

Guidance Note for Foodservice Industry:

Food Poisoning Prevention and Control for High-Risk Foods



Taiwan Food and Drug Administration



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Control for High-Risk Foods**



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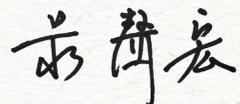
Prologue

In recent years, there have been several incidents of food poisoning involving health problems, hospitalization or even death, in the foodservice industry due to improper preparation and storage of foods. This 'Guideline Note for Foodservice Industry: Food Poisoning Prevention and Control for High-Risk Food' focuses on the preparation of high-risk foods and explains the essentials of food poisoning prevention with easy-to-understand/read text, procedures, and figures. The first part of this Guidance Note first explains general principles for management of high-risk food, how to use time and temperature control to reduce the risk of pathogen overgrowth during preparation and serving in dangerous temperature zones. It also provides examples of each high-risk-category food to provide foodservice operators with clear information about preparation process and precautions.

The categories of high-risk food listed in this Guidance Note are egg products, raw seafood and meat, fresh-cut salad, ready-made food containing both raw and cooked food, prepared meals, and frozen desserts. All possible hazards and risks, from food materials, utensils, preparation, storage to selling, are analyzed. Preventive measures and reference practices on how to reduce food poisoning during the preparation process, and references or follow-up information are also provided. This Note can be used for the operators to re-examine their management and also be used as a good teaching material for employee education and training to ensure safety.

Food poisoning prevention and control are ongoing issues and challenges for the foodservice industry. Ensuring consumer safety is the industry's primary goal. The solution starts with the basics of hygiene management, controlling meal preparation process. Let's work together to create and ensure a good reputation for Taiwanese cuisine.

Director-general



Preface

Take out/away has become common following our dieting and lifestyle changes. Food safety hazards of these food cannot be ignored, and foodservice personnel play the most important role in safeguarding food safety.

Several serious food-borne poisoning incidents occurred during 2023-2024 period in Taiwan. For example, five hundred and fourteen people were sickened due to contaminated Bánh mì sold at a market stall in Taoyuan. Baguettes and other ingredients were tested positive for Salmonella and Bacillus cereus. One hundred people reported ill at a well-known frozen desert shop in Kaohsiung. Various ingredients were tested positive for Salmonella, and B. cereus and Staphylococcus aureus. Twenty three people were hospitalized after dining at a famous sushi restaurant, norovirus were detected in 3 of them. And, six peoples died of bongkreikic acid poisoning. These events remind us that foodservice personnel shall follow and implement 'The Regulations on Good Hygiene Practice for Food' to avoid the occurrence of food-borne poisoning.



The so-called 'High-risk foods' are those that are involved in food-borne poisoning events. Frequently seen high-risk foods are used as examples of implementation of Hazard Analysis Critical Control Point (HACCP) system in this booklet. To prevent the occurrence of food poisoning from high-risk foods, the concepts of prevention is emphasized and management of 'Time/Temperature control for safety foods' (TCS) incorporated.

This Guidance Note is to be a reference for strengthening self-management of foodservice operators.

I. General principles for management of high-risk foods

1. Links between food-borne poisonings and high-risk foods

'The Regulations on Good Hygiene Practice for Food' constitutes the operation basis for foodservice businesses facing high-risk foods. The adoption of 'Five Keys principles' is critical in preventing foodborne illness. Temperature management is very important since growth of microorganisms is closely linked to temperature.

Table 1 summarizes conditions in which optimum growth and restrictions of the five most common foodborne pathogens. This table serves as a quick reference for foodservice operators for checking in on the characteristics of these pathogens. Heating is the most effective way to completely eliminate pathogens in food. To ensure that food is fully cooked, the internal temperature of the food should reach at least 70°C.

It is recommended that foodservice operators refer to Table 2 for safe minimum internal temperatures. Taken into account of uniformity of the temperature, you probably need to increase the temperature while making large quantities of meals or preparing high-risk foods.

Microwave is also one of the heating methods. Follow the aforementioned heating temperature and rest time of the foods. Letting food sit for a few minutes after microwaving allows cold spots to absorb heat from hotter areas and cooked more completely to a safe internal temperature



If special cooking methods (such as Sous vide) or lower temperature cooking is adopted to get the desired doneness by food type and thickness, extend cooking time and pay special attention to freshness of the ingredients and cleanliness of environment.



Not fully-cooked meat will lead to harm.

Table 1. Limiting Conditions for Pathogen Growth

Organism	Temperature (°C)			pH			Water Activity (a _w)			Max. % water phase salt
	Min.	Opti.	Max.	Min.	Opti.	Max.	Min.	Opti.	Max.	
<i>Bacillus cereus</i>	4.0	30~40	55.0	4.3	6.0~7.0	9.3	0.92	-	-	10.0
Enterohemorrhagic <i>Escherichia coli</i> (EHEC)	6.5	35~40	49.4	4.0	6.0~7.0	10.0	0.95	0.995	-	6.5
<i>Salmonella</i>	5.2	35~43	46.2	3.7	7~7.5	9.5	0.94	0.990	>0.99	8.0
<i>Staphyococcus aureus</i>	7.0	37	50.0	4.0	6.0~7.0	10.0	0.83	0.980	>0.99	20.0
<i>Vibrio</i> spp.	5.0	37	45.3	4.8	7.6~8.6	11.0	0.945	-	-	7.0

Note: Min stands for minimal; Opti, optimum; Max, maximal.

Reference: Fish and Fishery Products Hazards and Controls June 2022 Edition, U.S. Department of Health and Human Services Food and Drug Administration

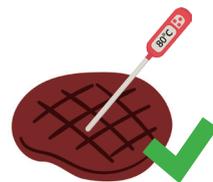
Table 2. Safe Minimum Internal Temperature Chart

Food	Type	Internal temperature (°C)
Ground meats and related products	Beef, pork , lamb	71°C
	Turkey, chicken	74°C
Fresh beef, veal, lamb	Steaks, roasts, chops	63°C
Poultry (Chicken and duck, etc.)	All: whole birds, breasts, legs, thighs, wings, ground poultry, giblets, sausage, and stuffing inside poultry.	74°C
Pork	Fresh pork, including fresh ham	63°C
Eggs and egg dishes	Eggs	Cook until both yolk and white are firm
	Egg dishes (such as frittata, quiche)	71°C
Fisheries and seafood	Fish with fins	63°C or cook until flesh is no longer translucent and can be separated easily with a fork
	Shrimp, lobster, crab, and scallops	Cook until flesh is pearly or white, and opaque
	Clams, oysters, mussels	Cook until shells open. It is recommended to continue cooking for another 3 to 5 minutes.

Reference: <https://www.foodsafety.gov/food-safety-charts/safe-minimum-internal-temperatures>



The only effective way to tell if food is cooked to a safe internal temperature is to use a food thermometer.



Take internal temperature with a thermometer.

2. Definition of PHF, TCS foods, TDZ and high-risk food and their connections

To manage high-risk foods, you need to understand what Potentially Hazardous Foods (PHF), Time/Temperature control for safety foods (TCS foods), and Temperature Danger Zone (TDZ) stand for :

(1) Potentially Hazardous Foods (PHF)

Potentially hazardous food (PHF) means any food which consists of milk or milk products, eggs, meat, poultry, fish, shellfish, and edible crustacean and other ingredients in a form capable of supporting rapid and progressive growth of microorganisms. Food with a pH of 4.6 or below or having an water activity of 0.85 or less is excluded.

(2) Time/Temperature control for safety foods (TCS foods)

Time/Temperature control for safety foods (TCS foods) stand for foods that require time/temperature control to limit pathogen growth or toxin formation that constitutes a threat to public health. Meat, milk, eggs, fish, shellfish, poultry (or products containing these ingredients), cooked rice, etc., and any raw sprouts (beans, alfalfa, etc.) are commonly seen TCS foods. In simple terms, most of the ingredients used in foodservice are TCS foods.

Generally speaking, a TCS food is almost the same as a PHF food. However, the two are different in terms of management purposes. PHF is classified based on food characteristics to remind business operators to pay attention to the risk of food spoilage, while TCS food focuses on food safety and the management objects are pathogenic bacteria. TCS food is in Temperature Danger Zone, and carries high risks. Strict temperature or time management is required for TCS food to ensure safety.

To help the foodservice operators to determine whether it is a TCS food, the following method is provided for reference. If the food is packed after heat-treatment step to destroy vegetative cells, use pH value and water activity for reference as shown in Table 3. If there is no heat treatment or the food is not packed after heat treatment, follow Table 4.

Table 3. Method for determine a food is a TCS food (used when the food is packed after heat-treatment step to destroy vegetative cells)

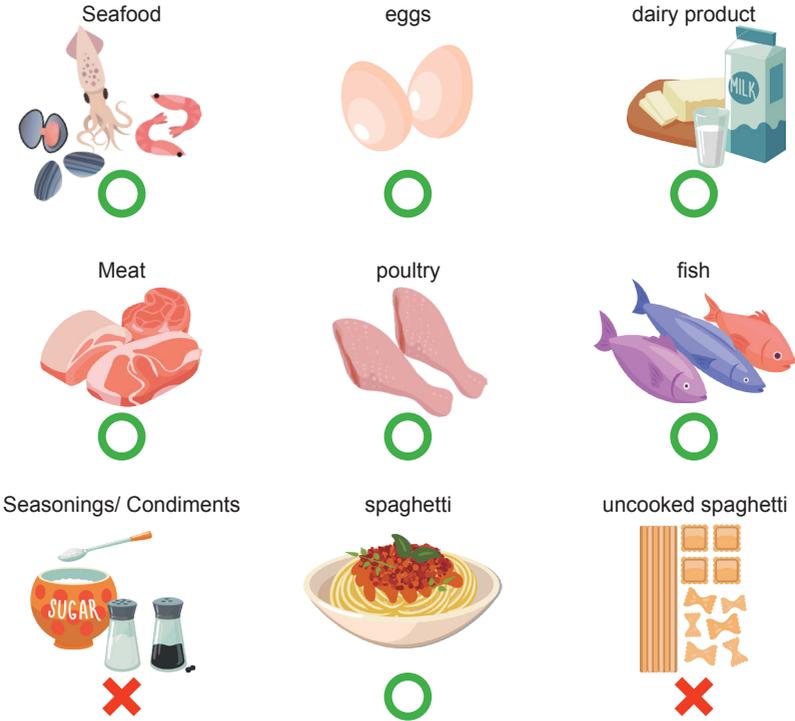
Water activity	pH \leq 4.6	pH>4.6~5.6	pH>5.6
>0.95	Non-TCS food	PA	PA
>0.92~0.95	Non-TCS food	Non-TCS food	PA
\leq 0.92	Non-TCS food	Non-TCS food	Non-TCS food

Table 4. Method for determine a food is a TCS food (used when there is no heat treatment or the food is not packed after heat treatment)

Water activity	pH<4.2	pH 4.2~4.6	pH >4.6~5.0	pH>5.0
>0.92	Non-TCS food	PA	PA	PA
> 0.90~0.92	Non-TCS food	Non-TCS food	PA	PA
0.88~0.90	Non-TCS food	Non-TCS food	Non-TCS food	PA
<0.88	Non-TCS food	Non-TCS food	Non-TCS food	Non-TCS food

Notes: PA means product assessment required. A product assessment or microbial challenge report is required to prove that the product does not require time or temperature control. If there is no report, it will be considered a TCS food.

