



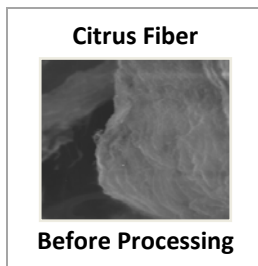
The Citri-Fi® Showcase

To Our Customers,

We hope that 2009 is going well for you.

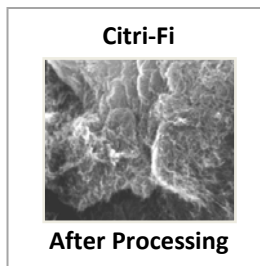
The Citri-Fi Showcase is designed to improve communication with our rapidly growing global network of customers. We want to share some new as well as some well known applications for our products. Please note that each featured application may be subject to a standard of identity that may vary from one country to another.

Citri-Fi's strong water binding functionality comes from its unique bio-processing technology which creates an open porous fiber matrix. While other fibers rely on one mechanism to bind water (hydrogen bonding), Citri-Fi engages multiple mechanisms to bind and hold more water through a cooking or baking process than other fibers (hydrogen bonding, entrapment and surface tension forces exerted by the expanded fiber matrix). This means higher yields, increased revenues and improved margins.



Citrus Fiber

Before Processing



Citri-Fi

After Processing

Fiberstar's technical staff is always ready to provide product samples and answer questions about using Citri-Fi in a wide variety of food applications. Please feel free to contact us. Our upcoming marketing events and contact information is shown on the back page.

Sincerely,
The Fiberstar Team

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Designed by Nature. Enhanced by Fiberstar.™

The Perfect Solution to:

Improve Margins

- Increase Yields and Revenues through Moisture Retention
- Reduce Cost through Partial Replacement of Oil

Improve Quality

- Reduce Syneresis
- Reduce Ice Crystal Formation
- Inhibit Moisture Migration
- Exceptional Emulsification and Stabilization Properties

Improve Nutrition and Label Declarations

- All-Natural Labels
- Calorie Reduction through Partial Replacement of Oil
- Phosphate Replacement
- Replace Chemical Emulsifiers and Stabilizers

Highlighted Application

Citri-Fi Functionality: Partial Replacement of Oil and Fat

Advantage: Reduce Cost and Improve Nutrition

Food manufacturers are using Citri-Fi to reduce the cost of fat ingredients such as oil, shortening and butter. By replacing a percentage of these ingredients with Citri-Fi and water, our customers are able to reduce costs and make healthier foods. For example, sweet dough producers use Citri-Fi to replace up to 30% of their formula fat with Citri-Fi and water. Other customers use it to replace from 10%-50% of the formula fat. They adjust the replacement level until they reach just the right level of fat replacement where taste and texture are not compromised. By doing this our customers are able to make a perfect product and save money every time!



New Applications

Here are some of the new and exciting ways our customers are using Citri-Fi

Vegetable Toppings on Frozen Pizza



Citri-Fi Functionality:

Binding Moisture during Freezing, Storage and Baking

Advantage:

Reduced Syneresis and Higher Quality Pizzas

Citri-Fi is being used at very low rates to control moisture migration in vegetable toppings on frozen pizzas. Adding Citri-Fi 100 M40 at rates as low as 0.17% of the total weight of reduced moisture vegetables results in a significant reduction in syneresis and ice crystal formation during freezing. During baking Citri-Fi continues to bind and hold the water on the surface of the vegetables, thereby reducing syneresis and creating a much higher quality pizza.

Fruit Fillings

Citri-Fi Functionality:

Binding Moisture at High Cooking Temperatures

Advantage:

Reduced Blowout and Improved Quality

One of the largest biscuit producers in the world was having trouble maintaining the stability of their fruit fillings during baking. The company tried traditional stabilizers such as gums, starches and high temperature pectins to solve the problem. However, the fruit fillings boiled over, reducing the quality of the products appearance. In addition, taste was compromised and the cost increases were unacceptable. Then the manufacturer tried Citri-Fi 200. Fruit fillings containing Citri-Fi do not boil over at high temperature, a problem for most gums. Citri-Fi also does not mask or disrupt flavors. Its unparalleled ability to bind moisture through the baking process makes it the perfect cost effective solution for fruit filling manufacturers worldwide.



