	Item	Specification of Items mentioned in Tender Enquiry	Specification of Items offered by the Bidder	Whether there are deviation from the tender specification Yes/ No	If yes, indicate the deviation & whether it is on positive side & how
		Battery: Min.12 hours' backup			
		Interfaces: USB, HDMI/VGA, Ethernet etc. Should conform IP 65 norms or as per recent norms			
		Max Transmission Distance (Communication distance between GCS and flying Drone (Km)- more than 2 km			
		Inclusive of charger			
(E)	Failsafe Features	Return to home in case of: Low battery, Loss of communication, Manual RTL, Wind, Empty tank and other fail safe features			
(F)	Terrain following radar system	The drone shall be equipped with terrain following radar(height sensor, terrain following sensor) to keep certain desired height above crops when spraying and in turn detects variable height of crop canopy to enable to spray uniformly across the crop canopy.			
(F)	Other Specifications				
	Hovering accuracy (horizontal and vertical)	Compatible with above specifications			
	Wind resistance	10 m/s			
	Working temperature	10-70 °C			
	Working humidity	0-90%			
		and compatible with above specifications			
	Motor/GPS	Brushless			
		Compatible with above specifications and as per DGCA guidelines			

2. OTHER INDICATIVE SPECIFICATIONS OF THE UAV/DRONE

Basic Specification	Specific Requirements	Bid Requirement (Allowed Values)	Specification of Items offered by the Bidder	Whether there are deviation from the tender specification Yes/ No	If yes, indicate the deviation & whether it is on positive side & how
Standards & Certification	Model Should be DGCA Certified (Type Approval Certificate)	Mandatory (Copy of Type Approval Certificate downloaded from digital sky portal with digital signature to be enclosed with the proposal)			
Generic	Control Mode	Manual, Autonomous			
Drone	Type	Multi-Rotor, Vertical Landing & Takeoff			
	Diagonal Wheel base (mm)	≈ 1200			
	Flight Time (With payload) (Minutes)	20.0 (Minimum)			
	Travel Speed (m/sec)	8 (Max)			
	Hovering time (Without payload) (Minutes)	25.0 (Minimum)			
	Takeoff weight (Kg)	25 (Min)			
	Flight altitude range, (Above Ground Level),(m)	10.0 (Minimum)			
Spray System	Tank Volume (Ltr)	10.0 (Minimum)			
	Material of Tube	PVC or better			
	Operating Payload (Kg)	10.0 (minimum)			
	Nozzle	As per requirement (Refer Appendix A)			
	Nozzle Quantity	4 pcs			
	Material of Tank	HDPE			
	Level Meters	Flow and Liquid Level Meters should be available.			
Battery *	Type	Preferably, 44.4 V Lithium Polymer			
	Capacity, mah	16000 (Minimum)			

Basic Specification	Specific Requirements	Bid Requirement (Allowed Values)	Specification of Items offered by the Bidder	Whether there are deviation from the tender specification Yes/ No	If yes, indicate the deviation & whether it is on positive side & how
	Charging Time (Minutes)	60.0 (Maximum)			
	Life Cycles (Nos.)	200 (Minimum)			
	Quantity	Supplier to provide two set of batteries i.e. one set installed in Drone and one set as spare.			
Additional Parameter	Emergency Recovery Mode	Hexacopter Structure, More Stable and reliable, Fos=3, ability to return back to launch pad or home position in case of communication failure, low battery/power, empty tank collision avoidance in all modes etc. - Inbuilt in the Drone Radar based collision detection: Detects tree, poles, wires etc. in Autonomous mode (min. 10 meter) and re-route path.			
	Terrain following	RADAR based terrain following feature to spray uniformly across the crop canopy and this sensor helps to spray in Terrain fields like – Teas, Orchards, Horticulture Crops, Sugarcane etc. Should detects variable height of crop canopy and maintain constant spray height of 2 meter.			
	Wind speed tolerance	Minimum 30 Km/Hr. (=8m/sec)			
	Fire resistant-identification plate inscribed with UIN.	Mandatory - Integrated with the Drone			

Basic Specification	Specific Requirements	Bid Requirement (Allowed Values)	Specification of Items offered by the Bidder	Whether there are deviation from the tender specification Yes/ No	If yes, indicate the deviation & whether it is on positive side & how
Remote Controller	Operating Frequency	5.725 GHz to 5.850 GHz			
	Max Transmission Distance (Communication distance between GCS and flying Drone (KM))	More than 2 km			
	Display	5.5 inch screen 1920×1080, 1000 cd/m ²			
	System	Android			
	Operating Temperature Range :	0° to 50 ⁰ C			
Test Reports	Copies of reports and certifications to be furnished to buyer on demand at time of supplies	Yes			