Commonly seen TCS and non-TCS foods



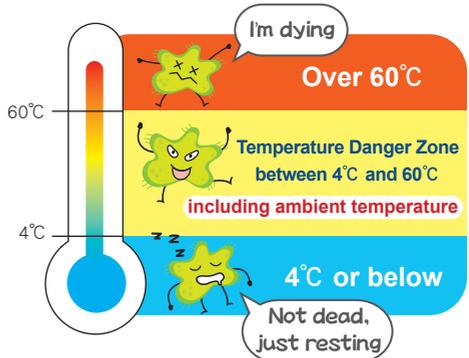
Reference: <https://foodsafepal.com/tcs-foods>



Generally speaking, most food materials used in foodservice industry are TCS foods.

(3) Temperature Danger Zone (TDZ)

Bacteria grow most rapidly in temperature range between 4°C and 60°C. This range of temperatures is often called TDZ. TCS foods should always being kept at temperature of either 4°C or below, or above 60°C.



3. Judgment criteria for categorizing high-risk foods in foodservice industry

There are varieties of high-risk foods. High-risk foods listed in this Guidance Note are largely TCS foods, chosen based on two criteria: (1) they have been cooked, but not reheated before serving, and (2) having a history of foodborne illness.



* 'Reheat' as referred in this Guidance Note means reheating the internal temperature of the food to 74°C.

Example Are Bánh mì (Vietnamese baguette), sushi and pepper powder high-risk foods?

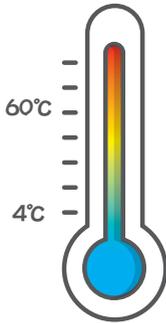
	Bánh mì (Vietnamese baguette) is a TCS food	→	Went through a heat-treatment step and there's poisoning history	→	high-risk food
	Sushi is a TCS food	→	Did not go through a heat-treatment step	→	high-risk food
	pepper powder is not a TCS food	→	Not high-risk food		

4. Management priorities for high-risk foods

Temperature/time control is the key point of high-risk food management. Avoiding leaving TCS food in TDZ for too long is one of the major control measures. Follow the “2-hour / 4-hour rule” by monitoring temperature is maintained within that period of time to make sure potentially hazardous food is safe.



Temperature and time control are management priorities for high-risk foods



The most important measure is to avoid keeping TCS food in temperature danger zone (TDZ) for too long as much as possible is



Follow the “2-hour / 4-hour rule” to achieve effective time management.

(1) Temperature control

Stages requiring temperature control in foodservice industry include storage (refrigeration/ freezing of ingredients accepted, semi-finished products, finished products), preparation (thawing, heating, cold & hot serving). Follow GHP management for both refrigeration and freezing stages. Among them, thawing and cooling management are often overlooked and require special attention.



*Refrigeration as referred in this Guidance Note means below 4°C . It is recommended to **complete thawing process within two hours** to shorten holding time in temperature danger zone (TDZ).*

Thawing

There are three common ways to thaw food. If frozen food can be directly heated, there is no need to thaw. Thawing at ambient temperature is not recommended. If it is done so, temperature monitor is required and temperature of cold water cannot be over 21°C. You need to make sure the food is safe. Pay special attention to vacuum-packed food for Botulism risk.

1 Refrigerator Thawing :

Lengthy time is involved for this method. Even small amounts of frozen food require a full day to thaw. When thawing foods in the refrigerator, pay attention to keeping it away from the wall and the ground to prevent contamination from drippings. It is recommended to spread it out or expand the surface area as much as possible to fasten the process.

2 Cold Water Thawing :

- (1) Under running water: The food must be in a leak-proof package or plastic bag under cold running water. Do not use warm water to defrost, as this may bring some areas of the food to Danger Zone Temperatures during the process.
- (2) Submerged in cold tap water: Immerse the food in a water-proof package in a clean container or sink filled with cold water. Make sure the ingredients are covered with water. It is recommended to change the water every 30 minutes till it's completely thawed.



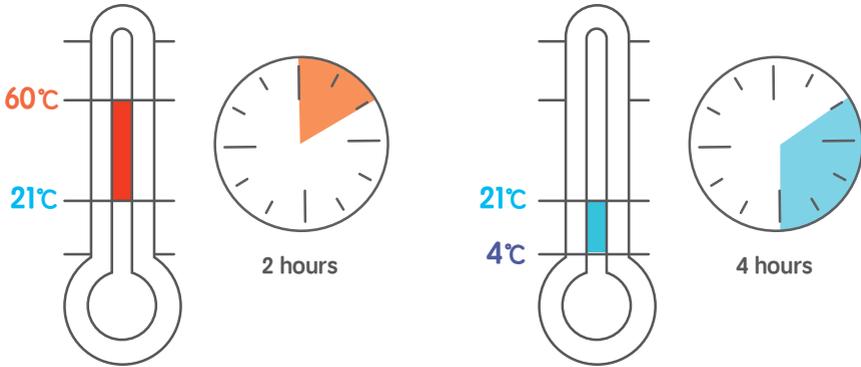
Thawing under running water

3 Microwave Thawing:

When thawing food in a microwave, plan to cook it immediately after thawing. Stirring or turning the ingredients can be used to help defrosting.

Cooling

Cool cooked food rapidly, from 60°C to 21°C within 2 hours, will minimize potentially harmful growth. Further cooling to 4°C must be achieved within 4 hours. The total cooling process may not exceed 6 hours.



Reference: NSW Food Authority, Cooling potentially hazardous food, <https://www.foodauthority.nsw.gov.au>

Monitor temperature during the cooling process. The food must be thrown away or re-heated and re-cooled once again if it cannot be cooled to 21°C within 2 hrs.

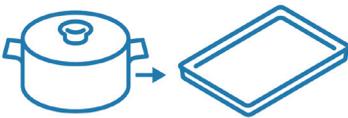


Fast cooling at the first stage is critical for cooling.

Common ways of cooling food

- 1 Place food in shallow containers. The height of the container and food should not exceed 10 centimeters.
- 2 Divide food into smaller portions or reduced thickness to cool, such as cutting large pieces of meat into smaller pieces.
- 3 Place the hot food container into a larger container with ice cubes and water (ice water bath). Stir and cool, but be careful that the height of the ice water does not exceed the edge of the hot food container to prevent ice water from flowing into the cooked food and causing contamination.

- 4 Use a container that is conducive to heat conduction (such as stainless steel) to quickly dissipate heat.
- 5 Add edible ice for dilution instead of water (suitable for concentrated products)
- 6 Use rapid-cooling equipment, but pay attention to the following when using it:
 - (1) Do not stack containers together. Leave appropriate space to allow for proper airflow around them and to exhaust the heat.
 - (2) Keep the equipment clean. The food can only be left uncovered or loosely covered during the cooling process when there is no risk of cross-contamination.
- 7 If ice slurry/curling is used to cool highly viscous sauces or soups, the utensil shall be frozen before use, and pay attention to the hygiene of the surroundings.



Cooling by placing in shallow containers.



Cooling in an ice bath.



Cooling in ice slurry.



Stacking slows down cooling.



Separating the food into smaller or thinner portions to help cooling

References:

1. Cooling Cooked Time/Temperature Control for Safety Foods and the FDA Food Code: for Food Employee, <https://www.fda.gov/media/181882/download?attachment>
2. Why It's Important to Cool Food Properly, <https://www.fda.gov/media/79893/download>

(2) Time control (the '2-hour/4-hour' rule)

Scientific studies show that holding food without temperature control up to 4 hours in TDZ does not increase food poisoning risk. Therefore, the '4-hour' time management is very critical.

Therefore, the 2-hour/4-hour rule can be used to determine what to do with high-risk food: put back in the fridge to use later, used, or thrown away. (Food kept in the fridge for more than 2 hours or room temperature for more than 4 hours must be thrown away.)

Application of 2-hour/4-hour rule ✓ means Yes, ✗ means No

	Place at 4°C ~ 60°C (e.g. ambient temperature)	Store in a fridge	Consume right away
< 2 hour			
2-4 hour			
> 4 hour			

 **Discard high-risk food placing at 4°C ~ 60°C for more than 4 hours.** 

Example Practical application of the '2-hour/4-hour' rule

Sandwiches are prepared at 12 o'clock and placed in a display cabinet under ambient temperature. How is the '2-hour/4-hour' rule applied?



Since the sandwiches is prepared at 12 o'clock and under ambient temperature, there are two possible management ways.

Alternative 1:

Keep the sandwiches under ambient temperature for 2 hours (till 2pm, at most), place back into a fridge and take it out again later, say 4pm. Can be sold or consumed before 6pm. Discard the sandwiches if not used by 6pm (cumulative time the food out of TDZ: 4 hours).

Alternative 2:

Can keep the sandwiches in the non-refrigerated display cabinet for up to 4 hours straight (till 4pm). Discard the sandwiches if not sold or used after that.



The '4-hour rule' means the cumulative time in TDZ shall not be over 4 hours, adding up every time the food has been out of the fridge, including during preparation, storage, transport and display.

