A close-up photograph of a halved orange with a single drop of juice falling from its center. The drop is elongated and has a small pool of juice below it, creating ripples on a surface.

# **The Production and Marketing of Italian Citrus Co-Products**

Giuseppe Ingrilli | Eurofood

Simona Caratozzolo | Citrofood

ICBC September 2019

# Presentation Agenda

- ◆ Citrofood-Eurofood
- ◆ Overview of Citrus production in Italy
- ◆ Why Italian Co-Products ?
- ◆ The Co-Products



## Citrofood-Eurofood

- ◆ Italian citrus processing company
- ◆ Family owned
- ◆ Over 50 years experience
- ◆ Lemon, Blood Orange, Orange, Mandarin, Clementine, Bergamot

### Products:

NFC Juice

Peel

Juice Concentrate

Pulp Cells

Oil

Comminutes/Puree

Available as Organic



# Italy, a history of Citrus

- ◆ Second largest citrus producer in the EU
- ◆ Roughly 80% of the Italian citrus production is located in Sicily

## Annual production (metric tons)

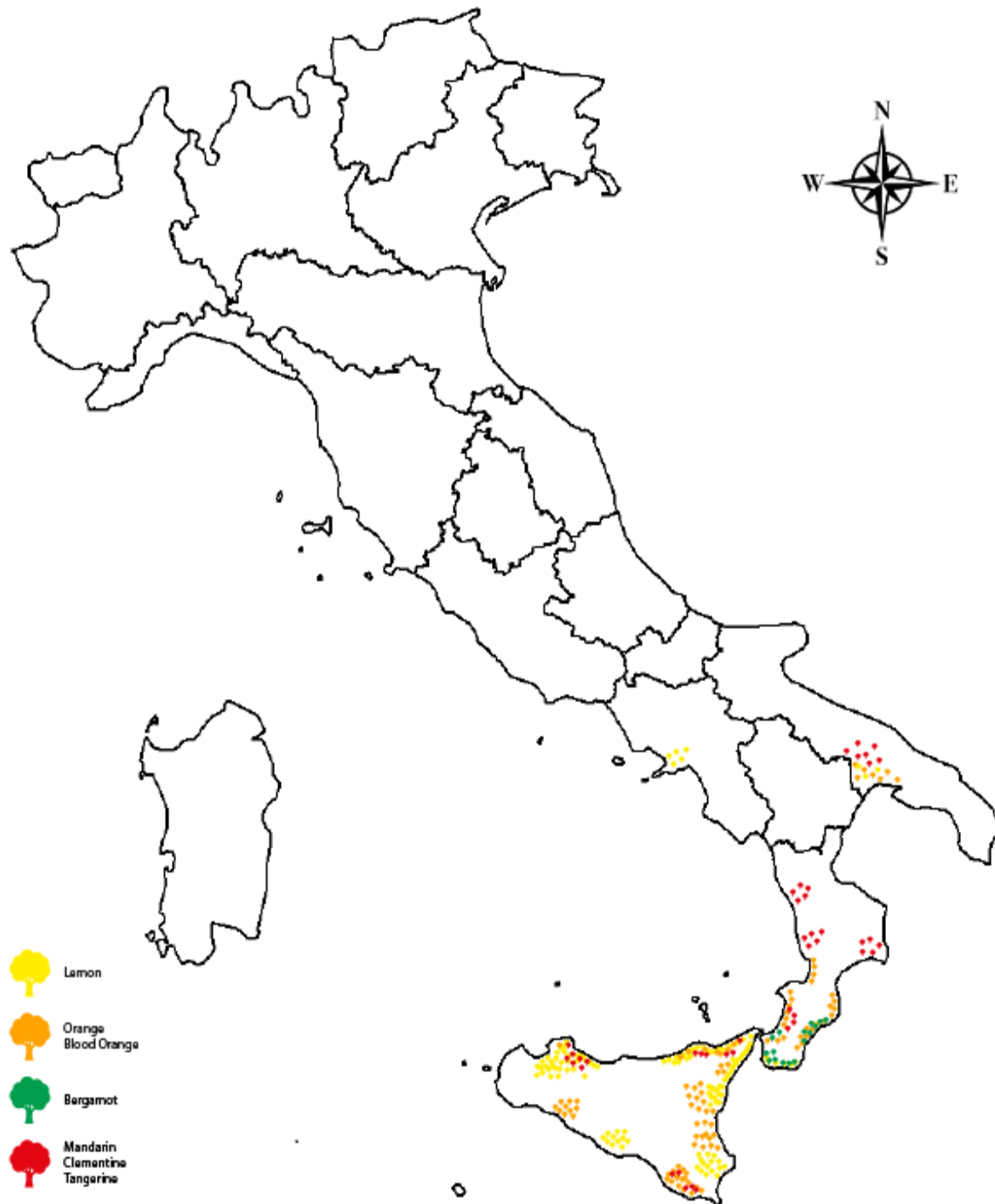
Lemon: 450.000\*

Orange & Blood Orange: 1.500.000\*

Mandarin, Clementine, Tangerine:  
800.000\*

Bergamot: 20.000 (estimation)

\*Citrus Annual Report 2018 – USDA GAIN Report



# Why Italian Co-Products?

Focus on:

COMMINUTES & PUREE

FROZEN PEEL

PULP CELLS

## THE STARTING POINT

- Need for Italian citrus to find its right place on the global market
- Fresh market impact on the Italian processing industry
- Need for sustainability
- Consumers request Healthy, Natural and Functional products
- Citrus flavor profile is well accepted across many F&B categories

## WHY CO-PRODUCT?

Citrus processing has no secondary product. Every output has its own features and applications.

