

## CHANGING THE WAY WE GROW FOOD THROUGH NFT HYDROPONICS

South Africa depends on the agriculture sector as the largest producer of food and driver of economic growth; however it is also the largest user of our scarce water resources. The use of NFT Hydroponic Growing Systems is fast-growing in agriculture as the best way to overcome critical food and water shortages by offering a quicker, healthier, more sustainable method of food production.

Marley manufactures a range of UV stabilised, food graded PVC pipes ideally suited to hydroponic growing applications, backed by a range of complementary fittings to complete the system.

### FEATURES & BENEFITS

- Long lengths available: Pipe lengths range from 1.5m up to 12m lengths\*  
\*Subject to minimum manufacturing quantity
- Full solution: Supplied with stop end moulded fittings to complete the system
- Food graded PVC: Qualified by SABS suitable for food use
- Tried and tested: Used by some of the largest lettuce suppliers in South Africa



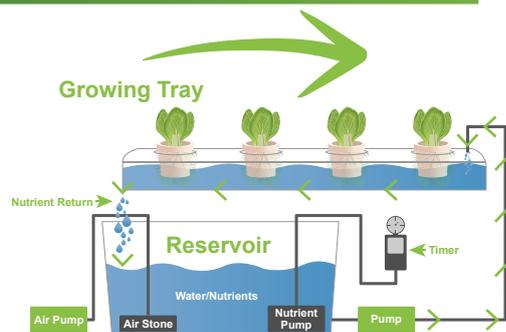
### The NFT Hydroponic Process

#### STEP 1: Reservoir Tank

A tank containing a nutrient water solution is pumped into a growing tray through a network of PVC pipes.

- ✓ The right balance of nutrients, water and oxygen **reduces harvesting time**
- ✓ Controlled environment reduces plant stress for **healthier produce**

#### Growing Tray



#### STEP 3: Recycling System

The nutrient water solution is directed via the pipes into a filter system where the waste water is collected, filtered, treated, recycled and pumped back into the reservoir tank.

- ✓ Nutrient water is recycled, **reducing overall water usage** significantly
- ✓ **Automated sensors** allow for faster crop turnover and reduced labour

## Hydroponics

#### STEP 2: Growing Trays

Growing medium is placed into NFT Hydroponic pots and positioned in a tray which forms part of the pipe network that conveys the nutrient water solution.

- ✓ **Under cover** – not affected by climate-related issues (i.e. flood, drought, wind)
- ✓ **No soil** = no pesticides or diseases associated with soil

\* The graphic above is for illustration purposes only and technical aspects may differ.