Example Practical application of the 2-hour/4-hour rule

On-site labelling management

Label high-risk foods once they leave temperature control. It is important to note that the time between starting point and time of leaving temperature control is cumulative.

The cumulative time for high-risk food can only be kept in TDZ, 4°C ~ 60°C , for a maximum of 4 hours.



Use colored labels to distinguish different time limits for consumption, or directly mark on top.



Management principles for TCS food not following '2-hour/ 4-hour' rule:

- 1. Discard semi-finished products without time stamped.*
- 2. Discard food exceeding the marked time (more than 4 hours).*



For those that have time stamped, follow the '2-hour/ 4-hour' rule.

Egg products

mayonnaise, tiramisu

Tiramisu, mayonnaise and fruit salad dressing contain unheated eggs. If not properly managed, it may be contaminated with Salmonella.

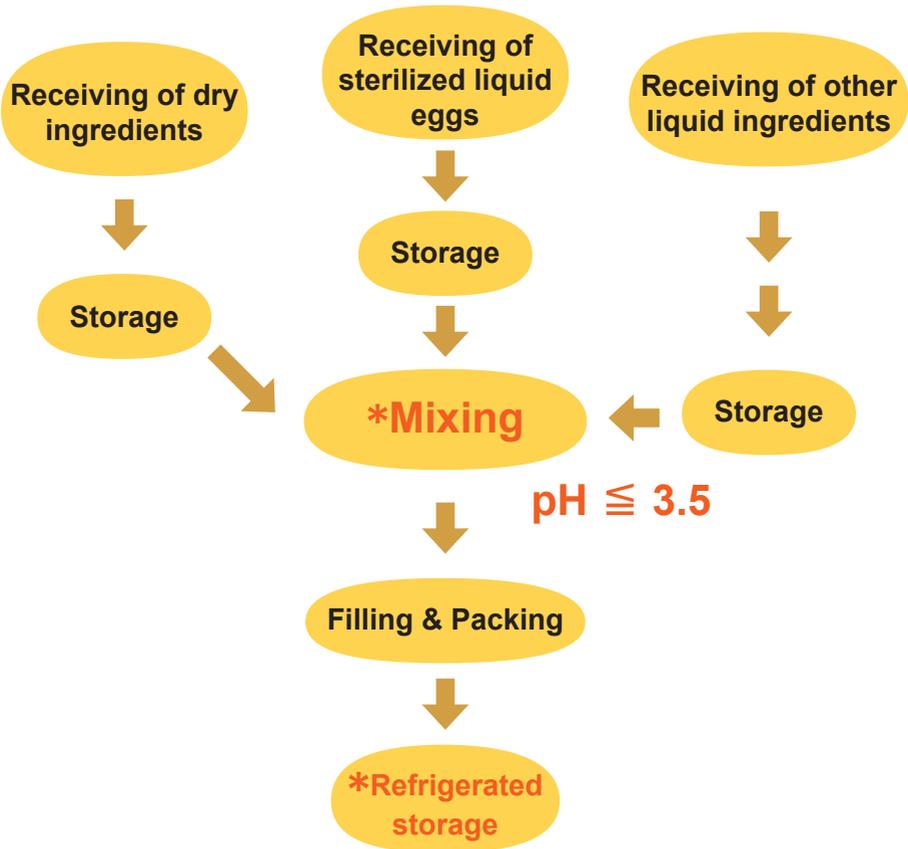


(1) *Mayonnaise*

Example of Production Process

Notes: _____

1. *indicates critical control points
 2. ingredients, such as sugar, salt, spices & seasonings
 3. ingredients, such as oil, vinegar
-



(2) Mayonnaise -Precautions for making mayonnaise



1 Receiving of raw ingredients

- 1 Inspect all received items by appearance, smell, expiry date, labeling, etc.. There should be no mold, odor, discoloration, or damaged packaging.
- 2 It is recommended to use sterilized liquid eggs to reduce the risk of Salmonella contamination.
- 3 Ensure that raw eggs received meet specifications for appearance, flavor and transportation conditions, etc.. For pasteurized liquid eggs, it is recommended to ask for the microbiological test results from the supplier routinely.



2 Storage of raw ingredients

- 1 Do not store shell eggs under high humidity and high heat. It is recommended to store them in a fridge or cool and well-ventilated areas. They should not be stored for too long to ensure freshness.
- 2 Label the product related information on subdivided packs, such as product name, shelf life, etc.. Store them accordingly and follow 'First In, First Out' principle.



There are shell eggs and liquid eggs. The former includes unwashed and washed eggs, while the latter can be divided into sterilized and unsterilized liquid eggs based on production processes.

In management of egg products, choose pasteurized liquid eggs as a safe source of raw materials.





Mixing

- 1 Before preparation, make sure the utensils are clean and have no residual moisture, and avoid introducing foreign matter into the raw ingredients before use.
- 2 Foodservice operators need to have written Standard of Operating Process (SOP) ready, including mixing parameters and times, and follow accordingly.
- 3 It is recommended to complete the preparation within 60 minutes, and make sure pH of the mayonnaise is below 3.5 after mixing.
- 4 Store the semi-finished mayonnaise in sealed or covered containers to protect from contamination.



Filling and packing

It is recommended to keep surrounding temperature at 20~25°C. Complete the process as soon as possible, between 15 to 30 minutes, at best.



Storage

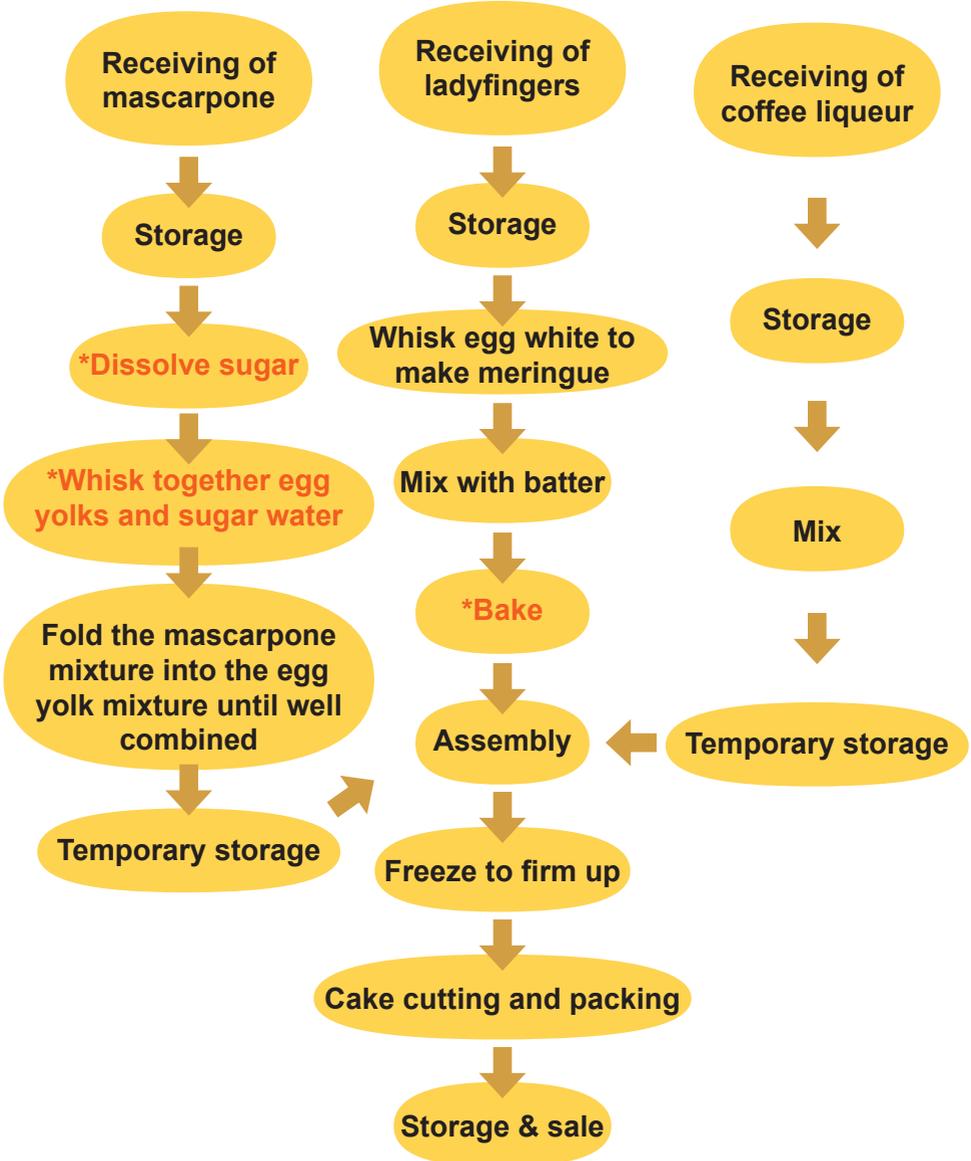
It is recommended to store homemade mayonnaise in the refrigerator, keep track of temperature. Use up as soon as possible after preparation.

(1) Tiramisu

Example of Production Process

Note: _____

*indicates critical control point



(2) Tiramisu -Precautions for making tiramisu



1 Receiving of raw ingredients

Please refer to mayonnaise section in this Guidance Note (p.21). Again, it is recommended to use sterilized liquid eggs as raw ingredients.



2 Storage of raw ingredients

Please refer to mayonnaise section in this Guidance Note (p.21).



3 Mascarpone cream filling

Dissolve sugar

Heat water to dissolve. It's recommended to heat to 110~120°C.

Whisking together egg yolks and sugar water

Whisk together the egg yolks and the dissolved sugar at high speed over a pan of simmering water. The recommended ratio of egg yolks and dissolved sugar is 1: 1.5. The temperature of the mix shall reach 82~84°C.

Mixing and storage

- 1** Fold the rest of the filling ingredients, such as mascarpone, into the egg yolk mixture until well combined.
- 2** Store in sealed or covered containers to protect from contamination.



4 Processing for ladyfinger biscuits

Egg white whisking and mixing with batter

- 1** Foodservice operators need to have written Standard of Operating Process (SOP) ready, including parameters and times for mixing, bake and chill, and follow accordingly.
- 2** Add ingredients according to the prescribed sequence and double check for the addition of additives. Sieve powder-type ingredients to prevent foreign matter.