3. DRONE NOZZLE SPECIFICATION AND AREA COVERED

S. No.	Detail Specifications	Spray volume Discharge rate (ml/min)	Number of Nozzles	Field capacity (ha/h) @ speed of 3-5 m/s 10 liter tank	Specification of Items offered by the Bidder	Whether there are deviation from the tender specification Yes/ No	If yes, indicate the deviation & whether it is on positive side & how
1.	Conical fan centrifugal nozzle with mounting attachment Droplet size: 40 to 200 micron Max rated speed RPM: 14000 to 20000 Motor type: PWM brushless DC	400- 500	2 (boom)	2.5-3.4 (swath 2.5)			
2.	Flat fan centrifugal nozzle with mounting attachment Droplet size: 40 to 200 micron Max rated speed RPM: 14000 to 20000	400- 500	4 (below propellers)	2.5-4.3 (swath 3.0)			
3.	Ceramic Hollow Cone High Pressure Atomizing Nozzle Spray Pattern: Hollow cone	500 - 600	4 (boom)	3.0-5.0 (swath 3.5)			

S. No.	Detail Specifications	Spray volume Discharge rate (ml/min)	Number of Nozzles	Field capacity (ha/h) @ speed of 3-5 m/s 10 liter tank	Specification of Items offered by the Bidder	Whether there are deviation from the tender specification Yes/ No	If yes, indicate the deviation & whether it is on positive side & how
	Droplet size: 150 to 250 micron Body: Plastic/brass/steel Spray Angle: 80°-110° Work Pressure: 3 -20 bar						
4.	Flat Fan Spray Nozzle Spray Pattern: Flat Fan Droplet size: 200 to 300 micron Material: Plastic + SS Spray Angle: 80°-110° Work Pressure: 3 -20 bar	500	4 (boom)	3.0-5.0 (swath 3.5)			
5.	Y shape high pressure double fan shape nozzles Specification: Droplet size: 200 to 300 micron Maximum working pressure: 20 bar (300 PSI) Exit angle: 90° Filter: 80 mesh stainless steel	500-600	4 (below propellers)	2.5-3.4 (swath 3.0)			

4. DETAILS OF ACCESSORIES

S. No.	Item	Number	No. of Items offered by the Bidder	Whether there are deviation from the tender specification Yes/ No	If yes, indicate the deviation & whether it is on positive side & how
1	Charger (for remote and battery)	1			
2	Additional battery sets	4			
3	Additional propellers sets	2			
4	Additional landing gear set	1			
5	Additional spraying assembly (Nozzle and boom)	2			
6	Additional 10 lit plastic tanks	2			
7	Maintenance and repair tool kit	1			
8	Carrying case	1			

5. Training- Remote Pilot Training Organization (RPTO)

S. No.	Details of Training	Number	No. of training offered by the Bidder	Whether there are deviation from the tender specification Yes/ No	If yes, indicate the deviation & whether it is on positive side & how
1	RPTO Training	1			
2	Operational Training	2			

SPECIFICATION OF THE PRODUCT

Major Specifications are given in following points no. 1, 2 and 3 and details of required accessories and training of pilots are given in points 4 and 5.

1. Specifications of the agricultural drone

S. No.	Particulars	Details
(A)	Drone	
	Classification	Small
	Category	Multi-Rotor Drones
	No. of rotors	Hexa-copter (6 rotors)
	Flight modes	Manual, Autonomous, A-B mode
	Tank capacity	10 litre
	Maximum flying speed	10 m/s
	Maximum height of flying	30 m
	Maximum takeoff weight	25 Kg
	Minimum payload capacity	11 Kg
	Endurance with maximum take-off weight of 25 kg (while working)	15-20 min (minimum)
	Hovering time (without payload)	25.0 min (minimum)
	Material	Carbon fiber and aviation Aluminum
	Flight range	Minimum 1 km within the line of sight
Compact frame design	Foldable arms	
(B)	Spraying assembly	
	Tank material	HDPE, PP or other corrosion resistant material
	Connecting tube material	HDPE, Fibre, PVC or better or other corrosion resistant material
	Nozzle mounting	On boom or below propeller
	Length of boom (for boom mounted)	1.75 ~ 2.0 m
	No. of nozzles	4
	Type of nozzle	Flat fan spray/ Flat fan spray nozzle/ conical fan centrifugal nozzle/ Centrifugal booster nozzle/ Ceramic hollow cone high pressure atomizing nozzle with 400 to 500 ml/min flow-rate
	Spray width/swath	3.0 ~ 5.0 m
	Spray flow	1.2 to 4.0 lit/min
	Droplet size	Minimum 100 μ m
Flow meter	Measurement Range: 0.5-5 lit/min, Accuracy:	

