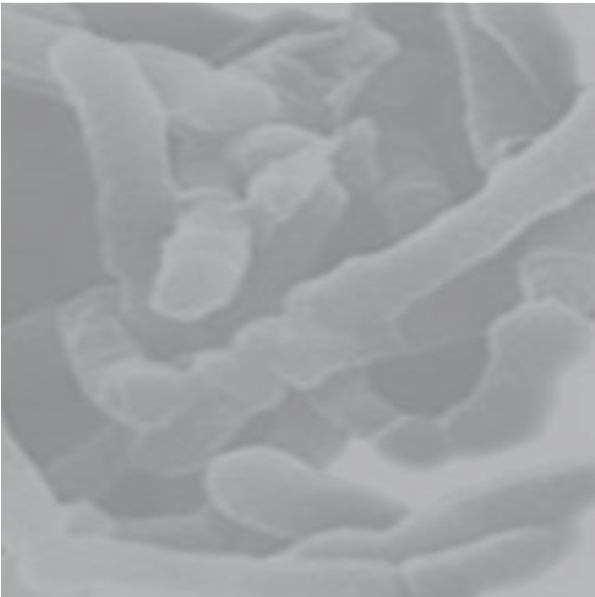

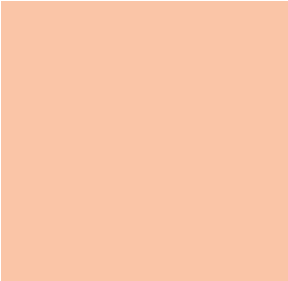


Jätkusuutlik toiduinnovatsioon –
kuidas globaalsed ja kohalikud trendid ühinevad

Salutaguse Pärmitehas AS,
Lallemand Bio-Ingredients



Polina Anisimova-Kurg
Tootejuht

Jelena Kirillova
Kvaliteedijuht

05.10.2023



LALLEMAND

Lallemand Corporate History

Founded in Montréal by
Fred A. Lallemand at
the end of the
19th century



Yeast
production
started in
1923



**Over 4,500
employees**
In 45 countries



48 plants including
27 yeast and
9 bacteria plants



Owned by the Chagnon family since
1952



**A worldwide
presence**



Salutaguse Pärmitehase Lugu

1860 rajati mõisas viinavabrik mille kõrvalsaaduseks pärm



Pagaripärmi tootmine algas

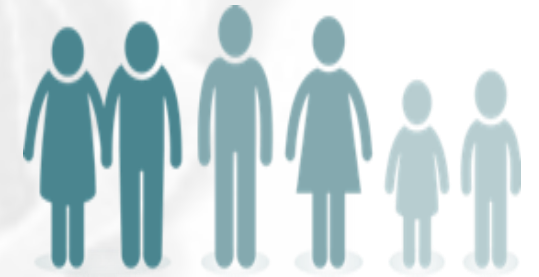
1927



1994 ostis Kanada kontsern Lallemand tehase 1 krooni eest.



Salutaguse Pärmitehases töötab **181** töötajat, sh 17 kes töötavad väljapool tehast.

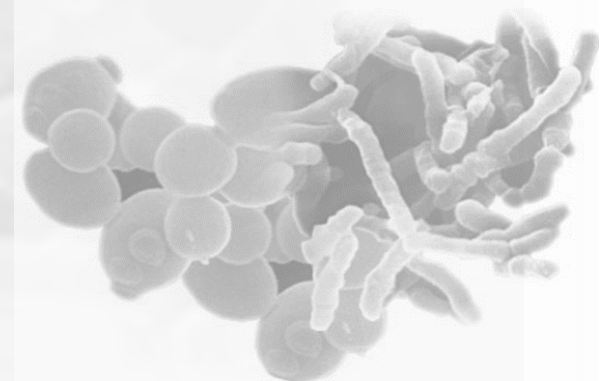


Enamus toodangust läheb ekspordiks



Meie tooted:

mitteaktiivsed pärmitooted;
segud veinitööstustele;
loomasööda tooted;
vedelpärm;
bioloogilised taimekaitsevahendid;
vinass.



