



Phone No: 0467 2260632
Email: rarspil@kau.in

KERALA AGRICULTURAL UNIVERSITY
Regional Agricultural Research Station, Pilicode
KasaragodDist – 671310

No.B2-2837/2021

Dated: 05.10.2021

TENDER NOTICE

Tender Number	B2-2837/2021
Tender Cost	Rs. 400/-
GST (18%)	Rs.72/-
Amount of EMD to be paid	Rs.1500/-
Last date and time for receipt of tender	20/10/2021 3.00 PM
Last date and time for opening of tender	20/10/2021 3.30 PM
Date up to which the rates are to remain firm for acceptance	Up to 31/12/2021
Designation and address of officer to whom the quotation is to be addressed	The Associate Director, Regional Agricultural Research Station (North Zone) Pilicode – 671310
Place of Supply	RARS Pilicode
Superscription: “Tender for construction of Fan and Pad Poly house”	

Sealed competitive tenders are invited to construct a Fan and pad poly house in the land possessed Malabar Kaipad Farmers Society under RKI initiative.

Specifications:

Technical Standards for Fan and pad cooling system Poly house:

Sl No.	Item	Departmental Description
1	Size	100sqm
2	Shape	Aero Dynamic along all four sides with curvature shaped hockey pipes of 48 mm OD GI Pipes with a view to reduce the impact of wind and consequent damage of poly house structure Gutter Orientation- North South and may change according to wind direction PAD should be in wind direction and must have covered elevated balcony for shade
3	Structure	Hot Dip Galvanized Tubular Structure of BIS STANDARDS, Galvanization of the structural members should not be less than 300 GSM (grams per square meter)

	Withstand to wind velocity	Structure should withstand to minimum wind velocity of 80.6 miles per/hr or 130 km/hr or 36 meter per second																																																				
	Sizes of the structural members	<table border="1"> <thead> <tr> <th>Members Name</th> <th>Outside Diameter (mm)</th> <th>Thickness (mm)</th> <th>Wt.per meter length (kg)</th> </tr> </thead> <tbody> <tr> <td>Columns</td> <td>76</td> <td>2</td> <td>3.75</td> </tr> <tr> <td>Top Purlins</td> <td>48 (Ridge)</td> <td>2</td> <td>2.30</td> </tr> <tr> <td>Gutter Purlins</td> <td>42/43 (centre)</td> <td>2</td> <td>2.10</td> </tr> <tr> <td>Top Arches of the truss</td> <td>42</td> <td>2</td> <td>2.10</td> </tr> <tr> <td>Bottom Chord of the truss Horizontal (GI pipe)</td> <td>60</td> <td>2</td> <td>2.85</td> </tr> <tr> <td>Top Chords and trusses member</td> <td>48/43</td> <td>2</td> <td>2.30/2.10</td> </tr> <tr> <td>Internal Bracings of the truss- Pipe structural members to be fitted in plated nuts, bolts and washers without welding</td> <td>33</td> <td>2</td> <td>1.60</td> </tr> <tr> <td>Coridors/Balconies</td> <td>60</td> <td>2</td> <td>2.85</td> </tr> <tr> <td>Curtains Runner</td> <td>42</td> <td>2</td> <td>2.10</td> </tr> <tr> <td>Flap control pipe</td> <td>21</td> <td>2</td> <td>1</td> </tr> <tr> <td>Curtain Shaft</td> <td>27</td> <td>2</td> <td>1.30</td> </tr> <tr> <td>Cross Bracing</td> <td>33</td> <td>2</td> <td>1.60</td> </tr> </tbody> </table> <p>Note: Welded pipes should not be used for structure erection except bottom pipe of 8 m length.</p>	Members Name	Outside Diameter (mm)	Thickness (mm)	Wt.per meter length (kg)	Columns	76	2	3.75	Top Purlins	48 (Ridge)	2	2.30	Gutter Purlins	42/43 (centre)	2	2.10	Top Arches of the truss	42	2	2.10	Bottom Chord of the truss Horizontal (GI pipe)	60	2	2.85	Top Chords and trusses member	48/43	2	2.30/2.10	Internal Bracings of the truss- Pipe structural members to be fitted in plated nuts, bolts and washers without welding	33	2	1.60	Coridors/Balconies	60	2	2.85	Curtains Runner	42	2	2.10	Flap control pipe	21	2	1	Curtain Shaft	27	2	1.30	Cross Bracing	33	2	1.60
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	Columns	76 OD, 2 mm thick																																																				
	Purlin	48 mm OD/2.0 mm thick ridge and 42/43 mm OD/2 mm thick for centre																																																				
	Trusses	Bottom horizontal 60 mm OD/2 mm thick G.I Pipe, top chords and truss members 48 mm OD/ and 43mm OD 2.0 mm thick Bracing 32 cm OD/1.8 mm thick GI Pipe structural members to be fitted in plated nuts and washers without welding																																																				
	Clamps and Nut Bolts	Well compatible GI Clamps < 120 GSM, 2mm thickness																																																				
4	Grid size	8 m x 4 m (ideal size)																																																				
5	Balcony and corridor	2 meter wide, vertical/curved pipe- 60 mm OD/2 mm thick G.I Pipe with 32 mm OD/1.8mm thick horizontal GI pipe as supporting pipe. Area covered by corridors should not be included while calculating the area under poly house.																																																				
6	Foundation	Pit size should be min.450 mm dia. Depth 750 to 900 mm or suitable altered depending upon ground strata/level so as to ensure safety and stability of the structure even under extreme wind condition . Columns are fitted over ground "Inserts" and bolted to insert pipe of 60 mm OD/2 mm thick GI pipe length of insert 1200 to 1300 mm & filling the pit with 1:2:4 concrete hand mixed with appropriate grade cement.																																																				
7	Gutter	Should be made of Galvanized sheet of 2 mm thickness in trapezoidal shape having 500 mm wide perimeter (Preferably of single length without joint) coil having 120 GSM Galvanization. It should be leak proof. Min 1% slope required for the gutter. Assure uniform slope to gutter to avoid stagnant water in gutter to achieve maximum life of gutter. Gutter orientation – North – south and may change according																																																				