S. No.	Particulars	Details
		minimum 10 ml
	Spray efficiency	5-8 ha/hour
(C)	Battery	
	Type	Preferably Lithium Polymer
	Capacity	16000-22000 mAh
	Cycle	250 minimum
	Charging time	90 min
	Voltage	22-50 Volts
(D)	Control Unit	<p>Suitable flight controller CPU, compatible to be above specifications and as per DGCA guidelines</p> <p>Intel Core i5 v Pro processor or advanced</p> <p>Storage: Minimum 500 GB</p> <p>Memory: Minimum 4GB RAM</p> <p>Display: 14 inch or larger more with touch screen.</p> <p>Battery: Min.12 hours' backup</p> <p>Interfaces: USB, HDMI/VGA, Ethernet etc.</p> <p>Should conform IP 65 norms or as per recent norms</p> <p>Max Transmission Distance (Communication distance between GCS and flying Drone (Km)- more than 2 km</p> <p>Inclusive of charger</p>
(E)	Failsafe Features	Return to home in case of: Low battery, Loss of communication, Manual RTL, Wind, Empty tank and other fail safe features
(F)	Terrain following radar system	The drone shall be equipped with terrain following radar(height sensor, terrain following sensor) to keep certain desired height above crops when spraying and in turn detects variable height of crop canopy to enable to spray uniformly across the crop canopy.
(F)	Other Specifications	
	Hovering accuracy (horizontal and vertical)	Compatible with above specifications
	Wind resistance	10 m/s
	Working temperature	10-70 °C
Working humidity	0-90% and compatible with above specifications	
Motor/GPS	Brushless Compatible with above specifications and as per DGCA guidelines	

2. Other indicative specifications of the UAV/drone

Basic Specification	Specific Requirements	Bid Requirement (Allowed Values)
Standards & Certification	Model Should be DGCA Certified (Type Approval Certificate)	Mandatory (Copy of Type Approval Certificate downloaded from digital sky portal with digital signature to be enclosed with the proposal)
Generic	Control Mode	Manual, Autonomous
Drone	Type	Multi-Rotor, Vertical Landing & Takeoff
	Diagonal Wheel base (mm)	≈ 1200
	Flight Time (With payload) (Minutes)	20.0 (Minimum)
	Travel Speed (m/sec)	8 (Max)
	Hovering time (Without payload) (Minutes)	25.0 (Minimum)
	Takeoff weight (Kg)	25 (Min)
	Flight altitude range, (Above Ground Level),(m)	10.0 (Minimum)
Spray System	Tank Volume (Ltr)	10.0 (Minimum)
	Material of Tube	PVC or better
	Operating Payload (Kg)	10.0 (minimum)
	Nozzle	As per requirement (Refer Appendix A)
	Nozzle Quantity	4 pcs
	Material of Tank	HDPE
	Level Meters	Flow and Liquid Level Meters should be available.
Battery	Type	Preferably, 44.4 V Lithium Polymer
	Capacity, mah	16000 (Minimum)
	Charging Time (Minutes)	60.0 (Maximum)
	Life Cycles (Nos.)	200 (Minimum)
	Quantity	Supplier to provide two set of batteries i.e. one set installed in Drone and one set as spare.
Additional Parameter	Emergency Recovery Mode	Hexacopter Structure, More Stable and reliable, Fos=3, ability to return back to launch pad or home position in case of communication failure, low battery/power, empty tank collision avoidance in all modes etc. - Inbuilt in the Drone Radar based collision detection: Detects tree, poles, wires etc. in Autonomous mode (min. 10 meter) and re-route path.
	Terrain following	RADAR based terrain following feature to spray uniformly across the crop canopy and this sensor helps to spray in Terrain fields like – Teas, Orchards, Horticulture Crops, Sugarcane etc. Should detects variable height of crop canopy and maintain constant spray height of 2 meter.
	Wind speed tolerance	Minimum 30 Km/Hr. (=8m/sec)
	Fire resistant- identification plate inscribed with UIN.	Mandatory - Integrated with the Drone

