



Prime Masa Nixtamal

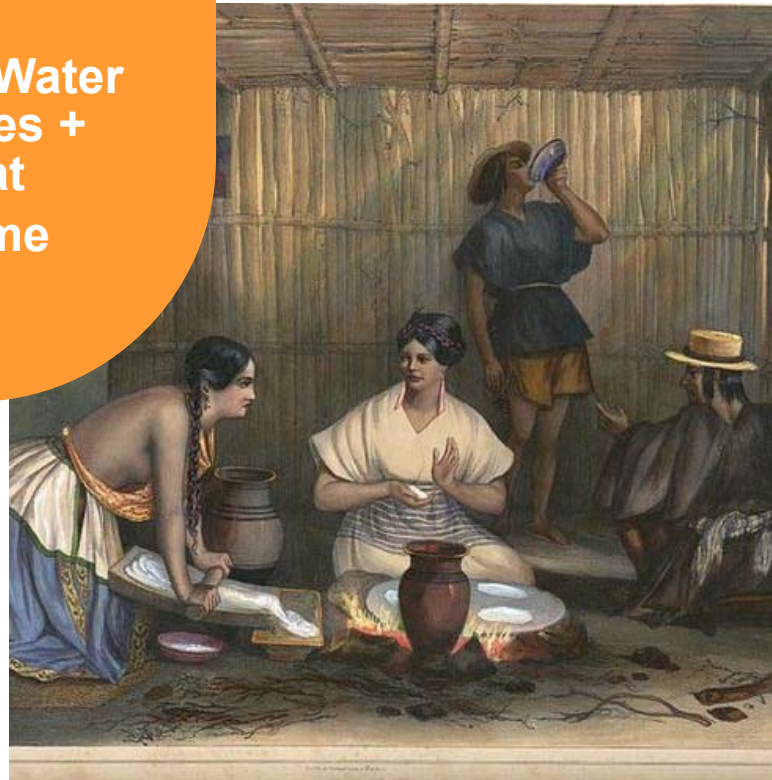
Specialty Grains and Pulses

Innovations for a better world.