LBI: A powerful network of 8 factories

North American Plants:



USA: Rhinelander, Wisconsin



USA: Hutchinson, Minnesota



CAN: Cornwall, Ontario



CAN: Tara, Ontario

European Plants:



Grenaa, Denmark



Lunderskov, Denmark



Salutaguse, Estonia



Tromsø, Norway

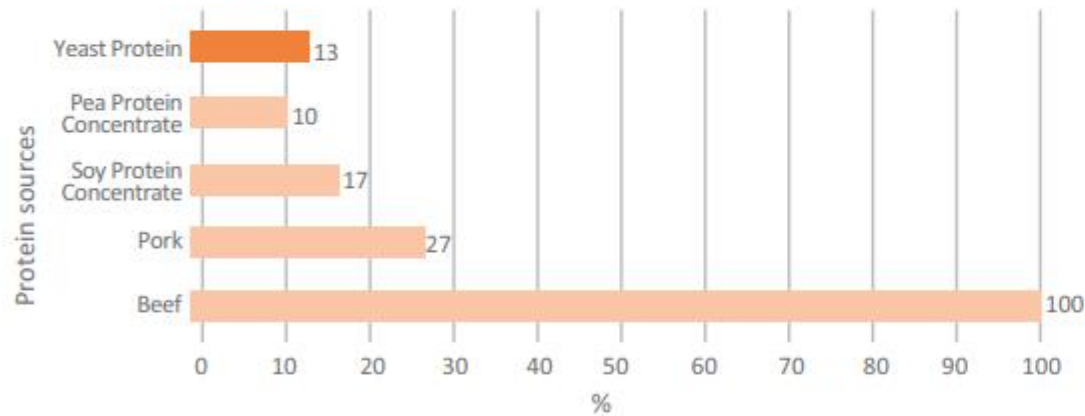


SUSTAINABLE PROTEIN | A global need



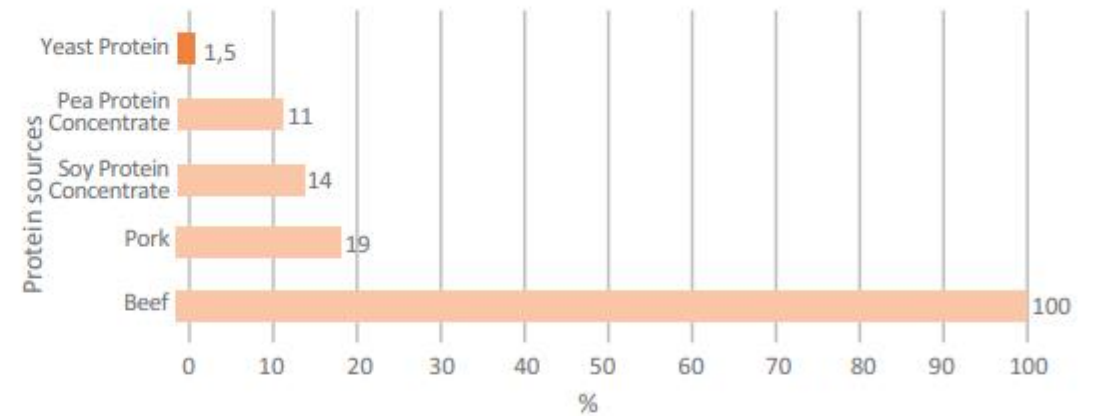
The carbon footprint and land use of protein yeast production.⁸

Carbon footprint of various protein sources relative to beef



When comparing the relative carbon footprint, the value found for yeast protein (13) was much lower than beef (100) and pork (27) and comparable to soy protein concentrate (17) and pea protein concentrate (10).

Land use of various protein sources relative to beef



In terms of relative land use yeast protein is extremely competitive (1.5) compared to beef (100), pork (19), soy protein concentrate (14) or pea protein concentrate (11).

ESG

Environmental Social Governance

Contribution to 11 out of 17 categories



Salutaguse has been awarded a Silver medal as a recognition of their EcoVadis Rating! (June 2023)



WHERE ARE WE TAKING ACTIONS



Hutchinson (MSY), Minnesota, USA

E.g.: Hazardous waste almost reduced to **one tenth** and going towards **zero** landfill



