



Shelf Stable Milk for Schools

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Speaker & Moderators



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OUR VISION

We commit to making food safe
and available, everywhere





Protecting Food, Protecting People, Protecting Futures

The pillars of our brand and the chapters of our sustainability story

FOOD



Safety, Quality & Availability

Protecting your products with our processing & packaging solutions.

Employees, communities & society at large

Safeguarding, supporting and developing those whose lives we touch.



PEOPLE

PLANET



Full life cycle approach

Contributing to a circular economy that is low carbon, with environmental excellence along the entire supply chain.

Innovative technologies & smart solutions

Understanding and supporting our customers' business growth ambitions.

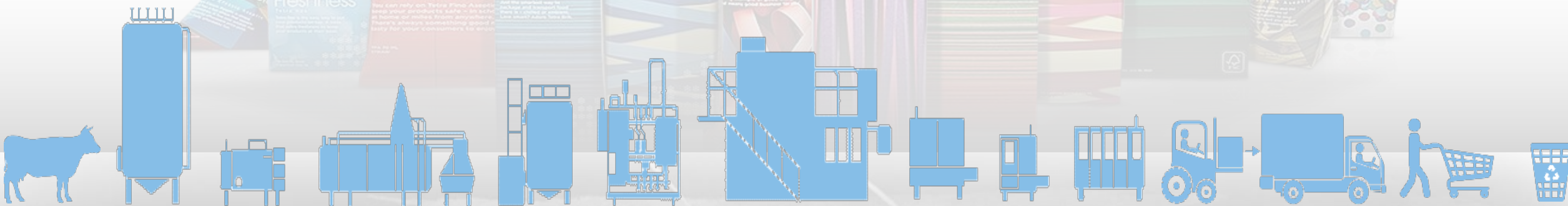


PLANET



Tetra Pak is a provider of food processing solutions, end-to-end!

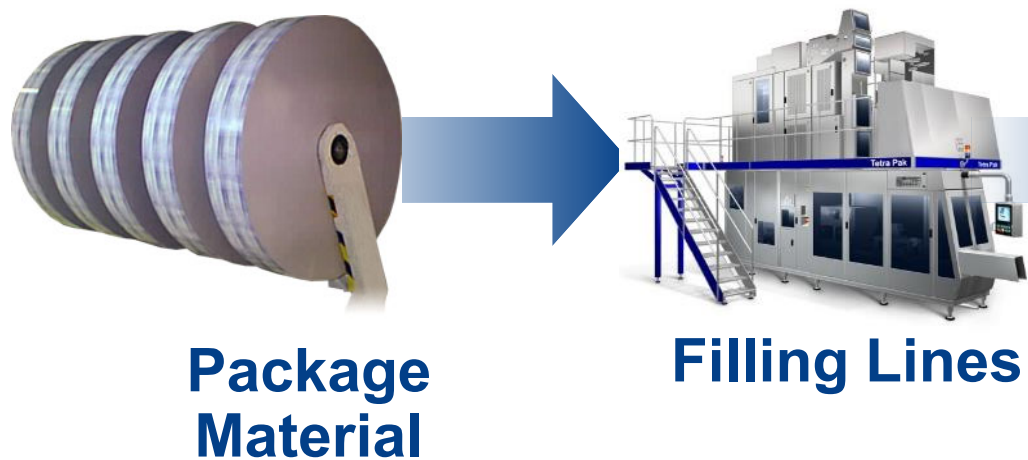
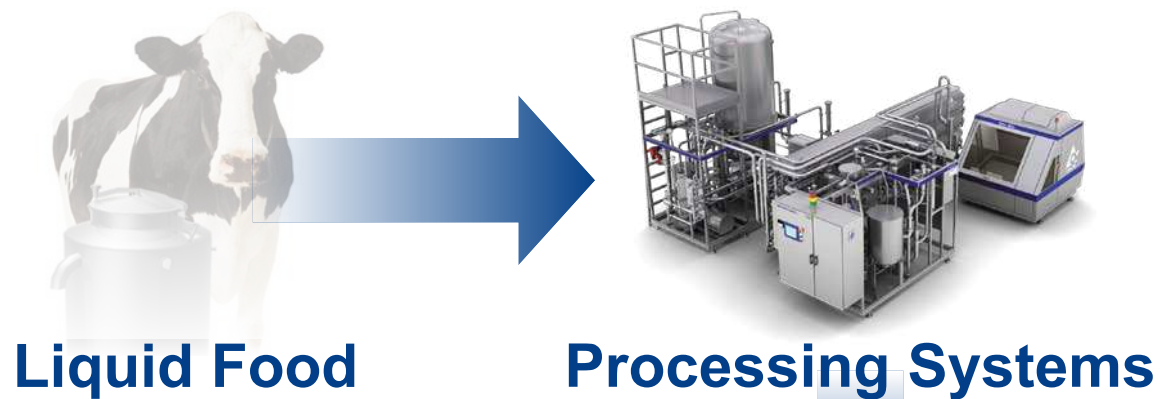
We are more than a package





