

中南米を輸出大国にするために
TURNING LATIN AMERICA A GREAT EXPORTER



◀科学的に証明された世界初の鮮度保持フィルム▶

◀SCIENTIFICALLY PROVEN WORLD'S FIRST FRESHNESS PRESERVATION FILM ▶

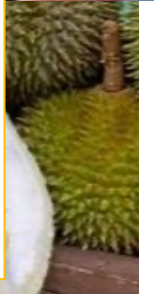
国際特許出願品

INTERNATIONAL PATENT APPLICATION

WO 2017/135433A1

**安全性証明: FDA AMERICA / FDA EU / FDA INDIA / FDA CHINA
(※FDA基準に準じて検査 / 研究機関 TÜV RHEINLAND)
SDS / TDS / 日本食品分析センター他**

**SAFETY CERTIFICATION: FDA AMERICA / FDA EU / FDA INDIA /
FDA CHINA(* INSPECTION / RESEARCH INSTITUTE TÜV
RHEINLAND ACCORDING TO FDA STANDARDS
SDS / TDS / JAPAN FOOD RESEARCH LABORATORIES, ETC.**



Freshmamaは、輸送時における温度差異によるヒートショックで大量発生するエチレンガスを分解し、青果物の鮮度保持を実現します！

Freshmama decomposes ethylene gas generated in large quantities by heat shock due to temperature differences during transportation, and ensures that fruit and vegetables are kept fresh!

青果物の保管、輸送時の鮮度保持

フレッシュママは、貯蔵や輸送中の果物や野菜の鮮度保持と栄養価の向上に貢献します。

Storage and preserve of fresh fruits and vegetables during transportation

Freshmama contributes to keeping freshness and increase the nutritional value of fruits and vegetables of during storage and transportation (e.g. Mango, Papaya, Banana, Strawberry, Apple, etc....).



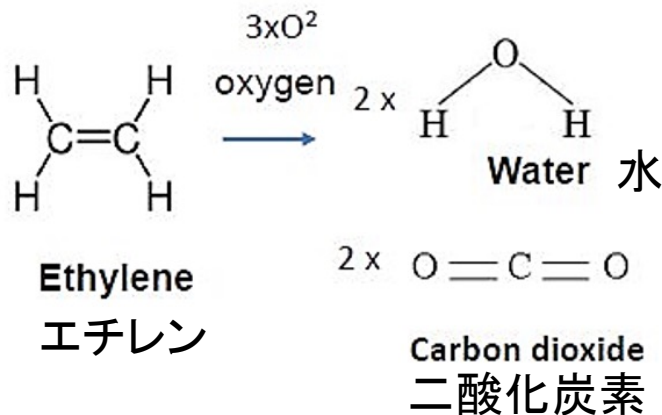
Freshmamaのメカニズム

Freshmama mechanism

エチレン分解機能

Ethylene degradation function

- エチレンの完全分解
Complete decomposition of ethylene
- エチレンの排出効果
Effluent effect of ethylene
- エチレン吸着剤を用いない新技術
New technology without using ethylene adsorbent



菌抑制機能

Microbial suppression function

- フィルム表面におけるカビ菌糸生育抑制
Suppression of mycelial growth on the film surface
- フィルム近接空間におけるカビ孢子発芽抑制
Suppression of spore germination in film proximity space



カビ孢子
Spore

カビ菌糸
Mycelium

近くの空間でカビ孢子の発芽の抑制

Suppression of spore germination in the surrounding air

孢子発芽初期段階



培地	孢子発芽段階(%)		
	非膨潤	膨潤	発芽管形成
蒸留水	100	0	0
最小培地	72	12	6
完全培地	3	7	90

• 9時間後発芽段階

Yanagita (1956)

