



## **BRAND STORY**

"Hindustan Agri Business Pvt Ltd" i.e. HABPL Formerly Greentech India have always believed in love for Agriculture which helps us to deliver our client a motivational, young, effective, knowledge-hungry workforce.

Mr. Ganesh Kulkarni is founder of the Hindustan Agri Business Pvt Ltd. having experience of more than 20 years in the field of HiTech Agriculture, Greenhouse Climate Control & Automation of Greenhouses. He is renowned greenhouse technologist in India. Greentech India was established in 2010 & HABPL in 2021 and executed Numerous projects across India.

## MISSION

Make Agri Business a Profitable profession while improving the environment & health of the world at large.

- Never give up
- Economical viable solution
- Health First
- Every customer and employee are business partner





## How we spread Health & Happiness



Save Water
Less water consumption
over conventional farming.



Designed Nutrients
Customized Nutrient value
as per the need.



Best Quality
Best quality produce of
International Standards.



Residue Free Safe Food



Crop Protection
Consistent climate for crops 365 days.



Eco-Friendly No Soil, Water, Air Pollution.



Profitable
Saving more money on
CAPEX & OPEX.



Multiple Offerings
Wide range of designs
as per climate & crop needs.



Easy Operation
Easy to operate & maintain.



Quality Produce
Multiple produce
over
conventional farming.



Latest Technology Leading Technology in Innovation & Implementation.



24X7 Service Support



# Hydroponics



# Commercial Systems

Growing food in the cosmos may represent the future, where astronauts, urban gardeners and home farmers alike, use hydroponics system to grow food in small indoor & outdoor spaces using a relatively controlled system. HABPL brings these systems to your doorstep.

- Simple
- Standardized
- Stress Free



## Types of Hydroponics Commercial Systems

Dutch Bucket

Water Culture System

- Cocopeat
- Hyadroton
- Grow Bags

Cocopeat Based System

- NFT systems
- Horizontal NFT
- Vertical NFT A-Shape
- Deep Water Culture (DWC)
- Single planter growbag system
- Trough system
- Multiplanter growbags
- Vertigrow system



## Turnkey Project Roadmap



#### **SITE STUDY**

- Climate Change Analysis at Site
- Water Analysis
- · Dimensional Studies of Site
- Site Constraints

## DESIGNING OF PROJECT LAYOUT

 Designing the Project Layout as per the Crop Type

#### MATERIAL SUPPLY

- Supply as per the Project Progress
- Quality Check of received Material
- Installation & commissioning

#### NUTRIENT MANAGEMENT TRAINING

- Installation & Operation
- Complete Training
- Preventive & Breakdown
- Saving Energy & Resources



## Cocopeat Based Systems

Cocopeat Based Systems are very economical and easy to install. Cocopeat substrate allows increased aeration thus giving increased yield quantitatively & better quality of produce.



#### Single Planter Growbag System

This system includes our strong and UV Stabilized grow bags which are prefilled with either only cocopeat or a mixture of cocopeat and perlite. These are widely used to grow plants such as tomato and cucumber. These are mainly used for climbers and creepers.

#### **Trough System**

Our trough systems give the cultivator more control over the growing medium. They have a longer life and can last for about 5-6 years. These are easy to install systems and are widely used in Greenhouses and Net houses.





#### Cocopeat

In hydroponics, soil is replaced by a supporting medium. This supporting medium, however, does not provide nutrients to the plant. It is only used so that the roots are held tightly and the plant weight is balanced. Hindustan Agri Business Pvt. Ltd. manufactures many inert materials which are used as a supporting media. Inert material does not decay or break down quickly. Thus a hydroponic supporting media is a substrate that is generally porous so that it can hold the moisture and oxygen required for the development of root system.



#### **Compressed Cocopeat Block**

Coco peat is widely used as a natural soil less hydroponic growing medium by many hydroponic growers.

Commercial hydroponic growers worldwide are producing excellent quality and high yield vegetables and cut flower flower crops using Coco Peat.

