

Introduction of MARUHON TAIHAKU Sesame Oil for Confectionery

TAKEMOTO OIL&FAT CO.,LTD.

- MARUHON -

Sales Dept

近藤

Taihaku sesame oil
for confectionery



①

Because the sesame seeds are pressed raw without roasting, they have **“No aroma.”**

②

Vegetable-based fats and oils,
“Cholesterol-free” “Vegan friendly”

③

“Heat resistance and antioxidant properties” due to Sesamin

④

Because it is a liquid fat, **“It does not need to be melted and is resistant to temperature changes.”**

⑤

“Highly emulsifiable, mixes easily with other materials.”

Advantages (1)

Because it uses less butter, etc.

Reduced calories and cholesterol-free



Calories



Advantages (2)

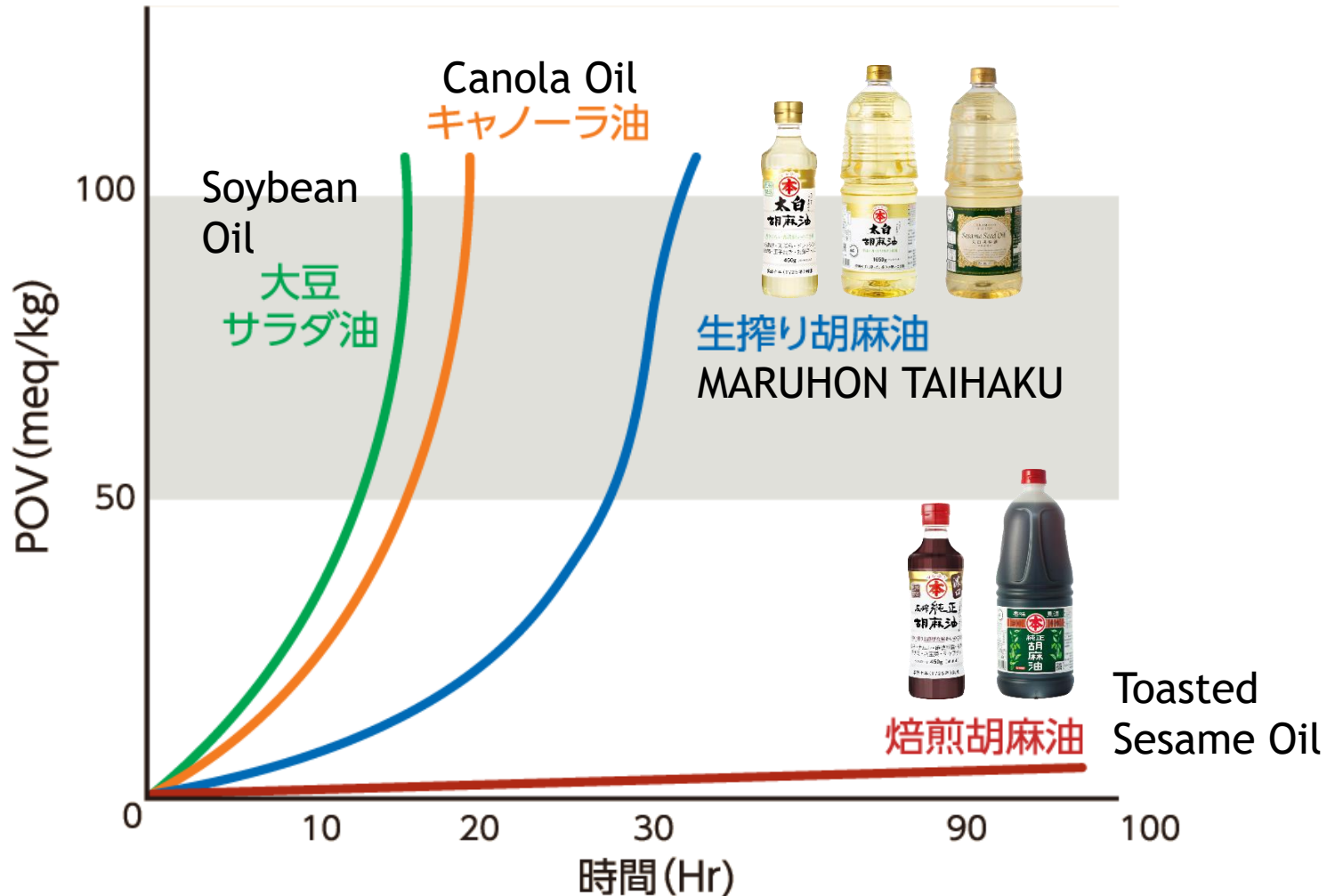
Highly permeable, so it **mixes well with other materials. Oil does not seep out over time.** = Resistant to change over time, and tastes great for a long time!



Advantages (3)

Liquid at room temperature, **so the melting process can be omitted.** (Solid fats such as butter are difficult to mix without warming) Because it is **liquid at refrigerated temperatures, the dough does not harden.**

Oxidation stability of sesame oil



Sesame oil has high acid stability among vegetable oils and fats, It is resistant to oxidation even when cooked at high temperatures for long periods of time.

Comparison with Vegetable Oil

Trial chiffon cake with
the same recipe

Comparison Item

- Height
- Brown
- Moisture
- Hardness
- Elasticity
- Cross Section
- Sensory Properties

