

## Dutch Bucket Grow System

Agrifirst Dutch Bucket Hydroponic System — drip-fed soilless growing for tomato, capsicum, cucumber. Premium yields with precision nutrition. Commercial hydroponics India.



### Design

Modular system allows rapid scaling from a few plants to hundreds

### 80% Saving

Closed-loop design recycles water and nutrients to reduce waste

### 5x Growth

Ideal for vining and fruiting crops like tomatoes and peppers

### ABOUT

#### Dutch Bucket System — Drip-Fed Hydroponic Growing for Vine Crops & Fruiting Vegetables

Agrifirst Dutch Bucket (Bato Bucket) Grow System is the preferred hydroponic method for growing large fruiting crops — tomato, capsicum, cucumber, brinjal, and strawberry — in a soilless environment. Individual buckets with drip irrigation and drain-to-waste or recirculating design deliver precise nutrition to each plant, enabling year-round production of premium-quality produce.

### DESCRIPTION

**Agrifirst Dutch Bucket (Bato Bucket) Grow System** is a proven commercial hydroponic technology specifically designed for growing large fruiting and vine crops — tomato, capsicum, cucumber, brinjal, and strawberry — in a soilless environment. Each plant grows in its own bucket filled with growing media, receiving precision drip irrigation with balanced nutrient solution. This system combines the simplicity of container growing with the precision of hydroponics.

#### How Dutch Bucket Works

Individual buckets (typically 10–12 liters) are filled with inert growing media like perlite, cocopeat, or a mix. Each bucket has a dedicated drip emitter connected to a central fertigation system that delivers pH- and EC-balanced nutrient solution. Excess solution drains through an elbow fitting at the bucket base into a shared drain line — either returning to the reservoir (recirculating) or going to waste (drain-to-waste). Plants are trellised vertically on overhead wires for maximum light exposure.

#### Key Benefits

- **Perfect for Vine Crops** — Purpose-built for tomato, capsicum, cucumber, and other large plants that don't suit NFT channels
- **Individual Plant Control** — Each bucket is independent — if one plant has disease, it doesn't spread through shared water
- **Easy to Scale** — Add or remove buckets as needed, from 100 to 10,000+ plants
- **Precision Nutrition** — Automated fertigation delivers exact nutrient recipes tailored to each crop stage
- **Higher Yields** — 3–5x more production per square meter vs soil-based growing, with premium fruit quality
- **Year-Round Production** — Combined with Agrifirst polyhouse, enables 365-day commercial production

#### Technical Specifications

|                 |  |
|-----------------|--|
| System Type     | Dutch Bucket (Bato Bucket) — drip-fed hydroponic |
| Bucket Volume   | 10–12 liters per bucket                          |
| Bucket Material | UV-stabilized HDPE                               |



#### AGRIFIRST - FARMERS FIRST

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|--------------------------|--|
| <b>Growing Media</b>     | Perlite, cocopeat, or perlite-cocopeat mix (70:30)           |
| <b>Irrigation</b>        | Pressure-compensating drip emitters (2–4 LPH)                |
| <b>Drain System</b>      | Elbow siphon drain connected to shared drain line (75mm PVC) |
| <b>Fertigation</b>       | Automated dosing system with pH & EC control                 |
| <b>Plant Spacing</b>     | 40–50 cm between buckets (crop-dependent)                    |
| <b>Trellising</b>        | Overhead wire trellising with tomato twine & hooks           |
| <b>Suitable Crops</b>    | Tomato, capsicum, cucumber, brinjal, strawberry, melon       |
| <b>Yield Improvement</b> | 3–5x vs open-field soil cultivation                          |

### ROI & Farmer Earnings

Dutch Bucket tomato growers with Agrifirst earn **₹10–25 lakhs per 1000 sqm per year**. Capsicum and cucumber production achieves even higher returns due to premium off-season pricing. Combined with Agrifirst polyhouse, this system delivers payback in **1.5–2.5 years**.

### GALLERY