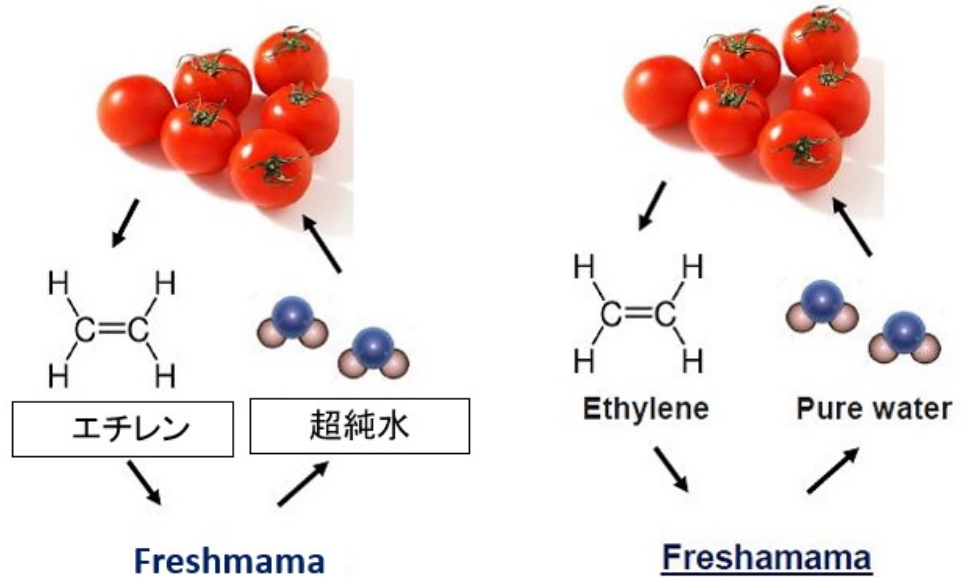
Early stage of spore germination



Culture medium	Germination percentage (%)		
	Non swelling	Swelling	Germination
distilled water	100	0	0
Minimal medium	72	12	6
Complete medium	3	7	90

• After 9 hours germination stage

Yanagita (1956)



《《シャインマスカット長期保存実験100日》》 100-day long-term storage using Freshmama



Freshmama

冷蔵保存5°C
Stays fresh at 5°C



他社MA包装軸枯れし、カビがみるみる広がった。
Freshness preservation bags from other companies

Freshmama®

パイヤ実証試験(平成28年度実施)