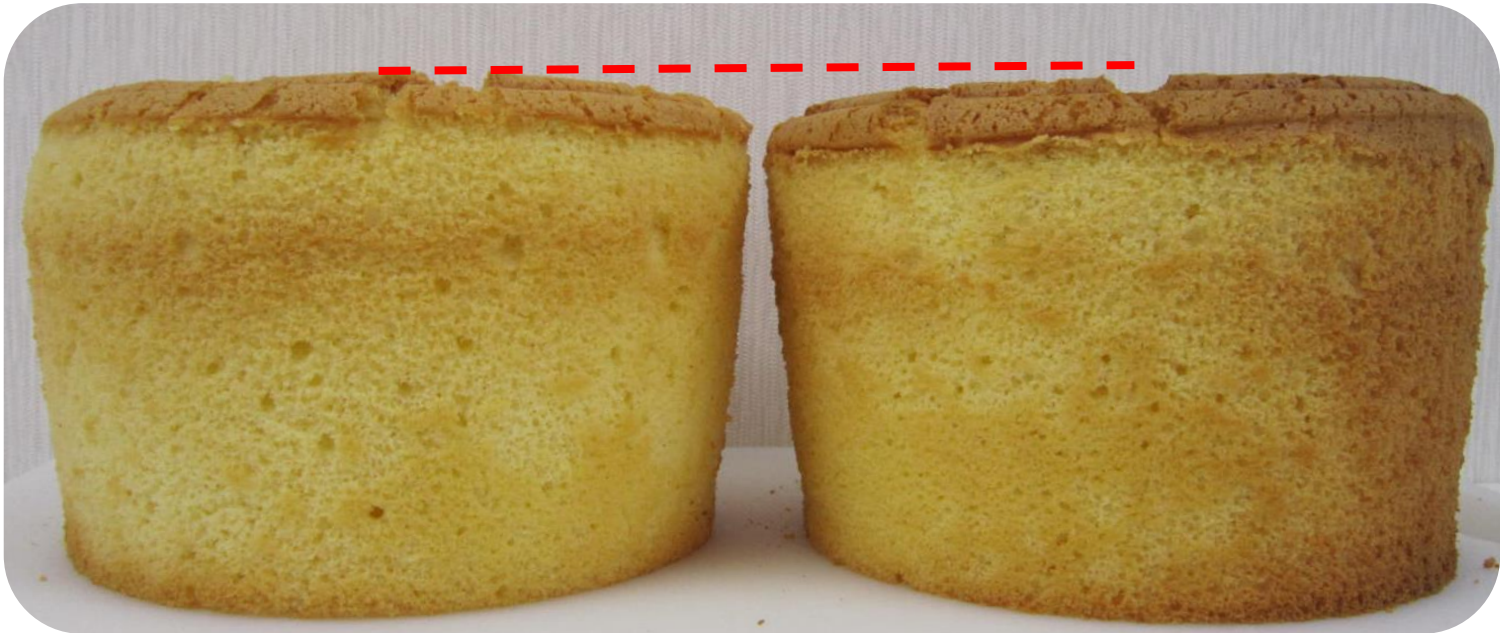


VS



Height

No difference in height on day 1 of baking

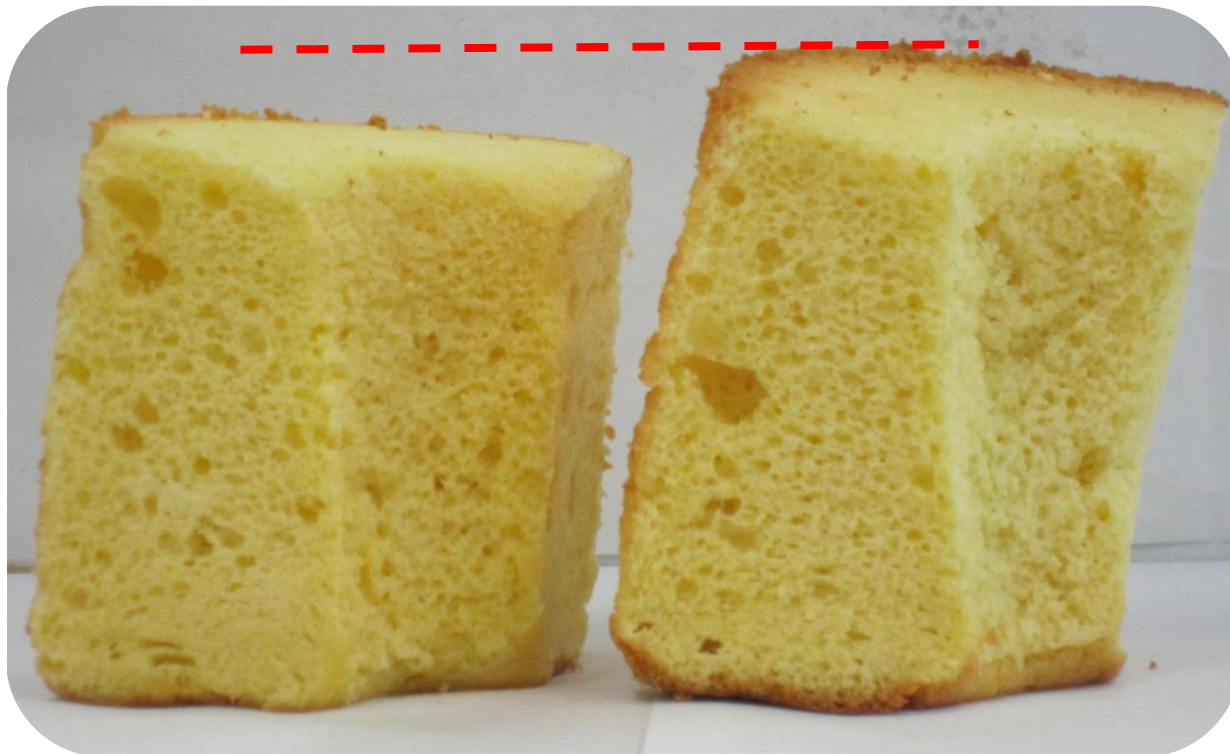


Vegetable Oil

TAIHAKU

Height

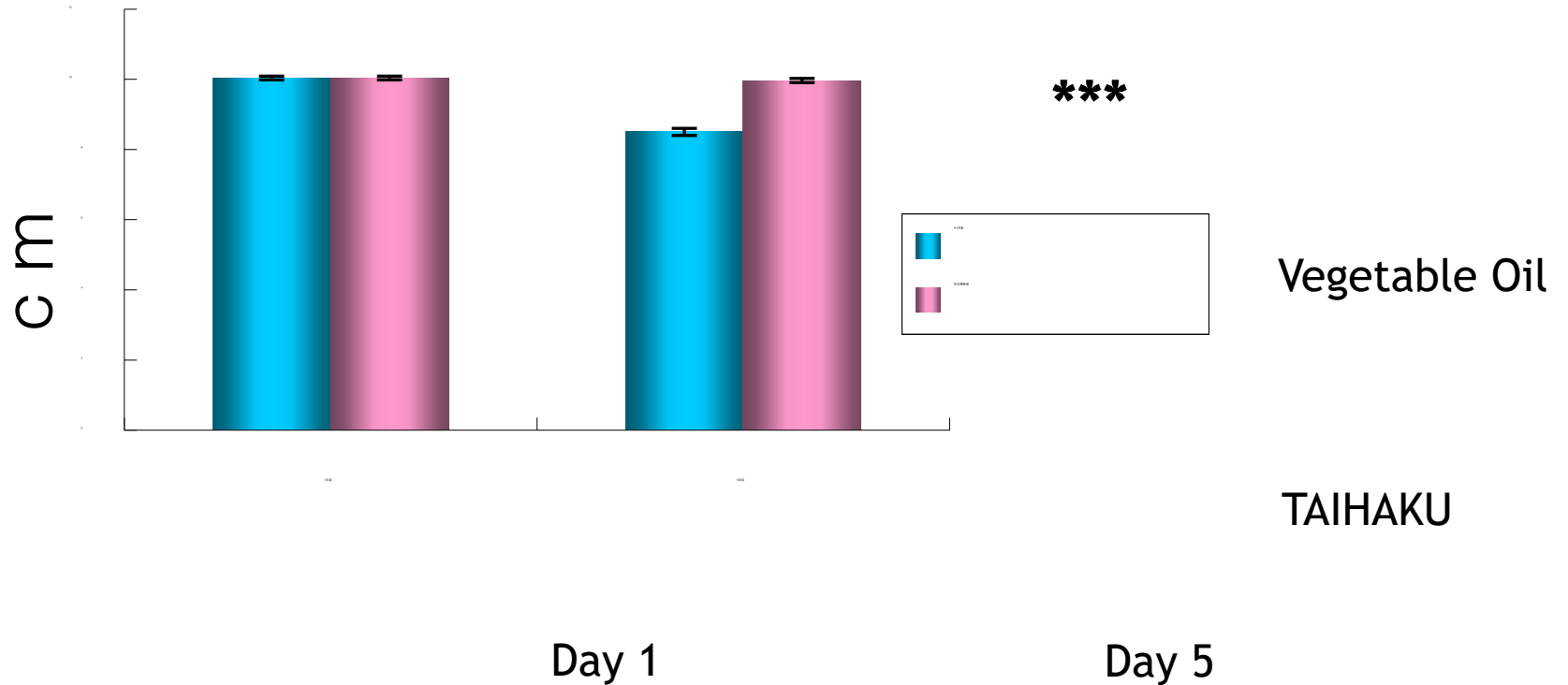
At 5 days of baking, the price is higher for TAIHAKU.



Vegetable Oil

TAIHAKU

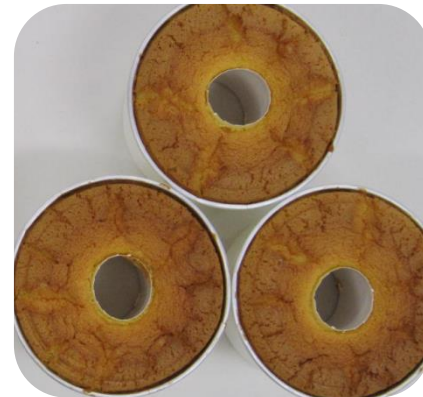
Height



Number of days elapsed after baking
Dough shrinks less with TAIHAKU.

