CLICK AND GROW™

SMART FARM INFOSHEET

DO LESS, GROW MORE

CLICK & GROW™

TABLE OF CONTENTS

INTRODUCTION

The Click & Grow Smart Farm is an innovative modular plant production unit, which can be installed in any indoor environment for growing vegetables, fresh herbs and leafy greens all year round and hyper locally. It's a scalable easy-to-use system that relies on state-of-the-art technology like plant growing substrate Smart Soil, high-tech lighting solution and a precise watering system to deliver results.

Even with smaller dimensions than traditional "horizontal" farms, the Smart Farm allows you to **achieve bigger harvests in smaller footprint.** It can easily be used in urban areas, close to actual consumption, to revolutionise the way food is grown and consumed all around the world.

This document describes the smallest model that is 3 meters long and has plants in 3 levels.

TECHNICAL SPECIFICATION

SMART FARM
MODEL 3-3-3

Farm size (L x W x H)	3,2 x 0.79 x 2.2 m
Minimum room size (5 x1.7 x 3 m)	8.5 m^2
Plants per farm	288 plants
Plants per m^2	34
Yield takes per year	10
Plants produced per month	247
Power consumption	600 W
Water consumption per month	150 liters
Labour hours per month	4-6 hours

The room size in this example is 8.5 m^2 and a room this size can simultaneously grow 288 plants. The number of plants grown per month is 247 assuming the plants give 10 yields per year. This means the plants are harvested after every 35 days, which is a standard harvesting cycle for plants like lettuce, basil and similar.

The power needed to operate the Smart Farm is 600 W, which requires roughly 25 € per month when assuming the location of the farm is in Northern Europe. The farm is almost fully automatic and therefore requires minimum human operating time. The whole farm can be operated with 1 hour of work per week.

ADVANTAGES OF SMART FARM

COST EFFICIENT

- Water consumption is on average 0.6 liters per plant during its entire lifetime. Water consumption per plant in outdoor fields, in California, is around 22 liters per plant, which is 37 times more water than the Smart Farm uses.
- Highly efficient light system helps keep energy costs low.
- The Smart Farm requires 71 times less land than traditional outdoor farm land.
- A standard Smart Farm module is also much more labour efficient when compared to competing systems. It takes less than 2 hours per week to operate the farm by a single farm manager while competing hydroponic systems take around 30h per week for a farm with a similar size.

LESS WASTE

- Long realization time minimizes food waste thus reducing costs and environmental footprint.
- Outdoor farm fields are huge water wasters and together with the irrigation water they also flush the fertilizers into ground water which greatly influences local ecosystems.
- Fresh herbs and greens at home or office at all times.
- The food waste in US during transport and at store level is 46% on average. Food waste is taken to absolute minimum with the Smart Farm.

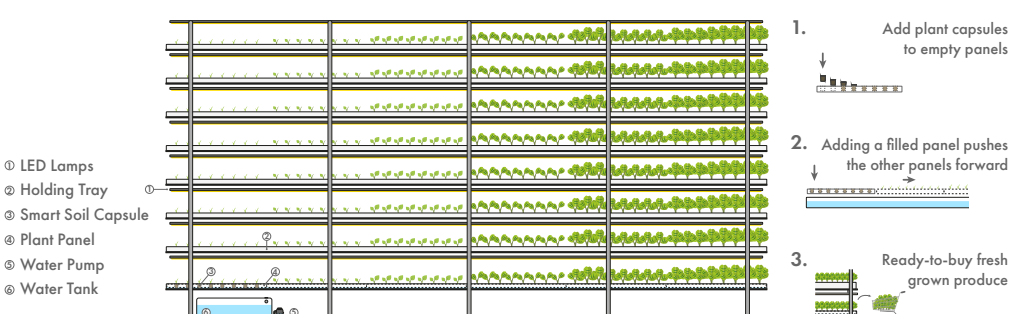
HIGHER YIELDS

- The effects of weather are minimum to non-existent.
- Plants can be grown all year around.
- Plants can be consumed within 2 weeks after harvest when plants are harvested together with the soil.
- The nutritional value of the plants grown in the Smart Farm is considerably higher than compared with similar plants grown in traditional farm land or in hydroponic farms.

HOW DOES THE TECHNOLOGY WORK?

We use a patented growth substrate called the **Smart Soil** to grow plants. It keeps the level of oxygen, water, pH and nutritional ingredients at optimal levels. The Smart Soil has allowed us to minimize the need for user maintenance, and completely eliminated the need of sensor calibration thus making the technology fool-proof and cost-efficient. There is no need to fertilize, transplant, select and plant seeds, work with soil etc.