5

Processing for ladyfinger biscuits

bake

- 1 Follow the prescribed baking conditions to ensure doneness (e.g. 200°C, 15-20 minutes).
- 2 Semi-finished products ready to be used must be properly covered and stored in position to avoid cross-contamination of raw and cooked food.



6

Processing for mixing in coffee liqueur

Avoid introducing of foreign matter before mixing.



7

Freeze to firm up

Refrigerate at the prescribed temperature to give the tiramisu time to firm up.



8

Cake cutting and packing

- 1 Make sure that the equipment and tools used are free of rust or missing corners before use.
- 2 It is recommended to control the temperature of the working environment at 20~25°C. Complete packing process within 15 minutes.



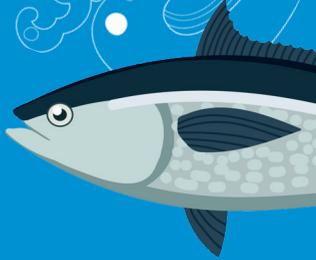
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Storage and sale

Store the finished product chilled or frozen, and keep temperature record. Use up as soon as possible.



There are two ways of making tiramisu: one with egg yolks heat treated and the other without. The example given in this Guidance Note is the one with heat treatment.



Raw seafood



raw oysters, sashimi

Sashimi and oysters are eaten raw, without heating. Therefore, there exists a great risk of foodborne illness from cross-contamination if hands of personnel or utensils are not kept clean, or lack of temperature control during storage and preparation.



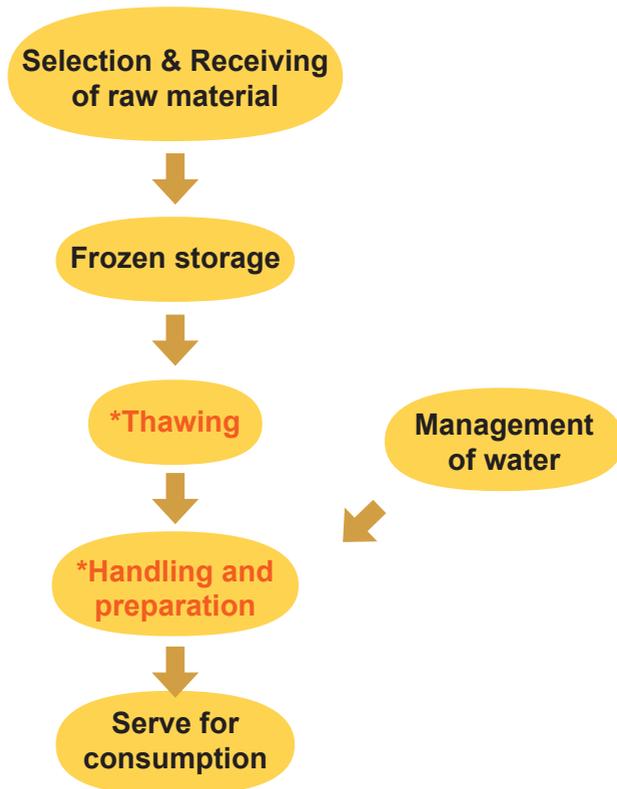


(1) Raw oyster

Example of Production Process

Note: _____

*indicates critical control point



(2) Raw oyster -Precautions for preparation of raw oysters



1 Selection and Receiving of raw material

- 1 Purchase oysters that can be eaten raw from reputable suppliers. Raw materials should be inspected at the time of receiving, e.g. appearance, smell, odor, etc...
- 2 Cold chain management is carried out throughout the logistics process. During acceptance, make sure that there is no mixing with non-for-raw consumption grade oysters or transported at inappropriate temperatures. Check temperature with a thermometer.



Confirms quality during receiving

- 3 Make sure that the oysters are with intact shells and have no abnormal odor or fishy smell. Demand for legal import certification documents and proof that they can be eaten raw.



Import certificate

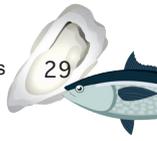


Ingredients to be eaten raw are confirmed and labeled.



2 Frozen storage

- 1 Oysters of different batch numbers or varieties should be placed separately and follow time limit of consumption or 'first in, first out' principle.
- 2 Check for integrity of the packages. It is recommended to store them in a dedicated area.



Thawing

- 1 Place the oysters flat on a plate (curved side down), or cover with plastic wrap, thaw at 4°C till can be shucked. Avoid thawing for too long, which may lead to microbial growth.
- 2 Thawed oysters should be consumed on the same day of thawing and shall not be put back into the freezer for storage.



Handling and preparation

- 1 Wash hands thoroughly before handling raw oysters. Wear clean protective gloves when handling the oysters.
- 2 Wash the shells of oysters thoroughly before shucking with cold portable water, scrub the shells with a designated clean brush and keep the working area clean.
- 3 Pay attention to hygiene condition of personnel, tools and containers throughout the process. Cold portable water is recommended to use.
- 4 Label and store thawed raw oysters from frozen ones separately to prevent cross-contamination.
- 5 Keep the washing and shucking process as brief as feasible since it is normally performed at ambient temperature. Plan the quantity needed ahead to have the process be completed in one hour to reduce the time exposed to room temperature.
- 6 Store the shucked oysters covered and display in a designated refrigerator. Should be consumed on the same day.



Raw oyster washing



Serve for consumption

- 1 Ideally, shuck and clean oysters only upon customer's order.
- 2 When a customer order raw oysters and other dishes at the same time, the raw oysters should be served first and wait for the customer to finish before the other dishes.
- 3 In a buffet style-setting, serve raw oysters over shaved or cubed ice in small quantities at a time. Pay attention to the condition of the ice, replenish the ice and remove the melted ice water in a timely manner. The '2-hour/4-hour rule' shall be applied, too. (That is, 2 hours in the fridge, and 4 hours or longer, the food must be thrown out).



Keep oysters on ice and consume as soon as possible.



Oysters are often contaminated with norovirus. In addition to be certain that the oysters are qualified as been consumed raw, the foodservice operators must pay attention to personnel hygiene and environmental sanitation. Use bleach regularly to disinfect the utensils, equipment and environment.

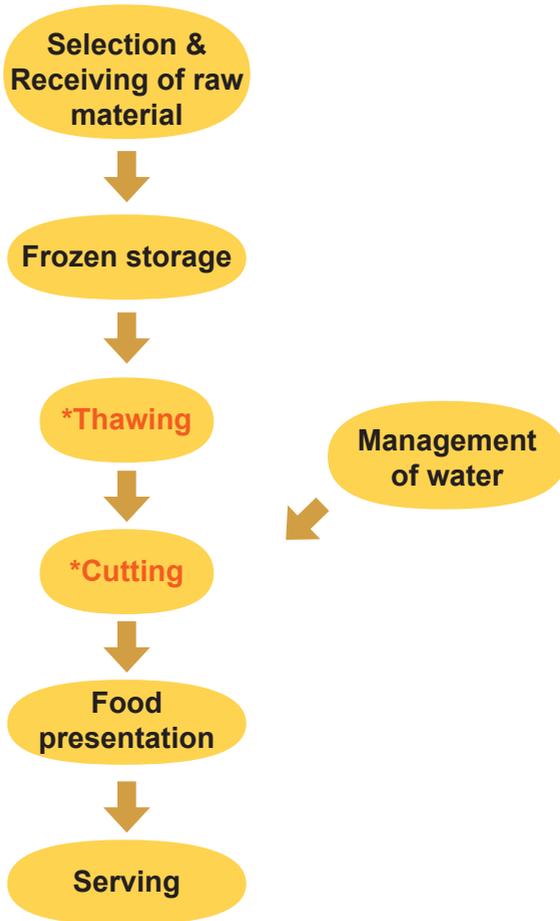


(1) Sashimi

Example of Production Process

Note: _____

*indicates critical control point



(2) Sashimi -Precautions for preparation of sashimi



Selection and Receiving of raw material

- 1** Buy fishery materials to be eaten raw from reputable suppliers. Raw materials should be inspected at the time of receiving, e.g. appearance, smell, odor, etc..
- 2** Do not purchase freshwater fishery products for eaten raw. Imported seafood to be eaten raw should be accompanied with valid and recognized official health certificates.
- 3** Cold chain management is carried out throughout the logistics process. Upon receiving, make sure that there is no mixing in of material not intended to be consumed raw or transported at inappropriate temperatures. Check temperature with a thermometer.
- 4** Make sure that there is no thawing upon receiving, e.g. frozen raw materials are still in a frozen state, to avoid histamine poisoning.
- 5** Freeze the fishery products to be eaten raw as soon as possible upon acceptance.



Check temperature and freshness of sashimi raw materials



To rid of parasite hazards, keep the fishery products frozen at -20°C or below for seven days or at -35°C for about 20 hours.



Frozen storage

- 1 Raw fishery materials of different batch numbers or varieties should be placed separately and follow time limit or 'First In, First Out' principle.
- 2 Check for integrity of the packages. It is recommended to store them in a dedicated area.



Thawing

- 1 Thaw the raw fishery materials at 4°C for 8-12 hours. Avoid thawing for too long, which may lead to microbial growth and histamine formation.
- 2 Thawed fishery materials should be consumed on the same day and shall not be put back into the freezer for storage.



Defrost frozen raw fishery materials in refrigerators. Thawing without temperature control, such as with running water or microwave heating, will have them exposed to Temperature Danger Zone, increasing risk of foodborne illness.



Cutting

- 1 Wash hands thoroughly and wear clean gloves before handling raw fishery materials.
- 2 Designate a separate area and use designated knives and chopping boards for handling the food eaten raw. Wash with cold portable water if needed.
- 3 Since handling and preparation processes are normally performed at ambient temperature, plan the quantity of fisheries needed to the processes completed as soon as possible to reduce the time exposed to ambient temperature.
- 4 It is recommended to start the preparation and cutting only upon customer's order.



Wash hands thoroughly and wear clean gloves. Use cleaned knife for fish cutting.



Food presentation

- 1 Personnel must keep their hands clean, and equipment and utensils must be clean and disinfected before serving.
- 2 Sashimi and dishes not intended to be eaten raw should be labelled and stored separately.



Use cleaned utensils filled with ice to keep temperature down.