Brown

Browning is better with TAIHAKU



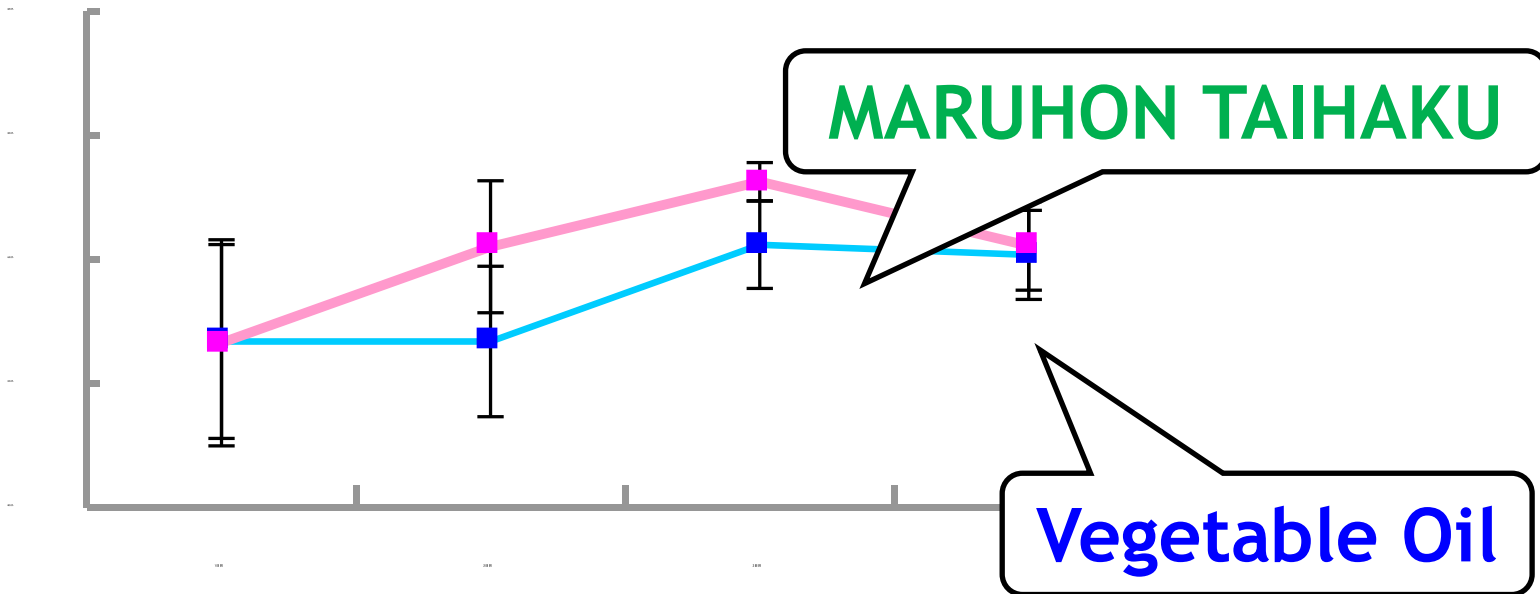
Vegetable Oil

TAIHAKU

Moisture content

No significant difference in moisture content

%



Day 1

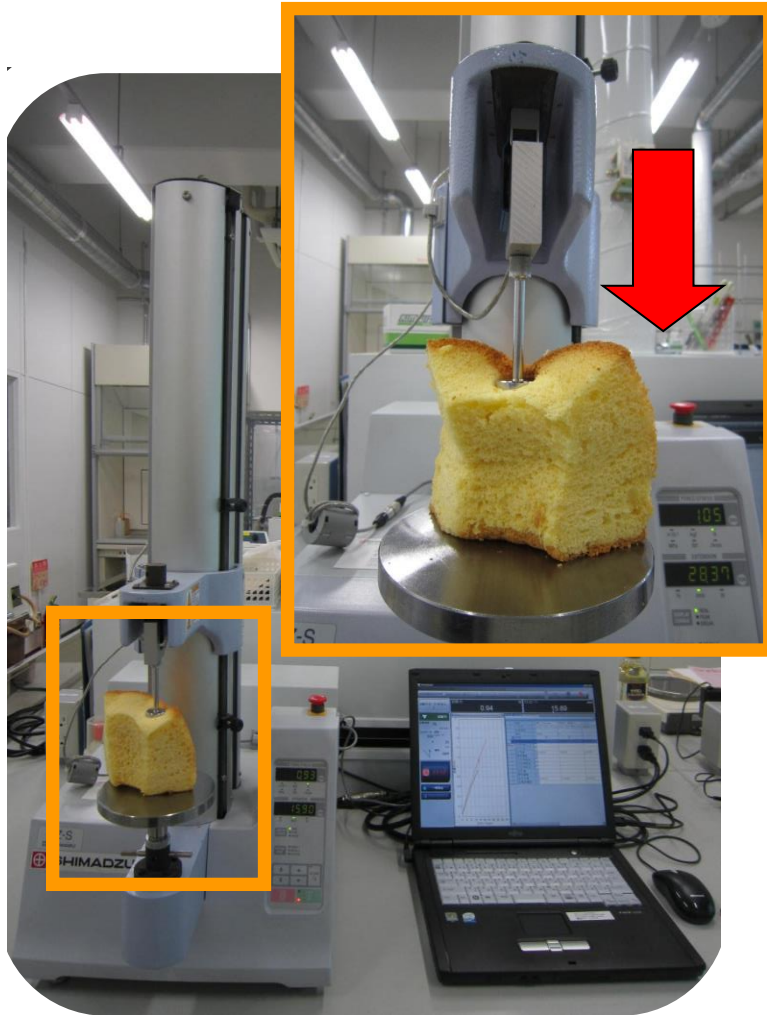
Day 2

Day 3