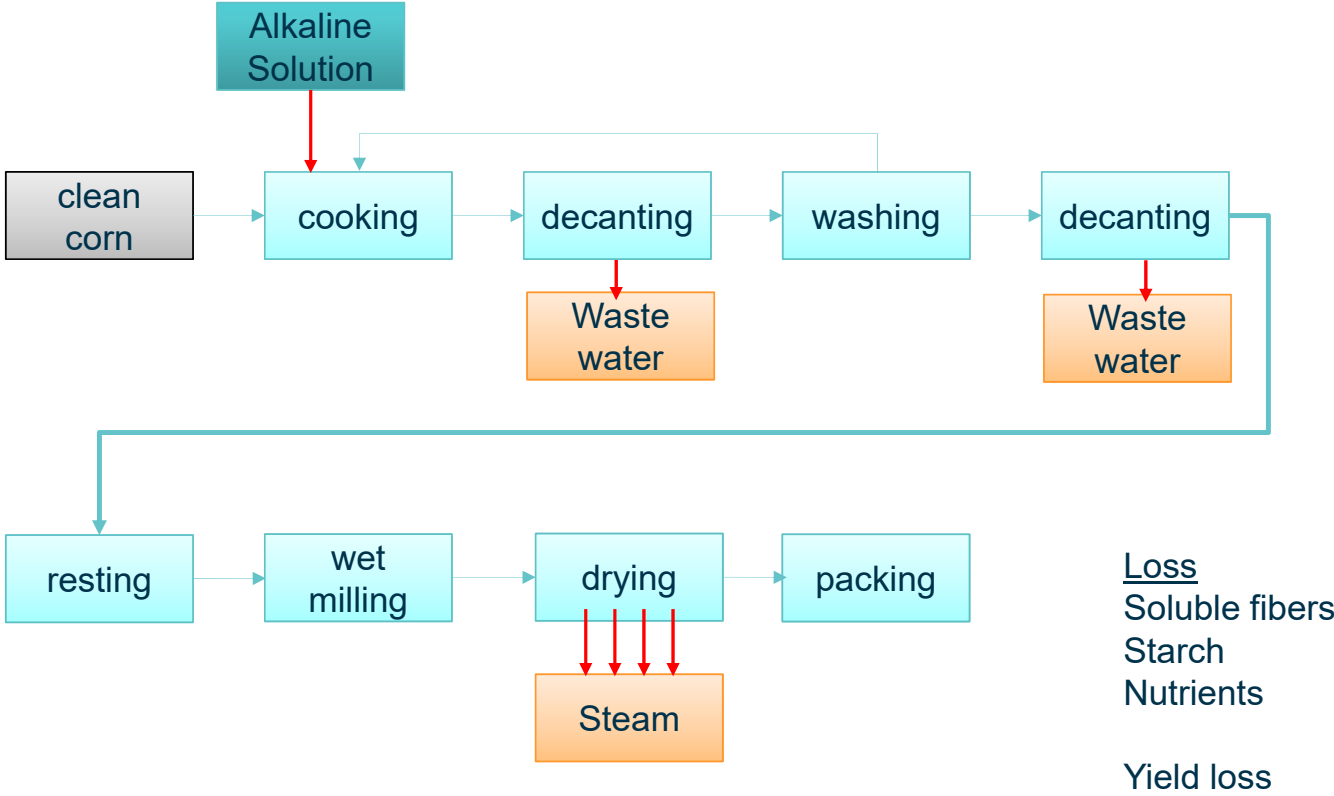
 **BUHLER**

Aztec process of cooking corn with ashes

Corn + Water
+ Ashes +
Heat
+ Time



Traditional industrial process.



Market demand.

Waste water free production:

- 1.5 tons of waste water per ton of flour
 - Loss of corn through waste
 - Loss of energy
 - Waste treatment required
-
- Reliable process control



Market demand.

Reliable and precise control of:

- Water addition
- Lime addition
- Cooking degree
- Granulation

- Process sensors
- Data collection



Market potential.

Tortilla markets have flourished over the past five years, making it the **fastest growing segment** within the baking industry.

8.4 m tons

of tortilla are
consumed in Mexico
each year



280 bn tortillas
are consumed yearly
in the US

over
13 m tons



Global tortilla chips
consumption
exceeds
1.3 m tons
per year



Tortilla Consumption in NAM.

13 million tons

Tortilla Market in North and Central America



8.4 million tons

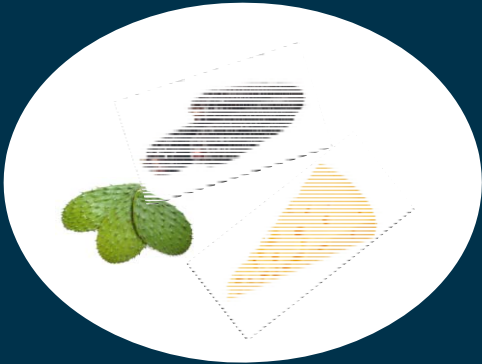
of tortilla are consumed in **Mexico**.

> 280 billion tortillas are consumed yearly **in the US**, with an experienced 10% rate of growth over the past decade



Tortilla Trends Worldwide.

More Dynamics – More Potential.



New flavors and ingredients



Fast food chain expansion



A driver of Gluten free snacks



Sustainable Industry/ Whole grains/ added vitamins/ GMO free

Prime Masa Nixtamal

Waste water free



Innovative
process

PRIME MASA NIXTAMAL

[Movie](#)

Innovations for a better world.

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Prime Masa Nixtamal Process.