Basic Specification	Specific Requirements	Bid Requirement (Allowed Values)
Remote Controller	Operating Frequency	5.725 GHz to 5.850 GHz
	Max Transmission Distance (Communication distance between GCS and flying Drone (KM))	More than 2 km
	Display	5.5 inch screen 1920×1080, 1000 cd/m ²
	System	Android
	Operating Temperature Range :	0° to 50 ⁰ C
Test Reports	Copies of reports and certifications to be furnished to buyer on demand at time of supplies	Yes

3. Drone Nozzle Specification and area covered

S. No.	Detail Specifications	Spray volume Discharge rate (ml/min)	Number of Nozzles	Field capacity (ha/h) @ speed of 3-5 m/s 10 liter tank
6.	Conical fan centrifugal nozzle with mounting attachment Droplet size: 40 to 200 micron Max rated speed RPM: 14000 to 20000 Motor type: PWM brushless DC	400- 500	2 (boom)	2.5-3.4 (swath 2.5)
7.	Flat fan centrifugal nozzle with mounting attachment Droplet size: 40 to 200 micron Max rated speed RPM: 14000 to 20000	400- 500	4 (below propellers)	2.5-4.3 (swath 3.0)
8.	Ceramic Hollow Cone High Pressure Atomizing Nozzle Spray Pattern: Hollow cone Droplet size: 150 to 250 micron Body: Plastic/brass/steel Spray Angle: 80°-110° Work Pressure: 3 -20 bar	500 - 600	4 (boom)	3.0-5.0 (swath 3.5)
9.	Flat Fan Spray Nozzle Spray Pattern: Flat Fan Droplet size: 200 to 300 micron Material: Plastic + SS Spray Angle: 80°-110° Work Pressure: 3 -20 bar	500	4 (boom)	3.0-5.0 (swath 3.5)
10.	Y shape high pressure double fan shape nozzles Specification: Droplet size: 200 to 300 micron Maximum working pressure: 20 bar (300 PSI) Exit angle: 90° Filter: 80 mesh stainless steel	500-600	4 (below propellers)	2.5-3.4 (swath 3.0)

4. The details of accessories

S. No	Item	Number
1	Charger (for remote and battery)	1
2	Additional battery sets	4
3	Additional propellers sets	2
4	Additional landing gear set	1
5	Additional spraying assembly (Nozzle and boom)	2
6	Additional 10 lit plastic tanks	2
7	Maintenance and repair tool kit	1
8	Carrying case	1

5. Training- Remote Pilot Training Organization (RPTO)

As per government rules, one person needs to get trained in drone flying at an authorized DGCA-approved drone training institute in India (Remote Pilot Training Organization-RPTO) to get himself or herself registered as a remote pilot. A pilot should have a 'Pilot Identification Number' and 'Unmanned Aircraft Operator Permit' to fly drones in the country. The license is valid for 10 years under “Drone Rules 2021”. The supplier should arrange the training for one person at the any DGCA approved RPTO and assist in getting license for operating the agricultural drone. for initial operations and maintenance works, a trained pilot have to be provide for at least one month period after supply, who will also provide operational training to the KVK personals.

FORMAT OF SECURITY DEPOSIT (for successful bidders)

To,

The Sr. Scientist &Head, KVK
B.M. College of Agriculture
Jaswadi Road, Khandwa(M.P.)

Whereas _____
(Name of Supplier)

Hereinafter called "The Supplier" has undertaken, in pursuance of Contract (issued Purchase order) No. _____ Dated _____ "PROCUREMENT OF ONE AGRICULTURE DRONE FOR KRISHI VIGYAN KENDRA, KHANDWA" hereinafter called "The contract". And whereas it has been stipulated by you in said contract. That the supplier shall furnish you with a Bank Guarantee by a recognized bank for the sum specified there in as security for compliance with the supplier's performance obligations in accordance with the contract. And Whereas we hereby affirm that we are Guarantors and responsible to you on behalf of the supplier, up to a total of (Amount of the Guarantee in words and Figures) and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or agreement, any sum or sums within the limits of (Amount of Guarantee) aforesaid, without Your needing to prove or to show ground or reasons for your demand or the sum specified there in.

This Guarantee is valid until the _____ Day of _____

Authorized Signature and seal of the Guarantors
(Bank Authorities)

Date _____

Address. _____

Note- Stamp Paper of Bank Guarantee should be purchased by Bank.