Slab Dimension	30 cm x 30 cm x 14 cm		
EC	<1		
Compression Ratio	1:1.5		
Fibre Content	up to 10%		
Sand Content Block Weight	up to 5% 5 Kg (+5%)		



These systems use our insulated pots designed for high density vertical farming. They are popular for usage in fruits cultivation and for leafy vegetables production.





## Hydroton Based Systems

The Dutch Bucket systems or Bato Bucket systems is a durable & a sustainable method of hydroponic farming. This system conserves large amount of water & nutrients, thus saving substantial amount of resources.



#### **Dutch Bucket**

Combination of Hydroton, LECA or Perlite in our Dutch bucket is a perfect blend for growing any creeper vegetables with high crop values. These systems are normally used for growing crops like tomato, cucumber and capsicum.







## Water Culture Systems: NFT Systems

Nutrient film technique (NFT) is a hydroponic technique where a thin stream of water containing all the dissolved nutrients required for plant growth is re-circulated past the bare roots of plants in a gully, also known as channels. NFT systems require lower water and consume lesser nutrient. They avoids the supply, disposal and cost problems associated with media based systems. NFT systems are relatively easy to disinfect roots and hardware compared to other system types. The absence of medium makes it easy to inspect roots for signs of disease, feed adequacy, etc. NFT systems are the best systems for leafy vegetables. A-shape NFT provides more planting footprint per sq. meter area and this usage of 3 dimensional space gives a very high yield per acre.



#### **Horizontal NFT**

NFT system can work in either horizontal or vertical setups depending on the grow space and the types of plants you wish to grow (like trying to grow vertical stacks of tomatoes would be difficult).

#### Vertical NFT A-Shape

A-Shape NFT provides more planting footprint per sq. meter area. This design offers optimum 3 dimensional space utilization, thus providing maximum yield per acre.





## Indoor Hydroponics with NFT Systems

The 'City Farming' revolution starts here.
This cultivation process involves growing crops/plants in small indoor areas using multistoried stacks to maximize production.
All the required elements that influence healthy plant growth can be easily controlled and maintained. This includes factors such as light, temperature, humidity, pH levels, nutrients and water. The ability to control these elements makes hydroponic gardening easier and less time consuming than gardening with soil.

NFT systems provide a continual flow of nutrient solution without the use of a timer (unlike aeroponic system). Rather, the roots of plants hang down in the solution and plants absorb the necessary nutrients from the flowing stream of nutrient solution.

Indoor hydroponics is a beautiful combination of technology and aesthetic beauty that not only saves up on cost, space and manual labour, but also looks beautiful and contributes to your overall health and well-being! Your indoor house setups are incomplete without a small hydroponics system. Who would have known living in the modern times could be so exciting!









#### UPVC NFT Channel with Lid (1m/3m)

NFT gully facilitates the Nutrient Film Technique by allowing a thin film of oxygenated nutrient solution to flow along the base of a flat bottom gully surface from which the plant root system can be fed. These UV-stabilized NFT gullies have a long life with proper maintenance and care. The have a perfectly modulated lid and have optimum growth space in the channel that enables sufficient root growth as well as head space to meet the oxygen requirements of a rapidly growing plant.

	1M	3M		
Dimension	1000 mm x 117.5 mm x 54.5 mm	3000 mm x 117.5 mm x 54.5 mm		
Lid	With Pre-punch Cavity for Net Pot	With Pre-punch Cavity for Net Pot		
Diameter of Cavity	2"	2"		
Material Type	UPVC, Food Grade Lead Free	UPVC, Food Grade Lead Free		



#### **Weed Mat**

Weed mat can be used in both open fields and greenhouses which is Prevents weeds growth, reduce herbicide usage, helps conserve water, strong and durable – supports movement on the weed mat and boosts plant growth. weed mat can also be used to create darkness effects and to be customized to cover root zone of trees in orchards and plantations.

Material type

HDPE, UV Stabilized







## Hydroponics: Membrane Meniscus Method

The IMEC ® hydro-membrane farming systems comprises of the Hydro-Membrane and the water and nutrient feeding system that is economical and simple to set up and operate which allows anybody and everybody to grow food. The world's first Hydro-Membrane based Farming Technology addresses some of the serious issues that our world faces today such as water scarcity, reduction of arable land due to soil degradation and contamination, and climate change.