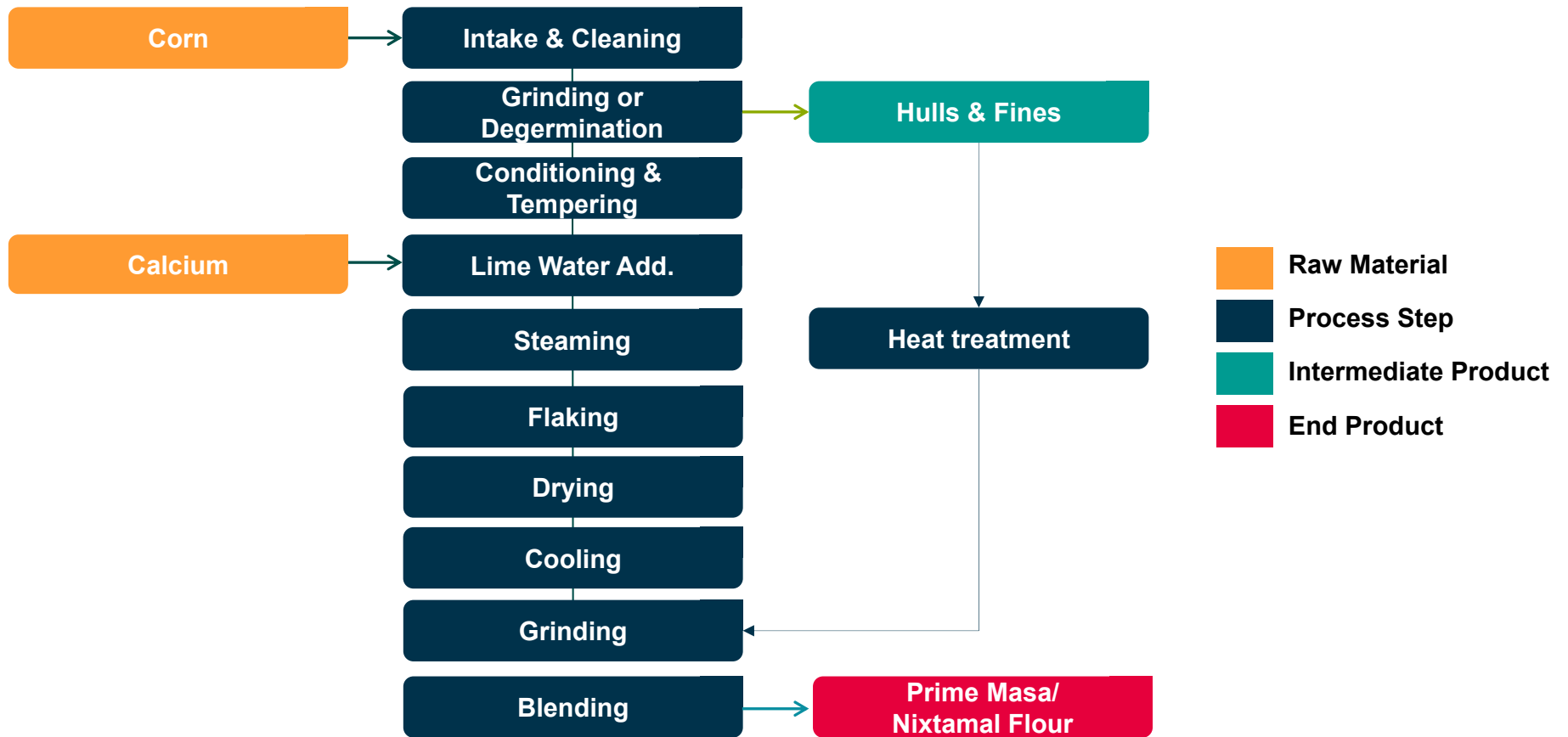
Sustainable and innovative solution for masa flour.

- Typical flavour of nixtamal in the finished products.
- Flour color
- Texture and taste of tortillas, tacos and corn chips.



Prime Masa Nixtamal Process.

Sustainable and innovative solution for masa flour.