Lake States (LSY), Wisconsin, USA

E.g.: heat **recovery** for **re-use** in boilers



Grenaa (DDGF), Denmark

E.g.: **decreasing** the fossil fuel use & total energy consumption

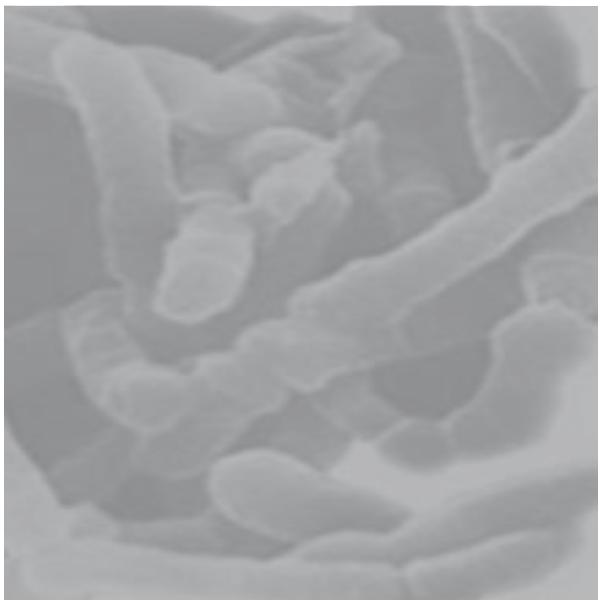
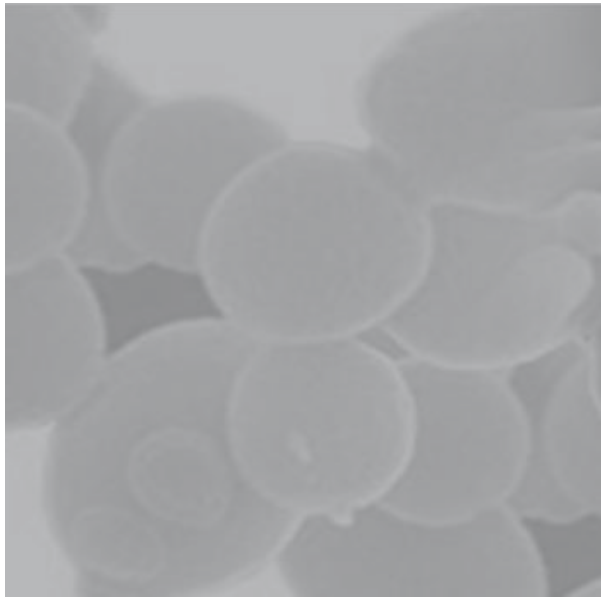


Salutaguse, Estonia

E.g.: **energy saving** through heat recovery, biogas and solar panel installation



LALLEMAND BIO-INGREDIENTS



Jätkusuutlike trendidega arvestamine
tootearenduses

ESG

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Salutaguse, Estonia

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LALLEMAND BIO-INGREDIENTS

TERVISLIK TOITUMINE



- ✓ Kõrge valgu sisaldusega pärmitooted (>50%)
- ✓ B grupi vitamiinide, mineraalide allikas
- ✓ Naturaalne maitse tugevdamine
- ✓ Soola vähendamine
- ✓ MSG (E621) asendamine
- ✓ Fosfaatide asendamine



MARI GOLD HEALTH FOODS

Just arrived - your Daily Dose of VITAMIN D

Savoury SUPER Engevita YEAST FLAKES

High in protein and B12

Gluten FREE

Rich in protein and B12

The vegan food with a cheesy, nutty taste

Your daily dose of Vitamin D

100g e CONTAINS 20 SERVINGS Serving suggestion

Introducing new Engevita with added vitamin D gives you all you need for your vitamin D intake.

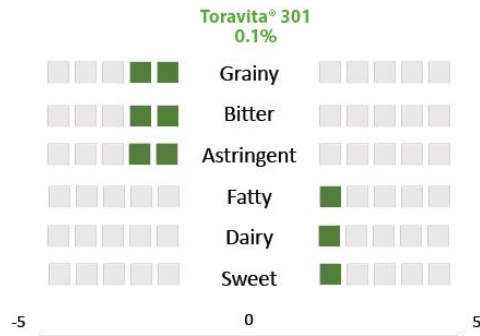
Engevita®

TAIMEPÕHISE TOITUMISE PARANDAMISEKS

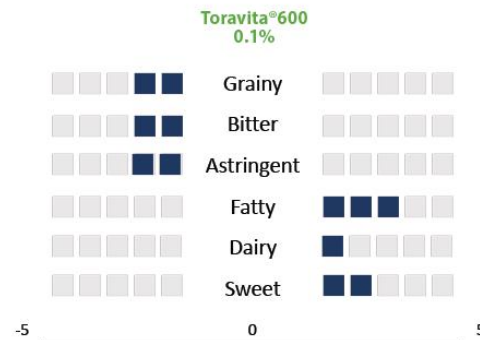


Vegan lõpptoodetes taimsete valkude kõrvalnootide maskeerimine pärimi abil

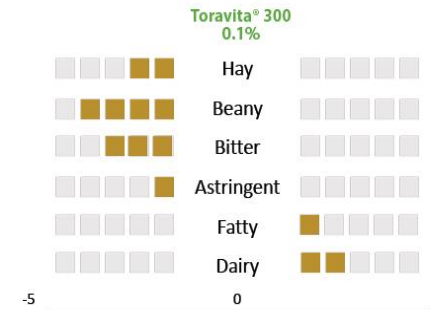
In oat-based beverages



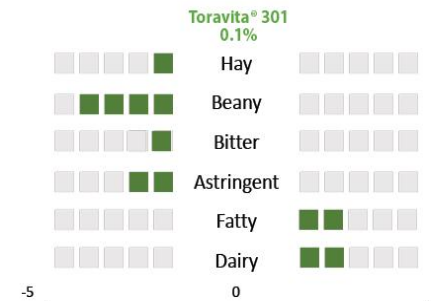
- **Toravita® 301** is very effective in oat drinks, allowing a reduction of the undesired flavors
- **Toravita® 600** works well to modify the flavor in a pleasant way and increase the fatty, toasty, sweet, and dairy perception. It also offers a positive reduction of the "raw" perception