Serve for consumption

- 1 When a customer order sashimi and other dishes at the same time, the sashimi should be served first and wait for the customer to finish before serving other dishes.
- 2 Place sashimi fully covered in a refrigerator for customers to take. In a buffet style-setting, serve sashimi over shaved or cubed ice in small quantities at a time. Pay attention to condition of ice, replenish the ice and remove the melted ice water in a timely manner. The '2-hour/4-hour rule' shall be applied, too. (That is, 2 hours in the fridge, and the food must be thrown out after 4 hours.)



Sashimi shall be placed over shaved or cubed ice in small quantities at a time to keep freshness.



Store sashimi in a refrigerator for customers to take.



Sashimi is often accompanied with wasabi. However, wasabi does not kill either microorganisms nor parasites.



Pay special attention to safe handling of raw materials such as shredded white radish and lemon slices which are commonly placed on sides of sashimi

Fresh-cut salads

fruit salad, green papaya salad

The processing of salads is relatively simple. The reasoning that it is categorized as a high-risk food is because the only step of minimizing risk is washing. The risk of foodborne illness will increase if the ingredients are contaminated .





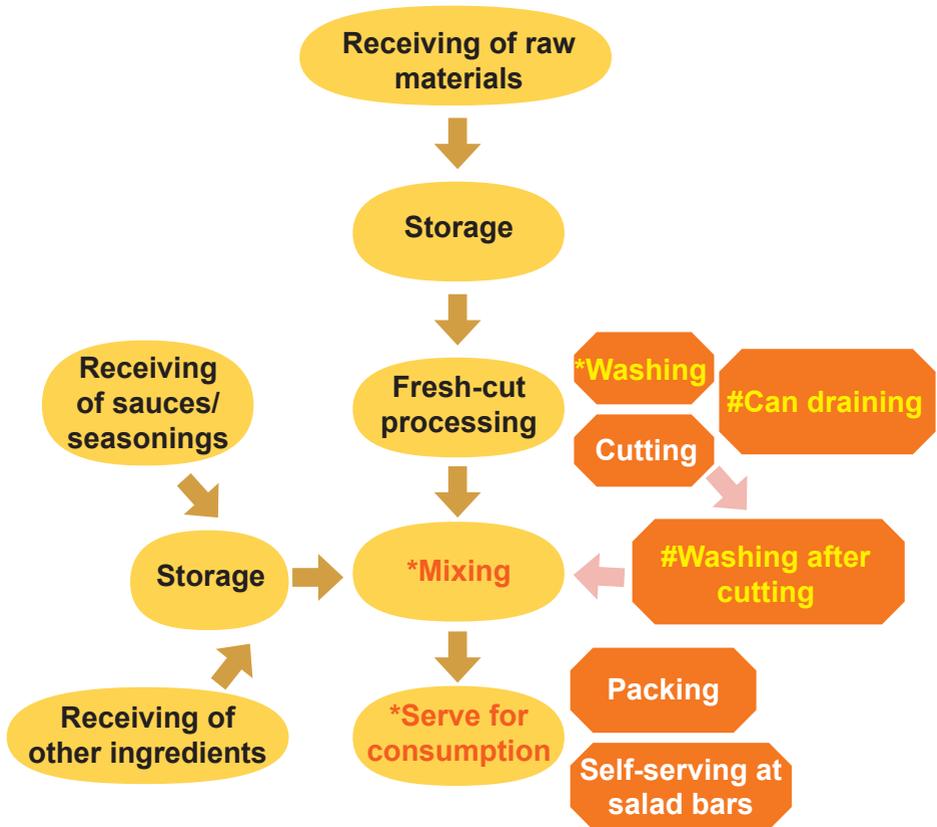
(1) Fruit salad

Example of Production Process

Notes: _____

1: *indicates critical control point

2. # depends on processing needs



(2) fruit salads -Precautions for preparation of fruit salads



1 Receiving of raw material (vegetables, fruits, seasoning/ condiment)

- 1 Inspect the appearance of vegetables/ fruits upon receiving. Select those with no defects or damage on the appearance, such as spots or wilting.
- 2 Keep them chill. Refrigeration is recommended.
- 3 When purchasing fresh-cut produce as raw materials, check on wordings on the labels to confirm that they are for salad preparing, such as 'ready to eat', 'washed and disinfected' or 'no need to wash'.
- 4 Quantities purchased should be based on amounts needed, avoid over-purchase to ensure freshness.



Reject upon receiving fruits look looks stale or overripe.

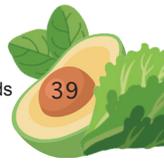


Mold appears on surface of fruit.

Amount of tree nuts needed is 250 g/meal. How do you determine amount of purchasing?



Choose the 500g/pack to avoid storing for too long after opening.



Storage

- 1 Store vegetable and fruit intended for salad separately from those are not going to be eaten raw (fishery products, meat) to avoid cross-contamination.
- 2 Store the washed vegetable and fruit separately from those are not and labelled clearly.
- 3 Be sure stored food that are ready to eat are fully covered.



Fresh-cut processing (washing, cutting, wash-after-cutting)

Washing

- 1 Wash hands and use clean utensils before preparation. This is very important for salad preparation because there is no heat-killing step during the process to reduce the risk of pathogens.
- 2 Designate a separate sink for the washing of vegetable and fruit is strongly recommended.
- 3 Use running water for washing to minimize the presence of microorganisms.
- 4 Vegetable leaves are difficult to wash. It is recommended to separate the leaves and immerse them in a container filled with cold water for a few minutes to help loosen dirt. After washing, use paper towels to remove excess water.



Cutting

- 1 Start trimming, peeling, slicing, dicing, chopping, or shredding, etc. after excess water is removed to prevent microorganisms on the surface from contaminating the interior of vegetable/ fruit or onto the utensils during the process.
- 2 Fresh-cut vegetable/ fruit are prone to bacterial overgrowth. It is recommended to start the processing before order.



Wash-after-cutting (not a must-have step)

If a wash step is called for after cutting, it is recommended to use portable water. If a food cleanser is needed, it is recommended to rinse with portable water after and pay attention that there is no residue left.



Use a food cleanser for washing fresh-cut vegetable/ fruit depending on the needs. Be sure that the cleanser can be used on fresh-cuts and follow instructions given by the manufacturer for dilution and residual concentration.



Mixing

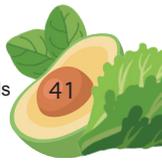
- 1 After mixing, fresh-cut vegetable/ fruit are prone to bacterial overgrowth. Store in a fridge and shall be consumed on the same day.
- 2 Mayonnaise is often used as dressing base for salads. For its management, please refer to the mayonnaise section in this Guidance Note (p.21).



Serve for consumption (packing, self serve salad bars)

Packing

- 1 After mixing, salad shall be consumed immediately. If not, store it in a clean container and keep it refrigerated and mark with its preparation time.
- 2 Label the container with time limit for consumption, store refrigerated and follow the 'first-in, first-out' rule.



Self serve salad bars

- 1 It is recommended to serve salads refrigerated. If served in TDZ, such as ambient temperature, the '2-hour/4-hour rule' shall be followed.
- 2 It is recommended that appropriate amount is provided each time to avoid contamination between self-servings.
- 3 When replenishing the salad, replace it with a freshly made one.
- 4 When replenishing sauces/ seasonings/ dressings and fresh-cuts, do not use the original container for continued use. Replace with a new one.
- 5 Discard the remaining salads and ingredients at the end of meal.



Provide appropriate amounts of salads, use designated utensils.



Replenish with new dressings every time.



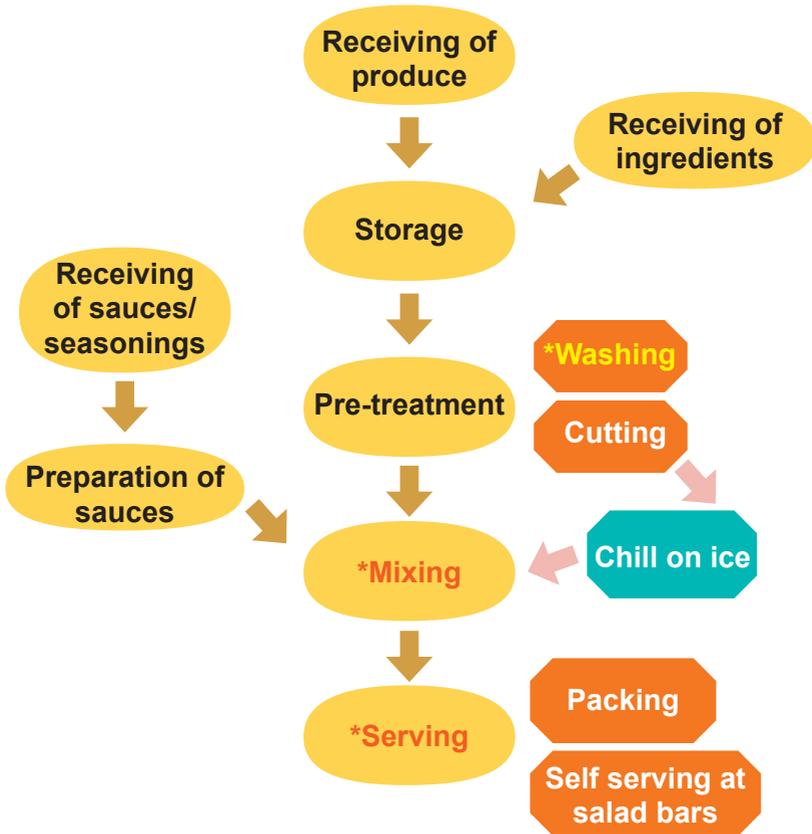
Serve salads in small quantities at a time. Use designated utensils.

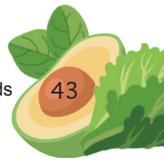
(1) Thai-style green papaya salad

**Example of
Production Process**

Note: _____

*indicates critical control point





(2) Thai-style green papaya salad

-Precautions for preparation of Thai-style green papaya salad

The preparation process of Thai-style green papaya salad is the same as that of Fruit Salad. Only different process steps are explained here. For the rest, please refer to 'Precautions for preparation of fruit salads' section in this Guidance Note (p.38).



