



# PLANTAGUSTO

PREMIUM VEGAN

- ★ Hương vị Ý chính thống
- 🌱 Công nghệ thực vật tiên tiến
- 🕒 Bảo quản 1 năm không cần tủ lạnh
- 🌿 Sản xuất tại Ý

## 📅 Tham gia Sự kiện Độc quyền tại TP.HCM

Thứ Bảy, 9 tháng 7  
12:00 - 14:30 (GMT+7)  
119/2 Yersin, Phường Phạm Ngũ Lão,  
Quận 1, Hồ Chí Minh

Ra mắt sản phẩm & Thử nghiệm  
Tổ chức bởi Plantagusto & Hoang Dang Food

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ĐĂNG KÝ BẮT BUỘC - SỐ CHỖ HẠN CHẾ



Quét để đăng ký sự kiện

## Dòng Sản Phẩm Cao Cấp



### Lasagna Ý

23g PROTEIN 350g • 2 người ăn

Lớp mì pasta mềm với nước sốt thịt thực vật đặc trưng và béchamel kem. Món Ý cổ điển được tái tạo với nguyên liệu thực vật cao cấp.

🕒 Sẵn sàng trong 2 phút



### Fusilli Ragu Thịt Bò Ý

24g PROTEIN 280g • 1 người ăn

Mì fusilli xoắn ốc phủ nước sốt ragu thịt bò thực vật đậm đà. Chế biến với thảo mộc Ý chính thống và nguyên liệu EU cao cấp.

🕒 Sẵn sàng trong 2 phút



### Thịt Bò Thực Vật

27g PROTEIN 280g • 3 người ăn

Thịt bò thực vật đa năng có thể sử dụng trong mọi công thức yêu thích. Hoàn hảo cho xào, bánh mì, súp và nhiều món khác.

🕒 Sẵn sàng trong 2 phút

## Tại sao chọn Plantagusto?

- 🛡 Không chất bảo quản nhân tạo
- 🌱 100% thực vật
- ❤ Tốt cho tim mạch
- 🌿 Chất lượng Ý cao cấp

## Cơ Hội Đối Tác B2B

### 📈 Tiềm Năng Thị Trường Việt Nam

- Thị trường thực vật 2,8 nghìn tỷ VND vào 2026
- Tăng trưởng 35% hàng năm thực phẩm vegan cao cấp
- Cơ sở người tiêu dùng quan tâm sức khỏe gia tăng

### Lợi Thế Lợi Nhuận Của Bạn

Biên lợi nhuận gộp: **35-45%**  
Thời gian hoàn vốn: **6 tháng**  
Tiết kiệm chi phí: **Lên đến 30%**

### Hỗ Trợ Sẵn Sàng Cho Việt Nam

- ✓ Đăng ký sản phẩm tại địa phương hoàn tất
- ✓ Nhãn mác tiếng Việt đi kèm
- ✓ Kho hàng tại TP. Hồ Chí Minh
- ✓ Tài liệu marketing được cung cấp

### Cấp Độ Đối Tác

Bán lẻ (từ 100 hộp): **15% chiết khấu**  
Phân phối (từ 500 hộp): **25% chiết khấu**  
Đại lý độc quyền: **35% chiết khấu**

### Liên Hệ Ngay Hôm Nay

Đặt lịch tư vấn 15 phút  
Nhận báo giá đối tác và kế hoạch kinh doanh

✉ plantagusto.vn@gmail.com

**BẮT ĐẦU ĐỐI TÁC CHIẾN LƯỢC**

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# The Future of Airline Catering



The Business Case for  
**Shelf-Stable  
Solutions**

A comprehensive analysis of how shelf-stable, ambient-temperature, microwave-sterilized meals can transform airline catering operations, reduce costs, and improve sustainability.



Cost Efficiency



Waste Reduction



Sustainability



Reimagining In-flight Dining

## Executive Summary

**\$4-15**

Average Cost per Economy Meal

**3.6M**

Tonnes of Cabin Waste Annually

**6-12**

Months Shelf Life vs. 72 Hours

**The airline catering industry faces critical challenges:**

- High operational costs and complex logistics in meal production and delivery
- Substantial food waste with environmental and financial impacts
- Inflexible cold-chain requirements adding costs and complications

**Transitioning to shelf-stable, ambient-temperature meals offers:**

- Extended product shelf life from days to months
- Elimination of cold-chain logistics and associated costs
- Significant waste reduction potential with reusable inventory
- Enhanced sustainability through plant-based options and lower carbon footprint