In unflavored soy drinks:



- **Toravita® 300** shows optimized results, masking bitterness and introducing a desired creaminess to the vegetable beverage
- **Toravita® 301** might be the best option if the reduction of astringency is the main target



Our newest developments - cheese flavors

Savor-Lyfe® **CC** – **C**heese **C**ream Flavor

Savor-Lyfe® **CA** – **C**heese **A**ged Flavor



- Savor-Lyfe® CC and CA can be used to add or enhance creamy, mild and cheese flavor notes, respectively.
- They are particularly suitable for prepared meals and plant-based cheese alternatives
- The typical dosage is 0.2 - 0.5% in the finished product.

Recommended declaration: Natural flavoring (EU); US/CA:
Natural flavoring (Yeast based)



COMING NEXT!



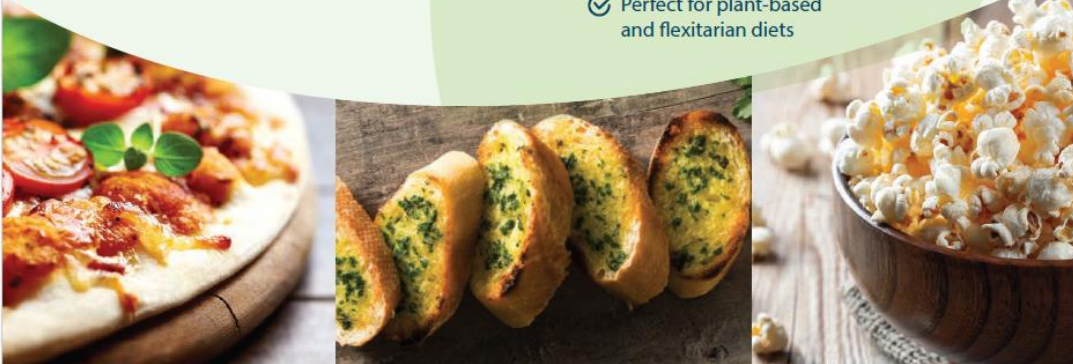

Lallemand **Health** Ingredients

Engevita®

Garlic Parmesan Style Flakes

A delicious umami burst of savory garlic and rich parmesan cheese flavors united with the natural goodness of premium nutritional yeast flakes

A sustainable source of alternative protein



Engevita®

Garlic Parmesan Style Flakes

All the expected goodness of our popular premium nutritional yeast flakes with the delicious flavors of garlic and parmesan cheese

Add the flavor you crave to:

- Pesto Pasta
- Gourmet Pizza
- Crunchy Kale Chips
- Popcorn
- Cheesy Dips and Spreads
- Fresh Salads
- Roasted Vegetables and so much more!

The trusted quality of Engevita® brings reliable nutrition

- ✔ Source of complete protein, containing all amino acids
- ✔ Provides 4-6g of sustainable, vegan protein per 10-15g serving
- ✔ Source of fiber
- ✔ Contains B-vitamins, characteristic of baker's yeast
- ✔ Gluten-free
- ✔ Perfect for plant-based and flexitarian diets