Hawaiian papaya export test



ハワイパイヤ
Hawaiian papaya



4 ~ 6 days

腐食・不買
Degenerated / disposed



可食パイヤ
Available



損耗率
Loss rate **30%**



ハワイパイヤ+フレッシュママ
Hawaiian papaya + Freshmama



4 ~ 6 days



To USA

コスト(箱)
Transportation fee / box **\$6.50**

損耗率
Loss rate **<5%**



12 ~ 14 days

コスト(箱)
Transportation fee / box **\$1.20**

台湾の果実輸出成功事例

Taiwan's success story for exporting fruit

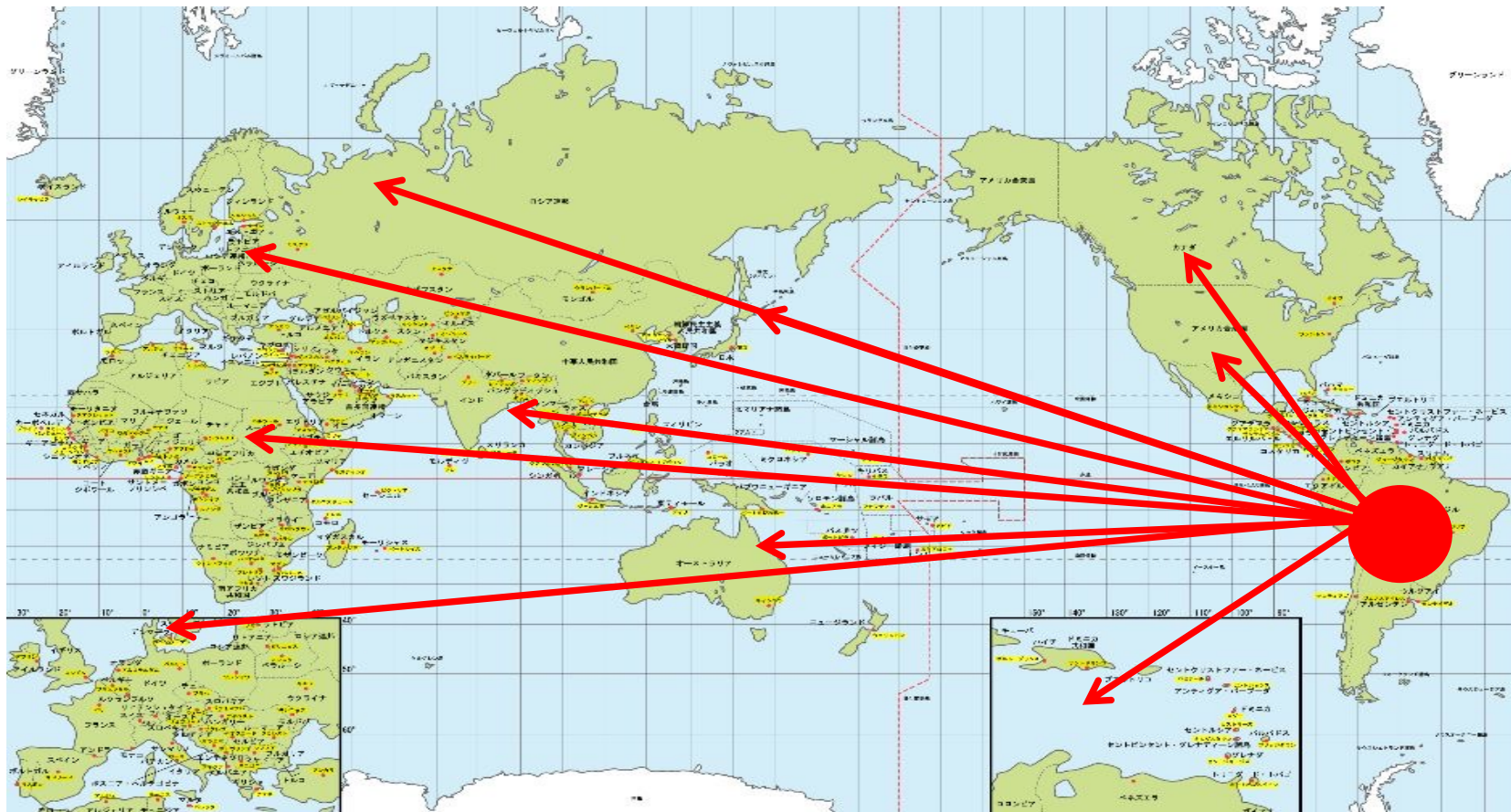
2019年上半期の台湾の果物の輸出

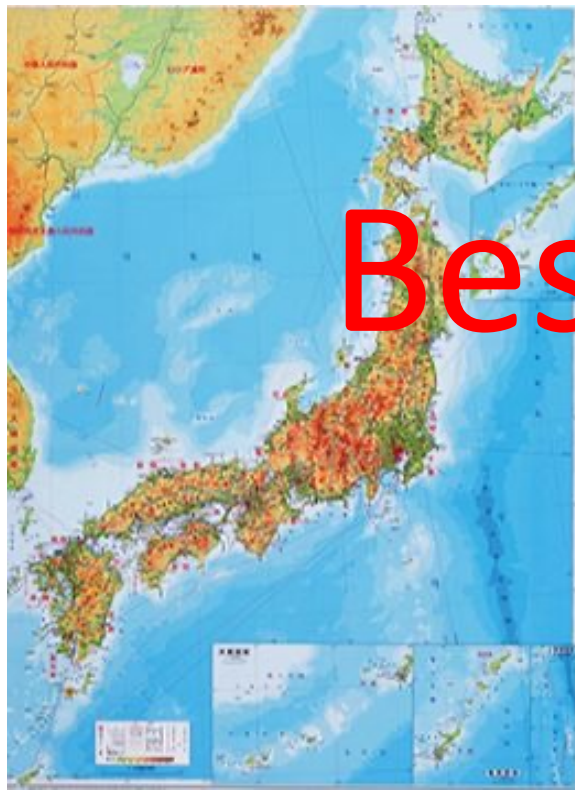
Taiwanese fruit exports in the first half of 2019

Item	Export value (USD)	YoY	Export volume (tons)
Pineapples	\$ 280,000,000	66.4%	47,900
Sugar apples	\$ 135,000,000	18.0%	10,204
Wax (Java) apples	\$ 64,000,000	88.0%	3,559
Mangos	\$ 60,000,000	49.6%	3,785
Guava	\$ 20,000,000	66.4%	3,085
Bananas	\$ 15,000,000	70.9%	2,139

輸送時のフードロス削減、中南米青果物輸出拡大に向けて双方で取り組んで行ければと思います。

We would like to work together to reduce food loss during transportation and expand exports of fruit and vegetables from Latin America.





Best Friend!



中南米と日本が手を取り合って、中南米を素晴らしい輸出大国にしましょう！
Let Latin America Japan hold hands and make Latin America a great export power!

ありがとう