Egg Replacement in Muffins

Citri-Fi Functionality:

Water Binding and Emulsification

Advantage:

Cost Savings, Fat and Cholesterol Reduction



In this brand new application, Citri-Fi and water are used to partially replace whole eggs in order to reduce cost. In muffins, Citri-Fi and water, in a ratio of one part of Citri-Fi and 19 parts of water, can be used to replace 25% of the whole eggs on a 1 to 1 basis. The reduced egg muffins have similar organoleptic properties as the full egg formula but with 28% less cholesterol and 12% fewer calories from fat. For egg replacement applications, be sure to premix the Citri-Fi with oil before adding the other liquid ingredients. Then add the dry ingredients.





Meat Applications

Meat Fillings

Citri-Fi Functionality: Water Binding and Emulsification during Cooking

Advantage: Reduced Cooking Losses, Increased Yields, Improved Profit Margins, Improved Taste and Texture

Citri-Fi's ability to bind more water through the cooking process increases yields and improves margins. Meat processors are using low levels (0.25% to 1.0%) of Citri-Fi to increase cooked weight yields and reduce syneresis during freezing and re-heating. Retaining more of the natural juices also enhances the product's flavor. Citri-Fi is labeled as "dried orange pulp" or "citrus flour" on ingredient declarations.



Injected Meat Products

Citri-Fi Functionality: Phosphate Replacement; Yield Increase with Kappa Carrageenan

Advantage: Clean Label Declaration; Increased Yields

Phosphate Replacement:

Citri-Fi is being used to replace phosphates in injected poultry products. Test results show: A 20% injection rate of 0.5% sodium tripolyphosphate resulted in a purge of 3.6%. A 20% injection rate of 0.5% Citri-Fi 100 M40 had no purge.

Yield Increase with Kappa - Carrageenan:

Citri-Fi can be combined with Kappa-Carrageenan to further reduce syneresis and cooking losses to increase yields. The combination also improves taste and texture by retaining more of the meats natural juices.



A Focus on All Natural

The Food Safety and Inspection Service (FSIS) of the USDA limits the term "natural" to include only those products that are "minimally processed" and void of artificial or synthetic ingredients. See USDA, Food Standards and Labeling Policy Book (Aug. 2005), at 116. Citri-Fi products meet this definition because they are minimally processed without the use of chemical or solvent treatments and do not contain any artificial or synthetic substances.

Many of our customers are using Citri-Fi to replace less label friendly ingredients such as gum combinations, chemical emulsifiers and phosphates to help the achieve all natural labels. Citri-Fi also provides better texture and a non-slimy mouthfeel as compared to many gums. Citri-Fi is non-allergenic, gluten free, kosher-parve, halal and non-GMO. Citri-Fi is commonly labeled as "dried orange pulp" or "citrus fiber."



Emulsification and Stabilization

From use in ice cream to pre-made salad dressing to oven baked sauces, all natural Citri-Fi demonstrates its exceptional functionality to both emulsify and stabilize. Citri-Fi is also used to replace more expensive and less label friendly combinations of gums and chemical emulsifiers.

Citri-Fi's distinctive cellular structure and unique protein and polysaccharide composition give the biopolymer an amphiphilic character (both hydrophilic and lipophilic properties). Citri-Fi can lower the interfacial tension and stabilize the oil/water interface very efficiently at ambient temperature. Citri-Fi emulsions are pH, heat, and freeze/thaw stable, showing no phase separation through 60-day accelerated stability testing.

Ice Cream

Citri-Fi Functionality: Emulsification and Stabilization

Advantage: Cost Savings and Improved Label Declaration

Manufacturers are successfully replacing some or all of their chemical stabilizers with Citri-Fi to produce a high quality ice cream at a reduced cost and with a much improved ingredient declaration.

Soups

Citri-Fi Functionality: Emulsification and Stabilization

Advantage: Stability and Ease of Use

Citri-Fi is added to soups to improve quality. By tightly binding oil with water, Citri-Fi increases the quality of the soup's appearance and improves texture. Citri-Fi 100 M40 is easily incorporated into the formula at rates ranging from 0.25% to 1.00% of the total formula weight.



Fruit Syrups

Citri-Fi Functionality: Stabilization of Fruit Pulp

Advantage: Improved Quality

Citri-Fi 100 is being used to stabilize fruit pulp in syrups. The Citri-Fi 100 ensures that all of the components of the syrup remain stable. Selecting the right particle size ensures a desirable mouthfeel.