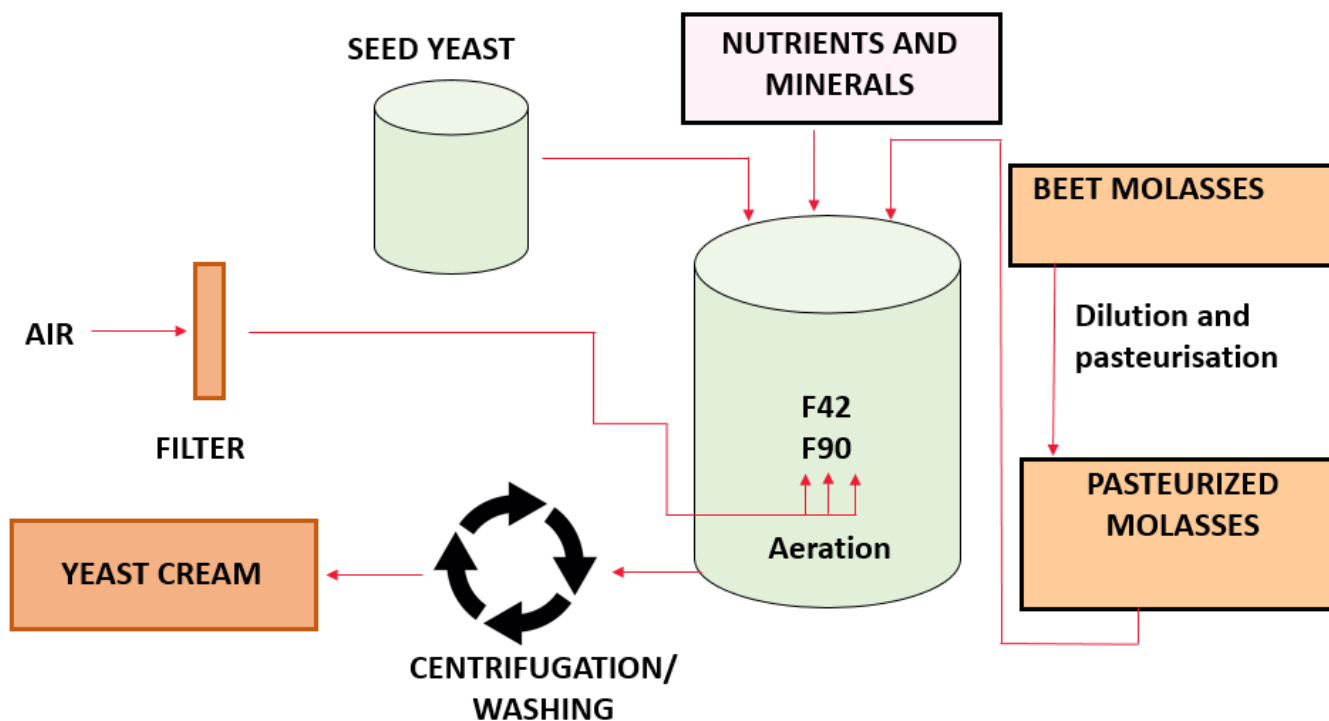


Salutaguse Pärmitehas kui innovaatiline,
jätkusuutlik tootmisettevõte



Võimalused ja väljakutsed

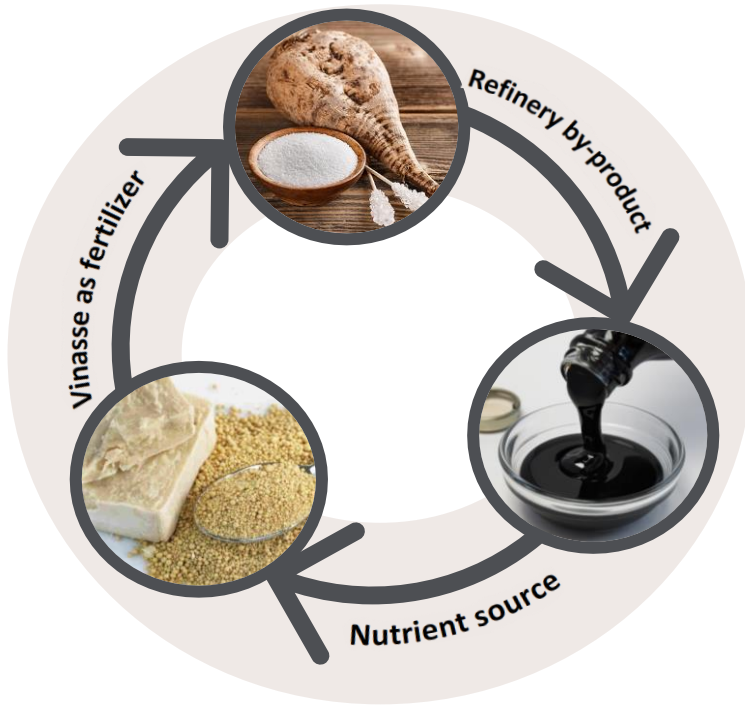
- ✓ Energia
 - ✓ Elekter, gaas, (vesi)
 - ✓ Biogaas, aur, suruõhk, kuum vesi
- ✓ Tootmisprotsessid
 - ✓ Energiasäästlikumad
 - ✓ Soojuse taaskasutus
- ✓ Puhastusprotsessid
 - ✓ Separeerimisvee aurustamine
 - Vinass (mullaparendaja)
 - ✓ Anaeroobne puhastus
 - biogaas
 - ✓ Aeroobne
 - kompost



Energia sääst arvudes

Energia liik	2022		2021		2020	
	%	kWh	%	kWh	%	kWh
Biogas	3,6%	2 857 402	3,1%	2 285 037	3,2%	2 483 218
Heat recovering	14,3%	11 246 844	15,7%	11 701 082	15,7%	12 177 578
Outsourced energy	82,1%	64 741 884	81,2%	60 369 122	81,1%	63 062 352
Total energy	100,0%	78 846 130	100,0%	74 355 241	100,0%	77 723 148

- ISO50001 sertifikaat
- EcoVadis Silver medal



CONTRIBUTION TO CIRCULAR ECONOMY



Molasses, a by/product from sugar production, is used as a nutrient source. Obtained from **local** sugar refineries.

