

Introduction Slides:

Microbiome and good bacteria - the future for health and food




**Keep it great!**  
with good bacteria in food

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# Movie- *Bioprotection helps Keep food great !*



A photograph of two young boys looking into a refrigerated display case. The boy on the left is smiling and pointing at something inside the case. The boy on the right is looking directly at the camera with a neutral expression. The display case contains several packages of 'Smietana' (cream) and a row of white bottles with green caps. The background shows a grocery store aisle with baskets of produce.

Bioprotection is a natural way to protect against spoilage and harmful contamination in food. This not only helps you to keep your products fresh and safe, it also helps you to build and protect your brand!

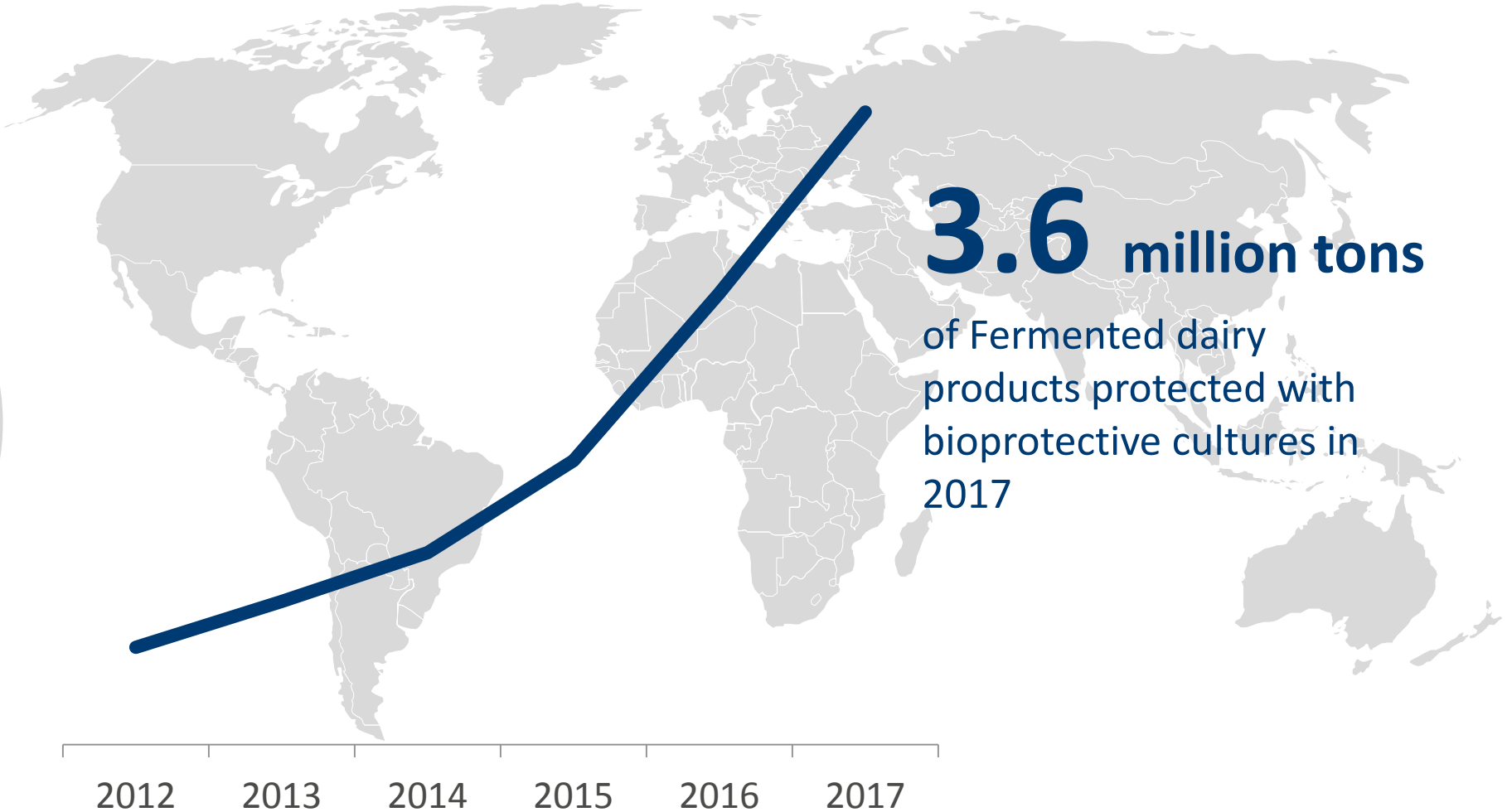
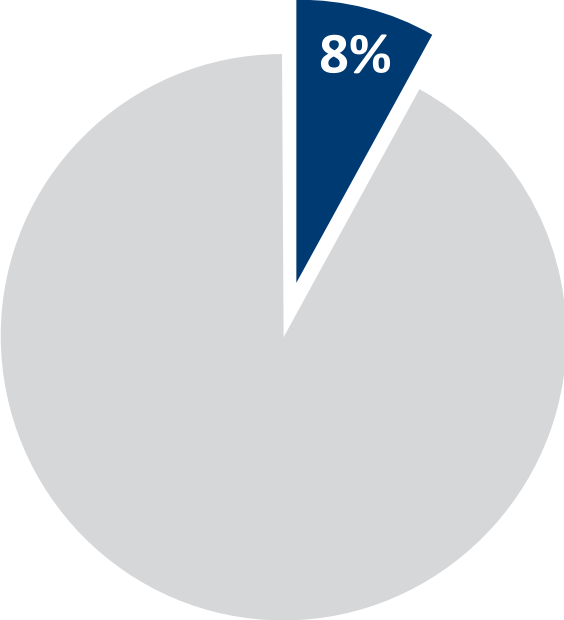
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Using nature's good bacteria to ferment food is a traditional way to keep food fresh longer