Farm Anywhere



Water Saving



Healthy & Nutritious



High Safety



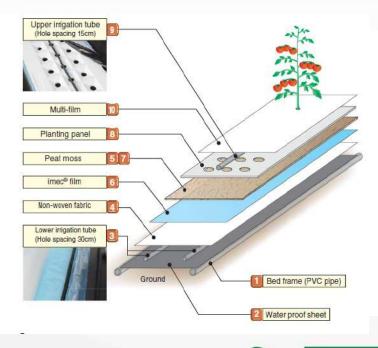
Easy set up



High ROI



Zero Agri Runoffs







# GREEN HOUSES

Automations & Innovative Solutions

Equipments for Greenhouses

- Temperature Control Automation
- Humidity Control Automation
- Light Control Automation
- Irrigation Fertigation Automation
- Cloud based Monitoring & Controlling

Types of Greenhouses

- Exhaust Fans
- Cooling Pad
- Air Circulation Fans
- Fogging System
- Green House Heating System
- Boom Irrigation
- Internal & Outer Shading
- Black out Systems
- Green House lights etc.
- Climate Control Green House
- Natural Ventilation Polyhouse
- Retractable Roof type Green House
- Shade Net
- Poly Carbonate Green House
- Solar PV Green House
- Glass House



## Different Types of Green Houses

Greenhouse technology enables protecting the plants from the adverse climatic conditions and providing optimum conditions of light, temperature, humidity, Co2 and air circulation for the best growth of plants to achieve maximum yield and best quality. Thus, a greenhouse is a covered structure with transparent material that protects plants from unpredictable weather conditions like wind, precipitation, excess solar radiation, temperature extremes and also it saves the yield from attack of pests & diseases to a greater extent.

We provide technical support and consultancy to farmers in Greenhouse technology right from greenhouse construction to marketing, i.e. plantation, irrigation, fertigation, pest and disease management and postharvest management etc.



#### Climate Controlled Green House

Climate control of greenhouses is precisely what it sounds like. It refers to the regulation of the temperature and humidity inside the greenhouse in all growing climates to ensure that the crops can thrive and even live past their "season".

#### Natural Ventilation Polyhouse

Natural Ventilation Polyhouse special structure made of G.I. pipes, insect proof nets and transparent plastic sheets, which protect the crops from adverse climatic conditions, insect-pests and different viruses. In this type of polyhouse all four sides of the greenhouse are covered with an insect-proof, 40 mesh nylon net.







#### **Shade Net Green House**

A Shade house is a structure enclosed by agro nets or any other woven material to allow required sunlight, moisture and air to pass through the gaps. It creates an appropriate micro climate conducive to the plant growth. It is also referred as shade net house or net house.



#### Poly Carbonate Green House

Polycarbonate glazing is a premium choice for growers living in all kinds of climates. It can withstand harsh weather. It is long-lasting and can remain in good shape even after several hits from a ball. Polycarbonate greenhouses have excellent features.



#### Solar PV Green House

Solar greenhouses use a special photovoltaic solar panel that was developed for greenhouse roofs. It not only generates renewable electricity but can also help plants in their food-making process, known as photosynthesis, using a light-altering dye.





## Greenhouse Equipments Climate Control Systems





FAN SIZE: 24 INCH

CFM @ 0SP: 6900 RPM : 960 BLADE DIA: 609 BODY SIZE: 710 MM MOTOR POWER: 0.5 HP

FAN SIZE: 36 INCH

CFM @ 0SP: 13600 RPM : 600 BLADE DIA: 900 BODY SIZE: 1000 MM MOTOR POWER: 0.75 HP

FAN SIZE: 54 INCH

CFM @ 0SP: 25890 RPM: 440 BLADE DIA: 1270 BODY SIZE: 1380 MM MOTOR POWER: 1.5 HP

#### **Exhaust Fans**

HABPL with its intensive research and development has come up with a unique design of drop hamper exhaust fan system.
These galvanized fans available in varieties and sizes.