Our innovation focus areas

Processing & Packaging System Supplier



Services





What's the difference between these terms?



- Aseptic
- Shelf stable
- Ambient
- UHT (Ultra-high temperature)

These are all terms for milk that is processed at a high temperature and then filled in a sterile package.



A history of aseptic technology



1952

First paper-based package for milk



1961

Aseptic technology revolutionizes dairy consumption



1989

Aseptic technology named the greatest innovation of the 20th century

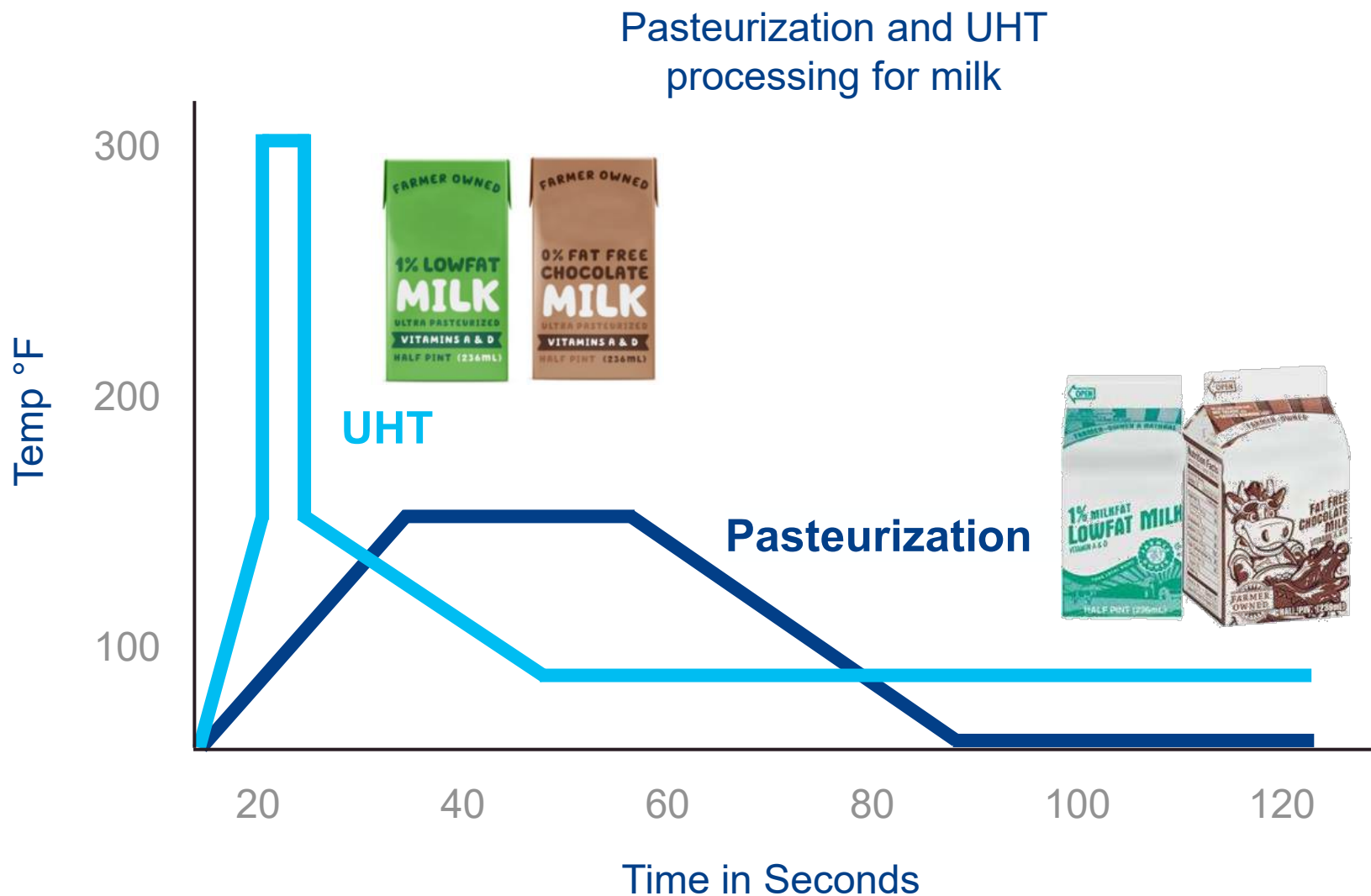
Robert R. Whittaker, 1951

“A package should save more than it costs.”





Milk Process: Pasteurization vs UHT





Tetra Pak's aseptic packages

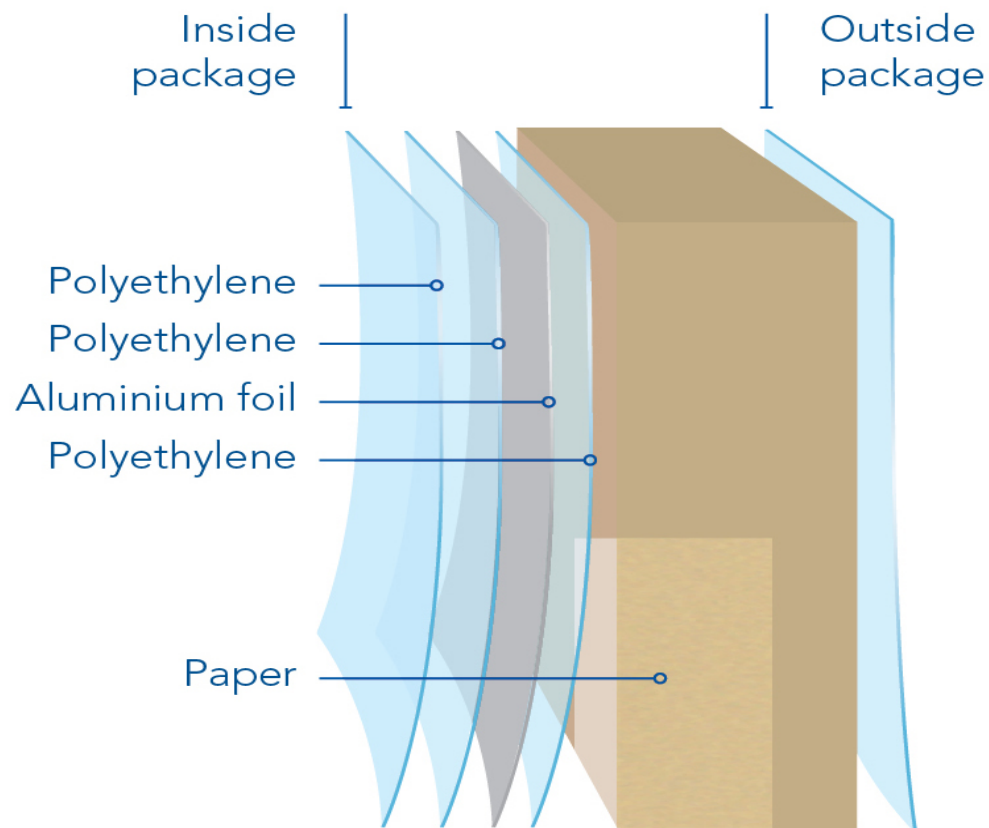
Aseptic packaging is made of six layers that maintain a sterile barrier to light, bacteria, oxygen and more, all of which can spoil milk.