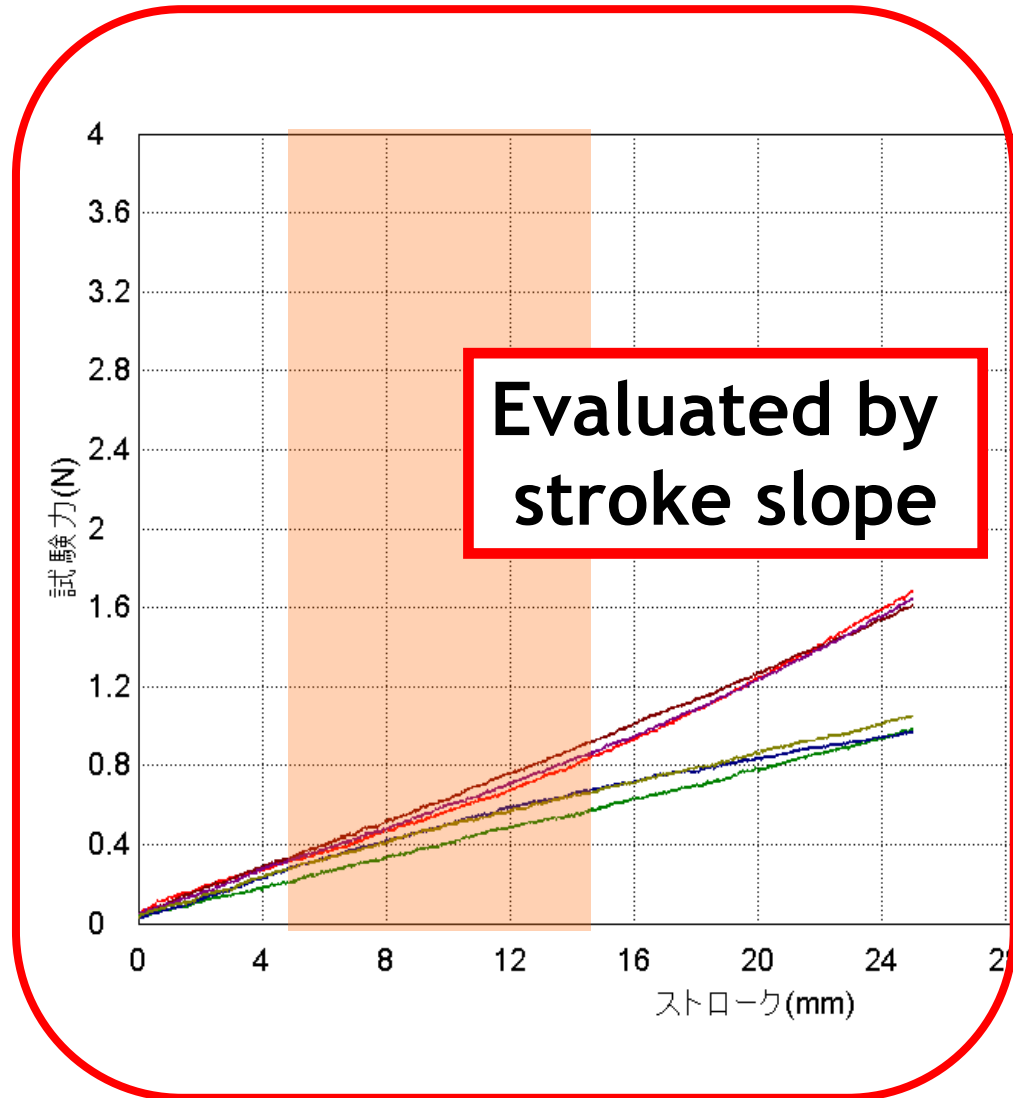
Day 4

Number of days elapsed after baking

Hardness Measurement

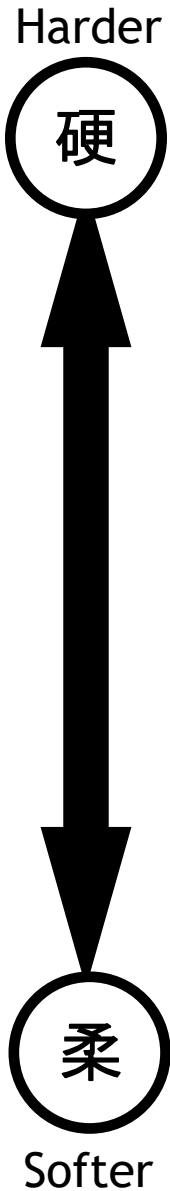


Texture Analyzer

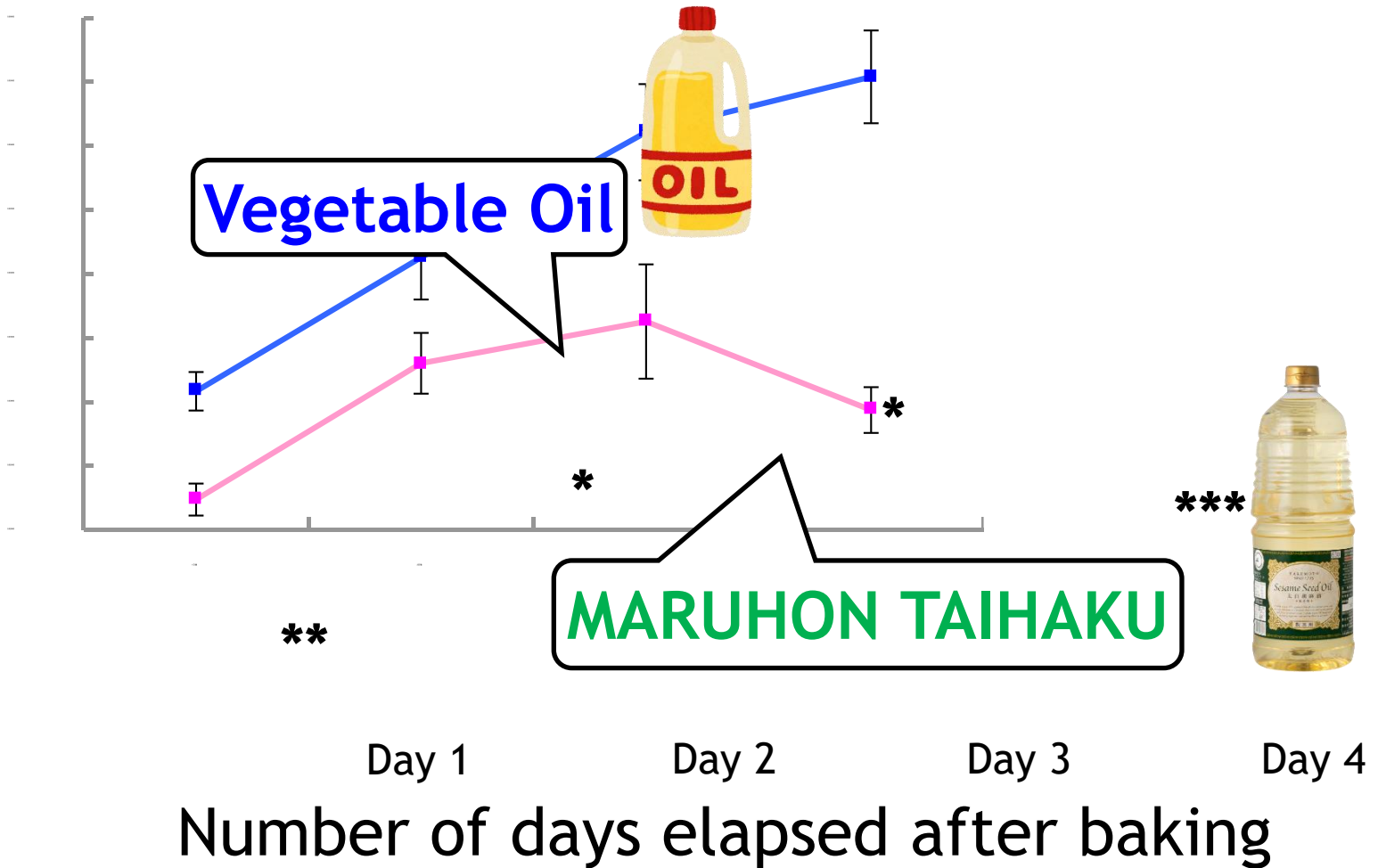


Hardness change

MARUHON Taihaku sesame stays softer.