Proven Applications

Following are some of the best ways food manufacturers and processors are using Citri-Fi to improve their profit margins, quality, nutrition and label declarations of their food products.

All -Natural, Clean Label, Improve Quality, Improve Nutrition, Reduce Costs, Increase Yields and Increase Margins

General	<ul style="list-style-type: none"> • Use for <i>all natural</i> functionality • Use to improve ingredient declaration • Stabilize and tightly bind <i>free</i> water and fat in food products to reduce drip loss, evaporative loss, and moisture migration during storage to increase yields, product quality, revenues and profits
Baked Goods	<ul style="list-style-type: none"> • Stabilize and <u>tightly bind free moisture</u> to reduce evaporative loss during baking to increase quality, yields, revenues and profits • Increase and <u>tightly bind added water</u> to keep baked goods softer for a longer period of time and to increase yields, revenues and profits • Partial replacement of oil and fat to reduce costs, saturated and trans fat, and in addition, bake time is reduced because water transfers heat more efficiently than fat meaning less energy and labor costs while creating extra plant capacity
Beverages	<ul style="list-style-type: none"> • Stabilize other ingredients in beverage applications to improve quality • Impart pulpy mouth feel to beverages to improve quality • Control viscosity and texture to improve quality
Dairy Products	<ul style="list-style-type: none"> • Emulsify and stabilize other ingredients including replacement of higher priced chemical emulsifiers and stabilizers to improve quality, improve ingredient declarations and reduce cost • Partial replacement of fat to reduce costs, saturated fat and trans fat, and calories while maintaining quality • Control viscosity and texture to improve quality
Fats and Oils	<ul style="list-style-type: none"> • Partial replacement of shortening to lower costs, saturated and trans fat, and calories • Solidification of edible oils while at the same time lowering costs, saturated and trans fat, and calories
Frozen Foods	<ul style="list-style-type: none"> • Stabilize and tightly bind free fat and water and reduce moisture migration during storage (ice crystal formation) to increase quality, yields, revenues and net profits • Tightly bind added water in frozen foods to increase yields, revenues and profits
Fruits & Vegetables	<ul style="list-style-type: none"> • Coat fruit pieces to bind free water and reduce syneresis to improve the quality of fruit custards and deserts • Coat reduced moisture vegetables to bind free water and reduce syneresis to improve quality • Stabilize fruit fillings for use in baked goods to prevent blowout and improve quality
Meats	<ul style="list-style-type: none"> • Stabilize and tightly bind free fat and water to reduce drip loss and syneresis to increase quality, yields, revenues and profits • Tightly bind added water in processed meat products to increase yields, revenues and profits • Replace phosphate salts in processed meat products to make foods healthier • Synergy with carrageen to increase yields, revenues and profits • Partial replacement of meat with Citri-Fi and water to reduce costs
Sauces and Dressings	<ul style="list-style-type: none"> • Emulsify and stabilize other ingredients including replacement of higher priced chemical emulsifiers and stabilizers to improve quality, clean ingredient labels and reduce cost • Control viscosity and texture to improve quality



Upcoming Events and Contact Information

Fiberstar and many of our brokers and distributors will be exhibiting at these events. Please let us know if you will be attending any of these events. We will be happy to meet with you in person.

Upcoming Events

AACC Meeting	Sept. 13 th – 16 th	Baltimore, Maryland
IBA	Oct. 3 rd – 10 th	Dusseldorf, Germany (Booth 12A36)
HI Japan	Oct. 14 th - 16 th	Tokyo, Japan
FI India	Oct. 23 rd – 24 th	Mumbai, India (Booth B6)
IFT Suppliers Exposition	Oct 27 th	Minneapolis, Minnesota
Chicago Section IFT	Nov. 11 th	Chicago, Illinois
FI Europe	Nov. 17 th - 19 th	Frankfurt, Germany (Booth 9D69)
Ingredients Russia	Nov. 24 th – 27 th	Moscow, Russia
IFFA	May 8 th – 13 th , 2010	Frankfurt, Germany
FI South America	Sept. 21 st -23 rd , 2010	São Paulo, Brazil (Booth 540)

Contact Information

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We would like to thank you for your continued relationship with our company. We hope that the content of this newsletter is informative and useful. Please pass this newsletter on to your colleagues to keep them updated on all the ways Citri-Fi can be utilized. Also, if you have developed new applications, we'd love to hear of your success.

Our Best Regards,

The Fiberstar Team