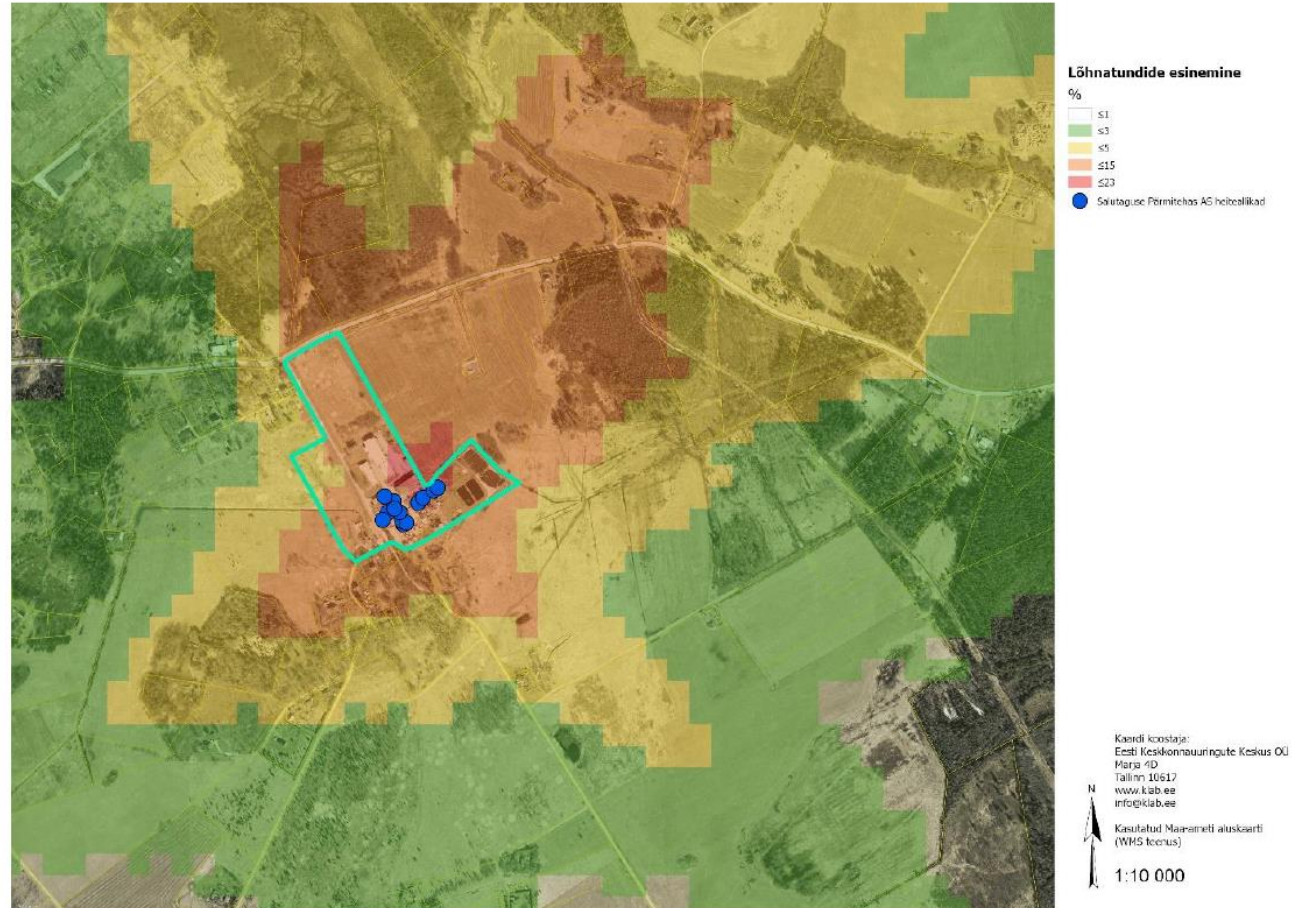
In some yeast plants, like Salutaguse, we obtain as a final by-product **vinasses** (a liquid fertilizer), diminishing the use of the chemical ones.

