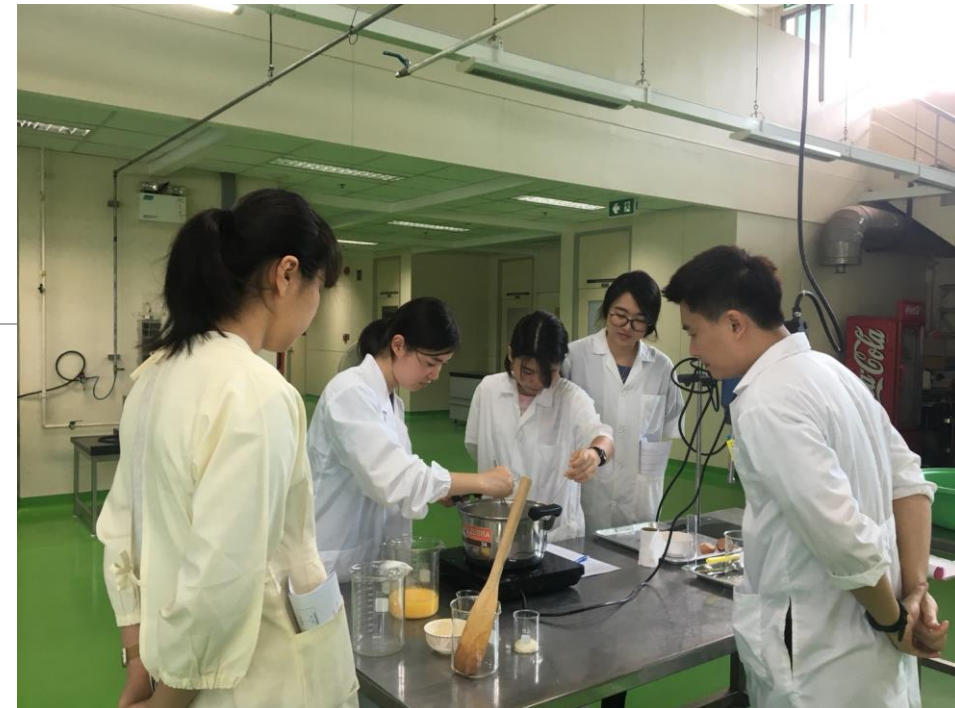


CHULALONGKORN UNIVERSITY 3/5-3/9

FUMINA ICHIKAWA
SHIORI WATANABE



Experiments



Coffee



Milk products



Ice cream

Meringue



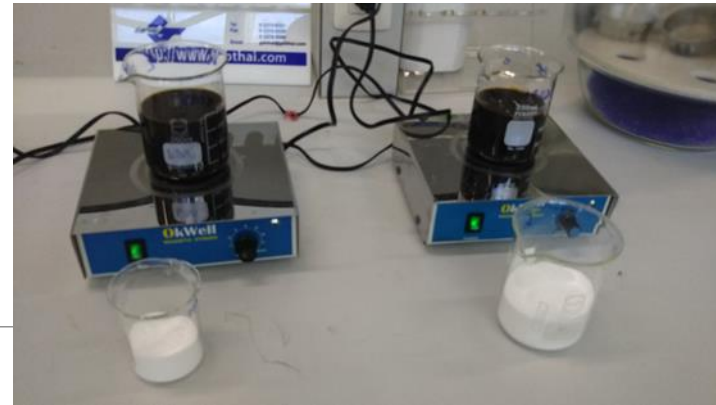
Result

Maltodextrin → more powder

Kidney beans → more starch

Ice cream → has lot of air

Meringue → air size

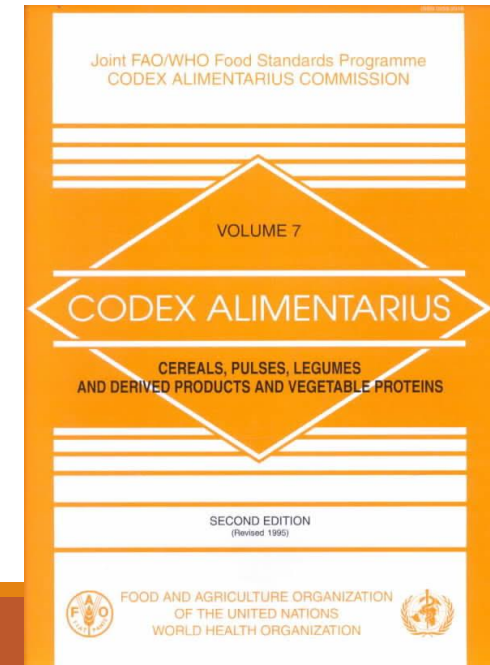


Consideration

- Spray-dry or Freeze-dry

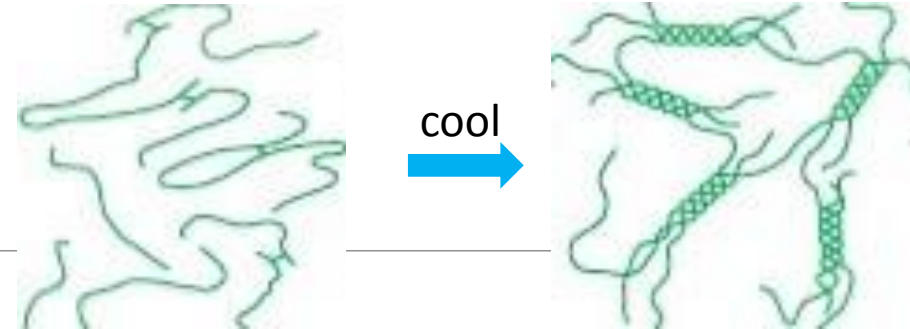


- Definition, Regulation, CODEX

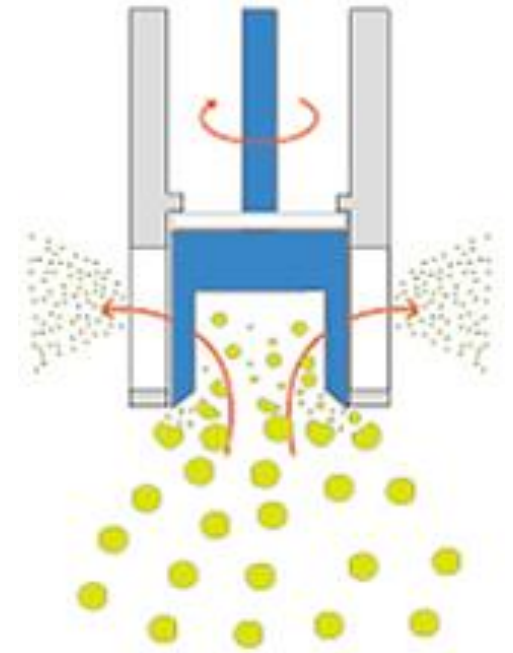


Consideration

- gelatin → stabilizers

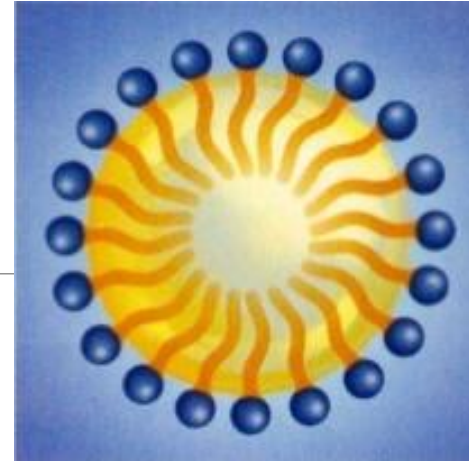


- Homogenization → mix

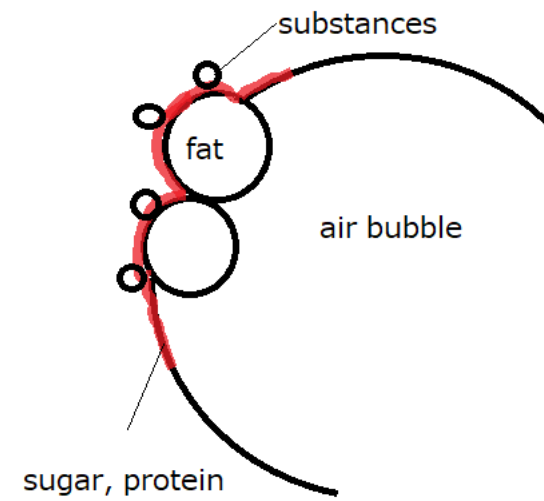


Consideration

- egg yolk → emulsifiers



- egg white, sugar, milk → stabilizer



Observation of milk and daily products in Thai marketplace

PLACE: SIAM PARAGON

DATE: 3/7 2018



Purpose of this observation

- to know **diversity** of milk and milk product
- to know **differences** between **Japanese** markets and **Thai** markets.

How many types of products ?

Milk	-pasteurized, UHT, powder, fermented
Yogurt	-flavor, greek, yogurt beverage
Ice cream	-ice cream, sorbet
Cheese	-processed, natural, cream cheese
Butter	-salted, unsalted
Whipped cream	-whipped, whipping

→ 6

Compered with japan

Milk

Appearance-packaging

-plastic bottle



Variation

-many UHT milk

low fat

Non fat

100%

flavor

Lactose free



-flavor (not in Japan)

Chocolate

White malt

sesame

etc



Ice cream

-Appearance-packaging
