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AR-SMART LEAFY KIT –

THE NEW NFT METHOD

MONTHLY
PRODUCTION OF
18.000 -20,000 UNITS
(DEPENDING ON
PRODUCE SIZE).

ALLOWS FOR MIX AND MATCH OF DIFFERENT LEAFY VEGGIES AND HERBS VARIETIES IN HIGH DENSITY.

PVC BOARDS WITH INSULATION EFFECT.

EASY TO INSTALL.

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STRUCTURE

Made of galvanized steel pipes enables full adaptation to all related sub systems

Assembled on site by means of bolts, nuts and washers without welding
Designed for wind speed of 120 km/h
Fixed roof window for natural air flow

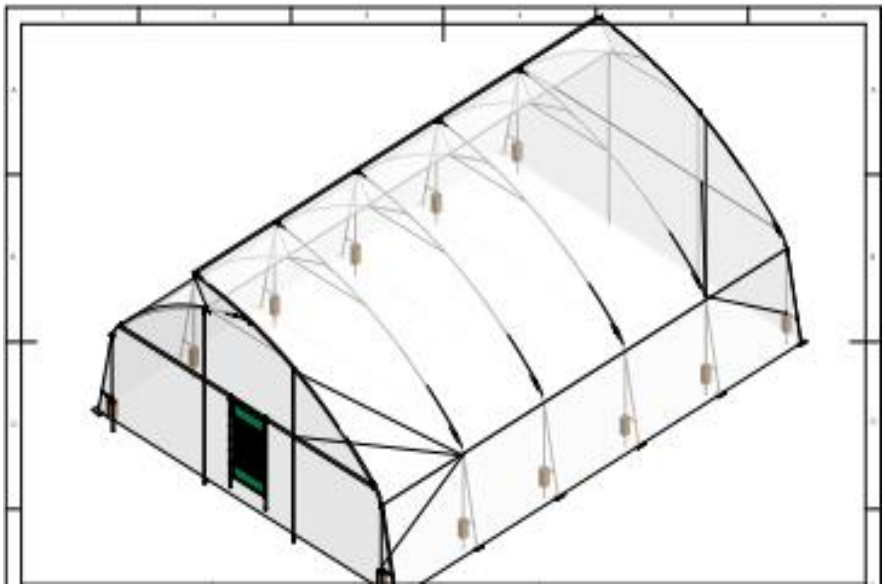
MEASUREMENTS

CROWN HEIGHT: 5+ M

GABLE FRONT LENGTH: 10 M

STRUCTURE LENGTH: 17M X 3M = 51 M

TOTAL COVERED AREA: 510 M^2



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In the domain of soilless culture, the nutrient film technique system (or NFT system) is also fairly popular with hydroponic growers due to its simple yet effective design.

The nutrient film technique is often used to grow smaller and quick growing plants like different types of lettuces. Apart from lettuces, commercial growers also use this system to grow herbs baby greens and strawberries.

Nutrient Film Technique is a versatile and familiar hydroponic system that include components the same as Ebb and Flow but different in configuration.

Let's find out more about this technique.

WHAT IS THE NUTRIENT FILM TECHNIQUE (NFT)?

There are various ways to design a nutrient film technique system; however, all of them take after the design of a very shallow nutrient solution pouring down through the tubing. The bare roots of the plants will absorb the nutrients in the solutions when they come into contact with the water.

The NFT system is similar to the Ebb and Flowtechnique for one reason: They both use water pumps to deliver the nutrients to your plants. However, unlike the flood and drain mechanics of an Ebb and Flow setup, the NFT system is a constantly flowing one.

While systems such as the Wicking or The Kratky Method are passive, simpler to build and easier to run, they don't provide optimal conditions for plants to grow like the NFT system, which is an active one (meaning they require moving parts to work).

HOW DOES THE NUTRIENT FILM TECHNIQUE WORK?

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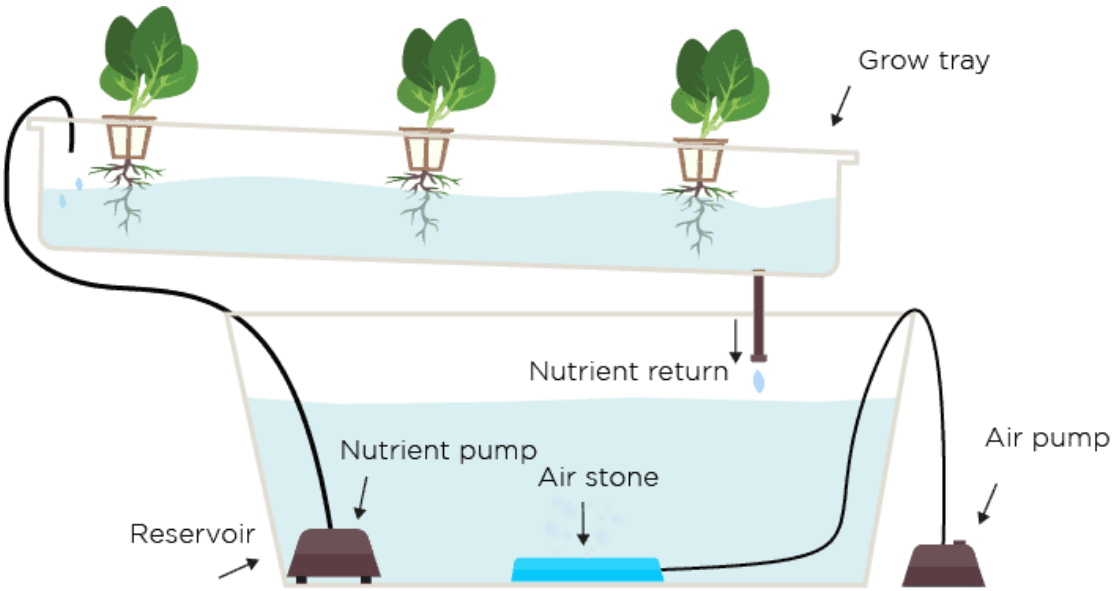

