

News Release

Growing Foods in Space with “Gas Phase Culture technology”

We developed a completely new method of growing plants indoor without soil named “Gas Phase Culture (GPC) technology.” Plants are grown within “RB-type culture unit (Photo 1).”



Photo 1 : RB-type culture unit : Potatoes are grown in this unit.



Photo 2 : Roots in the air within rootbox

【Gas Phase Culture】

Looking within the rootbox (Photo 2), you can see many roots growing in the air (gas-phase). Good condition for the growth of the roots is automatically kept within it.

You don't need water pump to supply oxygen to the water. You just put a small amount of nutrient water in the box.

Photo 3



【RB-type culture unit (Photo 3)】

- LED lamps are installed on the ceiling
- Rootbox has a window for monitoring roots status and harvesting crops
- Multiple units can be connected to build plant-cultivation plant corresponding to the size of the place.
- Water pump is not needed.

【All plants can be grown】

Crops (e.g. potato, soy), Grains (e.g. rice-plant, corn), Root-Vegetables (e.g. ginger, carrot), Fruit-Trees (e.g. fig), Medicinal-Plants (e.g. licorice, turmeric), Vegetables...



rice-plant



turmeric



potato



fig

GPC can be utilized in the places where it is difficult to grow plants, such as desert areas, battlefields and so on. In addition, this plant-culture method is expected to be applied in space. The time will come when you can cultivate, harvest, cook and eat every plants inside the spaceship.

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