This bio/fertilizer **returns to the soil** nitrogen, sulfur, potassium, calcium, phosphorus, sodium, among other minerals. Also, is a **betaine** source!



Lõhnaaine esinemise vähendamine

- Ühinesime kavaga 2018-l
- Lõhnainete levikukaart
- Eesmärk - aastaks 2024 vähendada lõhna tase territooriumil 46%
- Mõõdetakse kaugemat punkti kaugeim punkti kus ületatakse lubatud 15%-list piirväärtust:
 - 2018 – 1000m
 - 2020 – 375m
 - 2021 – 150m
 - 2022 – 120m



Märgskruuber koos osoneerimissüsteemiga



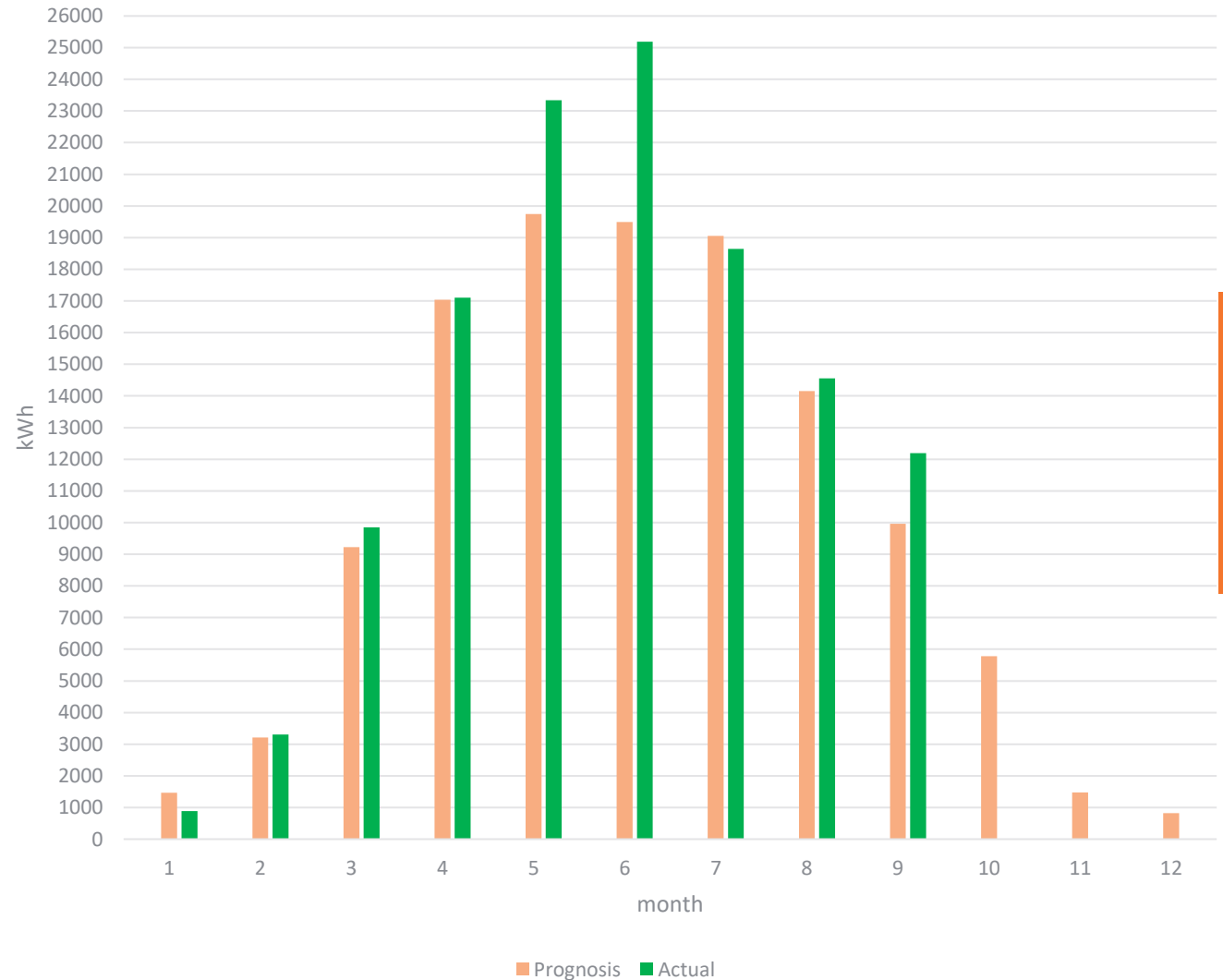
Kemikaalivaba protsess – puhastusainena on kasutatud osooniga (O₃) ülerikastatud vesi.