What you need to build a nutrient film technique system (NFT)

1. A reservoir to contain the nutrient solution
2. Nutrient pump
3. Tubes to distribute water from the nutrient pump to the NFT growing tubes
4. Channel for the plants to grow in
5. Net pots to contain plants and growing media to start seedlings in
6. Return system (tubing, channel) to guide the used nutrient solution back to the reservoir

In the NFT system, there are 2 main components: **the grow tray (or channel)** and **the reservoir** that contains water and nutrients.

In the grow tray, there are net pots that contain the growing media (perlite, coconut, Rockwool) to hold the plants and reserve nutrients from the nutrient solution. But in reality, most growers don't use growing media in the NFT system as the roots have had enough moisture, nutrients, and oxygen from the system.

The plant roots grow into a dense mat in the channel and the foliage sits on top, sometimes provided with support by a trellis system.

The NFT system uses a pump to deliver water to the grow tray and a drained pipe to recycle the unused water nutrient solution.

How does this work? The grow tray is placed at an angle (supported by a rack or on a bench) to let the water flow down towards the nutrient return pipe. The excess nutrient solution will flow out of this pipe and move into another channel or tube, where it is recirculated through the system again.

The roots of the plants hang down to the bottom of the channel where they come into contact with the shallow film of the nutrient solution and absorb the nutrients from them.

The thin film of the nutrient solution allows the plants to be watered but not entirely soaked. This thinness also allows the upper part of the roots to remain dry and have access to oxygen in the air.

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TUNNEL Sizes:	
Height of Vertical Wall	2
Gable Front Length	10 m
Length of Structure	17* 3 m = 51m
Total covered Area	510 m²

General Description

The greenhouse is prefabricated assembled on site by means of bolts, nuts and washers, alone, without welding.

The greenhouse is made of galvanized steel pipes.

This enables easy implementing and full adaptation to all related sub systems used in modern greenhouse production.

Designed for wind speed of **120 km/h**

All dimensions are in **meters** unless otherwise stated**.**

Covering :

Roof: polyethylene 180 micron
Sides: 50 mesh nets
Roof : 50% black shading net

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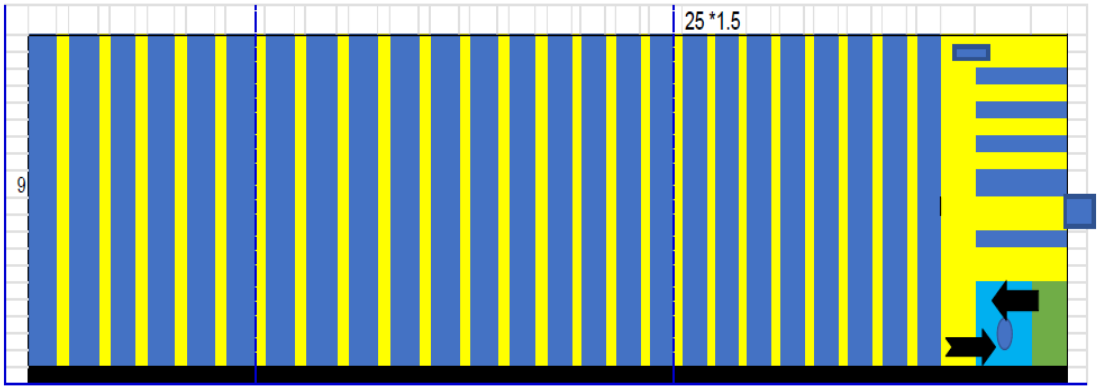

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- ***25 Tables 9 m long ,1.5 m wide.***
- ***Up and down PVC boards with holes.***
- ***Main irrigation head 15 m3/h on aluminum skid.***
- ***Pumps and filters 2".***
- ***Water meter 2".***
- ***Irrigation and climate controller -Galcon GSI Pro including modem to control from the phone.***
- ***Electrical system and boards***
- ***2 fertilizer tanks 100 liter.***
- ***Main irrigation pipes***
- ***Main circulation pumps to circulate the water***

Black and white ground covering

2 circulation fans 24 "

Nursery tables for young plants 5 units +trays

Refrigerator 1500 liters

Solar panels to operate the electrical system including batteries system capacity 15 kw/h

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