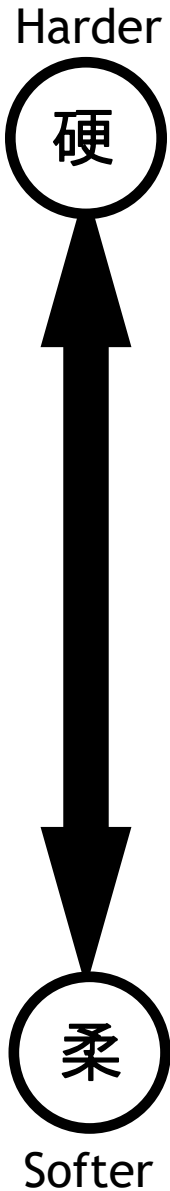


N/mm

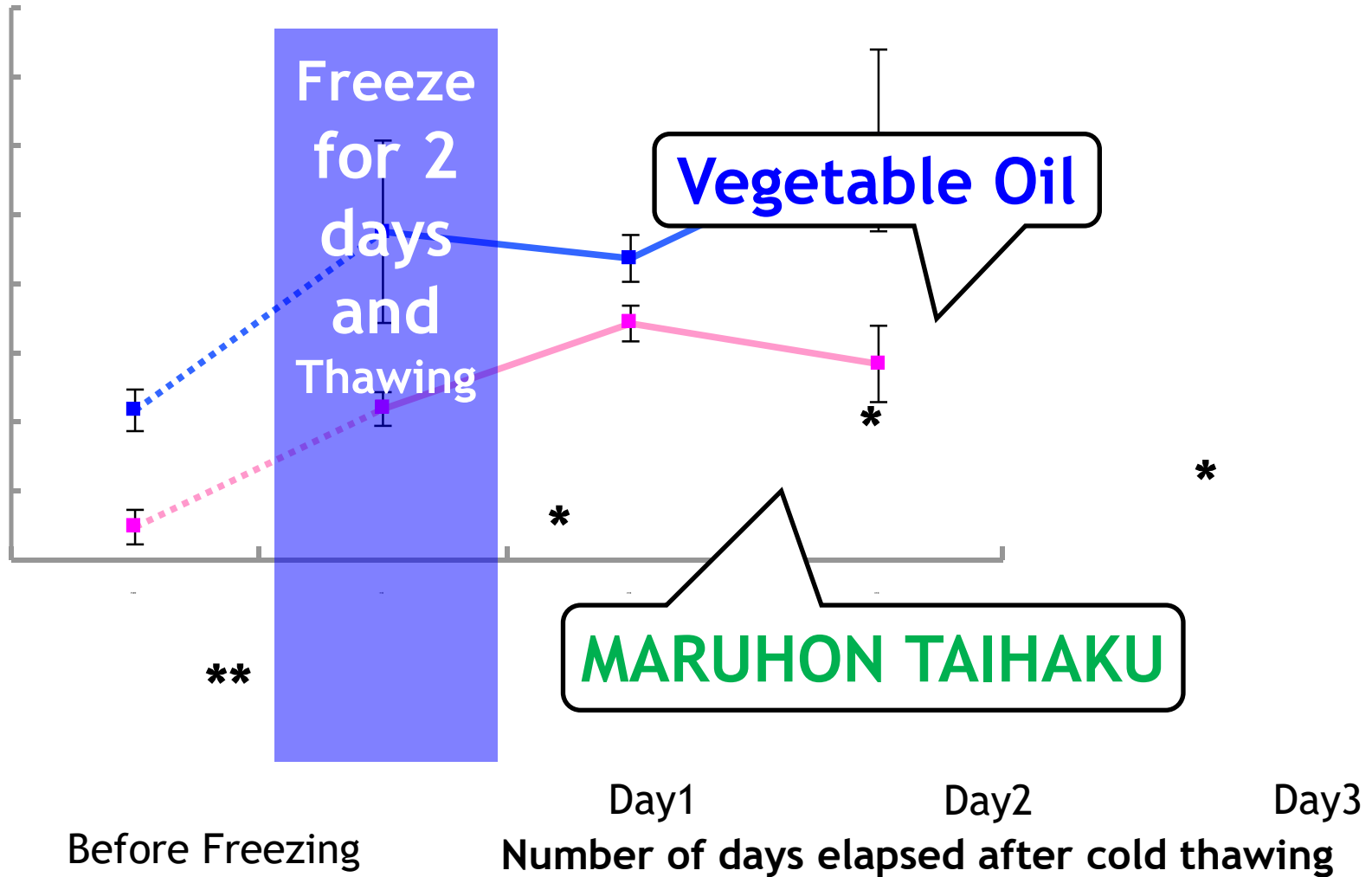


Hardness change after cold thawing

MARUHON Taihaku stays softer.