Pilootprojekt - päikesepark

- Alates November 2022
- Säät kuni 8,3% puhastusjaama elektrivajadusest
- Septembriks juba 125MWtH



Salutaguse solar park (128 520W DC, yield ~121,44 MWh/y)



Co-operation spells success

To the Baking Trade In Canada ~

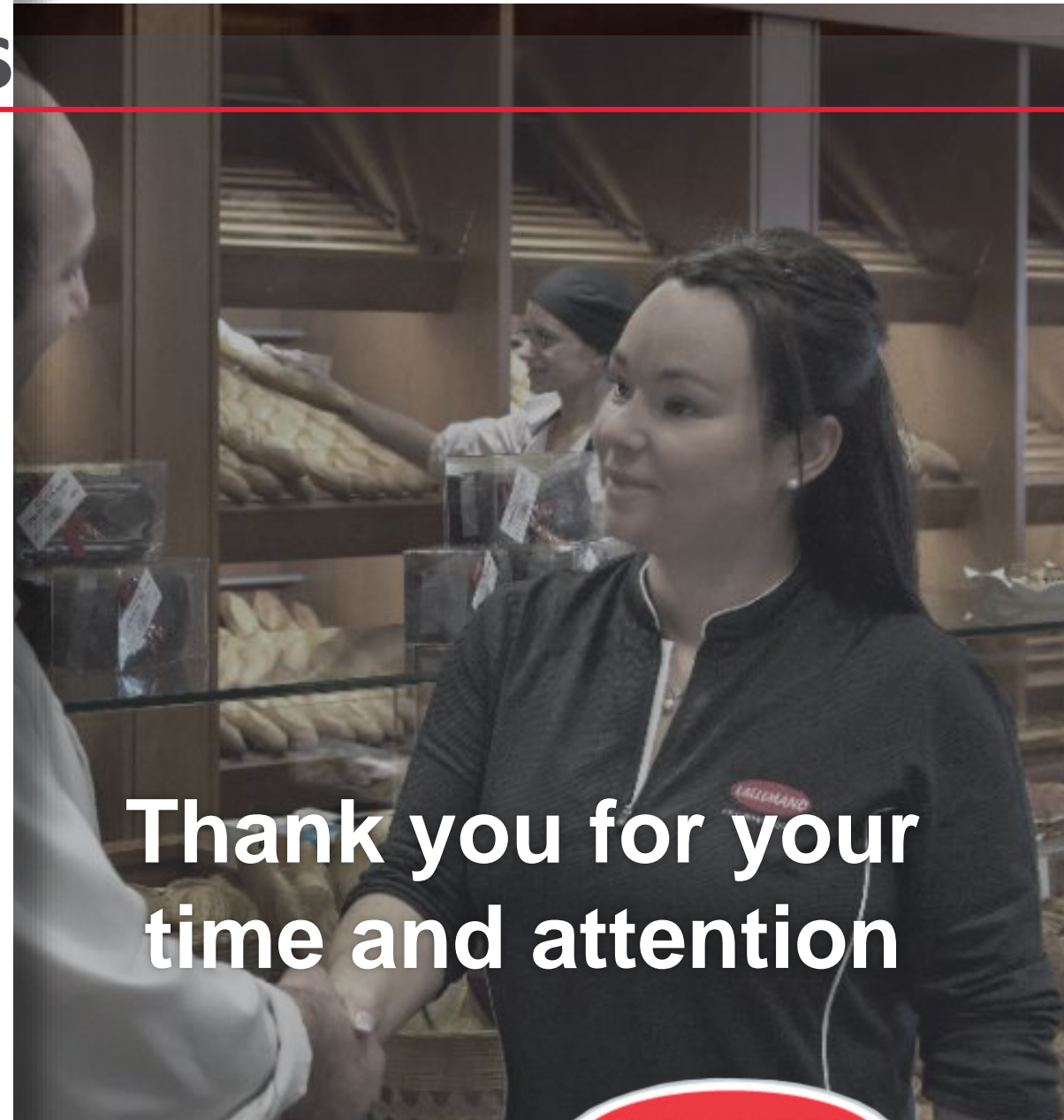
NEW THOUGHTS and new ideas create new deeds. When they are for the betterment of mankind, may they succeed. We take this opportunity, through the medium of a new periodical, of thanking the Baking Trade of Canada for the generous support given our firm in years gone by. Co-operation spells Success. The future of your business is what you make it; the future of our business is what we make it. As in the past, it will be in the future, our earnest endeavour to give you quality goods, service and co-operation.



FRED. A. LALLEMAND REFINING COMPANY
OF CANADA LIMITED

Fred A. Lallemand
President

Lallemand ad in first issue of Bakers Journal
Fred A. Lallemand, 1938



Thank you for your
time and attention

LALLEMAND