Our job is to technologically enhance everything that does not belong to the commodity category, creating versatile ingredients that are able to satisfy market needs

## WHY ITALIAN?

- ◆ Low Residue
- ◆ Flavor Peculiarities
- ◆ Historical heritage
- ◆ Specialization in Custom made products



# The CO-PRODUCTS

## 1 – COMMINUTES & PUREE

- Aseptic
- Frozen
- Preserved

## 2 – FROZEN PEEL

## 3 – PULP CELLS

COMMINUTE is a mix of juice, pulp, peel and oil in customized proportions.



### A Versatile and Complete ingredient:

- ◆ Natural flavoring and brightness
- ◆ Natural cloudiness and stability
- ◆ Stronger organoleptic impact on finished products compared to regular juice
- ◆ Source of Vitamin C mainly contained in the peel
- ◆ Source of Vitamin A only contained in the peel
- ◆ Source of Fibers and Mineral Salts

The mix of juice, pulp, peel and oil results in a complete nutritional framework that is difficult to duplicate in nature.

# The CO-PRODUCTS

## 1 – COMMUNITES & PUREE

- Aseptic
- Frozen
- Preserved

## 2 – FROZEN PEEL

## 3 – PULP CELLS

## PRODUCTION PROCESS

FRESH FRUIT RECEPTION

WASHING, BRUSHING & MANUAL SORTING

FMC JUICE AND OIL EXTRACTION

GRINDING, BLENDING & HOMOGENIZING

PASTEURIZATION

PACKING

STORAGE



# The CO-PRODUCTS

## 1 – COMMUNITES & PUREE

- Aseptic
- Frozen
- Preserved

## 2 – FROZEN PEEL

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## A “BETTER FOR YOU” INGREDIENT

ID on label: Fruit from concentrate

Far East Asian countries and Multinational F&B companies were pioneers in the usage of comminutes.

- Suitable ingredient for both young and adult market segment
- Suitable for daily consumption thanks to its reduced sugar content, no added sugar

Trend towards transparent packaging in beverages for both new and existing brands.

- Comminutes are ideal for use in transparent bottle thanks to the high stability they provide to the final product.
- Healthy and low-calorie visual effect
- Easier to carry around and drink in business situations



# The CO-PRODUCTS

Available as Organic

## 1 – COMMUNITES & PUREE

## 2 – FROZEN PEEL

- Dices
- Stripes
- Round slices
- Shredded pulp
- Zest

## 3 – PULP CELLS



PEEL is available in different shapes and albedo thickness is customized.

## PRODUCTION PROCESS

FRESH FRUIT RECEPTION

WASHING, BRUSHING & MANUAL SORTING

SPELLALBEDO JUICE EXTRACTION

3-DIMENSIONAL DICER/SLICER MACHINE

Points of strength:

- Organic or Low Residue
- Clean Label friendly
- Minimally processed, unpasteurized
- Fully retained flavor
- Fruit processed within 24/48h from harvest

# The CO-PRODUCTS

Available as Organic

1 – COMMINUTES & PUREE

2 – FROZEN PEEL

3 – **PULP CELLS**

- Frozen
- Aseptic



PULP CELLS are obtained from the endocarp, after juice extraction.

## PRODUCTION PROCESS

FRESH FRUIT RECEPTION

WASHING, BRUSHING & MANUAL SORTING

FMC JUICE AND OIL EXTRACTION

HYDROCYCLONE

Points of strength:

- Organic or Low Residue
- Clean Label friendly
- Natural mouthfeel
- Flavor enhancement

## The CO-PRODUCTS APPLICATIONS

Citrus Co-products have a wide range of applications

- ◆ Juices & Smoothies
- ◆ Soft drinks
- ◆ Natural Energy drinks & Isotonics
- ◆ Tea
- ◆ Flavored water
  
- ◆ Cocktails and mocktails
- ◆ Liquor and Liqueur
- ◆ Beer
  
- ◆ Jams
- ◆ Ice Cream
- ◆ Fillings & Toppings
- ◆ Dairy
- ◆ Baking

...AND MORE



A large, vibrant yellow lemon slice is positioned at the top left. A single drop of lemon juice is falling from its bottom edge, creating a small splash and ripples in a pool of yellow liquid at the bottom of the frame.

# THANK YOU

Giuseppe Ingrilli | Eurofood

Simona Caratozzolo | Citrofood

ICBC , September 2019