MIRACLE FRESH®
Keep food Fresh

Revolution for food distribution!

Miracle Fresh®

since 1960

Long term freshness of food is now made possible with the triple effects of ethylene gas control, anti-bacteria and anti-fungus!

We developed a freshness preservation technology that avoids fruit and vegetable decomposition. We aim to reduce food wastage and dramatically improve international distribution.

With the global environment facing immense change, we build to bring a preservation system that is not only safe and fresh but also gives back our appreciation for food. It is a product that represents the spirit of “Made in Japan”.

Executive Director Michiko Takenaka

Miracle Fresh Mechanism

What is “Ethylene Gas”?

It is a plant hormone that is produced in the stages of fruit and vegetables growing, aging and decaying. Many fruit and vegetables continue to produce ethylene gas after harvesting.

By controlling ethylene gas and delaying decomposition, “Miracle Fresh” has made it possible to lengthen the edibility or produce at its most delicious time.

What is “Miracle Fresh”?

We convert ethylene gas into carbon dioxide and water to keep fruit and vegetables fresh for a longer period of time. Further, we suppress damaging mold of fruit and vegetables by using anti-bacteria and anti-fungus control. This makes freshness preservation possible and enables anti-aging properties.

“Miracle Fresh” was developed to combat the social issue of food wastage.

Papaya Transport Demo Test
Year 2016

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Wear and damage rate reduced from more than 30% to less than 10%!

Simply cover Hawaiian papaya with Miracle Fresh!

To Japan

3 to 4 Days

To USA

10 to 14 Days

More than 90% edible!

Wastage **Less than 10%**

* Papaya shipped to USA may be subjected to antifungal treatment.

A new preservation technology innovation
(Patent pending)

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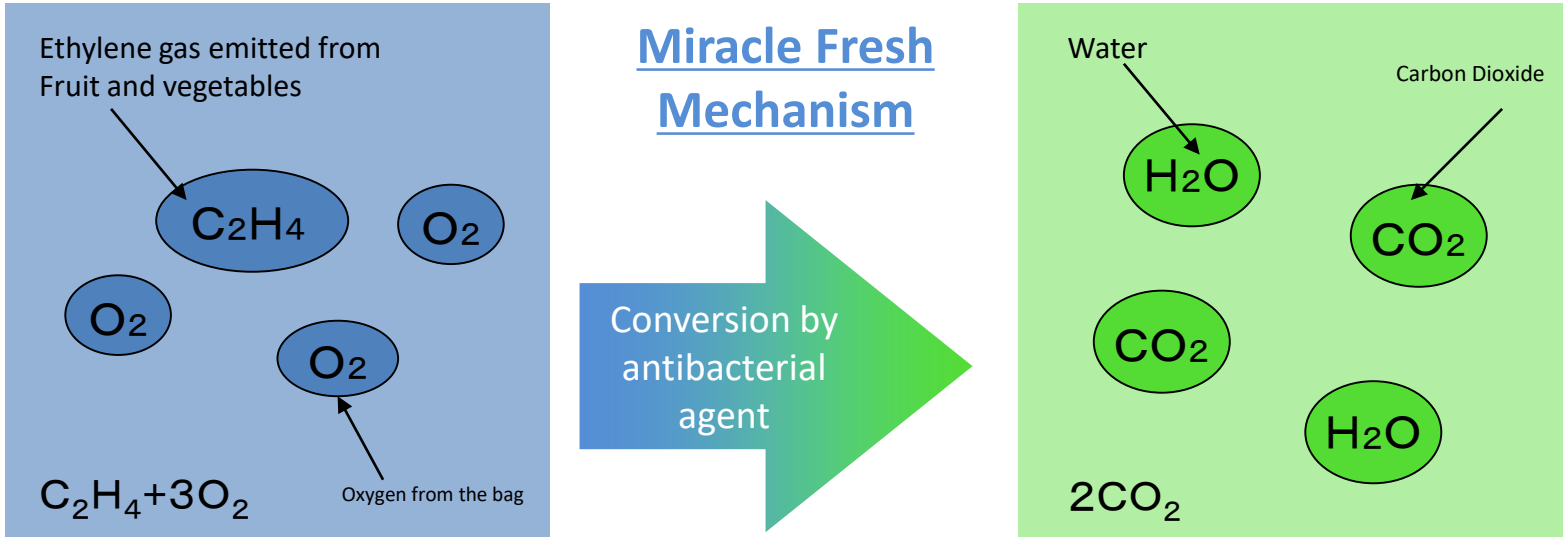
Ethylene gas conversion



A new preservation technology innovation
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1. Mold inhibitor effect

Stored at room temp for 10-14 days

Miracle Fresh Usage

Freshness is retained by decreasing the ethylene gas and oxygen, the cause of deterioration and oxidation, through those chemicals adhering to the inside of the bag with antibacterial agents.

Verified at the Institute of Industrial Science, Osaka University
(Implemented in 2016)

Experiment testing peach, a major producer of ethylene gas

28 days after start of test
Test environment temperature 22 ℃

Verified at Institute of Industrial Sciences,Osaka University (conducted 2016)

Comparison with conventional freshness keeping agents

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Product: Miracle Fresh

1 Miracle Fresh Conversion Method

Ethylene gas decomposition + antifungal / antibacterial effect

Features

① Ethylene gas is absorbed and treated continuously in the cycle of decomposition / discharge.

② Contains antibacterial suppression effect to stop the growth of mold and bacteria which cause deterioration.

Comparison with conventional freshness keeping agents

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2 Conventional product (absorptionmethod)

Absorb ethylene gas with activated carbon / absorbent

Feature

① In the saturated state, ethylene gas is not absorbed, and released afterwards.
After a period of time has passed, degradation may occur at once.

Comparison with conventional freshness keeping agents

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3 Air Control (MA Method)

Freshness preservation by air control.
Has minimal effect on root vegetables with little breathing.

Feature

①If the container is airtight, material choice is not an important factor.