N/mm



Elasticity Measurement

Evaluated by the slope connecting
the 1st and 10th peaks

Elasticity: small slope

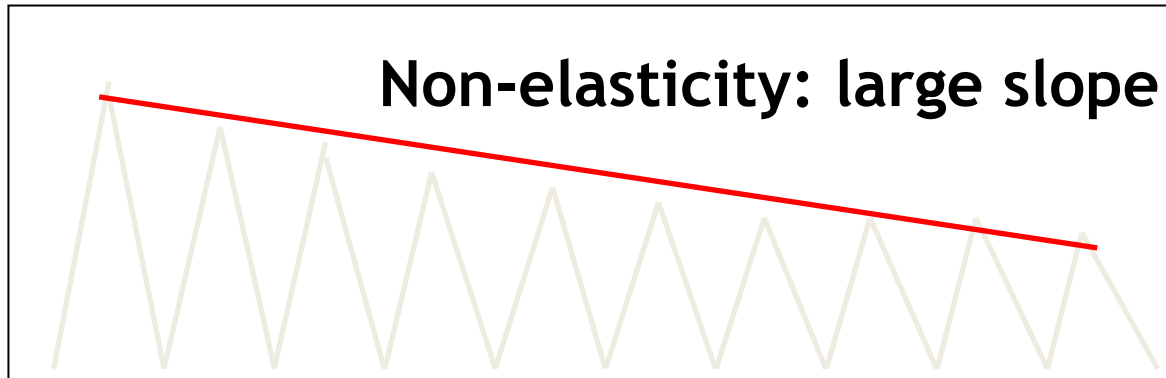
Z



mm

Non-elasticity: large slope

Z

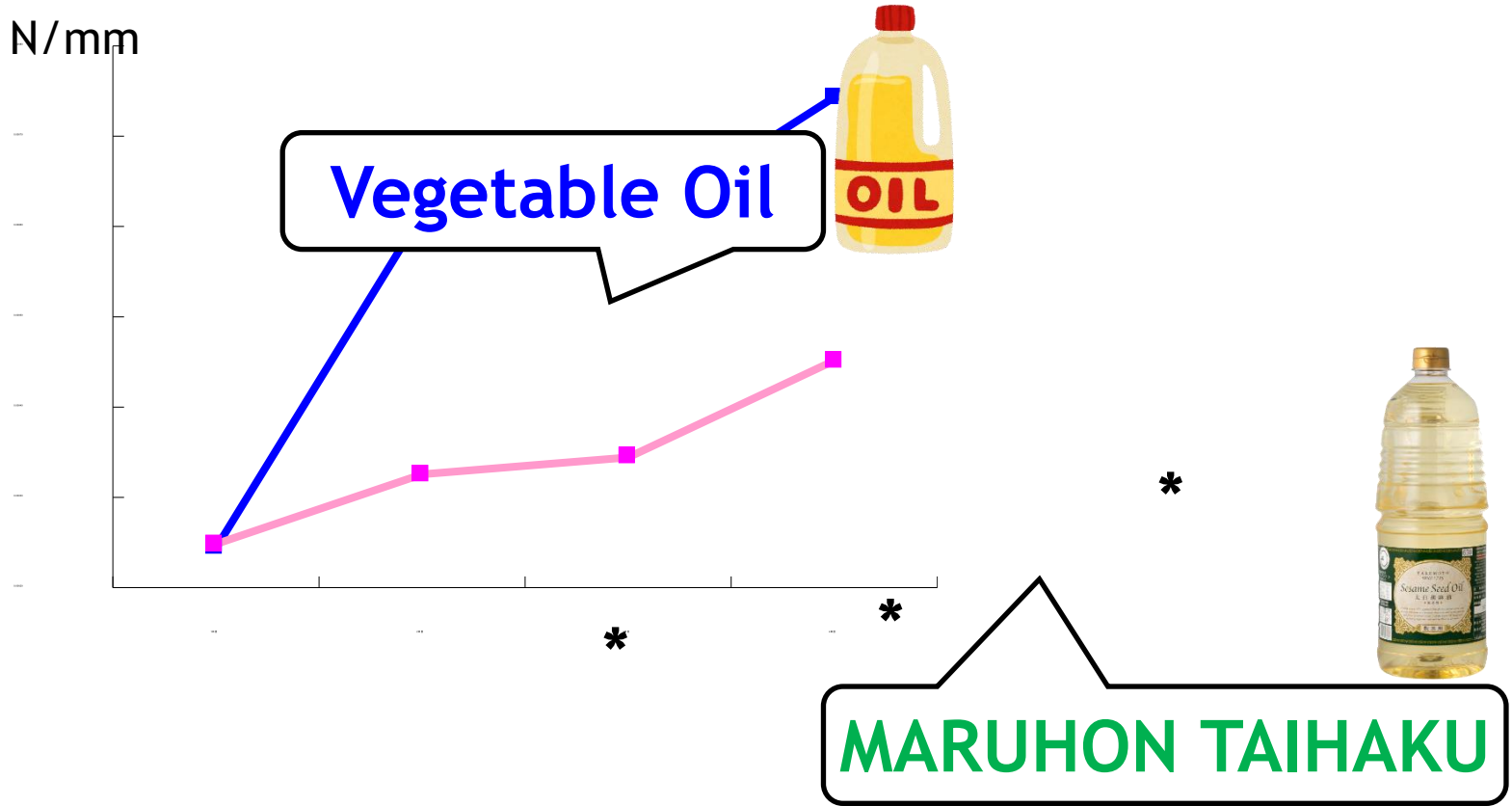
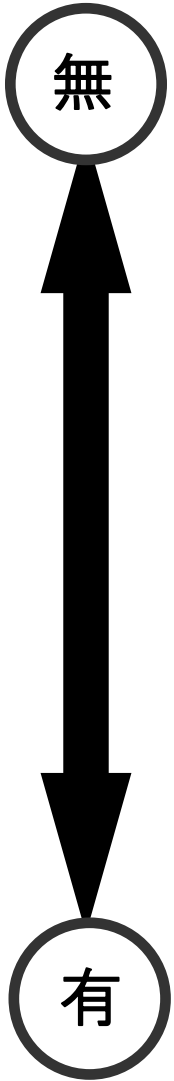


mm



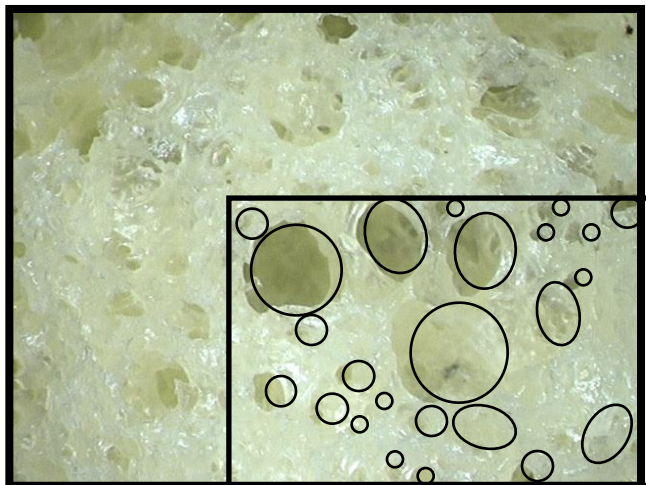
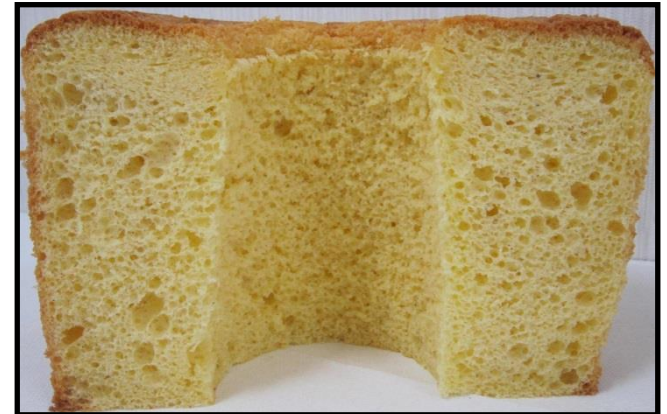
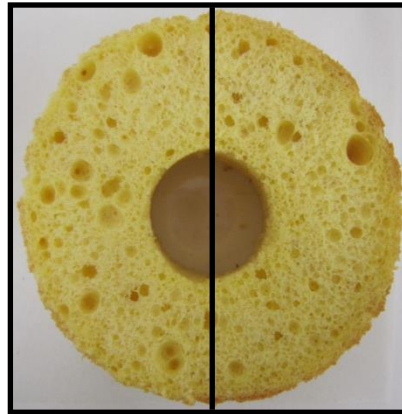
Elasticity change

MARUHON TAIHAKU has lasting elasticity.

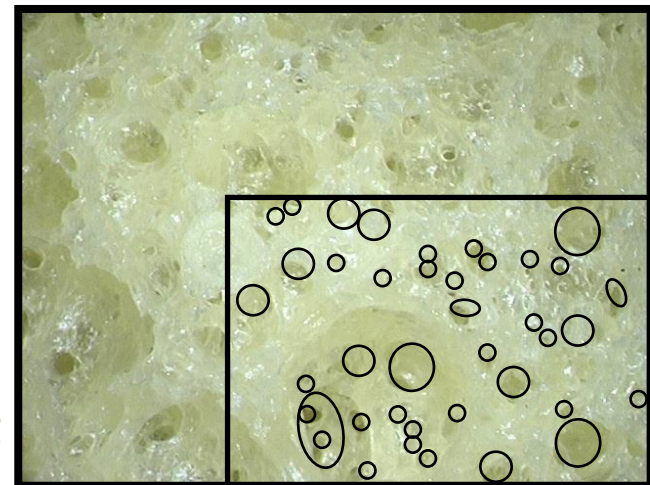


cross-section view

MARUHON TAIHAKU is more fine-grained.