The aseptic carton is recyclable and can be sorted with mixed containers.

There are many aseptic packages available in different shapes and sizes with different openings.



Layers of shelf stable carton package





UHT treatment + aseptic packaging

=

Safe and
nutritious
shelf
stable milk





Shelf stable milk is the same nutritious milk as chilled milk

The process of making a product shelf stable ensures the product will be safe (won't grow harmful bacteria) without requiring refrigeration before opening for a long time period.

**WE'RE DELIVERING
NUTRITION TO STUDENTS**



Tetra Pak® Aseptic cartons provide 6 layers of protection to keep the dairy milk inside safe from light, oxygen, bacteria and more without the need for additives or preservatives.



Shelf stable milk drives savings

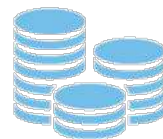
HOW?



Save energy by
eliminating chilled
distribution

- Can be delivered via dry truck
- Does not to be chilled until day before of consumption

- Decreased delivery frequency from every other day to once every two weeks
- Longer shelf life helps reduce milk waste due to spoilage



Lengthen time
between deliveries,
saving more than
\$.6 per unit*

*Douglas County Aseptic Study



Store easily in bulk,
reducing "hot shot"
orders and waste

- Stacks well and takes up less space

SAVE SPACE AND ENERGY



Shelf stable reduces headaches!

Schools really liked the package, most had a positive reaction

“ Managing code dates

“ Bad weather and missed deliveries

“ No leaking

“ No cooler cleaning

“ No inventory run-out, no early deliveries the week before school restart

“ Fewer spills to clean up at tables

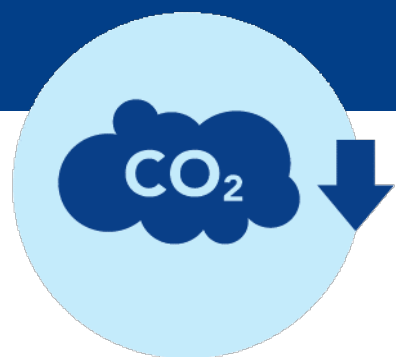
“ Emergency preparedness

“ Access to schools limited due to safety concerns



Smarter for logistics, smarter for schools

From the elimination of chilled distribution in refrigerated delivery trucks, to the ability to store milk in bulk without refrigeration when unopened, **the benefits of shelf stable milk are hard to ignore.**



Reduce CO2 emissions by the equivalent of driving 248 miles – simply by eliminating truck refrigeration needs and decreasing delivery frequency!

*J. Public Health

Potential to reduce delivery frequency from

2 per week → **1** every other week*

*Based on results from the 2018/2019 School Milk Pilot Program Study





Shelf stable milk is great solution for your schools!