		to wind direction
	(a) Gutter Height	4 m to 4.5m
	(b) Gutter slope	1 to 1.5 % to be provided in civil structural work
	Ridge Height/Centre	Minimum 5 to 6.5 meter
8	Fasteners	Cold Galvanized well compatible M6 to M10 bolts & nuts 50 to 150 mm long with plain washers as per requirement and with the best quality plating to have good anti-corrosiveness.
9	Ploy film	Technical Specifications of polythene should be as per Indian standard (IS 15827:2009) Polythene should be properly UV stabilized at least 3 years. Thickness of polythene should be minimum 200 micron (0.2 mm) Properties: Optional properties: .UV blocking/ Anti virus
11	Poly fixing	C type profile made from Alloy Aluminum should have- high strength with light weight- (approx 220-250 gm/rmtrs), smooth edges, curve bottom proper for 1.25" to 3" pipes, proper channel for spring and suitable for double spring locking 0.9 mm thick. Self Drilling Screw should be fixed on profile every 40 cm along the full length of the profile.
13	Entrance	Double door entry, Doors should be made of form FRP sheets or polycarbonate sheets. Opening and closing is either hinged or sliding. Min.width of door should be 1M and min height 2M. The door area should have 50 mm PCC Flooring over 75 mm thick sub base
14	Civil work	Wall on fan side will be 35 mm thick and 80 cm high and wall on pad side will be 23 cm thick & 100 cm high from ground level in cm 1:6 with required foundation. All the walls will be plastered in cm 1:4 top and sides 80 cm to 1 m wide and 10 cm thick footpaths made of cement concrete ratio of 1:2:4 should be provided as per the requirements.
15	Electrical fittings:	Conduit and wiring as required for connecting light, fan, motor and pumping to main electrical supplies.
16	Climate control system	
A	Fan-pad System	-Numbers of Fan depends upon side of Fan-fad house and it should be capable of exhausting air volume in one minutes -Exhaust Fans-50" however it depends upon size of fan-pad house with louvers 1.5 HP – 3 phase ISI standard electric motor -Cellulose cooling pads of 1.8 meter height with 100 mm/150 mm thickness covering the area properly, PVC water distribution system, screen/disc filter, valve and pumps etc. -Control panel with manual operation, temp and humidity sensors -The necessary digital controller with sensory device & accessories of standard quality as per requirement should be provided to operate the fan & pad system for controlling temperature & humidity inside the Green house
B	Fogging System	-In consist of four way anti leak fogger 28 lph flow rate

