Fan & Pad Polyhouse

Agrifirst Fan & Pad Polyhouse — precision temperature control (18-28°C), Israeli technology, evaporative cooling. India's best climate-controlled greenhouse for roses, gerbera & premium crops.

10°C cooler
cooler environment using advanced evaporative cooling technology

Smarter
Automated climate sensors optimize energy, water, and fertilizer usage

2x Better
Ideal growing conditions for sensitive crops like roses & strawberries

ABOUT

Climate-Controlled Fan & Pad Polyhouse — Precision Temperature Management for Premium Crops

Agrifirst's Fan & Pad Polyhouse (FAPPH) is India's most advanced climate-controlled greenhouse — maintaining precise temperatures (18–28°C) even when outside temperatures exceed 45°C. Featuring Israeli-designed evaporative cooling, exhaust fan systems, and automated climate control, this polyhouse is the top choice for high-value crops like roses, gerbera, capsicum, and exotic vegetables that demand precise environmental conditions.

DESCRIPTION

Agrifirst Fan & Pad Polyhouse (FAPPH) is India's premier climate-controlled greenhouse system, delivering precise temperature and humidity management through advanced evaporative cooling technology. Designed with Israeli engineering expertise, this polyhouse maintains optimal growing conditions (18–28°C) even in India's harshest summers when ambient temperatures soar above 45°C.

Why Fan & Pad Polyhouse?

- **Precision Temperature Control** — Evaporative cooling pads combined with exhaust fans create a 8–12°C temperature drop from ambient, maintaining the ideal 18–28°C range for sensitive crops
- **Humidity Management** — Automated systems maintain 60–80% relative humidity, critical for crops like rose, gerbera, and orchid that demand consistent moisture levels
- **Year-Round Premium Production** — Produce export-quality flowers and vegetables 365 days a year, regardless of external weather conditions
- **Automated Climate Control** — Sensor-driven automation adjusts fan speed, pad water flow, and curtain positions based on real-time temperature and humidity data
- **Supreme Crop Quality** — Controlled environment produces uniform, blemish-free produce that commands 50–100% price premiums in domestic and export markets

How the Fan & Pad System Works

Hot ambient air is pulled through water-saturated cellulose cooling pads on one side of the polyhouse. As air passes through the wet pads, evaporation absorbs heat energy, cooling the air by 8–12°C. Powerful exhaust fans on the opposite wall create negative pressure, drawing this cool, humid air across the entire growing area before exhausting warm air outside. This continuous cycle maintains ideal growing temperatures even in peak summer.

Technical Specifications

Structure Type	Multi-span gutter-connected, fan & pad cooled

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Gutter Height	6.5–7.0 meters
Span Width	8.0 / 9.6 meters
Frame Material	Hot-dip galvanized (GI) steel tubular — 550 g/m² zinc coating
Wind Load Rating	120 km/h
Cladding	Ginegar 5-layer polyethylene film (200 micron) — anti-drip, anti-dust, UV-stabilized
Cooling Pads	7090 cellulose honeycomb pads — 150mm thick, high-efficiency evaporative cooling
Exhaust Fans	1400mm / 1000mm heavy-duty exhaust fans — direct-drive, corrosion-resistant
Temperature Drop	8–12°C below ambient temperature
Maintained Range	18–28°C (adjustable based on crop requirement)
Humidity Control	60–80% RH (automated)
Automation	Sensor-driven temperature & humidity controllers with motorized curtains
Gutter System	Anodized aluminium with integrated rainwater drainage
Structural Life	10–15 years
Best Suited Crops	Rose, Gerbera, Carnation, Capsicum, Strawberry, Cherry Tomato, Orchid
Delivery & Installation	Turnkey by Agrifirst engineering team across India

Subsidy & Financial Support

Agrifirst Fan & Pad Polyhouse qualifies for **50–65% government subsidy** under NHM, MIDH, and state horticulture programs. We provide end-to-end support — from subsidy application and DPR to installation and post-setup certification.

ROI & Farmer Earnings

Commercial rose growers using Agrifirst FAPPH earn **?15–30 lakhs per acre per year**. Capsicum and colored bell pepper farmers achieve **?10–20 lakhs per acre**. The superior crop quality and year-round production capability delivers payback within **2–3 years**.

GALLERY




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