# Use of bioprotective food cultures in dairy is growing rapidly worldwide



# Keep it great!

# Keep the label clean

If you improve quality and consistency the natural way. It adds to the appeal of the product. And help meet the consumer demand for products without artificial ingredients.



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**Keep it great!**


Keep it special

Bioprotective cultures help make sure consumers can enjoy the taste, goodness and quality of fermented dairy products, each and every time



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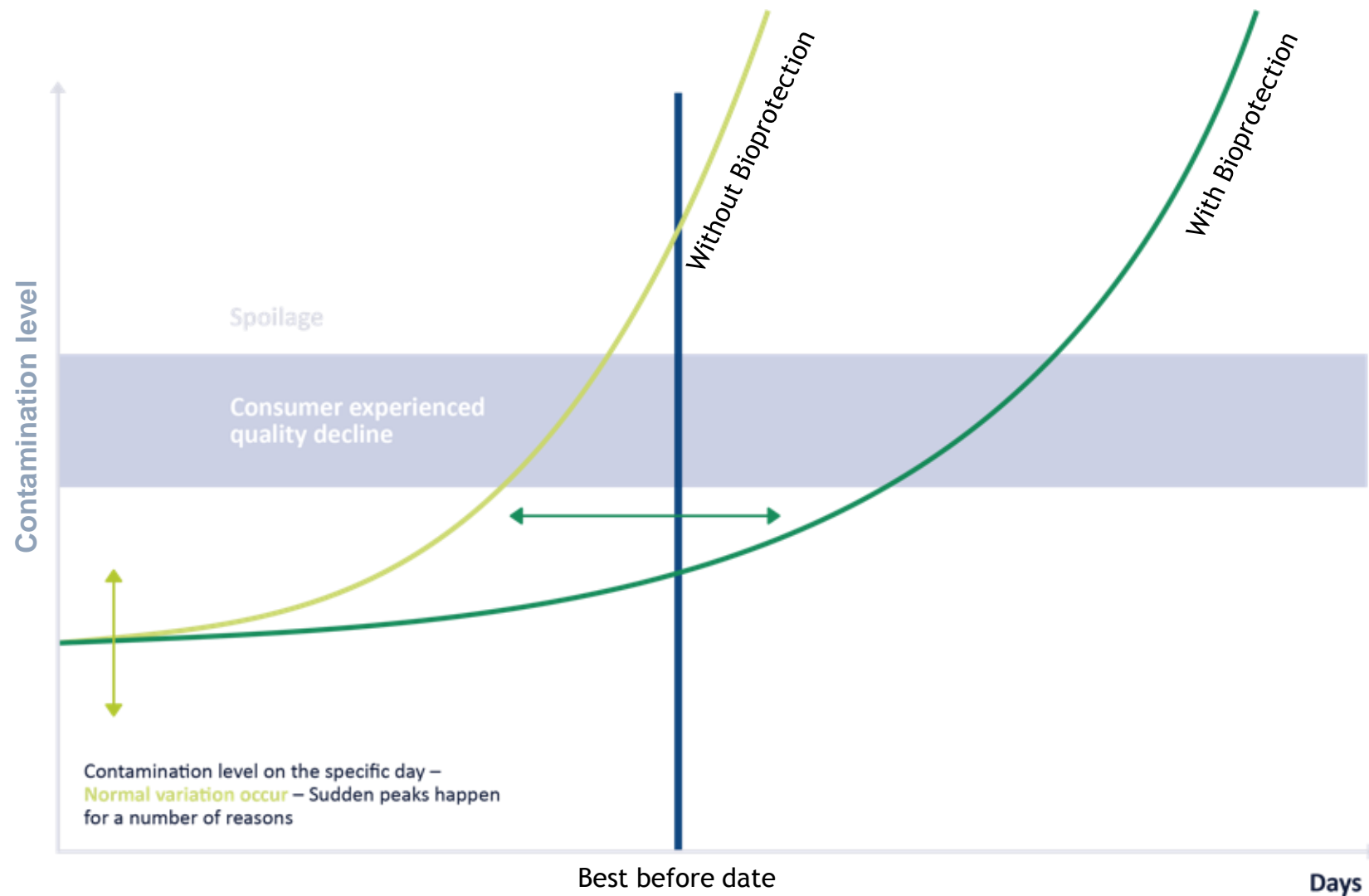
**Keep it great!** Make sure it stays the way you made it

A lot of things can happen after products leave the dairy. Bioprotective cultures can help secure quality throughout the value chain.

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# Food cultures can help enable **shelf life extension**





**Keep it great!**

# Reducing food waste in dairy with good bacteria

Wasted food is an economic and environmental burden. Use food cultures to keep products naturally fresh and safe throughout shelf life.