FORMAT OF CONTRACT AGREEMENT (for successful bidders)

THIS AGREEMENT made the _____ day of _____
between _____ (Name of purchaser) of _____
(Country of Purchaser) (hereinafter called “the Purchaser” of the one part and
_____ (Name of Supplier) of _____ (City and
Country of Supplier) (hereinafter called “the Supplier”) of the other part :

WHEREAS the Purchaser is desirous "**PROCUREMENT OF ONE AGRICULTURE DRONE FOR KRISHI VIGYAN KENDRA, KHANDWA**" and has accepted a bid by the Supplier to execute the work of "**PROCUREMENT OF ONE AGRICULTURE DRONE FOR KRISHI VIGYAN KENDRA, KHANDWA**" in the sum of _____
(Contract/ P.O. Price in Words and Figures) (hereinafter called “Contract/P.O. Price”)

NOW THIS AGREEMENT WITNESSED AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract/ P.O. referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
 - (a) The form A and the Price Schedule submitted by the Bidder;
 - (b) The quantity of items
 - (c) The Technical Specification;
 - (d) The Conditions of Tender/Purchase order;
3. Security Deposit of 5% of the total value of the order in the form Bank guarantee will have to be deposited by the successful bidder before the final orders are placed with him. Security Deposit (Bank guarantee) should be submitted in favor of RVSKVV A/C KHANDWA. If the demanded security deposit of 5% is not deposited by the bidder in the specific period the Earnest Money already deposited with the tender is liable to be forfeited.

4. Delivery Period should be 30 days from the date of purchase order.
5. The successful bidder should supply full ordered quantity of items **"PROCUREMENT OF ONE AGRICULTURE DRONE FOR KRISHI VIGYAN KENDRA, KHANDWA"** at B.M. COLLEGE OF AGRICULTURE, JASWADI ROAD, KHANDWA MADHYA PRADESH within the prescribed delivery period specified in the order. If the bidder faces difficulty in supply of ordered quantity within the delivery period then he should submit a representation indicating the appropriate reasons of delay. Power to extend delivery period would remain with Purchaser. If the delivery period is not extended by the purchaser then the order be cancelled and the security deposit equivalent to 5% of the value of the order will be forfeited.
6. The Tender quoted by the bidder will be valid up to 180 days from the date of opening of the tenders. All order placed up to this date on the rates quoted will be binding on bidder.
7. 90% of the payment will be made, within one month from the successful demonstration and the training (as per Sr. No. 2 (i) and (ii) of the Terms and Conditions) and remaining 10% of the payment will be made within one month after completion of the training at RPTO (as per Sr. No. 2 (iii) of the Terms and Conditions). Therefore the invoice should be prepared separately for 90% and 10 % of the cost of the item.
8. All consignment must be dispatched freight paid. "To pay" Railway Receipt/Freight Receipts will not be accepted.
9. In consideration of the payment to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby commits to the Purchaser to provide the goods and to remedy defects therein in conformity in all respects with the provisions of the Contract.
10. The Purchaser hereby commits to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

11. Brief particulars of the goods and services which shall be supplied/ provided by the Supplier are as under.

S. No.	Description of Goods	Basic Price for complete execution of work inclusive of freight, labour charges and local taxes, if any in INR	GST	Total Price	Delivery Terms
1	PROCUREMENT OF ONE AGRICULTURE DRONE FOR KRISHI VIGYAN KENDRA, KHANDWA				Procurement of one agriculture drone for KRISHI Vigyan Kendra, Khandwa as per specifications given in bid document/ purchase order within 30 days from the date of P.O.

Total Value of Contract /P.O.:

Delivery Schedule:

IN WITNESS where of the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day year first above written.

Signed, Sealed and Delivered by the

Said.....(For the Purchaser)

In the presence of

Signed, Sealed and Delivered by the

Said..... (For the Supplier)

in the presence of

FORMAT OF GUARANTEE CERTIFICATE (for successful bidder)

(On the original letter head of the manufacturer/ dealer)

To,

The Sr. Scientist &Head, KVK
B.M. College of Agriculture
Jaswadi Road, Khandwa(M.P.)

Ref: - Yours S. O. No.- _____ dated - _____ placed on us.

Dean sir,

With reference to the above, this is to certify that the following work has been executed by us M/s _____

S. No.	Name of the Item
1	PROCUREMENT OF ONE AGRICULTURE DRONE FOR KRISHI VIGYAN KENDRA, KHANDWA

We further certify that the material supplied for above has been duly pre inspected by us and have been found to be in conformity with specification as per the terms & conditions of the supply order.

They are hereby guaranteed for a period of 03 years from the date of completion of work against any material defects, manufacturing defects (Including assembly installation. Commissioning as applicable) and bad workmanship.

In case of any defect, we guarantee to replace the same immediately without at any cost.

Yours faithfully,

(Signature of authorized signatory)

Dated

Name & Address of Firm
& Seal of the Firm