Distribution savings



Convenient, less handling



Sustainable, less waste



Social Feeding – Backpack program



Shelf Stable Milk FAQs



SMART, SAFE AND SHELF STABLE

- ▶ **Can aseptic milk be taken in and out of the refrigerator multiple times, without spoilage?** As long as the Tetra Pak® package has not been opened, you can move the aseptic milk carton in and out of the refrigerator without worry of spoilage. However, once the package has been opened, aseptic milk has the same shelf life as pasteurized milk.
- ▶ **What is the shelf life of aseptic milk?** Before opening, aseptic milk has a shelf life of 6-12 months. Once opened, it has the same shelf life as pasteurized milk.
- ▶ **Why isn't aseptic milk common in the U.S.?** The U.S. has a chilled system in place for milk and other staples that has served us for many years. But, the market is changing and there are many factors driving the need for longer shelf life products, such as growing demands on transportation and distribution networks, a focus on sustainability, the need to reduce food waste, and unforeseen circumstances such as COVID-19 and weather events.
- ▶ **Is the nutritional value different from chilled dairy milk?** The nutritional value of aseptic shelf stable milk, including protein, calcium and Vitamin D, is no different than chilled options and meets all nutritional requirements.
- ▶ **What is the preservative used to allow a long shelf life?** No additives or preservatives are needed to prolong the shelf life of aseptic milk. The ultra-high temperature (UHT) treatment process, paired with the aseptic packaging allows for long shelf life.
- ▶ **Are there various options, such as flavored, lactose free and fat free, available in shelf stable milk?** Product availability is based on your milk producer/processor and/or distributor.
- ▶ **Besides milk, can other dairy products be made shelf stable?** Yes. Common aseptic dairy products include cream, coffee creamers, buttermilk, evaporated milk, etc.



- ▶ **Does aseptic packaging contain Bisphenol-A (BPA)?** Aseptic packaging is made up of six layers that include polyethylene, paper, and aluminum. These materials do not contain BPA. Polyethylene is a BPA-free plastic that shields the food from the aluminum lining, which helps protect the product from air and light, eliminating the need for preservatives or refrigeration.
- ▶ **Is shelf stable milk more expensive than chilled milk?** The pricing decisions for milk products are made by processors and/or distributors. Cost savings and more can be realized with less frequent delivery, room temperature storage, and less milk waste.
- ▶ **Any recommendations on when I should refrigerate shelf stable milk prior to consumption?** We recommend chilling shelf stable milk the day before consumption simply because most people prefer the temperature of chilled milk over room temperature milk.
- ▶ **Can kids take unopened milk with them for later consumption if they don't drink it during lunch?** Shelf stable milk remains safe without refrigeration when unopened. So, kids can take milk packaged in aseptic cartons with them to consume later (after school programs, activities, sports, grab-and-go meals, weekly boxes being sent home, etc.). Aseptic milk cartons are also great for backpack programs and meal distribution programs.

- ▶ **Are aseptic milk packages recyclable?** Yes, aseptic milk cartons are recyclable and can be thrown into the recycle bin. For more information, please contact The Carton Council. <https://www.recyclecartons.com/>
- ▶ **Does shelf stable milk taste different from chilled milk? Does this impact consumption?** There is a slight difference. However, most people will not notice it, especially in flavored milk. We have conducted several studies in school districts across the country that show conversion was not an issue. In fact, students drank more of the milk in aseptic cartons and sales increased.
- ▶ **Are shelf stable cartons more sustainable than chilled, gable top cartons?** All Tetra Pak® cartons are recyclable and are primarily made from renewable resources. Shelf stable milk allows you to transport and store without refrigeration, and its long shelf life reduces milk spoilage and waste, all of which contribute to lower greenhouse gas emissions.
- ▶ **Are ultra-heat treatment (UHT) systems the only way to achieve longer shelf life for dairy products?** No. Microfiltration, bactofuges and other bacteria/spore removal methods are possible methods to extend shelf life. UHT is the only method for making commercial shelf stable products that is approved by the FDA under 21CFR113.





How to contact us at Tetra Pak

Scan the QR code with
your cellphones
camera to learn more
about school milk



[https://www.tetrapak.com/
en-us/schoolmilk](https://www.tetrapak.com/en-us/schoolmilk)



Tetra Pak



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