# The date is the biggest problem!

**20%**

of all dairy  
food is  
wasted  
globally

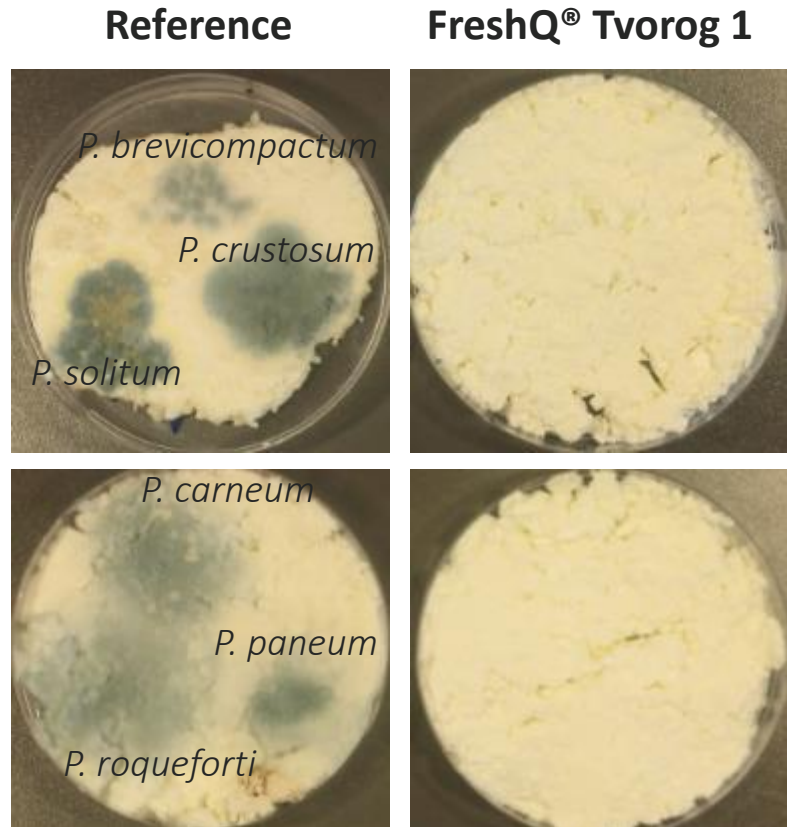


**17%** of all  
yogurt  
wasted in  
Europe

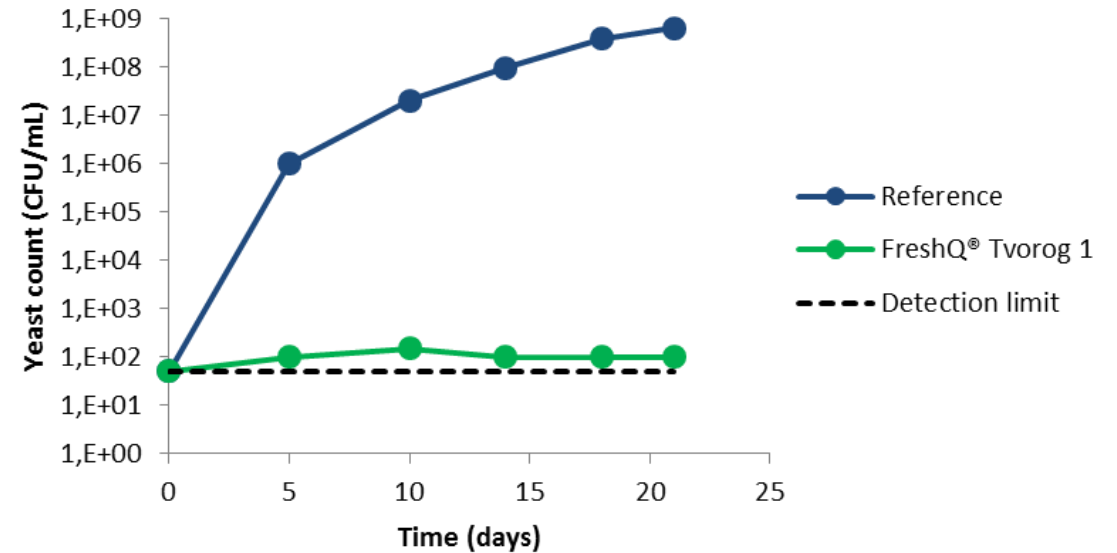
**80%**

Is due to date  
and shelf life  
related issues

# Bioprotective cultures delays outgrowth of molds and yeast in Tvorog



Example: Tvorog fermented with eXact® Fit 3 starter culture, with or without the addition of FreshQ® Tvorog 1 (50 U/T milk), added *P. brevicompactum*, *P. crustosum*, *P. solitum*, *P. carneum*, *P. paneum* and *P. roqueforti* (500 spores) and stored at 7°C/45°F for 28 days



Example: *Debaryomyces hansenii* (added at 50 cfu/g) in tvorog produced with eXact® Fit 3 starter culture, with and without addition of FreshQ® Tvorog 1 (50U/T milk) and stored at 7°C/45°F

## Closing Slides:

So as you can see - good bacteria, and the increasingly advanced science we can apply to identify new functionalities, is the future for both health and food.”

# About Chr. Hansen

Everyday 1 billion people consume a Chr. Hansen product. Chr. Hansen develops and produces cultures, enzymes, probiotics, plant protection and natural colors for a rich variety of foods, confectionery, beverages, dietary supplements and even animal feed. We have done this since 1874 and have more than 2,800 dedicated innovative and technically skilled employees in over 30 countries.

Chr. Hansen is committed to reduce 1.2 million tons of yogurt waste by **2022**



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