



CLEAN LABEL CONFERENCE

Sophisticated Solutions for Simplified Labels

October 29-30, 2013 • Hyatt Lodge, Oak Brook, Illinois, USA

**2013 Technology Snapshot Presentation**

**Pristine® 500**

**Dough Strengthener & Conditioner**

**By: Corbion-Caravan**



**PRISTINE® 500  
DOUGH STRENGTHENER  
& CONDITIONER**

Clean Label Conference  
Chicago, IL  
October 30th, 2013



**CLEAN LABEL  
CONFERENCE**

**GINA NORMAN  
SCIENTIST – BAKERY APPLICATIONS**

# Today's objectives

## Dough conditioners

- General description
- Examples

## Benefits of clean label dough conditioners

### Pristine<sup>®</sup> 500

- Product description, features, and usage
- Ingredient statement and label claims
- Application examples

## Clean label example



# Dough conditioners

*Dough conditioners are ingredients added to dough to improve overall quality and baking performance.*

**Dough  
conditioner  
functions**

**Improve dough tolerance**

**Improve gas retention**

**Improve loaf volume and symmetry**

**Improve internal crumb**

**Improve product texture – increase shelf life**

# Dough conditioner examples

## Chemical

- Potassium bromate
- Iodates
- Azodicarbonamide (ADA)
- Calcium Peroxide
- Lactylates (SSL & CSL)
- DATEM (diacetyl tartaric acid ester of mono- and diglycerides)
- Ethoxylated mono-diglycerides
- Mono-diglycerides

## Clean label

- Enzymes
- Ascorbic acid
- Lecithin

# Benefits of clean label dough conditioners

## Clean and simple label

Allow a clean and shortened ingredient list

Can be used in all natural products

Consumer appeal

## Formula simplification

Reduce the number of ingredients in the formula

Remove most or all chemical dough conditioners

## Quality improvement

Improve quality of finished products

Reduce waste

## Cost reduction

Reduce formula costs and increase yield

Can be used to reduce gluten

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## Product uses:

- Bread and/or other bread type products

## Description:

- All natural dough strengthener and conditioner designed to remove undesirable additives while still maintaining dough strength

## Features:

- Allows for the production of all natural and clean label bakery products
- Allows for a minimized ingredient declaration
- Has the potential to reduce overall ingredient costs
- Can be used to reduce gluten

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## Ingredient statement:

- Wheat flour, calcium sulfate, ascorbic acid (vitamin C) and 2% or less of the following: enzymes (contains wheat)

## Allergens:

- Wheat

## Label claims:

- Kosher
- Allows for clean label/natural claims

## Suggested usage rate:

- Recommended at .5% based on flour

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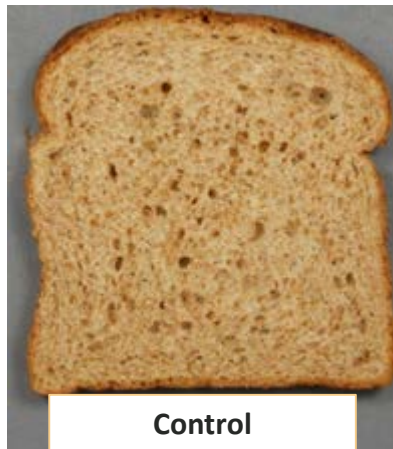
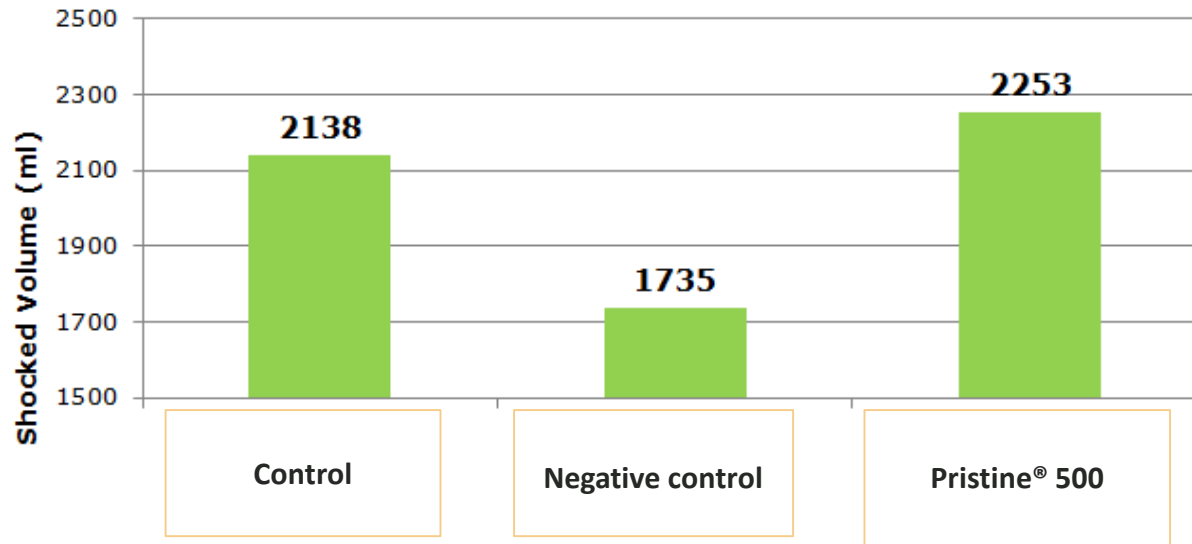


# Pristine<sup>®</sup> 500 Applications

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- Control- ADA, SSL, DATEM, ascorbic acid, and enzymes
- Pristine<sup>®</sup> 500 – enzymes and ascorbic acid