big volume



-Variation

flavor (not in japan)

corn

taro

coconut milk

ruammit

black bean etc



*Classification of ice cream in Japan

type	Milk solids	Milk fat	coliforms	The number of bacteria
Ice cream	15% or over	8% or over	negative	100,000/g or less
Ice milk	10% or over	3% or over	negative	50,000/g or less
Lactic ice	3% or over	—	negative	50,000/g or less
Ice	—	—	negative	10,000/g or less

yogurt

-Appearance-packaging

big volume (1kg)

-Variation

flavor (not in Japan)

corn, coconut, passionfruit....



Cheese

-Appearance-packaging

There are many slices of cheese in one pack .



Butter

-Price

cheap

(Japan 250 ¥ /g Thai 60B/g)

=about 80B

-Appearance-packaging

small and many pieces



Whipped cream

-Appearance-packaging

whipped cream's packaging is can.





After observation

- only Thailand flavor
- appearance is different compered with Japan
- price is higher than any supermarket in Thailand
 - this supermarket is high grade
- some products volume are larger than Japanese products
 - the number of family members are fewer than Thailand



In conclusion

-The deliciousness of all food products is based on science

Why delicious? → Consider from microstructure

macro → micro

Principle from analysis of the molecular level

→ consider the best method

make delicious food products

micro → macro



In conclusion

-interest→microstructure of food products

-basics of food science and technology

→use for study from now on

advantage





Thank you !