Agenda

• What are artisan breads?

• Upscaling to industry
Through the Eyes of the Consumer
Artisan Breads for the Professional

- **Process**
  - Lean simple recipe
  - Gentle process
  - Time!

- **Position**
  - Story
  - Point of Sales
  - Packaging

- **Visual**
  - Crust with shred
  - Dusting Flour
  - Open crumb
  - Off-white color
  - Irregular shape
  - Variety

- **Flavor**
  - Crust notes
  - Fermentation notes
  - Mild to sour

- **Texture**
  - Crust hard or soft
  - Crumb slight rubbery
Fundamentals of Artisan Baking
From Artisan to Industry?

Hurdles & Solutions
Hurdles to Overcome
High Speed Bread & Bun Line ↔ Artisan

Bread & Bun

(sponge) → Ingredients-mixing → Divide & Make up → Final proof → Bake → Cool & pack

1h 30’
High Speed Bread & Bun Line ⇑ Artisan

Bread & Bun

preferment → Ingredients-mixing

Bulk proof → Divide & Make up

Final proof → Bake → Cool & pack

24h + 4h

1h 30'

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clean label

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no stress !

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Why use Preferments?

Bio-chemical
Leavening
Acidification

Rheological
Extensibility
Machinability

TASTE

Nutrition
Eg GI lowering
Starch digestibility

Finished Bread
Holistic health
Diversity / tradition

CONSUMERS
Families of Preferments

- Mixture of flour, water and **commercial baker’s yeast** (*Saccharomyces cerevisiae*)
  - Fermented for **2-12 hours**
  - Sponge - flour brew – poolish - biga

- Mixture of flour, water and **Lactic Acid Bacteria (LAB)** & wild yeasts
  - Fermented for **>12 hours**
  - Sourdough – starter – sour – levain – masa madre…
Make Your Own Sourdough?
Or Buy as Ingredient?

- Shelf life stable
- Consistency
- Flavor
- Differentiation

Ready to use sourdough

Sourdough process

Mixing → Proofing → Baking
High Speed Bread & Bun Line ↔ Artisan

preferment → Ingredients-mixing → Bulk proof → Divide & Make up → Final proof → Bake → Cool & pack

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clean label

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no stress !

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24h + 4h

1h 30'

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no stress !

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*American Society of Baking (ASB)*

*BAKINGTECH 2018 SUSTAINABILITY - SUCCESS THROUGH PEOPLE PRODUCTS AND PRODUCTIVITY*
Ingredients

Trends

- Locally Grown
- Non-GMO Project Verified
- Clean Label
- USDA Organic
Ingredients

Basic Ingredients

- FLOUR
- YEAST
- SALT
- High hydration: > 65%
- PREFERMENT
- Ready-to-use sourdough
### Functional Ingredients

<table>
<thead>
<tr>
<th>Tolerance</th>
<th>Freshness &amp; Moistness</th>
<th>Mold Control</th>
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| Clean label or organic dough conditioners | Freshness enzymes  
Correct packaging | Fermented wheat  
Clean room  
Pasteurisation |
Mixing

- **Critical**: dough development with maximum water

- **Mixer design to incorporate more water**
  - High Hydration Mixers
  - Continuous Hydration Mixing Technology
  - ...

- **Process**
  - Autolysis: 20-60 min
  - Bassinage
High Speed Bread & Bun Line ↔ Artisan

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1h 30'  24h + 4h

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clean label

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no stress !

Artisan

Bread & Bun

1h 30’

24h + 4h

Bakingtech 2018
Bulk Fermentation

- Minimum 45 minutes (mostly 1-2h’)
- Temperature control
- Why important?
  - Open crumb
  - Rubbery – cohesive texture
  - Flavor
Dividing & Make-up
Solution: Stress-free Lamination Lines
High Speed Bread & Bun Line ↔ Artisan

Bread & Bun

preferment → Ingredients-mixing → Bulk proof → Divide & Make up → Final proof → Bake → Cool & pack

1h 30’

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clean label

no stress!

Artisan

1h 30’

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cool label

24h + 4h
Baking

• Type
  – Crust: Thick or soft / thin
  – Parbaked: White or fully colored

• Create ideal heat transfer
  – Bottom heat
Selling & Road to Market – Many Options

- Fresh, Frozen or Packed Ambient
- Parbaked or Thaw & Serve
- Packaging
  - Paper (+window) preferred by consumers
Can artisan bread & industrial production go hand in hand?
Questions ?

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Thank You!