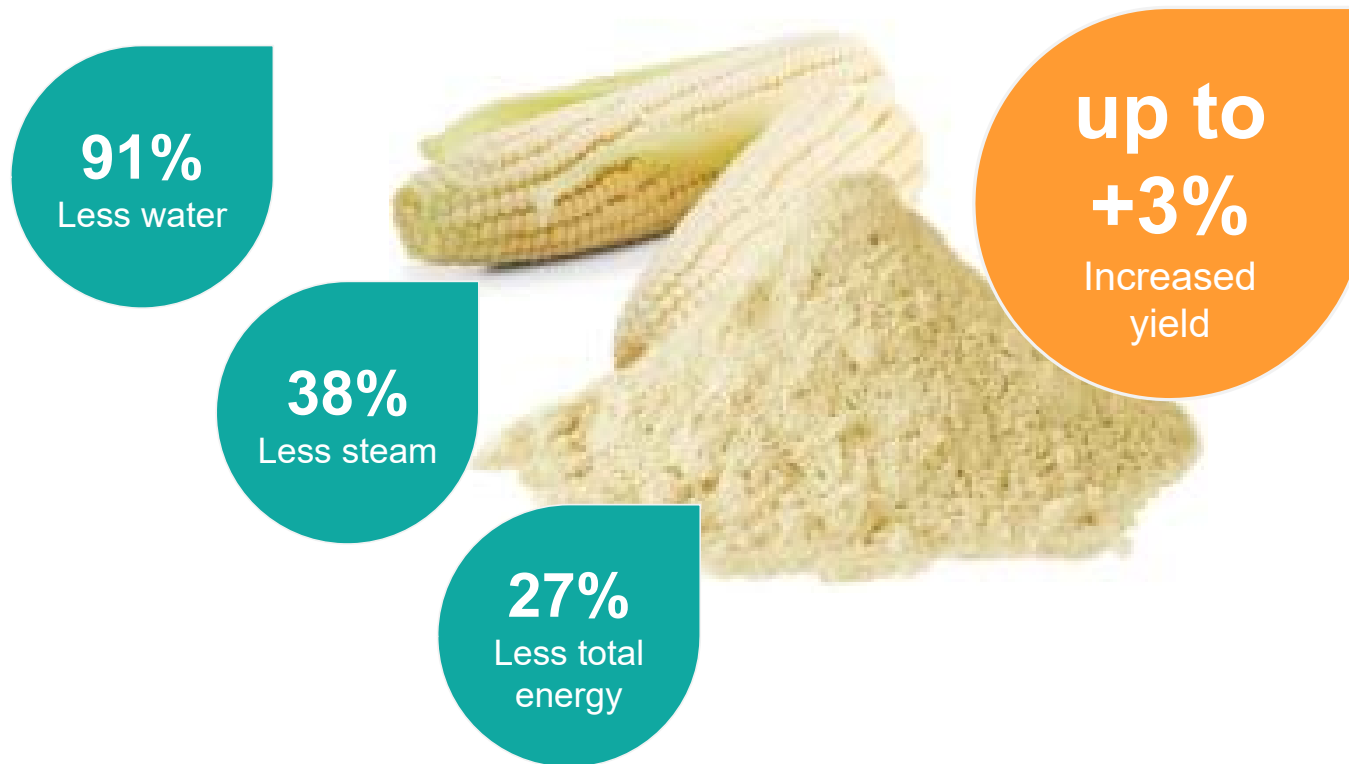
Core piece: Flaker BCFB

Modern Nixtamalization

- High sanitation
- State of the art automation
- Energy efficient
- Process monitoring
- Versatile process

