

In recent years, consumers have become more conscious of the environmental impact of food waste and the health risks of synthetic ingredients. They are also more likely to choose products with cleaner, more natural ingredient labels. These factors are increasingly influencing their purchase decisions. Consumers do not like to waste food, especially when it has spoiled. And as the need to avoid unnecessary spending grows around the world, food and beverage manufacturers have added responsibility to address this issue.

# Naturally preserve your products against microorganisms.

PlantGuard™ AM is a blend of natural plant extracts with potent antimicrobial activity. The natural preserving properties help to prevent microbial spoilage in a variety of food applications.

PlantGuard™ AM is particularly effective against the formation of Gram Positive Bacteria (more prevalent in juice beverages, sauces, condiments and dairy). However, there is also successful partial inhibition of some gram-negative bacteria, yeasts, and molds.

#### PlantGuard™ AM Benefits

- Effective natural preserving properties -Hinder microbial spoilage, extend shelf life, and preserve product freshness naturally
- Multi-purpose Can be used across a range of applications
- Low usage rate Only required to use small amounts to be effective
- Can be declared as a 'Natural Flavoring' on label



For more information, please visit: prinovaglobal.com or contact your local sales office.

info@prinovausa.com





## The unique features of PlantGuard™ AM



Neutral taste





Natural plant extracts





stable



Non-GMO

Kosher and halal suitable

Clean label

#### How should PlantGuard™ AM be used?

Recommended dose: Between 0.03% and 0.1% of final product (max 3000 ppm) When: Pre-dissolve at the earliest stage of processing

# Preserving a wide range of food applications



Fruit juices Effective at 1000 ppm



Dairy (cheese & milk) Effective at 2000 ppm

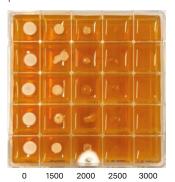


Sauces & condiments Effective at 1000-2000ppm

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### Strong antimicrobial performance

Saccharomyces cerevisiae Yeast \ Facultative anaerobe pH 2.5-8.5



Paecilomyces variotll Mold | Ubiquitous thermophilic (up to 60° C)





PlantGuard™ AM

1000 ppm

Control

Control

Control

PlantGuard™ AM

2000 ppm

2000 ppm

Fruit preparations: Pear fruit juice PlantGuard™ AM works with 1000 ppm



1000 ppm

PlantGuard™ AM PlantGuard™ AM Control

Tomato sauce PlantGuard™ AM works with a range between 1000-2000 ppm

Sauce:



PlantGuard™ AM

1000 ppm

cheese PlantGuard™ AM works with 2000 ppm PlantGuard<sup>™</sup> AM 2000 ppm

Dairy:

Mascarpone



PlantGuard™ AM

1000 ppm

PlantGuard™ AM works with 2000 ppm

Sauce:

Dessert

Results obtained after 1 week storage at 25°C with oxygen and light exposure

PlantGuard™ AM

2000 ppm