

Feed An Island

Water-Smart Shade House Tomato Production

Climate-Resilient Food Infrastructure for Hawai'i



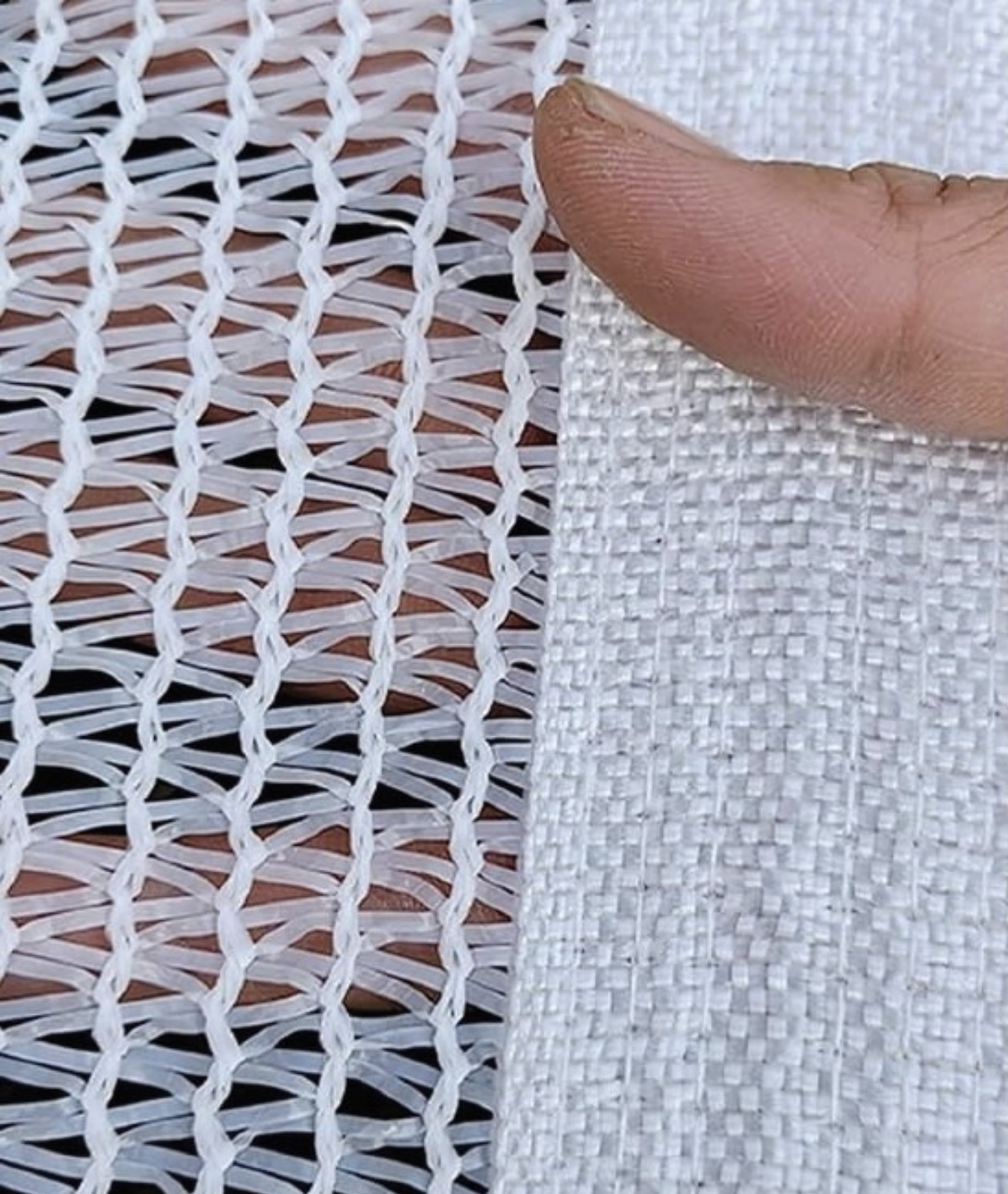


The Problem

Why Tomatoes Don't Work on Islands

- 80–90% of tomatoes are imported
- Extreme pest and disease pressure
- 50–80% crop loss from birds, insects
- Pathogens + limited rotation
- High input costs & low margins

Result: Local production is unreliable and uneconomical



The Solution

Tomato Volcano Shade House System

- Controlled growing environment
- Continuous 2-year production
- Precision root-zone irrigation
- Modular, scalable deployment
- Low input costs & high margins

Transforms tomato farming into predictable infrastructure



System Design

Double Shade House Deployment

- 2 × 42 × 185 ft shade houses
- 48 Tomato Volcano units
- 5 plants per unit
- 0.40 acre footprint
- Integrated nutrient systems

Result: Scalable, climate-resilient local food production



Production Model

Low input costs & high margins

~2.94 million tomatoes (2-year cycle)

~265,320 lbs total production

~132,660 lb annually

Crop Mix:

~Cherry (Premium pricing)

~Heirloom (Strong demand)



Water Efficiency

Water-Smart Resource Use

- 24–48 gallons/day (entire system)
- 90% less water vs conventional farming
- 80% less fertilizer via precision delivery
- Uses organically sourced inputs
- Minimal energy (no LED systems)
- Closed-loop irrigation

Designed for water- challenged regions



Market Opportunity

Premium Island Pricing

- Tomatoes retail: \$4-\$8+ per lb
- Farm-gate: ~\$4.50-\$5.50 per lb
- Demand driven by:
 - import dependency
 - tourism & hospitality
 - military supply chains

Local supply commands premium pricing



Financials

Revenue & Economics

2-Year Cycle:

- Revenue: ~\$1.3M – \$1.5M

Annual:

- Revenue: ~\$650K – \$715K
- Operating cost: ~\$161K
- Net return: ~\$500K+



ROI & Scalability

Fast Payback, Modular Growth

- CapEx: ~\$685,000
- Payback: ~1.2 – 1.5 years
- 5-year profit: ~\$2.5M+

Scalable Model:

- Replicable across islands

Built for rapid capital recovery
and expansion



Why This Wins

Climate-Resilient Food Infrastructure

- Eliminates agriculture constraints
- Reduces water use dramatically
- Produces premium food at scale
- Supports food security

A deployable system, not just a farm

Feed An Island transforms food production into scalable, climate-smart infrastructure



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