

# Shelf-life extension for fresh-cut fruits and vegetables

### Who we are

Food Freshly is a family-owned company from Bielefeld, Germany that has been active in food technology since 1994. We work with dedication and precision on formulations that make fruits and vegetables safer and last longer. We do not use any preservatives, or other harmful substances in our products. All manufacturing, which takes place in Germany and in the USA, is carried out in accordance with the highest quality standards. Our worldwide customer base benefits from our more than 25 years of experience in the fresh-cut sector. Based at our headquarters, Food Freshly's range of specialists - with backgrounds such as biology, chemistry and food technology - are constantly working on innovations for the fresh-cut industry. Our sister company Food Freshly North America, Inc. takes care of customers located in the United States, Canada, and Mexico. Furthermore, we have forged partnerships and work with distributors in countries such as Poland, South Korea and India.



### What we do

FOOD freshly® Germany works with fresh-cut processors worldwide to improve product quality, food safety, and process efficiency.

Our nature-based Freshness Retainers extend the shelf-life of fresh-cut fruits and vegetables to over 21 days.





Increasing shelf-life and quality

Providing longer shelf-life

quality for your customers

and enhanced product

Reducing the chances of costly rejections due to deficient quality.

**UNITED** FRESH









Lowering costs



#### Gaining revenue

Helping processors launch first-to-market fresh-cut products.









## Our history











### **Our Products**

- Freshness retainers for cut fruit and vegetables  $\checkmark$
- Powdered dry mixtures of vitamins and minerals  $\checkmark$
- Protect cut fruit and vegetables from brown discolouration and  $\checkmark$ spoilage
- Application by dissolving in water and short immersion ✓
- Without preservatives and sulphur certified organic  $\checkmark$
- Much more effective than conventional fruit acids
- Retain the natural taste
- Easy to use at every stage from the kitchen to the factory  $\checkmark$





### Easy application for any process!

Our products are dissolved simply in water, with fruits then dipped into the solution for a few seconds. FOOD freshly® can easily be integrated into any process. Ask us about our capabilities for automatization and efficient use!

### 1. Cut

#### 2. Dip

Cut fruits and vegetables as required.

Dip fresh-cut produce for 30 seconds into the FOOD

## 

## Your Advantages

- High quality end products
- Increase of revenue due to longer shelf life  $\checkmark$
- Cost reduction through minimisation of complaints and rejects  $\checkmark$
- No declaration of allergens and preservatives
- Benefit from our many years of experience, research and know-how

#### 3. Pack and Store

freshly<sup>®</sup> solution.

Enjoy fruits and vegetables with an extended shelf-life of up to 21 days.





Easy application

### Conventional solutions vs. Food Freshly







Food Freshly Jonagold Apples after 8 days

Dip time 30 seconds, Concentration: 6%

No browning near the core area, firm structure of the apple tissue, no signs of deterioration, fresh apple taste

Citric acid Jonagold Apples after 8 days

Dip time 120 seconds, Concentration: 6%

Browning throughout the entire apple slices, deterioration of the apple structure, sour taste

Ascorbic acid Jonagold Apples after 8 days

Dip time 120 seconds, Concentration: 6%

Browning near the core area, signs of deterioration, sour taste

#### Prevents oxidation (browning) and deterioration of fresh-cut apples and pears.

Apples and pears are the foundation of our business as they oxidize quickly after being cut. Food Freshly® offers numerous products to extend shelf-life, prevent oxidation, and retain natural taste. Our products outperform standard fruit acid treatments, and don't contain sulfites. They also work with all common apple varieties and can be applied on any scale. Certain products are even organic certified.

Shelf life 8-21 Days

Appplication Quick dip into FOOD freshly<sup>®</sup> solution

> Without FOOI freshly



### Apples and Pears

#### **Advantages**

- More effective than common fruit acids, such as ascorbic or citric acid. ✓ No prohibited substances such as sulphites (SO<sub>2</sub>). Suitable for any apple variety.
- Retains natural taste & texture. 1 Effective with all types of cuts: slices, cubes, wedges, etc.
- Applicable for fresh and frozen apples. **Organic certified** solutions available.



### Salad

Many salad varieties suffer from pinking and browning caused by oxidation. FOOD freshly<sup>®</sup> prevents oxidation, without having to use modified atmosphere packaging (MAP).

### Shelf life

8-21 Days

Appplication Quick dip into FOOD freshly® solution.

Prevents oxidation (browning) and deterioration of fresh-cut green salads.

#### Advantages

- Prevents pinking and browning of freshcut salads.
- Covers wide range of salad varieties, e.g. Iceberg, Romaine, Chicory, etc.
- Retains natural taste & texture.

**Prevents** oxidation (browning) and deterioration of fresh-cut bananas.

One of our newest developments, which enables processors to offer fresh-cut bananas for the first time! This FOOD freshly® product prevents the browning of banana slices and retains the natural texture and taste. Until now, it was virtually impossible to overcome the oxidation of bananas, but this pioneering technology opens the door for first-to-market banana products.

Shelf life

5 - 10 Days

#### Appplication

Quick dip into FOOD freshly<sup>®</sup> solution.

Without FOOD freshly



Without FOOD freshly





### Banana

#### Advantages

- Prevents oxidation of fresh-cut bananas.
- Retains natural taste & texture.  $\checkmark$
- Enables processors to use fresh-cut  $\checkmark$ bananas in their products.
- ✓ No prohibited substances: Cysteinefree.



### Avocado

The growing global demand for avocados has driven the development of processed avocado products. However, fast browning poses a challenge to processors and users alike. FOOD freshly® prevents oxidation effectively without causing the avocado to carry a lemon or citric acid taste. Our dedicated research and development in this area has led to formulations that can be applied across fresh and frozen avocado products.