1

Chill on ice

Chill the fresh-cuts with ice cubes made from portable water, drain and refrigerate. It is recommended to have them consumed on the same day.



2

Sauce preparation

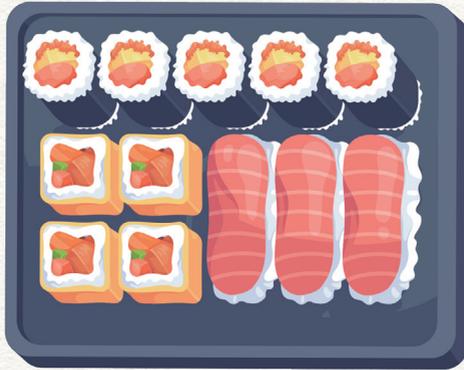
After preparation, please place the sauce in the refrigerator within 2 hours and label it with a consumption time limit. Should there be a heating process for sauce preparation, please refer to the general temperature control and cooling sections in this Guidance Note for more detail (p.5 \ p.14).



Ready-made food with both raw and cooked food



Bánh mì (Vietnamese baguette), sushi

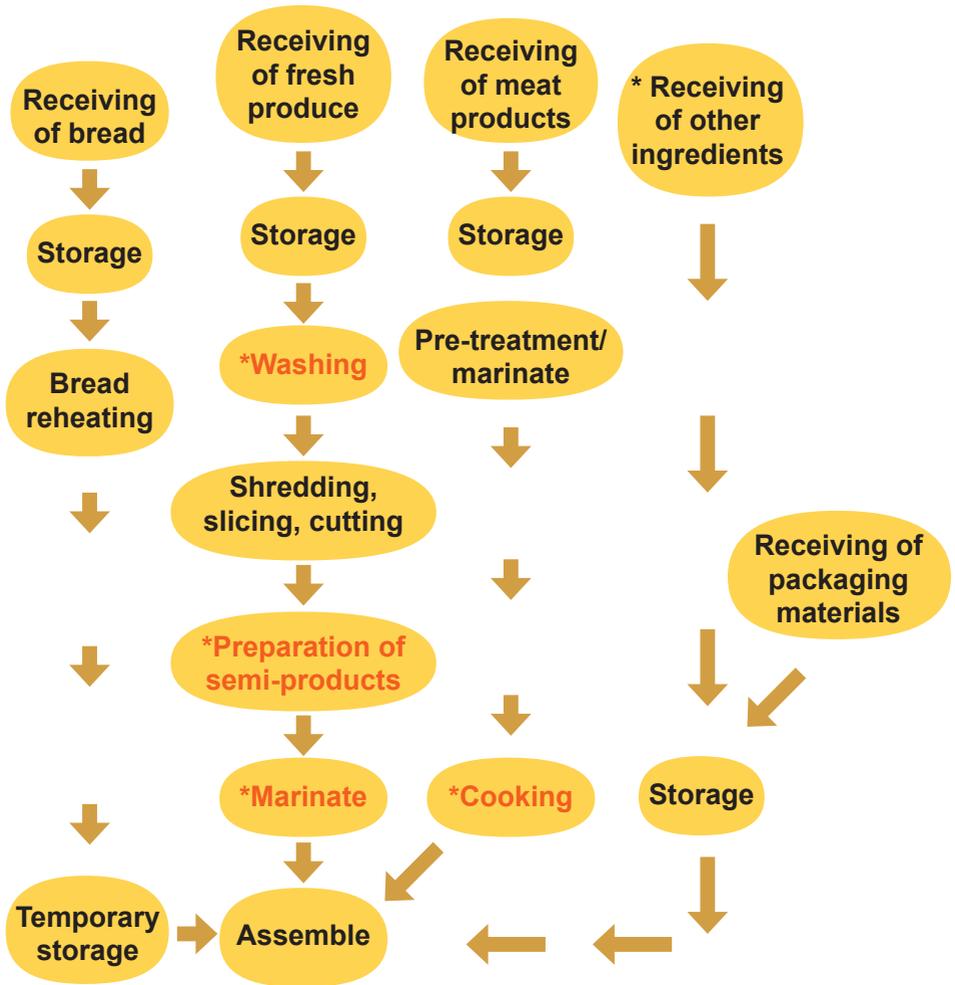




**(1) Bánh mì
(Vietnamese baguette)**
**Example of
Production Process**

Notes: _____

- 1. *indicates critical control point
- 2. Other ingredients, such as salt, sugar, vinegar, mayonnaise, hot chili sauce, nampla (fish sauce)
- 3. Fresh produce, such as carrot, green papaya, cucumber, cilantro, onion
- 4. Meat products, such as salt pork, chicken, beef, Vietnamese Cha Lua (ham)



(2) *Bánh mì (Vietnamese baguette)*

-Precautions for preparation of *Bánh mì (Vietnamese baguette)*



1 Bread reheating

Check for appearance, flavor, properties, expiration date, etc. upon receiving. There should be no mold, odor, discoloration, or damaged packaging.



2 Storage (bread/ produce/ meat products/ other ingredients/ packaging materials)

- 1 It is recommended to store produce in fridge to keep them fresh.
- 2 Since vegetables are to be eaten raw, their preparation shall be separated from those that will go through cooking process.
- 3 French bread, auxiliary raw materials, and packaging materials should be stored to avoid dust and pest contamination, and should be managed according to 'first in, first out' principle before expiry.



Store breads in cabinet to prevent contamination.



3 Bread reheating

Clean knife to slice the bread lengthwise and reheat it according to the set temperature and time.





Receiving of fresh produce

Check for appearance and freshness of fresh produce (such as carrot, green papaya, cucumber, cilantro, onion) upon receiving. For more detail, please refer to the salad section in this Guidance Note (p.38).



Washing

For detail, please refer to the salad section in this Guidance Note (p.38).



Shredding, slicing, and cutting

Be sure that there is no rusty or damage on knives and shredders. Keep chopping board clean.



Preparation of semi-products

Fresh semi-finished products such as cilantro, shredded onions, and cucumbers shall be stored in a fridge. If kept at ambient temperature, follow the '2-hour/4-hour' rule.



Store ingredients in covered containers to avoid contamination.



Marinate

Marinate the fresh cuts with salt, sugar, vinegar, etc. under refrigeration.



Receiving of meat products

Check for quality (appearance, color, no frozen crystal, etc.) and temperature upon receiving. It's recommended to purchase meat products with '3 certification marks & 1Q' marks. ('3 certification marks' stands for certified for Taiwan organic agricultural, traceable agricultural products, and agricultural standard. '1Q', QR code for traceability of agricultural and food products)



Storage of meat products

Regularly check the fridge function to avoid frost and overfilling. Should there be any malfunctioning or temperature abnormality, move the products as soon as possible.



Pre-treatment/ marinate

- 1 If thawing is needed, please refer to the general thawing section in this Guidance Note for more detail (p.13).
- 2 Keep the marinated ingredients fully covered and store in a fridge.
- 3 Store sliced Vietnamese Cha Lua (ham) in a fridge.



Cooking

Take internal temperature with a meat thermometer. Please refer to the general temperature control section in this Guidance Note for more detail (p.7).



13 Receiving of other ingredients

- 1 Receiving of other ingredients (such as salt, sugar, vinegar, mayonnaise, hot chili sauce, nampla, fish sauce, etc.) Check for appearance, flavor, properties, expiration date, etc. upon receiving. There should be no mold, odor, discoloration, or damaged packaging.
- 2 Using prepackage mayonnaise is recommended. If homemade mayonnaise is preferred, please refer to the mayonnaise section in this Guidance Note (p.21).



14 Storage of other ingredients

Please refer to the bread preparation of this section (p.46).



15 Acceptance of packaging materials

Check whether the outer packaging is intact and the interior is clean.



16 Storage of packaging material

Please refer to the bread preparation of this section (p.46)



17 Assembly of Bánh mì (Vietnamese baguette)

- 1 Store the un-used sauces in a fridge, and discard 2 days after opening. If not stored refrigerated, use up on the same day.
- 2 The Bánh mì should be consumed by the indicated time limit or within 4 hours after its preparation. Follow the '2-hour/4-hour' rule.



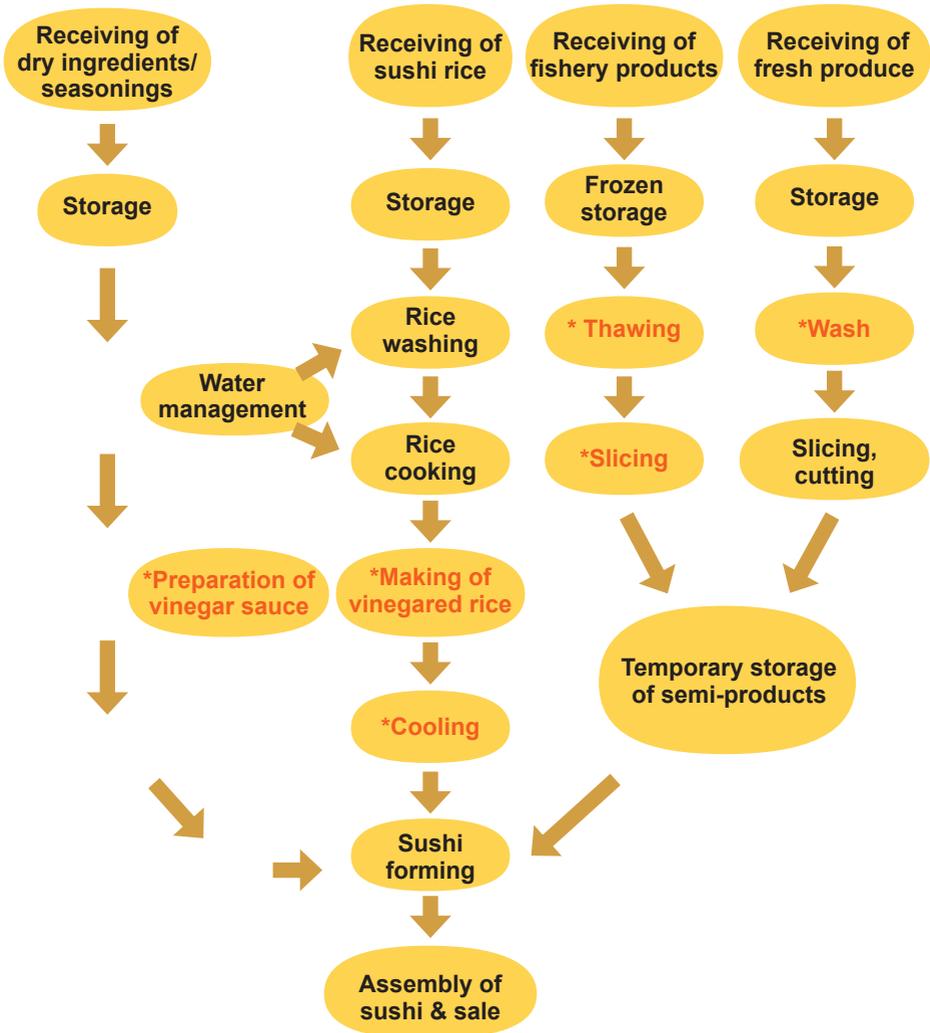
Wash hands and wear gloves before touching food.