	(fogger spacing along the lateral and lateral spacing) and particle size 80-100 micron, 16 mm lateral class-3, PVC pipe 6 kg/cms, valves, filter, pump panel with volt meter, MCB, relay etc. complete application rate 3mm/hr
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Terms and conditions

1. Tender form

The Tender form shall be downloaded from the following link in the internet- www.kau.in/tenders OR rarspil.kau.in/tenders. The same should be submitted duly signed along with other documents.

The cost of tender form, GST and EMD will be accepted by way of separate DDs in favour of Associate Director, Regional Agricultural Research Station, Pilicode, Pin 671310.

2. **Earnest Money Deposit:** An EMD of **Rs.1500/-** should be remitted by separate DD drawn in favour of Associate Director, Regional Agricultural Research Station, Pilicode Pin-671310.

3. The cost of tender form, GST and EMD will be accepted by way of separate DDs in favour of Associate Director, Regional Agricultural Research Station, Pilicode, Pin 671310.

Agreement:-

4. The tender should be accompanied by an Agreement in Kerala stamp paper worth Rs.200/- (Rupees Two hundred only) in the format that can be downloaded from the website www.kau.edu/tenders OR rarspil.kau.in/tenders.

5. The sealed cover containing the tender documents should be super scribed as "**Tender for Fan and Pad green house**" **The cover should contain the DDs for tender cost, GST, EMD and the Agreement as mentioned above.**

6. The successful tenders should execute an agreement in Kerala Stamp paper worth Rs.200/- (Rupees Two hundred only) and furnish a security deposit of 5% of cost of the rate quoted in the form of term deposit/bank guarantee/demand draft drawn in favour of Associate Director, Regional Agricultural Research Station, Pilicode, Pin 671310, Kasargod, District payable at the State Bank of India, Kayyur (Branch code SBTR000573), when directed from this office.

7. The rate, tax and other charges if any should be separately stated.

8. The Associate Director has the right to accept or reject any or all of the offers without assigning any reason.

9. The successful tenderer shall initiate the work/supply the item within one week of award and should finish the supply within one month.

10. If any hartal/strike/any unexpected holiday occurs on the date of opening of tender, the tender will be opened at the same time on the next working day.

11. All the rules and regulation applicable to government tender will be applicable to this tender also.

Special Conditions

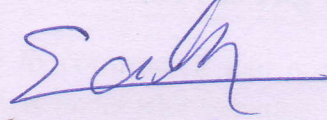
1. Tender insisting payment in advance either full or part for releasing the documents through bank are liable for rejection.
2. Leaflets/brochures containing technical features on the different models of the items quoted should be attached with the tender.
3. Payment will be made after satisfactory delivery/ installation and demonstration of the Item/equipment.
4. Details of warranty offered should be clearly stated in the tender details of maintenance service contract offered after expiry of normal warrantee and after-sales service facilities available should be indicated.
5. The under signed reserves the authority to accept or reject any or all of the offers for any particular item without assigning any reason whatsoever.
6. The decision of the under signed in tender procedures will be final and binding.

*Enquiries if any may be mailed to rarspil@kau.in or contact 04672260632/04672260450 during office hours.

Sd/-
Dr. Vanaja T
Associate Director

To: 1. Notice Board/KAU website
2. Panchayath Office, Pilicode/Cheruvathur
3. Nileshwaram Municipality.

//Approved for issue//



Section Officer
സെക്ഷൻ ഓഫീസർ
നിലേശ്വരം മുനിസിപ്പാലിറ്റി