LED Garden
Desktop type

FEATURE

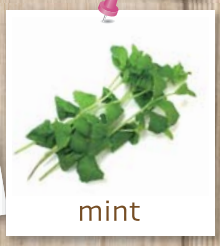
1 ON-DEMAND PRODUCTION
High quality vegetables can be produced in short period using originally developed controllable LED.

2 CONTROLLABLE AN APPROPRIATE ENVIRONMENT
Stable production of various kinds of vegetables will be possible by controlling temperature, light, and hydroponic condition.

3 UNIQUE TEMPERATURE ZONE SETTING
LED Garden Desktop type adopts compressor system that enables users to set unique temperature as they want. It is useful to test how temperature affects to plants' growth under the same circumstances.

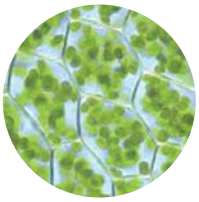
4 EASY PRODUCTION FOR BEGINNERS
No cultivation techniques required!
You can start Vegetable factory now with this unit.

●●● Examples of vegetables produced ●●●



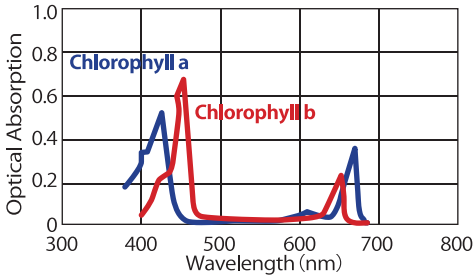
[Cultivation system summary]

- We have independently developed and combined AlGaInP Red power LED aligned with the 660nm wavelength at which phytochrome, the key player in photosynthesis, is absorbed.
- Color combination of RGB (Red, Blue and Green) of LED can be adjusted to suit the growth stage of the plants, making it possible to harvest in about 2 weeks of planting.
- By controlling light wavelength, vegetables can be grown with a greater amount of functional elements than plants grown in sunlight.



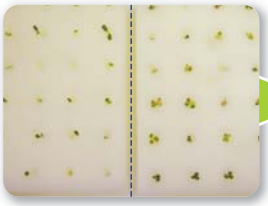
chloroplast

The absorption peak of phytocrome, the key player in photosynthesis is a wavelength of 660nm

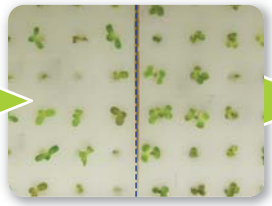


Optical absorption spectra of chlorophyll a and b

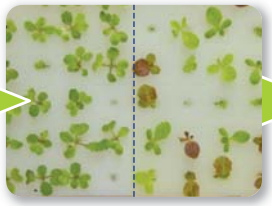
Seedling process (sponge medium culture / Left: Garden baby/ Right:Karashina)



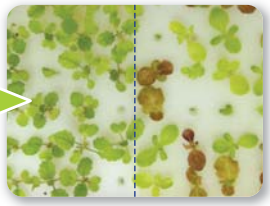
4 days after seeding
Cotyledons can be found in mere 4 days



10 days after seeding
Healthy leaves growing



14 days after seeding
Settled planting feasible



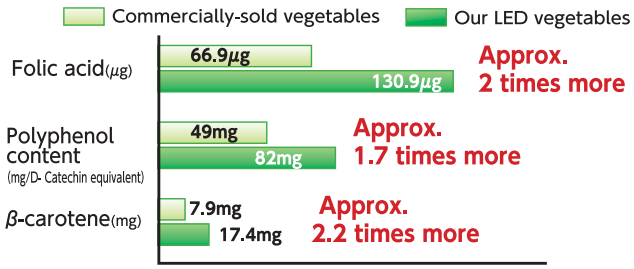
17 days after seeding
Anthocyanin is well synthesizing

Growth of roots
Well grown, fulfilling roots with the good survival ratio.

Feature of the Vegetables raised in our cultivation system

- Vegetables grow 1.5~2 times bigger than that of grown in soil.
- Vegetables are highly resiliet to deseases, growing healthy without using of any pesticides.
- More sweet and loaded with rich vitamins

A comparison of functional elements in komatsuna (Japanese mustard spinach). (per100g)



LED Garden Desktop type specification

Product name			LED Garden Desktop type		
LED Lightning Source	Panel size		Width	Depth	Hight
			450mm	70mm	30mm
	Power consumption		Approx.50W MAX		
	LED controller		Independently settable R/G/B		
Incubator	Dimention		Width	Depth	Hight
		Outer Dimension	750mm	450mm	800mm
		Inner Dimension	690mm	342mm	317mm
	Inside capacity		76L		
	Power		AC 100V		
	Power consumption		138W		
	Net weight		Approx.55kg		
	Color		White		
	Door		Side open type. dual glasses		
	Shelf		Single (1)		
	Max nursely plants		Approx.300 (Urethane mat conversion)		
	Tempereture setting		Approx.18℃~25℃		

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