The Smart Soil pods (seeds already inside) are inserted into plant cups placed in a water tray. The watering cycle can be set based on the needs of any specific plant and the farm will water them automatically. The LED lights will make sure plants get enough light to thrive. As plants grow, you can easily move the plants along the water tray to add new seeded capsules. Perfected watering and light cycles mean that plants grow faster and contain more nutrients.



SMART FARM COMPETITIVE ADVANTAGES

- 68% CHEAPER TECHNOLOGY
- 600% MORE VITAMINS
- 98% LESS FERTILIZER WASTE
- 30% FASTER GROWING
- 95% LESS WATER
- 38% REDUCED FOOD WASTE

WHAT CAN YOU GROW?

- **Salad greens** (e.g. lettuce, kale, red kale, leaf mustard, tatsoi, bok choy, sorrel)
- **Herbs and spices** (e.g. basil, thyme, oregano, rosemary, dill)
- **Tea herbs** (e.g. peppermint, lemon balm, sage, stevia)
- **Ornamentals** (e.g. jasmine tobacco, petunia, busy lizzie)

MORE THAN 50 PLANTS AVAILABLE

PLANT YIELDS

The table below indicates annual plant yields when the whole farm is used to grow the designated plant. Different harvesting times give different yields. Shorter harvesting time results in better plant taste and appearance. Harvesting plants after 6 weeks instead of 4 weeks leads to noticeably bigger plant growth, but the taste may not be as good when plants get older.

	4 weeks (kg/year)	6 weeks (kg/year)	8 weeks (kg/year)
Lettuce	93.6	109.8	
Romaine Lettuce	78.6	97.3	
Red Kale	56.2	47.4	
Arugula	63.6		
Bloody Sorrel		54.9	
Green Sorrel	52.4		
Red Chard	59.9		
Cress (harvest in 3 weeks)	34.9		
Sweet Basil	52.4	57.4	
Red Basil		44.9	48.7
Dill		37.4	
Parsley			39.3
Cilantro	52.4		
Chives		30.0	
Thyme			22.5
Oregano			31.8
Peppermint			46.8
Lavender			30.0

SUSTAINABILITY

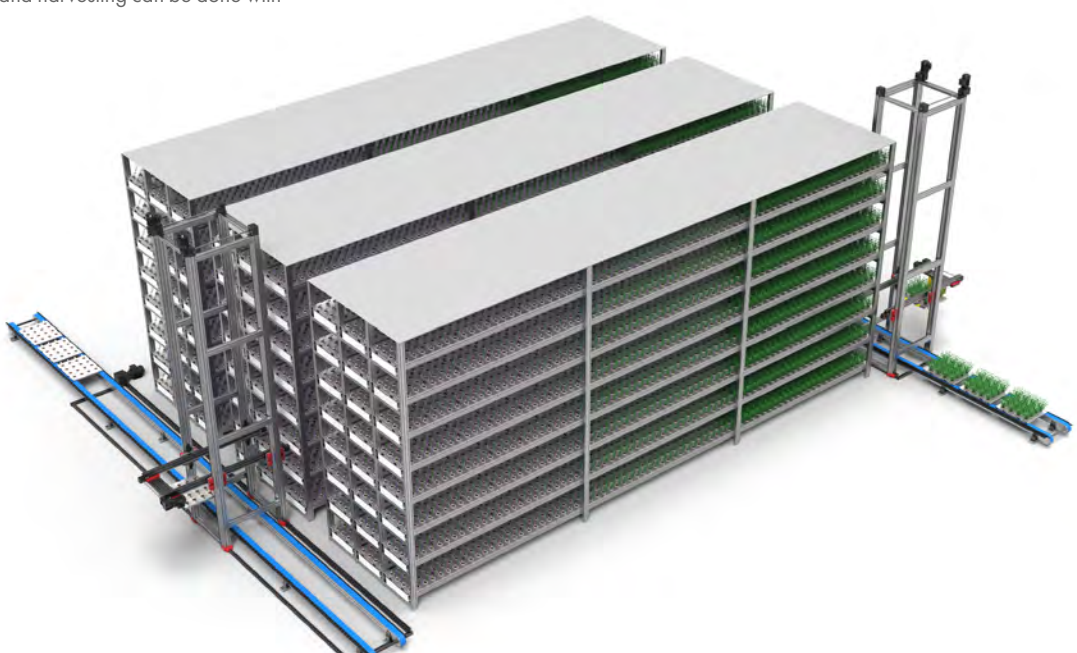
- Cost to grow each plant: **0.33€ + capsule price**
- Lifetime of the farm in the calculation is 15 years
- 10 yields per year

