

Procurement of 24 plastic greenhouses with iron props for Ramadi general directorate of Agriculture\Anbar.

Quantity	24 units
Tunnel (m)	Supply of greenhouse structure made of galvanized iron bars. Greenhouse dimensions are approx. 51.5*9m and 3.1m-3.20m height. The greenhouse should include the following components: 1. Main horizontal pipes, 2. two doors (1 door each side of the greenhouse with dimension of 2.15 * 3.25 M), 3. Bride holders, 4. Vertical pipes, 5. Extender pipes, 6. Short crosses, 7. Bridge pipes, 8. Arches, 9. Long crosses and inclusive of all consumables and fittings (e.g. iron clamps, screws, washers). • Width of arch: 9.0 m. • Max. height: 3.2 m. • Length: 51.5 m. • Distance between 1st and 2nd arch: 2.0 m. • Distance between other arches: 2.5 m. • 22 arches in total. • Covered area = 463.5 m² constructed from 60mm diameter and 1.5mm in thickness galvanized pipes (45 microns from outside and inside). • 10 longitudinal pipes that link arches 32mm diameter and 2mm in thickness galvanized pipes. • 20 crop support (one for each arch except the first and last arches) has 27mm diameter galvanized pipes. • Stents (wind breakers) has 32mm diameter galvanized pipes. • Each greenhouse unit has 2 large doors, two on each side. Doors can be lifted entirely up with an angle of 90°. The doors are made of 32mm galvanized pipes. • All crosses are made from 55mm diameter and 2mm in thickness galvanized pipes (the pipes of the cross through each other not over each other by plump).
Frame	- Made of galvanized steel. - Constructed from 60mm diameter and 1.5mm in thickness galvanized pipes (45 microns from outside and inside). - 10 longitudinal pipes that link arches 32mm diameter and 2mm in thickness galvanized pipes. - 20 crop support (one for each arch except the first and last arches) has 27mm diameter galvanized pipes. - Stents (wind breakers) has 32mm diameter galvanized pipes. - Each greenhouse unit has 2 large doors, two on each side. Doors can be lifted entirely up with an angle of 90°. The doors are made of 32mm galvanized pipes.

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Cover	Supply of film cover of the greenhouse. The film cover should be 180micron thick, 3 years' warranty against UV degradation, superior strength and toughness, puncture force up to 12% higher, 85% light transmission per layer. Doors should be covered by two layers. Film cover will be fixed and regulated by using Supply a Polyester rope (2.5mm thickness, high strength, anti-bacteria, anti-pilling, moisture absorbent) extending from first arc to the end arc along the greenhouse each 40cm, 32 lines per greenhouse. All consumables and fittings (e.g. PVC clamps) must also be included. • 180-200-micron anti-UV (4-9%) treated. polyethylene (the doors will be covered with a double layer). • Warrantee 3 years • Anti-drops (the stripped one which prevents the condensation of the water droplets). • Color: yellowish. • The transparency of light: at least 85% and light distribution 45%. • Anti-cracking by UV at least 4-9%. • Anti-dust.
Polyester	- 32-line lines/greenhouse 520-meter length. - 2.5mm diameter anti UV. - 704-836 clips.
Insect screen (net)	- Supply of insect mesh for the greenhouse doors made of HDPE by adding UV stabilizers and antioxidants, 12% shade factor, anti-aging, light weight, green or white color with 40mesh/cm2, fit for indoor and outdoor using. The insect mesh should cover the doors of greenhouse completely (25m2/greenhouse). All consumables and fittings must also be included. - 2 high quality green colored for doors (suit to the size of the doors with zipper in the middle) - 11 sheets of 13m in length along with the width (between two sheets of polyethylene cover)
Shutter fan	- Supply of shutter fan, Approx. 650 CFM, Approx. 20-inch diameter, square metallic box (wall housing), 1 peace per greenhouse, All consumables and fittings must also be included. Supply voltage and frequency according to Iraq conditions.
Heater inside greenhouses	- Supply a heater inside greenhouses, heater with three heat output options: Three output options from 1 Kw to 3 Kw, heating and cooling (ventilation setting), spray waterproof IPX4, temperature control between 0 and 26 Celsius degrees. Air Circulation: minimum High Rate 450 m3/hour. The heater shall come with hanging chains and floor mounting brackets. All wiring, consumables and fittings must also be included. Supply voltage and frequency according to Iraq conditions.
Warranty	- A clear statement is required with the bid of the terms and conditions of the product warranty that will be available with the goods offered. - Polyethylene cover is guaranteed for 36 months under the Iraqi conditions. - Steel structure is guaranteed for 5 years against corrosion.

Remark:

- The bidders are requested to attach the technical Details (standards, origin, brand... etc.) and technical data sheet or catalogues to their offers
- Provide certificate of origin from production company.
- The standard of products should be compliant with relevant international, EU or equivalent national standards.
- Samples of offered items will be requested to be checked by related engineers for approval and will be checked in Environmental department lab.
- Reference drawings and diagrams of the green houses must be included with the technical offer.