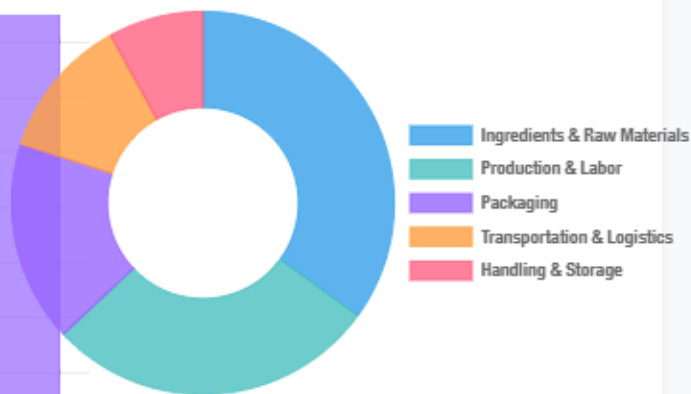
## Current Costs of Economy-Class Airline Meals

## Average Meal Cost



Source: Vox, Quora, Industry Analysis

## Cost Breakdown Components

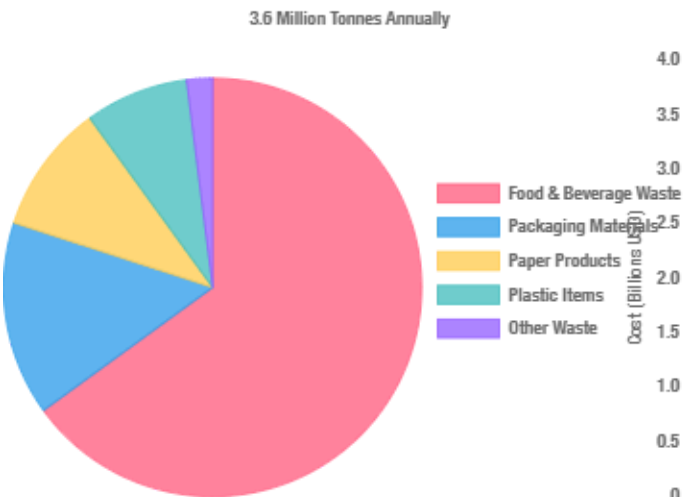


Source: Industry Analysis of Airline Catering Operations

**Full-service carriers** include complimentary meals within ticket pricing as part of brand differentiation, while **low-cost carriers** typically operate on buy-on-board models. Full-service carriers include up to **30% more** complimentary services compared to budget airlines.

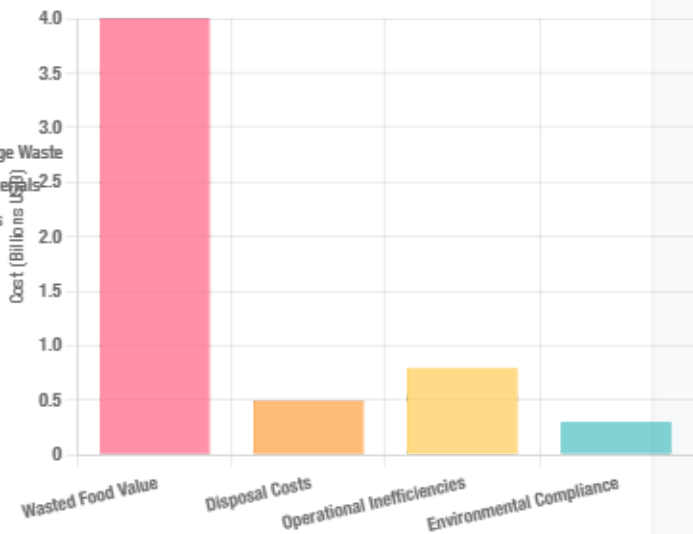
## Waste Management Challenges

### Annual Cabin Waste Composition



Source: IATA, Business Traveller

### Financial Impact of Airline Food Waste



Source: IATA, Aviation Week

Primary Sources of Waste

Waste Disposal Challenges

- Overproduction (7-10% excess meals produced)
- Uneaten meals (18% of cabin waste)
- Key areas: Hot Kitchen, Make & Pack, Storage
- Short shelf life (typically 24-72 hours)

- International Catering Waste regulations restricting recycling
- Required incineration or deep landfill disposal
- Limited waste segregation opportunities
- High disposal costs (\$0.5B annually)