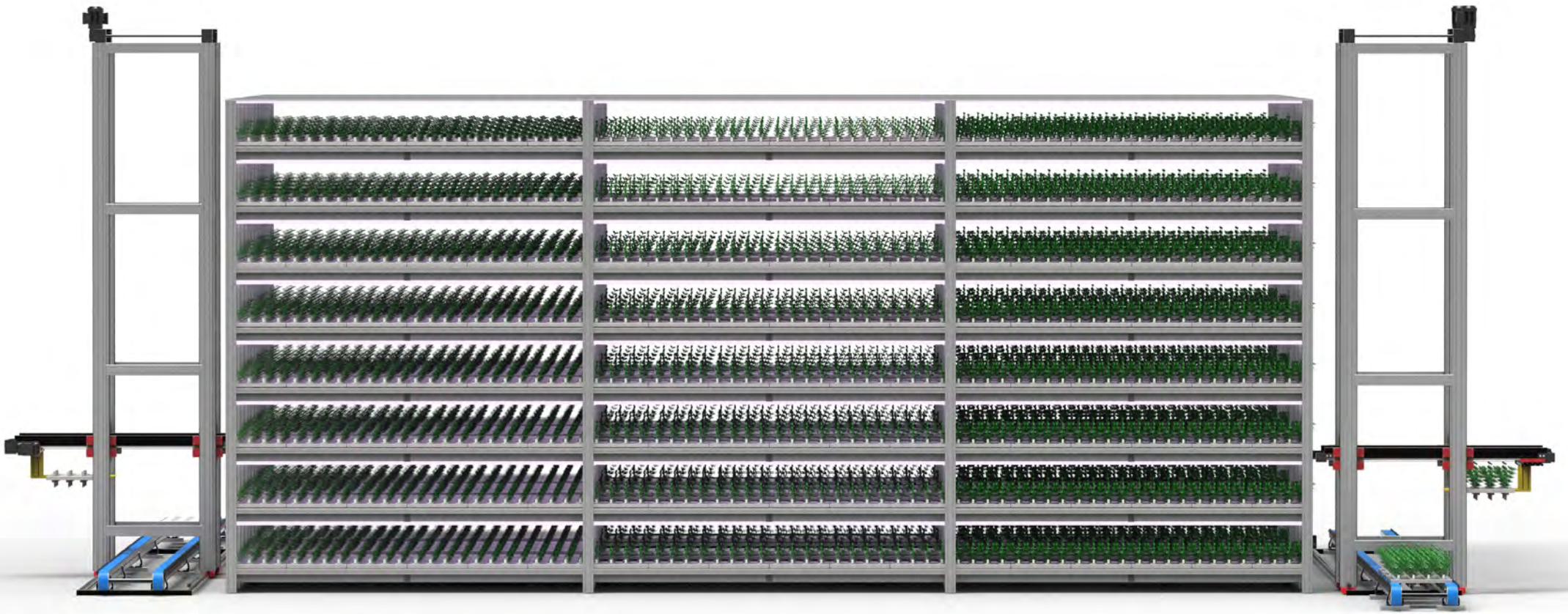
SCALABILITY

FULLY MODULAR DESIGN

The system is fully modular and we're also able to tailor the number of trays, lamps and plants featured in a single module. This allows us to offer a solution that is highly adaptive to the needs of the end-user and can be optimised for any space. Many units can be used together if increased productivity is needed.

Bigger Smart Farms can also be automated so that planting and harvesting can be done with minimum human interaction or effort.





ORDERING & PRICING

ONE TIME OFFER

- Price: **15000€** (does not include transport and setup)
- Lead time is projected at 4 months. Depending on the level of demand we can finalize the lead time during the purchase.
- Smart Farm clients will receive plant capsules with the special price of 0.95€ per capsule

For orders and more information, please contact sales@clickandgrow.com

LEARN MORE

Our whole team is working towards making the most essential, fresh, vitamin-packed food accessible everyone on this planet. We believe that everyone deserves to enjoy clean fresh food and thrive.

Contact us: info@clickandgrow.com

CLICK AND GROW™

www.clickandgrow.com