(1) Sushi containing both raw fish and cucumber

Example of Production Process

Notes: _____

- 1: *indicates critical control point
2. Dry ingredients and seasonings, such as nori (sushi sheet), salt, sugar, vinegar
3. Fresh produce, such as cucumber, carrot, and avocado
4. Fishery products, such as raw tuna, raw salmon





(2) Sushi containing both raw fish and cucumber

-Precautions for preparation of sushi containing both raw fish and cucumber

1

Receiving of dry ingredients/ seasonings

- 1 Check for appearance, flavor, properties, expiration date, etc. upon receiving. There should be no mold, odor, discoloration, or damaged packaging.
- 2 It is recommended to regularly request relevant inspection certificates from suppliers to confirm safety of raw materials.

2

Storage of dry ingredients/ seasonings

Unpacked raw materials must be properly sealed and stored to avoid exposure to dust and vector. Mark the opening and expiry dates.

3

Receiving of sushi rice

Check for expiry date. There should be no odor or damaged packaging.

4

Storage of sushi rice

Cold storage is recommended for both unpacked and or packaged sushi rice to ensure quality and reduce hatching of rice weevil eggs.

5

Water management

Use portable water for washing everything that comes direct contact with food.

6

Rice washing

Use running portable water to minimize foreign matters. Drain after washing.



Rice cooking

Add appropriate amount of portable water to the rice and cook. Pay attention to the cooking temperature and time to ensure it is cooked.



Preparation of vinegar sauce

- 1 Mix vinegar, sugar, salt and other seasoning ingredients and heat (to about 80°C) till completely dissolved and cool.
- 2 Recommended ratio for vinegar, sugar, and salt is 3:2:1. You can adjust the ratio as please. Use enough amount of vinegar to acidify the rice.



Rice vinegar
Ingredient:
OO、OO、XX
Total acidity:4.0%

Recommended acidity
of vinegar itself is at
least 4.0 %.



Making of vinegared rice

- 1 Spread out cooked rice in a container and add the vinegar sauce in small amounts at a time to mix evenly.
- 2 Since wooden material is prone to mold, make sure it is clean before use, wash and keep in a dry area afterward.
- 3 It is recommended to keep pH measurement record showing that values of pH are below 4.1. The measurement can be taken with pH test strips or pH meters by business operators or by outsourcing. Be sure that pH value of the vinegared rice is less than 4.1. If the vinegar rice recipe remains un-changed, the recipe can also be an alternative management method of confirming the acidity or pH value of the vinegared rice. (Record the ratio of rice to vinegar and keep a record during the test phase of making vinegared rice. Subsequent management shall be carried out according to this ratio.



Make sure pH of the vinegared
rice is ≤ 4.1



Cooling

- 1 Spread out the vinegared rice in a container evenly to speed up heat dissipation rate. A large container is recommended for easy mixing and heat dissipation.
- 2 If vinegared rice is held under temperature danger zone after cooling, the '2-hour/4-hour' rule shall be followed.



Receiving, thawing and slicing of fishery products

For management, please refer to the sashimi preparation of this Guidance Note (p.32).



Receiving, storage, washing and slicing/ cutting of fresh produce

For management, please refer to the Bánh mì (Vietnamese baguette) preparation of this Guidance Note (p.46 \ p.47).



Temporary storage of semi-products

Temporary storage of semi-products including fresh-cut produce and fishery products shall follow the '2-hour/4-hour rule'.

 14

Sushi forming

Use a sushi bamboo mat and cover it with saran wrap. It is recommended to change the mat every 4 hours in a continuous process.



Wear gloves while preparing food.



It is recommended to have assembled sushi wrapped with saran wrap.

 15

Assembly and sale

- 1 Label the assembled sushi with a consumption time limit. Store sushi with raw fish refrigerated. If held under temperature danger zone, such as ambient temperature, the '2-hour/4-hour' rule shall be followed.
- 2 Unused fishery products and vinegared rice shall be discarded if not used up on the same day.



If sushi is held under temperature danger zone, such as ambient temperature, the '2-hour/4-hour' rule shall be followed.

Prepared food

Chinese-style boxed meals,
chilled noodles

The complex composition of ingredients and various cooking methods of prepared foods are accompanied by different food safety risks.

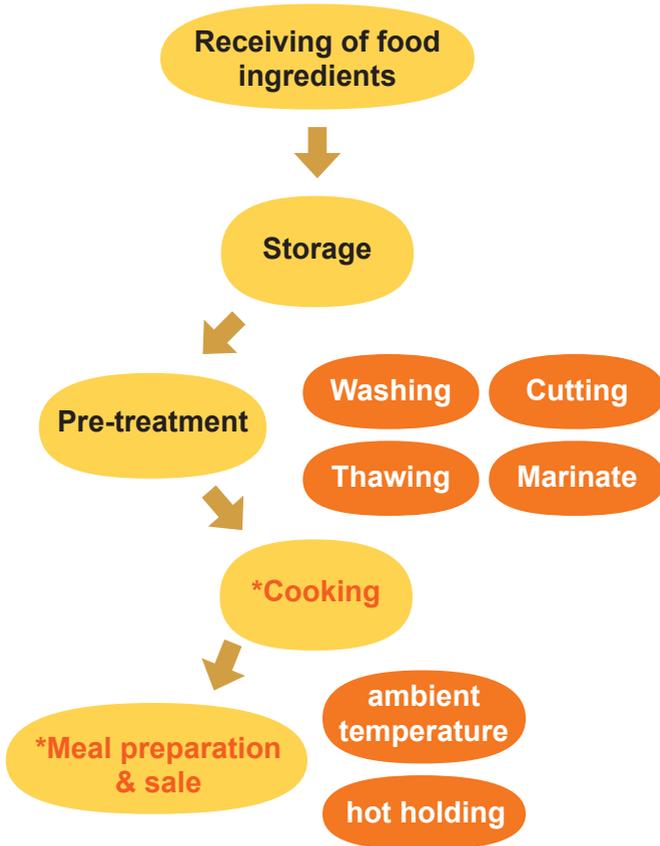


(1) *Boxed meals*

Example of preparation process

Note: _____

*indicates critical control point





(2) Boxed meals -Precautions for preparation of boxed meals



1 Receiving of food materials

- 1 Check for appearance and freshness upon receiving of fresh produce. For management, please refer to the salad preparation in this Guidance Note (p.38).
- 2 For receiving of meat products, please refer to that of the Bánh mì (Vietnamese baguette) preparation in this Guidance Note (p.48).



It's recommended to purchase food materials with '3 labels & 1 Q' marks.

Source of figure: Ministry of Agriculture.



2 Storage

- 1 To keep their freshness, store fresh produce chilled.
- 2 Regularly check the fridge function to avoid frost and overfilling. Should there be any malfunctioning or temperature abnormality, move the products as soon as possible.



3 Pre-treatment (washing/ cutting/ thawing/ marinating)

Washing

Use running tap water for wash. Leaves of leafy green should be separated before washing. Surface of fruits and tubing/ roots can be cleaned with a soft brush.



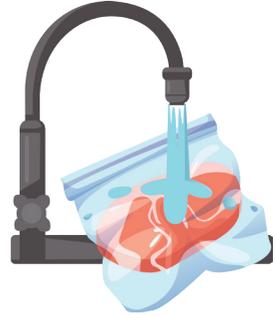
Wash with running tap water in separate tanks.

Cutting

Color coded chopping boards and knives for raw or cooked food and do not mix.

Thawing

There are three safe ways to thaw food: in the refrigerator, in cold running water, and in the microwave. Thawing under ambient temperature is not recommended. Please refer to the general thawing section in this Guidance Note for more detail (p.13).



Thawing under cold running water.

Marinating

Keep the marinated ingredients fully covered and store in a fridge. Do not reuse marinate sauce.



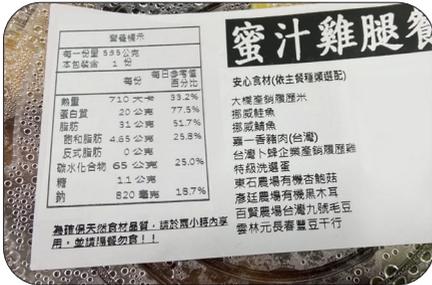
Cooking

The ingredients are fully heated and take internal temperature with a thermometer. Please refer to the general temperature control section in this Guidance Note for more detail (p.7)



Sale of the boxed meal

Label the assembled boxed meal with an time limit for consumption. If held under ambient temperature, and not consumed or sold within 4 hours, follow the '2-hour/4-hour' rule. For more detail, please refer to the general management section in this Guidance Note (p.16).



The boxed meal is labeled with consumption time limit information. Please consume within 2 hours. Do not eat the meal for next meal.



Designated utensils for each food item is recommended.



