

OVERVIEW

The Agricultural Business Unit of Panasonic Factory Solutions Asia Pacific (Panasonic) is cultivating premium Japanese vegetables via a controlled soil-based environment with LED lighting. The facility is the first in Singapore to obtain an indoor farming license from the Agri-Food and Veterinary Authority (AVA) and grows a wide range of premium Japanese crop varieties that are pesticide-free and compliant with stringent food safety standards.

This eco and sustainable method of farming allows Panasonic to reduce cultivation lead time and produce a stable supply of high-quality crops through the best agricultural practices for indoor urban farming. It is committed to design and develop indoor agricultural solutions to meet market demand for stable and sustainable production of locally-harvested crops.

Panasonic aims to contribute to AVA's vision of raising self-sufficiency level for leafy vegetables through its technology and harvest. The company targets to increase its contribution to local production from the current 0.015% to 5% by fiscal year ending March 2017.

MISSION

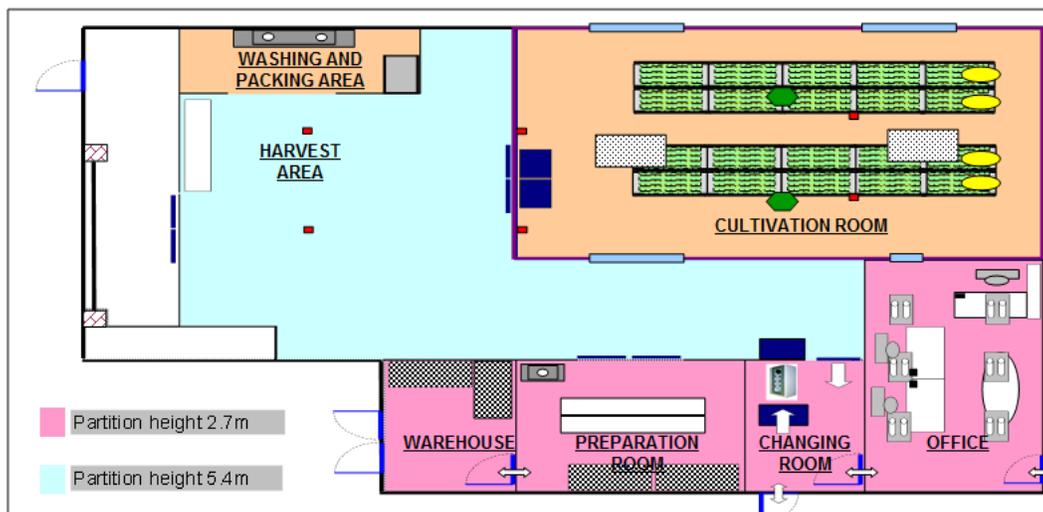
To achieve consumer satisfaction through reliable supply of crops which are pesticide-free and of the highest quality, utilising best agricultural practices for indoor urban farming.

VISION

To be the World No.1 role model in sustainable urban farming with environmental protection; benefit the community by promoting healthy eating lifestyle; and create opportunities for future farming technology.

ABOUT THE FACILITY

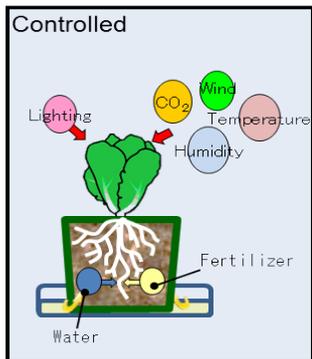
FLOOR PLAN



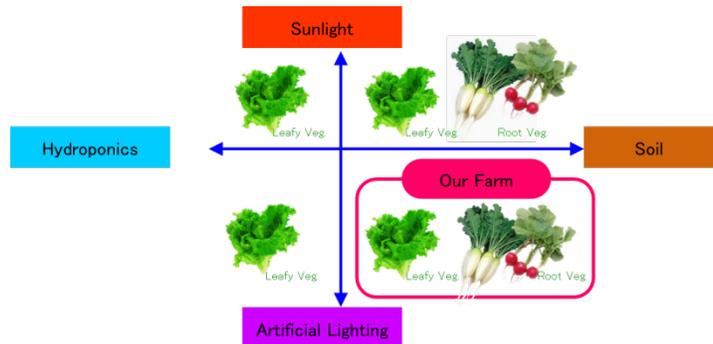
Agricultural facility space: Total Area: 248m² / Cultivation Area: 77m²

Output: 3.6 tonnes/year

CULTIVATION TECHNOLOGY



At Panasonic Factory Solutions Asia Pacific, crops are grown in a soil-based environment where light, temperature, humidity and CO₂ are controlled to ensure optimum conditions



Panasonic's indoor agriculture farm in relation to other methods of cultivation

The soil-based technology allows for a wide range of crops to be grown, including both leafy and root vegetables. The controlled environment, research innovation and crop know-how enables Panasonic to deliver a stable supply within a shorter lead-time. Quality and safety of the produce are also assured.

THE PROCESS



Seeding and potting are carried out in the preparation room, and the crops are then placed under white light for germination, which typically takes about 2-3 weeks depending on the type of crop.



The crops will then go under LED lighting that simulates two out of seven sunlight rays necessary for photosynthesis to take place – namely blue and red light. This artificial lighting is specially tuned for cultivation in the factory where temperature, humidity and CO₂ are controlled. The constant environment enables stable production throughout the year.

MAIN PRODUCE

Green Leafy Lettuce 	Red Leafy Lettuce 	Mizuna (Potherb Mustard) 	Mini Red Radish 	Mini White Radish 
Rocket Lettuce 	Basil 	Ooba (Japanese mint herb) 	Mitsuba (Japanese wild parsley) 	Baby Spinach 

OTOYOA SALADS USING PANASONIC PREMIUM VEGETABLES



Salad roll with bagna dressing

Mini red radish, red leafy lettuce and *mizuna* (potherb mustard) wrapped in rice paper, served with a typical Italian style dip made from anchovies, fresh cream, milk and garlic.



Homemade tofu salad with sesame dressing

Mini red radish, red leafy lettuce, *mizuna* (potherb mustard) and home-made tofu, served with flavourful, healthy Japanese style light sesame dressing.



Bonito salad with vegetable dressing

Mini red radish, red leafy lettuce, *mizuna* (potherb mustard), bonito or katsuobushi (dried, fermented, and smoked skipjack tuna), served with Ootoya's original tangy dressing made from tiny sliced onion, bell pepper, lemon juice and olive oil.



Shrimp salad with aurora dressing

Mini red radish, red leafy lettuce, *mizuna* (potherb mustard) and shrimps, served with creamy dressing made from bell pepper and tomatoes drizzled with freshly squeezed lemon juice which enhances vegetables and shrimps flavour.