#### **Evaporative Cooling Pads**

HABPL's cooling pad is made of fluted cellulose sheet those are glued together.
Cellulose sheet is treated with unique ingredients to achieve high cooling efficiency and degradation resistance.





## **AIR CIRCULATION FANS**



## **FEATURES**

Perfect tube type design specially made of Greenhouses

It circulates air inside the greenhouse smooth and even.

Supply with complete assembly just plug and start.

Very easy installation at the bottom cord with clamp.

Very low power consumption.

All material used is rust free and durable





MODEL NO	Body Frame	BODY SIZE	Blade Materials	Air Volume	Air Throw	Power	Motor Speed
PCACF40-70	Powder Coated	D320 MM X H 410 MM	Aluminium Powder Coated 7 NOS.	6500	70FT	220 watt	1400 rpm
GTACF40-70	Stainless Steel	D320 MM X H 400 MM	Aluminium Powder Coated 7 NOS.	5300	70FT	120 watt	1400 rpm
GTACF-55-90	Stainless Steel	D320 MM X H 550 MM	Aluminium Powder Coated 5 NOS.	8700	90FT	180watt	1400 rpm





## Fogging Systems



#### High Pressure Fogging System

High-pressure fogging system pumps help alleviate excessive heat often found in outdoor venues. They release an evaporative ultra-fine fog, reducing temperatures in the immediate area by as much as 20–30 degrees.



The low pressure fogging system is a system that shortens the environment in a short period of time and provides the moisture needed by the plants when used in the hill







## Heating systems in Greenhouse

## Heat Distribution from a Boiler System



Hot water or steam leaves the boiler and is pumped into the greenhouse via a pipe network or unit heaters, or both. The pipes are typically located overhead and above the crop, or alternatively may be located beneath the benches and on the perimeter walls, or in a combination of each. Floor heating is another method to heat the greenhouse with hot water. Hot water unit heaters are another option for delivering heat into the greenhouse.



## **EBB Flow Trays**

Material	FRP		
Shape	Rectangular		
Color	Food Grade Blue		
Surface Finishing	Smooth finish		
Warranty	1 year		
Capacity	300 Ltr		
Country of Origin	Made in India		
Usage/Application	Agriculture		
Brand	Greentech India		







## **Nursery Products**



#### **Boom Irrigation**

A boom irrigation system consists of a pipe that delivers water to nozzles attached along its length. The spray bar usually spans the entire width of the greenhouse, from column post to column post in gutter-connected ranges or sidewall to sidewall in freestanding structures. It can irrigate the entire width or just portions to match the bench layout or aisle configuration.

## Rolling / Movable Benches:

- GI galvanized and aluminum rift free body.
- Light weight, easy to transport and installation.
- Long Life, customized to any greenhouse size, easy to operate.
- Can utilized maximum 90% area of Greenhouse







### Plat support Trelling Systems:-



Plant support Trellising systems plants and other soft-stemmed plants need support to grow upwards. So we, provides Tomato Clip which offers value – added fastening solutions for greenhouse culture. It saves operating labour and assures minimum handling damage to plant, resulting into more productivity and better management of a number of vegetable crops like Tomato, Capsicum, and Cucumbers etc

#### Benefits:

Improves Production, Quality & Yield
Increases usable space, more plants
Keeps Plant off the ground making operations
(Harvesting, spraying etc.) easy
Reduces labour
Reduces time of operation
Reduces crop damage during operations
Prevents soil borne diseases & pests
No adverse effect on plants







## Internal & External Thermal Shading



#### Thermal Shading & Automation

Thermal screens are by far the most effective energy and cost saving technology in the modern greenhouse. Thermal shade screens open when light is limited and close when light is excessive. They also reduce heat loss, dew drop, heating costs, and help to maintain a more constant and comfortable greenhouse climate for your crop and your staff.

Blackout Systems allows the user to control the light cycle when crops are being harvested. Designed specifically for the r and d labs and tissue culture Greenhouses, the system provides efficient light deprivation that can lead to lowered labor costs. Achieve your finest harvest yet with Blackout Systems designed specifically for the R & D Greenhouse.