Vegetable Oil



MARUHON TAIHAKU

Comparison with Butter

Try Making butter rolls



Butter rolls recipe

- Butter roll

- Bread flour 300g
- Sugar 30g
- Salt 4.5g
- Skim Milk 9g
- Yeast 6g
- Water 135g
- Egg 30g
- TAIHAKU or Butter 46g



Comparison conditions

- 1) Butter 46g
- 2) Butter 23g + TAIHAKU 23g
- 3) TAIHAKU 46g
- 4) TAIHAKU 23g

Butter rolls recipe 2

- 1 . Mix Bread flour, sugar, salt, skim milk, yeast and water and knead well. ◦
- 2 . Add fat and knead further.
- 3 . 86°F Fermentation at 75% humidity for 30 minutes
- 4 . Rest for 20 minutes
- 5 . Mold and perform finishing fermentation at 104°F and 85% humidity.
- 6 . Bake at 185°F for 10 minutes.



MARUHON TAIHAKU is easier to handle than solid butter!

Appearance

Butter 46g



Butter 23g+TAIHAKU 23g



TAIHAKU 46g



TAIHAKU23g

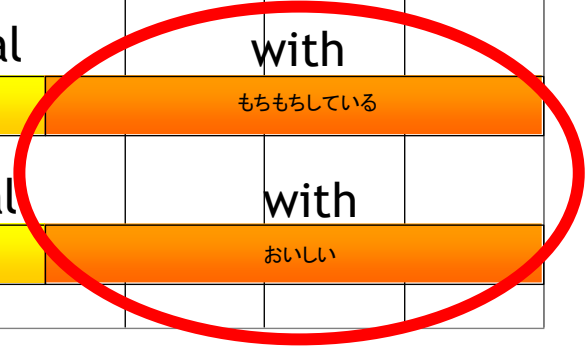


Bread made with thick white did not swell well during the second fermentation, but after baking, it was the same size as butter. This is thought to result in a larger tear in the dough.

Sensory evaluation of freshly baked butter rolls

Butter23g+TAIHAKU23g
バター23g+太白23g

TAIHAKU46g
太白46g



Sensory evaluation of freshly baked bread

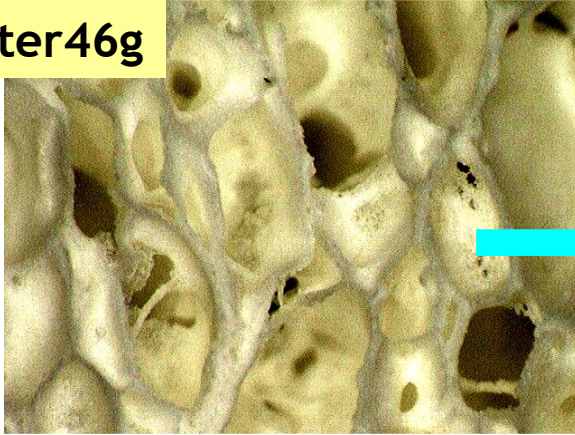
TAIHAKU 太白23g

	weak		equal	
Aroma 香り	香りが弱い		同等	
Chewy もちもち感	もちもちしていない	同等	もちもちしている	
Deliciousness おいしさ	おいしくない	同等	おいしい	

Reducing the amount of butter weakens the aroma, but the addition of MARUHON TAIHAKU gives it a sticky and delicious taste.

Internal Structure of Bread (microscope $\times 100$)

Butter46g

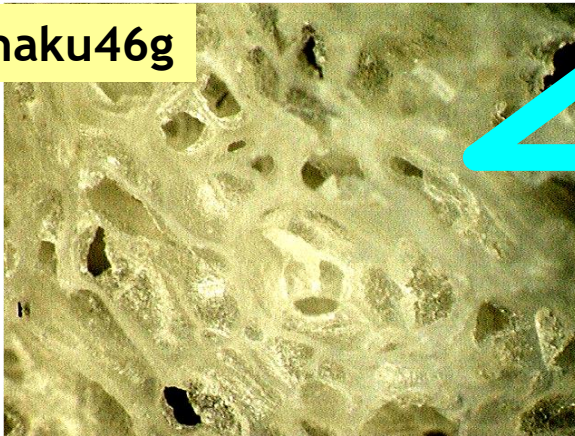


Butter23g+Taihaku23g

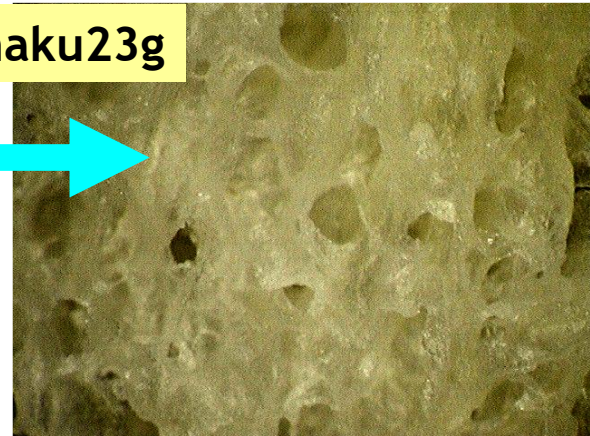


Fineness
of mesh

Taihaku46g



Taihaku23g



Advantages in Confectionery and Baking

- Small dough shrinkage
- Easy to brown
- Soft and elastic
- Fine dough texture
- Vegetable oil = no cholesterol
- Sesame (sesamin) = healthy" image
- Less oxidation and deterioration during baking (less smell of oxidized oil)
- Dough does not stick to the surface even when refrigerated
- Dough has a moist texture.
- No peculiar taste, so it enhances the flavor of other ingredients without interfering with them
- Can be stored at room temperature
- Easy to handle (no need to melt, pomade, etc.)
- Can be made into a vegan product

ご清聴ありがとうございました。