Nutrient Film Technique Hydroponics

Agrifirst NFT Hydroponics — continuous nutrient flow for lettuce, herbs & leafy greens. 10x more yield, 90% less water. Commercial hydroponic farming system India.

5x more
Continuous nutrient flow for faster growth and higher yields

Design
Modular design allows easy scalability for commercial farms

80% Savings
Eco-friendly with low water and nutrient wastage through closed-loop circulation

ABOUT

NFT Hydroponic System — Continuous Nutrient Flow for Leafy Greens & Herbs

Agrifirst NFT (Nutrient Film Technique) Hydroponics System is the gold standard for commercial leafy green and herb production. A thin film of nutrient-rich water flows continuously through enclosed channels, delivering oxygen and nutrition directly to plant roots. Ideal for lettuce, spinach, basil, mint, and microgreens — producing up to 10x more per square meter than soil farming with 90% less water.

DESCRIPTION

Agrifirst NFT (Nutrient Film Technique) Hydroponics System is a premium commercial hydroponic solution where a thin, continuous film of nutrient-rich water flows through enclosed growing channels, bathing plant roots in perfectly balanced nutrition and oxygen. This system produces the highest yields per square meter of any hydroponic method for leafy greens, herbs, and small fruiting crops.

How NFT Works

Plants sit in net pots within holes in enclosed PVC/food-grade channels set at a slight gradient (1–3%). A pump delivers nutrient solution from a central reservoir to the high end of each channel. The solution flows as a thin film (2–3mm) along the channel bottom, contacting plant roots before draining back to the reservoir for recirculation. Roots are exposed to both the nutrient solution and air simultaneously — creating ideal conditions for rapid, healthy growth.

Key Benefits

- **10x Higher Yield** — Produces up to 10x more crop per square meter compared to soil-based farming through dense planting and rapid growth cycles
- **90% Water Savings** — Closed-loop recirculation system conserves water dramatically compared to conventional irrigation
- **Rapid Harvest Cycles** — Lettuce ready in 25–30 days, herbs in 20–25 days — enabling 12–15 harvests per year
- **Zero Soil Required** — No soil-borne diseases, no weeding, no soil preparation — clean, hygienic produce
- **Vertical Stacking** — NFT channels can be stacked in A-frame or multi-tier configurations for even higher space efficiency
- **Premium Market Pricing** — Hydroponically grown produce commands 2–3x higher prices in urban retail, restaurants, and supermarkets

Technical Specifications

System Type	Nutrient Film Technique (NFT) — recirculating
Channel Material	Food-grade PVC / UV-stabilized UPVC
Channel Size	75mm × 50mm / 100mm × 50mm (customizable)
Channel Length	3m–6m (optimal)

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Plant Spacing	150mm–200mm (adjustable)
Gradient	1–3% slope
Reservoir	HDPE/FRP tank with lid — 500L to 5000L
Pump	Submersible pump with UV-resistant fittings
Suitable Crops	Lettuce, spinach, kale, basil, mint, coriander, pak choi, strawberry, microgreens
Yield	12–15 harvests/year (lettuce), 20–30 cuts/year (herbs)
Water Savings	Up to 90% vs conventional farming

ROI & Earnings

Commercial NFT operations with Agrifirst generate **?15–40 lakhs per 1000 sqm per year** from premium lettuce and herb sales to hotels, restaurants, supermarkets, and health-conscious consumers. Payback period: **12–18 months**.

GALLERY


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