### Prevents oxidation (browning) and deterioration of fresh-cut Avocado.

#### Advantages

- Prevents oxidation in Hass avocados and other varieties.
- ✓ Retains original taste (no lemon taste).
- More effective than common fruit acids, such as ascorbic or citric acid.
- Applicable for fresh and frozen avocados.
- No prohibited substances: Cysteinefree.
- Organic certified solutions available.

### Prevents oxidation (browning) of Guacamole.

Along with avocados, Guacamole (fresh and frozen) has generated strong global demand over recent years. Food Freshly® keeps Guacamole fresh and retains its original color. At the same time, our products outperform common antioxidants used in the industry which may cause an acidic, unpleasant taste.

#### Shelf life

8 - 12 Days

#### Appplication

Added as an ingredient to the Guacamole.

#### Shelf life

8 - 12 Days

#### Appplication

Quick dip into FOOD freshly® solution.

Without FOOD freshly







Without FOOD freshly



### Guacamole

#### Advantages

- More effective than common fruit acids, such as ascorbic or citric acid.
- No prohibited substances such as sulphites (SO<sub>2</sub>).
- Retains original taste (no lemon taste).
- Applicable for fresh or frozen
  Guacamole.
- Organic certified solutions available.





### Potatoes

It all started with potatoes! FOOD freshly's first formulations were developed to replace sulfites in fresh-cut potatoes. Today, these products are used by many processors offering preservative-free potatoes to consumers. The growing demand for healthy alternatives driven by schools and hospitals has also increased demand for our organic solutions.

#### Shelf life

<mark>8 - 16 D</mark>ays

#### Appplication

Quick dip into FOOD freshly® solution.

Prevents oxidation (browning) of peeled / cut potatoes.

#### Advantages

- Free of sulfites (SO<sub>2</sub>) and other preservatives.
- Retains natural taste & texture.
- ✓ Vacuum packaging recommended.
- Effective with all types of cuts: peeled, diced, wedged, etc.
- ✓ Organic certified solutions available.

### Prevents oxidation (browning) and of fresh-cut root vegetables.

Root vegetables, from parsnips to root celery to carrots, oxidise and deteriorate quickly after cutting or slicing. Application of FOOD freshly® for root vegetables extends shelf-life and prevents oxidation. Most products for this category are certified organic.

Shelf life 6 - 12 Days

#### Appplication

Quick dip into FOOD freshly<sup>®</sup> solution.

Without FOOD freshly







Without FOOD freshly

### Root vegetables

#### Advantages

- Prevents oxidation of fresh-cut root vegetables.
- No prohibited substances such as sulphites (SO<sub>2</sub>).
- Suitable for a wide range of vegetables, including parsnips, root celery, carrots and many more.
- Effective with all types of cuts: slices, cubes, wedges, etc.
- Organic certified solutions available.



Freshness retainer for rc veaetables

## Eggplant/ Aubergine

Processing eggplant is extremely challenging as it oxidises very quickly. FOOD freshly® prevents oxidation and retains the original color of processed eggplant. Our products outperform standard fruit acid treatments and don't change the natural taste.

#### Shelf life

8 - 10 Days

#### Application

Quick dip into FOOD freshly® solution.

Prevents oxidation (browning) and deterioration of fresh-cut eggplants.

#### Advantages

- ✓ Prevents oxidation of fresh-cut eggplant.
- ✓ More effective than common fruit acids, such as ascorbic or citric acid.
- ✓ No prohibited substances such as sulphites (SO<sub>2</sub>).
- Retains natural taste & texture.
- Effective with all types of cuts: slices,  $\checkmark$ cubes, wedges, etc.





Without FOOD freshly





	Fruit/Vegetable	Shelf life
	Citrus fruits	7 - 14 Days
	Pineapple	7 - 14 Days
	Artichokes	6 - 10 Days
	Peach	8 - 12 Days
	Plum	6 - 14 Days
	Рарауа	6 - 14 Days
	Celery	6 - 18 Days
BA	Broccoli	8 - 18 Days
Ess.	Cauliflower	8 - 18 Days

Other fruits and vegetables 17

### **Production & Quality**

Quality is Food Freshly's top priority because we know the high standards that our customers want to meet. That is why all Food Freshly products are manufactured in Germany and in the USA according to the highest quality standards. Our factory is IFS Food (GFSI), BRC, HACCP, EU-Organic, OMRI and Kosher certified. Furthermore, it is registered with US FDA. Food Freshly carefully selects suppliers and inspects all raw materials coming into our facilities. Quality controls are carried out throughout the production process. This also includes extensive chemical and microbiological analysis of each batch. Food Freshly's customers receive a Certificate of Analysis (COA) with every order.

### **Research and Development**

Food Freshly is constantly looking for new ways to support our customers through quality optimization. Through these means, existing products are improved and new recipes are developed according to customer requirements. Our technical test facilities and laboratories are located at our headquarters in Germany. Here, we carry out tests on fruits and vegetables, and evaluate sensory and microbial parameters.

Talk to us if you are looking for a special solution or if certain fruits pose a challenge in terms of shelf life and quality.

Our team will be happy to assist!



Top and bottom left: Administration, research and development in Bielefeld. Bottom right: Production in Hameln.





#### Food Freshly AFC GmbH

Morgenbreede 1 33615 Bielefeld Germany

+ 49 521 96 8787-0 www.food-freshly.eu info@food-freshly.eu



Food Freshly North America Inc 2 Robert Speck Parkway Suite 750. Mississauga ON Canada

1-888-458-1670 www.foodfreshly.com info@foodfreshly.com