## Side & Top Ventilation Automation



By automating your greenhouse's roll-up curtains, you can significantly improve your ability to provide exactly the growing environment your plants need to thrive, while drastically reducing the hands-on labor required to do so. Here's a closer look at some of the benefits, and how you can get your greenhouse outfitted with automated roll-up sides for the next arowing season.

Save Time, Save Effort & Boost Your Harvest

When it comes to environmental controls in your greenhouse, automation really can be the key to reducing manual labor, improving harvests and truly providing the best environment for your plants to grow their best.



## Green House Growing Lights



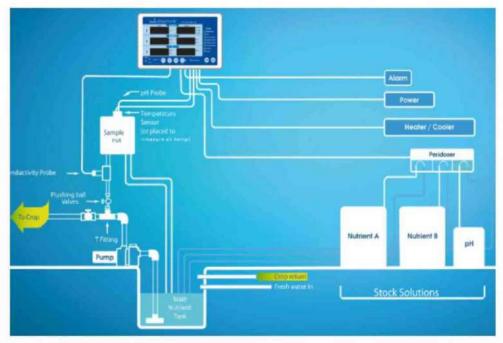
One of the major components of growing any type of plant is light. However, giving your plants the proper amount of light can be a problem. This is where grow lights become almost a necessity - they can give plants the correct amount of light anywhere natural light is the best, but greenhouses used in the winter may not be getting enough light, and your plants may need supplemental light; this is where greenhouse grow lights come in.

Now that you know what grow lights are, it's time to learn about the different types. Many people have different needs, including types of plants, size of the greenhouse, and amount of light getting into the greenhouse. Grow lights can also be used in combination with each other; you do not need to choose only one.





## Automatic Fertigation & Irrigation System



This is auto dozer machine which using in commercial crop growing system. This will maintain Nutrient and EC PH value in irrigation water as per crop requirement. EC and pH levels are continually fluctuating in relation to the feeding and transpiration activities of the crop, and the introduction of fresh water to the hydroponic system via automatic fill valves. A commercial grower does not have the time or patience to maintain EC and pH levels to the required standard using manual dosing.

Crop growth, therefore, becomes inconsistent and yields decline. The risks associated with manually dosing acid for pH control are considerable and root damage due to momentary acid overdosing is an ongoing problem that results in yield reductions and subsequent root disease. The use of an automatic dosing controller overcomes all of these concerns. The growth of the crop is consistent and uniform, flavour is better, yields are higher, incidences of root disease are reduced, and the grower finds that they have a lot sparer time on their hands for other business or leisure activities.







## **Environmental Control Ripening Chamber**

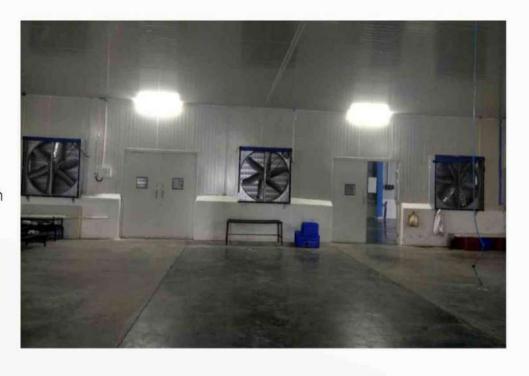


We are the innovated of ECRC types of ripening chambers. Economical & advanced Fruit Ripening Chambers, this type of chambers is mainly used in food processing industries and commercial purpose. These environment controlled ripening chambers are used to help agricultural products to ripe and grow in hygienic and favorable environment. These ripening chambers can control the level of various optimum factors like gas emission level, ventilation, temperature and humidity.



#### Features:

- Cost effective
- Timely execution
- Even ripening of the batch
- Require less labour
- Fast Ripening
- More production













We have collaborated with Mebiol Inc. Japan, Japan with the support of Govt. of India under 'Clean Ganga Mission'. We have been selected for introducing "Membrane" Technology for the very first time in India. We have successfully completed Pilot project at Pune on Membrane technology.

We are coming up with this technology on a massive scale in India and across the globe.





## Hindustan Agri Business Pvt. Ltd.

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