## Logistics and Storage Challenges

### Cold Chain Requirements

#### Temperature Control Specifications:

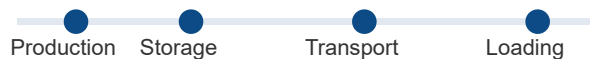
Hot Foods **Above 60°C (140°F)**

Cold Foods **Below 5°C (41°F)**

Frozen Items **Below -18°C (0°F)**

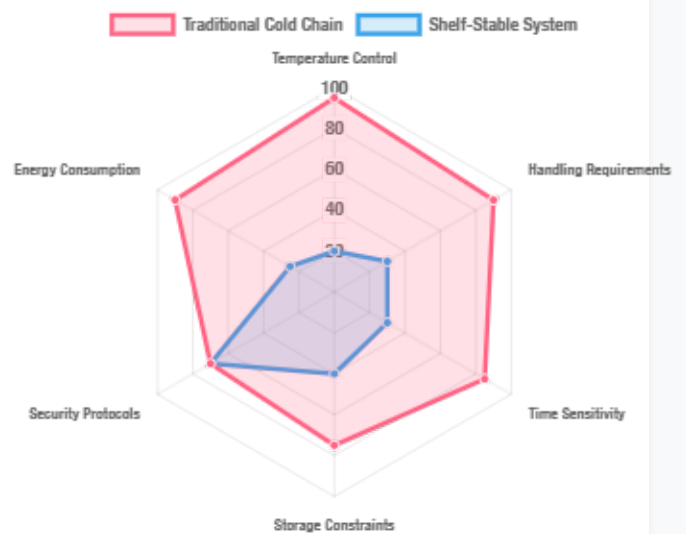
Any temperature breaches compromise food safety and require disposal.

#### Failure Point Risks



Each failure point represents both safety risks and financial losses.

### Supply Chain Complexities



Source: Supply Chain Management in Airline Catering Service

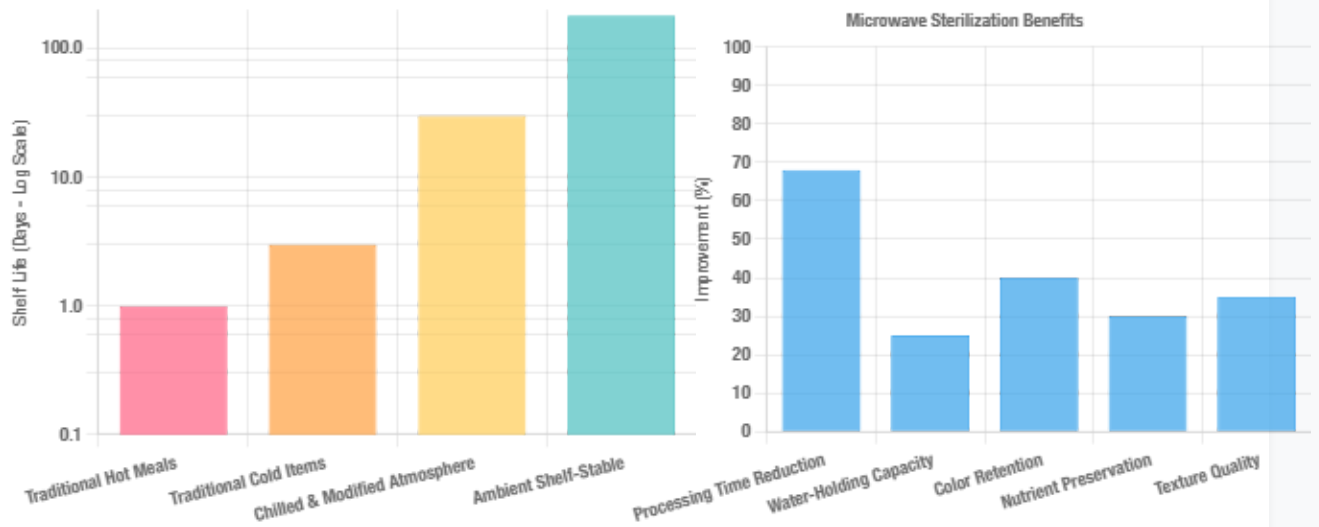
#### Aircraft Storage Constraints

- Extremely limited galley space
- Varying equipment across aircraft types
- Limited refrigeration capabilities
- Weight considerations affecting fuel consumption

## Advantages of Shelf-Stable, Ambient-Temperature Meals

### Extended Shelf Life Comparison

### Microwave Sterilization Benefits



Source: Foodcase, Industry Analysis

Source: MDPI, Washington State University



#### Extended Shelf Life

- 6-12 months vs. 24-72 hours
- Improved inventory management
- Product return capability



#### No Cold Chain Required

- Ambient temperature storage
- Simplified transportation
- Reduced energy consumption