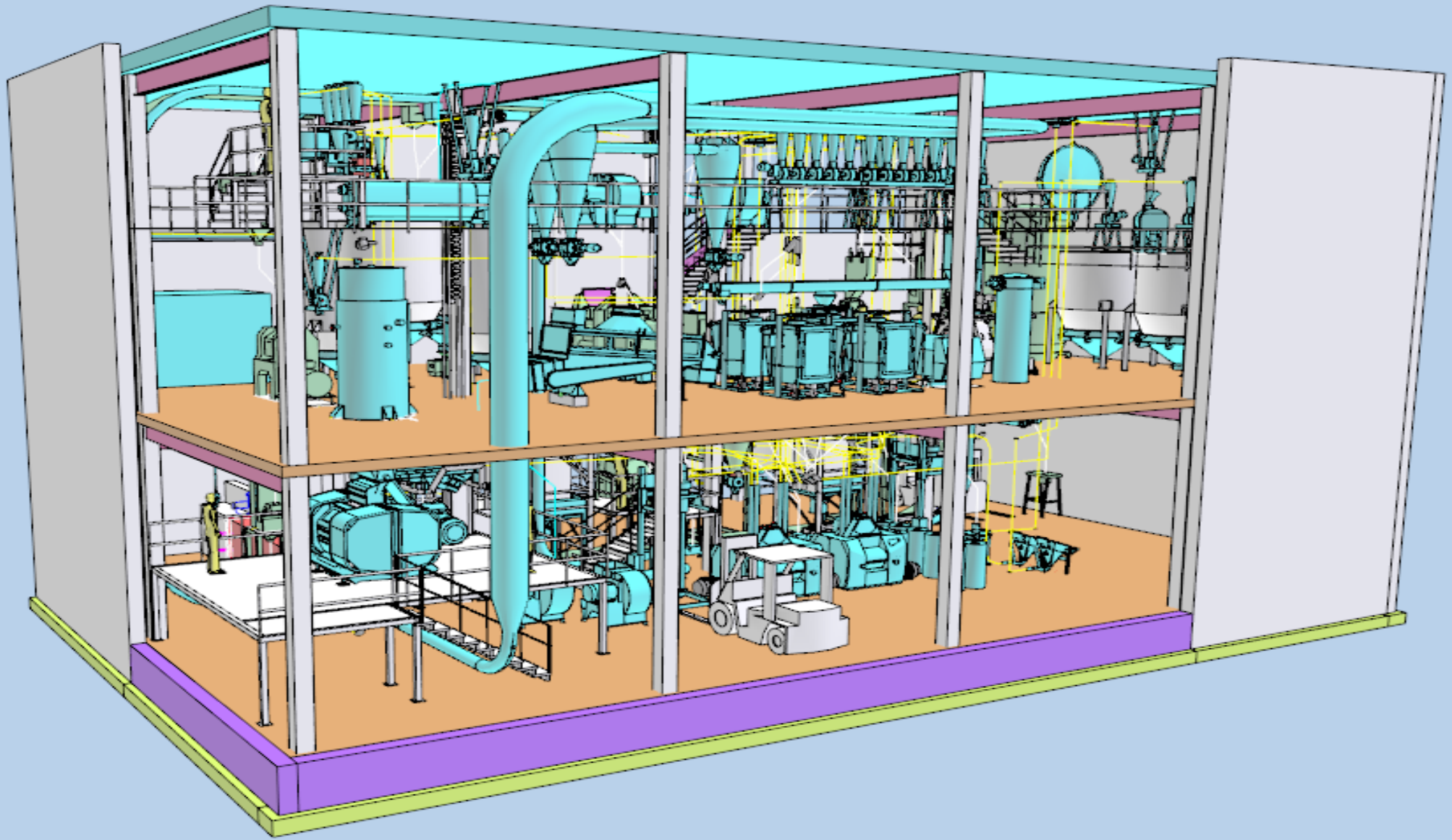


Cost savings compared to traditional process



Food Application Center Minneapolis

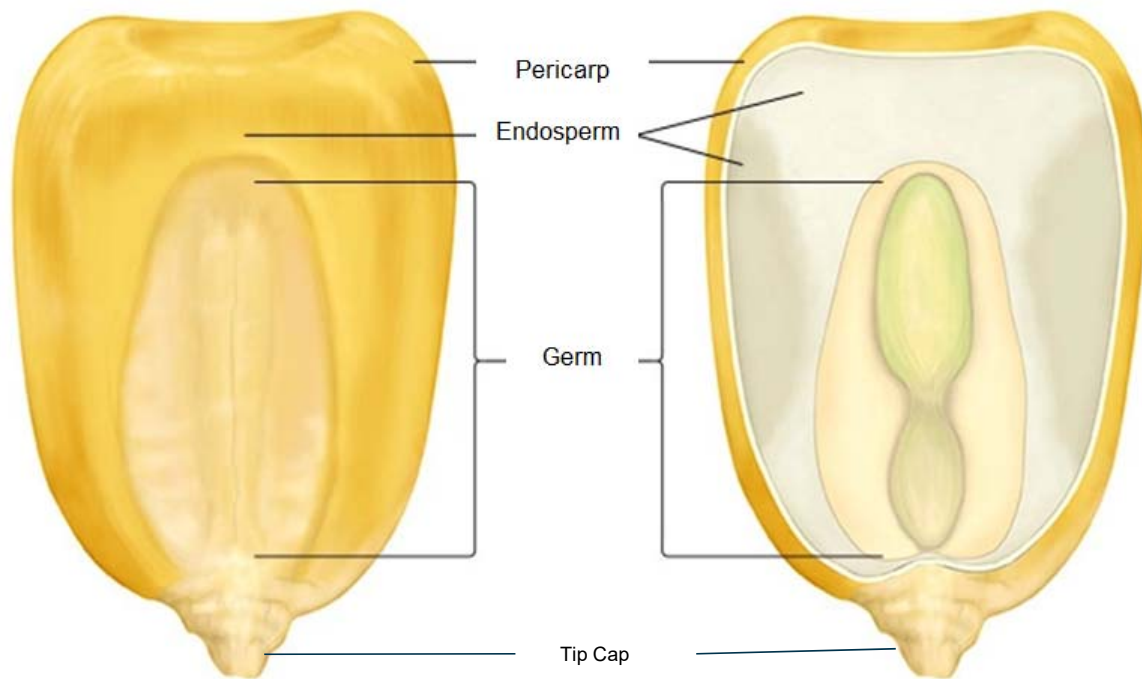






GrainiGo™ - Unveiling yield
through image analysis.

GrainiGo



- Size
- Broken kernels
- % Germ, Hull, Endosperm,
- Stress Cracks

Yield
Food Safety
Quality

GrainiGo™.

Quick assessment of yield by objectively analyzing the kernel quality.

Bühler's new quality control tool GrainiGo™ brings you the advantages of **instant quality analysis** and **Internet of Things**.

The cloud-based service ensures **flexibility**, tracks product performances as well as provides a **low cost solution** for reliable and **consistent quality assurance**.

Its **portable design** and **ease of operation** allow the deployment at **any point of the production chain**.

Benefits

- Objective, fast results
- Increased quality control and traceability
- Maximum flexibility thanks to portable design and ease of operation
- Low-cost solution

Got a question? Let's talk about it at our Buhler booth 222.

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