# Pristine<sup>®</sup> 500 in 100% whole wheat bread



Control



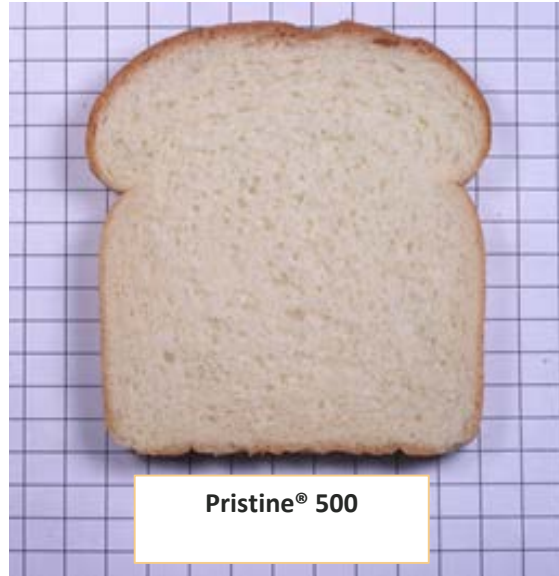
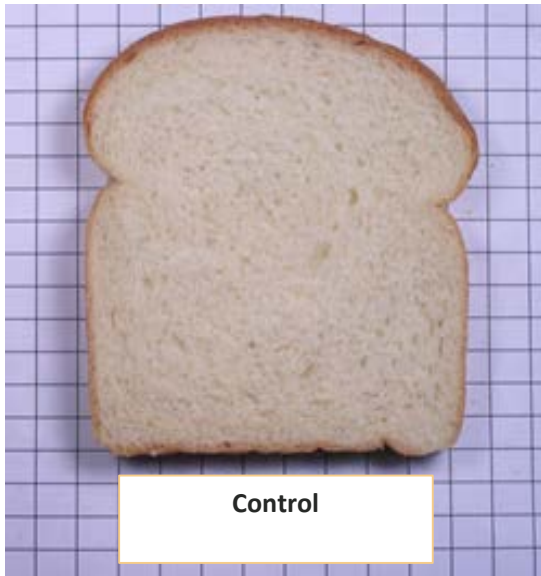
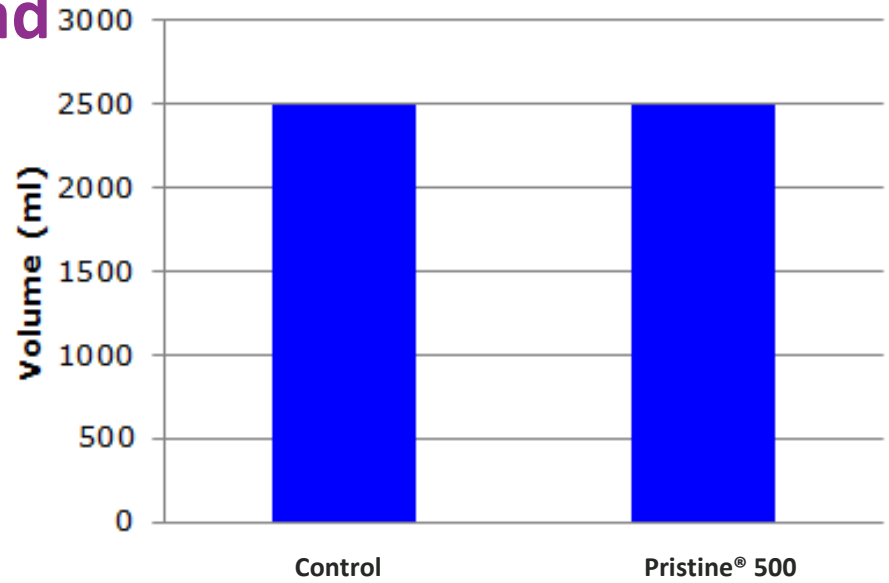
Negative control



Pristine<sup>®</sup> 500

# Pristine<sup>®</sup> 500 in white bread

# Pristine



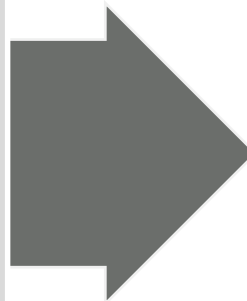
# Clean label example

*Clean label*, to Corbion-Caravan, encompasses products that are free of undesirable additives, minimize ingredient declaration length, and are all natural.

## 100% Whole Wheat Bread

*Ingredients: Whole Wheat Flour, Water, Yeast, Wheat Gluten, **High Fructose Corn Syrup**, Soybean Oil, **Calcium Propionate**, Salt, Distilled Vinegar, Calcium Sulfate, **Mono- and Diglycerides**, **Ethoxylated Mono- and Diglycerides**, **Sodium Stearoyl Lactylate**, **Calcium Peroxide**, Ascorbic Acid, **Azodicarbonamide**, Enzymes*

*Number of ingredients = 17*



## Natural 100% Whole Wheat Bread

- Ingredients: Whole Wheat Flour, Water, Sugar, Wheat Gluten, Yeast, Cultured Wheat Flour, Soybean Oil, Raisin Juice Concentrate, Salt, Distilled Vinegar, Calcium Sulfate, Enzymes, Ascorbic Acid*

*Number of ingredients = 13*

# Key takeaways

**Dough conditioners are necessary to improve overall bread quality and robustness.**

**Consumers are looking for clean label and/or natural products, and chemical dough conditioners are not looked at favorably by consumers.**

**Pristine<sup>®</sup> 500 can reduce or remove label un-friendly chemicals from your label, while maintaining overall bread quality, dough strength and production tolerance.**

Thank you for  
your time.

Questions?



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