
Innovative solution for Cold Supply Chain

MARS COMPANY

2020-12-08

MARS Company Inc. Profile

- **Mission :**

- To contribute in agricultural and fishing industry by extending the freshness duration through the innovative products such as Freshness preservation refrigerator (Kuraban) and Seawater ice making equipment (sea snow), which makes food loss significantly reduced in line with SGD's direction.

- **Establishment :**

- July 2006

- **Location :**

- HQ : HQ in 1-1-2 Tonyamachi-Nishi, Takasaki-Shi Gunma 370-0007, Japan
- Sales Office : 9F, 5-27-10 Higashi Gotanda, Shinagawa-Ku, 141-0022, Japan

- **CEO :**

- Masaki Ohno

- **Capital :**

- ¥114,000,000(USD1.08M)

- **Annual revenue :**

- USD3M

- **Website :**

- <https://www.mars-company.jp/>

What is needed now ?

- **Significant damage from COVID19 and food loss**

Since earlier in 2020, there has been an extra-ordinary effect to our life-style by COVID19, which damaged previous conventional practice. Indeed amount of **food loss of fresh food** such as vegetables, fruits, meat and sea food is remarkable because of the unbalanced demand and supply conditions of foods, as well as damaged cold-supply chain by COVID19. It seems to be true that this situation may last for a few years because of the expected duration of development time for the safe vaccine and globally deployed accordingly.

- **Innovative technology developed by MARS Company**

In the last several years, MARS Company devoted into developing the innovative solution for cold-supply-chain process. In 2018-19, MARS Company was supported by JICA program which led the demonstration experiment in Morocco for the innovative refrigerator (called “Kuraban”) and ice maker (called “sea snow”), and achieved the perfect solution in the countries where the cold supply chain process were not well developed and maintained.

Solution for SDGs direction

New solution in New Era for cold-supply-chain

Mars Company provides 3 main products-lineups.

1. Kuraban refrigerator

- It keeps the freshness for an extremely long period of time (3~10 times more than the normal refrigerator) due to electric field technology.
- In addition, perfect de-frosting performance will make it possible to have almost no drip.
- Also, remarkable aging performance over meat is available in the Kuraban.

2. sea snow (Ice maker)

- It creates innovative sea-ice (-1°C, 1% Salinity concentration) which keeps fresh sea foods as long as 48 hours with the same condition of the ones that were caught.

Kuraban lineups (refrigerator)



Sea snow (Ice maker)



Innovative solution for cold-supply-chain process

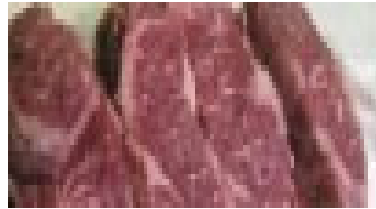
Kuraban:

- Refrigerator embedded with extremely safe “electric field” technology
 - to keep the fresh foods 3~10 times longer than normal refrigerator)

✓ Long time Freshness



✓ Quality aging



✓ Quality de-frosting



✓ Controlling fungus



Kuraban Line ups

Vertical refrigerator

- 533L~1,483L type



Prehab type

- 16sqft~3,500sqft and over
- Possible to integrate electric field module over current refer prehab



Container

- 20Ft · 40Ft



Kuraban Effectiveness #1

Test result (Conventional refrigerator at 3°C → Last one week at 0°C)



Day 1st



Day 26th

- The pack on the left is decaying
- The pack on the right is totally rotten

Test result (Kuraban at -3°C)



Day 1st



Day 26th

- It's getting a little less glossy but no damage
- If the tip is ripe from the time of warehousing, no particular change

Kuraban Effectiveness #2



Flowers

The effect of maintaining freshness has been verified for carnations, chrysanthemums, and roses.

21 days preserved in Kuraban



17 days preserved in Kuraban



Proceeded goods business

- Purchasing Cost reduction
- Reducing loss
- Logistics cost reduction
- Partnership with farmers and fisherman



Innovative solution for cold-supply-chain process

sea snow

- Special ice by sea snow, which can keep the seafoods for 48 hours under the same condition when caught in the sea
 - Non-frozen ice (-1°C, 1% Salinity concentration)



Products Summary

Item	Category	Competitive Advantages	User	Size
Kuraban	Refrigerator <ul style="list-style-type: none"> • Vegetable • Fruit • Seafood • Meat • Flower 	Super safe “electric field” technology: <ul style="list-style-type: none"> • Freshness for long time • Hygienic aging • Quality defrosting • Bacteria control 	<ul style="list-style-type: none"> • Restaurant • Wholesaler • Large-scale-farmer • Fishing port • Logistics (car, train, ship) 	<ul style="list-style-type: none"> • In-Shop size • Container (20ft, 40ft) • Prefab (custom)
sea snow	Machine of fresh-maintenance ice <ul style="list-style-type: none"> • Seafood 	Non-frozen ice (-1°C, 1% Salinity concentration) <ul style="list-style-type: none"> • ~48H super fresh 	<ul style="list-style-type: none"> • Fishing ship • Fishing port • Logistics (car, train, ship) 	1,2,3 T····

Price guide (Reference only)

- Kuraban Vertical refrigerator
 - 120cm type : W1200 x D800 x H1950mm, 941L (capacity)
✓ 20,000USD
- Kuraban Container
 - 20ft : USD80,000
 - 40ft : USD 100,000
- Sea snow 1T type
 - 100,000USD~

Remarks

- Price is retail price and only unit (FOB-Japan)
 - Logistics & installation cost is NOT included