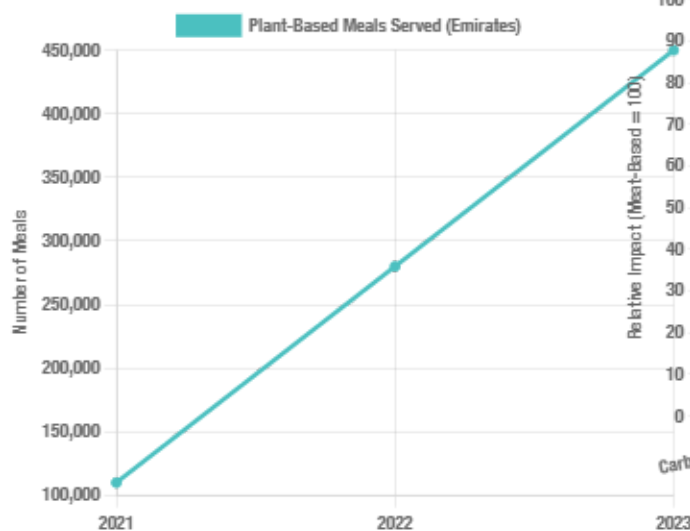


#### Operational Efficiency

- Centralized production
- Economies of scale
- Decreased emergency costs

## Plant-Based Meal Options: The Next Frontier

### Growing Demand for Plant-Based Meals



### Environmental Impact Comparison



Source: Science Direct, Thrust Carbon

Plant-Based Advantages for Shelf-Stable Applications

Technical Benefits

- Better texture retention during sterilization
- Reduced fat oxidation concerns
- Superior color stability
- Fewer food safety hazards

Quality Preservation

- Better nutritional value retention
- Superior texture maintenance
- Better flavor stability
- Reduced off-flavors development

Environmental Benefits

- 50% lower carbon intensity
- Reduced resource consumption
- Supports sustainability goals
- Appeals to eco-conscious passengers

Cost Comparison: Traditional vs. Shelf-Stable Systems

Cost Category	Traditional System	Shelf-Stable System	Potential Savings
Production Costs	Higher per-unit costs due to frequent small batches	Lower per-unit costs through economies of scale	15-25%
Logistics & Transportation	Temperature-controlled vehicles and specialized handling	Standard transportation without temperature constraints	20-30%
Storage Requirements	Refrigerated facilities with high energy consumption	Ambient warehousing with minimal energy needs	25-40%
Waste-Related Costs	20% average waste from expired or unused meals	Minimal waste due to extended shelf life and reusability	50-80%
Quality Control	Frequent sampling and testing across supply chain	Centralized testing at production facility	10-20%
Staff Requirements	Higher staffing needs for rapid turnaround	Optimized staffing for consistent production	10-15%
Total Operational Costs	Baseline	Reduced	20-30%



Source: Industry Analysis and Case Studies

## Implementation Roadmap

1

### Phased Transition Strategy

- Begin with routes experiencing highest waste rates
- Implement shelf-stable options alongside traditional meals
- Gradually increase proportion as acceptance grows
- Focus first on shorter routes for initial implementation

2

### Technology Investment

- Partner with established microwave sterilization technology providers
- Consider co-investment in dedicated production facilities
- Implement robust quality testing protocols
- Develop optimized packaging solutions

3

### Menu Development

- Prioritize dishes that maintain quality during sterilization
- Increase proportion of plant-based options gradually
- Conduct passenger acceptance testing before wide implementation
- Create regional variations to address passenger preferences

4

### Operational Integration

- Train cabin crew on proper handling and presentation
- Revise loading and inventory management systems
- Develop protocols for returning unused meals to inventory
- Implement tracking systems to measure waste reduction and cost savings

### Timeline

6-18 months implementation

Phased approach with pilot routes first

#### Investment

**ROI within 18-24 months**

Based on waste reduction and logistical savings

#### Risk Mitigation

**Gradual transition**

Continuous passenger satisfaction monitoring

## Conclusion: The Business Case for Change

\$

**20-30%**

Potential Cost Savings



**50-80%**

Waste Reduction



**6-12X**

Shelf Life Improvement

The implementation of shelf-stable, ambient-temperature, microwave-sterilized meals—particularly plant-based options—represents a significant opportunity for airlines to address multiple challenges simultaneously:

#### Operational Benefits

- Simplified logistics without cold chain requirements
- Enhanced inventory flexibility with longer shelf life

#### Strategic Advantages

- Significant cost savings across multiple categories
- Enhanced sustainability credentials
- Improved service consistency



- Reduced waste through reusable inventory
- Streamlined production with economies of scale
- Better alignment with growing plant-based demand

**While initial investment and passenger acceptance represent important considerations, the long-term advantages make this approach worthy of serious consideration by airlines seeking competitive advantage in an increasingly sustainability-focused industry.**

## Next Steps



### Pilot Program

Implement trial on selected routes



### Partnership

Engage with technology providers



### Analysis

Conduct detailed cost-benefit assessment

Transform your airline's catering operations through innovation

**The future of airline meals is shelf-stable, sustainable, and cost-effective.**

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