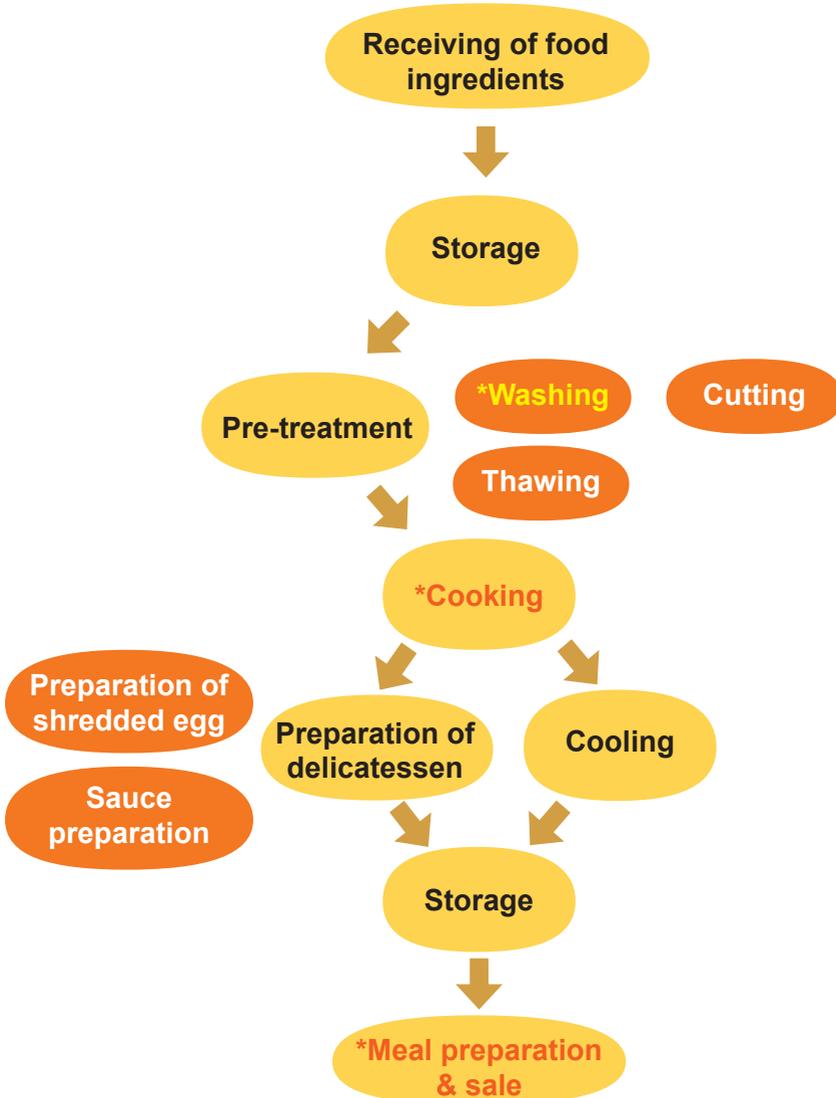
Pay attention to hot-holding temperature. It should be set at 60°C or higher.

(1) Chilled noodles

Example of preparation process

Note: _____

*indicates critical control point





(2) Chilled noodles -Precautions for preparation of Chilled noodles



Receiving

- 1 It is recommended to store wet noodles in a fridge.
- 2 Check for expiry date upon receiving.
- 3 For receiving of other ingredients, please refer to the boxed meal section in this Guidance Note for more detail (p.57).



Storage

Please refer to the boxed meal section in this Guidance Note for more detail (p.57). Once open, store peanut butter and sesame in a fridge and use up as soon as possible.



Pre-treatment (washing/ cutting/ thawing)

Please refer to the salad section in this Guidance Note for more detail (p.39).

For thawing, please refer to the boxed meal section in this Guidance Note for more detail (p.57).



Cooking

When cooking noodles, it is recommended to keep the water boiling for a while before removing so that the noodles are fully heated. Cool quickly.



Preparation of delicatessen

Color coded chopping boards and knives for delicatessen (such as shredded egg and shredded chicken) from those requiring cooking and do not mix. And, store them separately.



Sauce preparation

- 1 Use cooled portable water for making adjustment of sauce.
- 2 Store sauce in a clean container in a fridge.
- 3 Once open, store sauce in a fridge and use up as soon as possible.



Cooling

Use portable water with ice to cool down cooked noodles. Please refer to the general cooling management in this Guidance Note for more detail (p.14).



Storage

Store chilled noodles or processed cucumber shreds, egg shreds and other ingredients in a fridge separately from ingredients that need to be cooked.



Assembly and sale

- 1 Plan and make batches according to your preparation capacity to avoid exposure of food at ambient temperature for too long.
- 2 Label the chilled noodles with a consumption time limit and store refrigerated.



The chilled noodles shall be packed properly and stored in a refrigerator.

Frozen dessert

shaved ice with toppings,
self-serve milk tea in food service area

Should cleaning and sanitation of equipment and personnel not properly conducted, foodborne illness can easily arise with consumption of frozen desserts. Toppings for dessert are TCS foods. Improper storage and temperature control can easily cause harm.

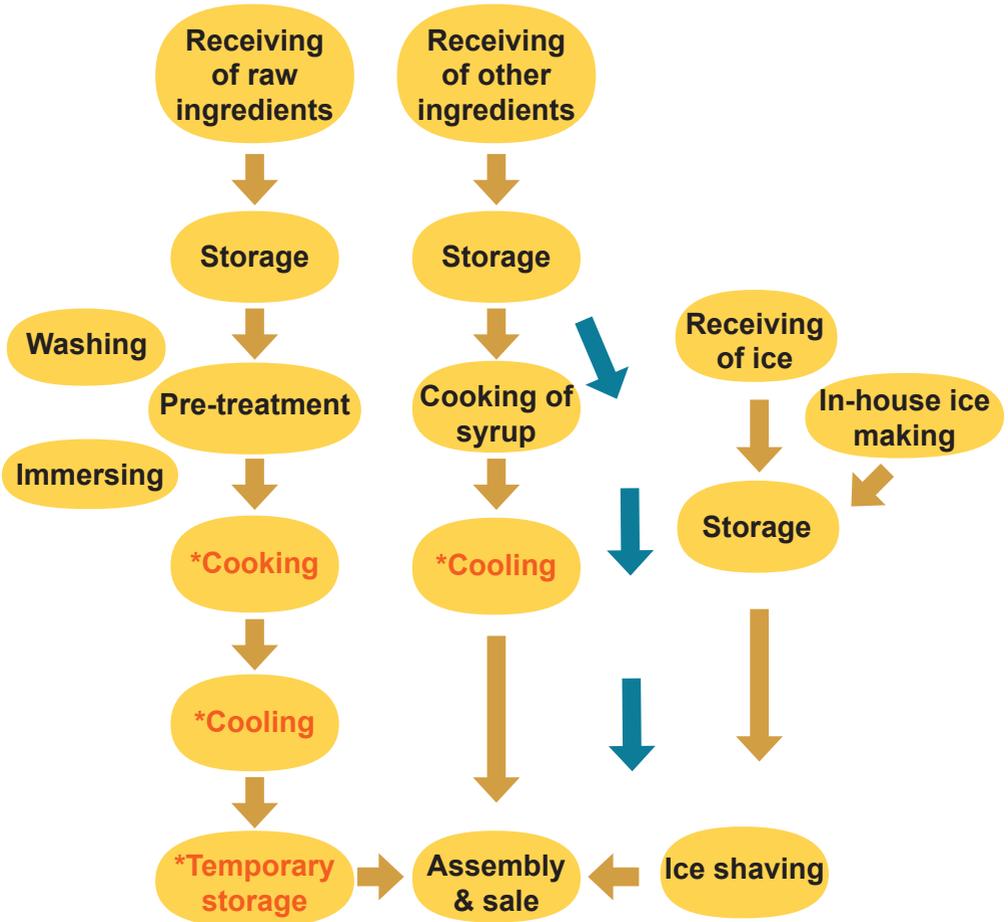


(1) Shaved ice with toppings

Example of preparation process

Notes: _____

1. * indicates critical control point
2. Raw ingredients that needs to be cooked, such as azuki beans, mung beans, tapioca balls
3. Other ingredients, such as sugar, syrup, etc.





(2) Shaved ice with toppings

-Precautions for preparation of Shaved ice with toppings



Receiving of all ingredients

- 1 Check for integrity of and cleanness of packages of ingredients, such as ice cubes, and syrup.
- 2 Be sure that the purchased ice is made of portable water.
- 3 For fruit management, please refer to the salad preparation in this Guidance Note for more detail (p.38).
- 4 If commercially available ingredients such as canned azuki beans and canned mung beans are used, purchase appropriate quantities based on production scale to avoid storing for too long after opening.



Edible ice bricks not properly covered



Edible ice bricks are properly covered and stored.



Storage of all ingredients

- 1 Store according to the properties of ingredients.
- 2 Store washed and not-wash ingredients separately.
- 3 Since they are prone to bacterial overgrowth, it is recommended to have fruits cut when needed and use up on the same day.



Pre-treatment (washing/ immersing)

Change the water regularly when soaking produce and pay attention to whether there is any odor during the process. If a long soaking time is needed, it is recommended to do the soak in a refrigerator.



Cooking (ingredients and syrup)

- 1 Take internal temperature with a thermometer. Please refer to the general temperature management section in this Guidance Note for more detail (p.5).
- 2 It is recommended that the amounts of cooking batches are based on estimated daily sales volume to avoid storing ingredients for too long.



Cooling (cooked ingredients and syrup)

Pay attention to the cooling rate. When cooling cooked potentially hazardous food, it must be cooled from 60°C to 21°C in two hours or less, then cooled further from 21°C to 4°C in four hours or less. Please refer to the general cooling section in this Guidance Note for more detail (p.14).



Temporary storage

- 1 Store the cooked ingredients in covered containers and labelled with consumption time limit.
- 2 Store the cooked ingredients in fridges. It is recommended to use them up in 2 days. If kept under ambient temperature, follow the '2-hour/ 4-hour' rule.



Store the cooked ingredients in fridges.



In-house ice making

- 1 Clean the ice maker regularly and keep the record.
- 2 Change water filter of the ice maker regularly and keep the record.
- 3 Place the ice tools in a clean container, not inside the ice maker.



Keep interior of the ice maker clean



Utensils are littered inside the ice maker.



Ice shaving

Wear gloves if hands will come into contact with ice to avoid contamination.





Assembly and sale

Keep the toppings below 4°C and check temperature regularly. If held in temperature danger zone, follow the '2-hour/ 4-hour rule'.



Toppings are stored in a fridge for selling.



Designated utensils are used for each toppings.



If toppings are kept under ambient temperature, follow the '2-hour/ 4-hour' rule.



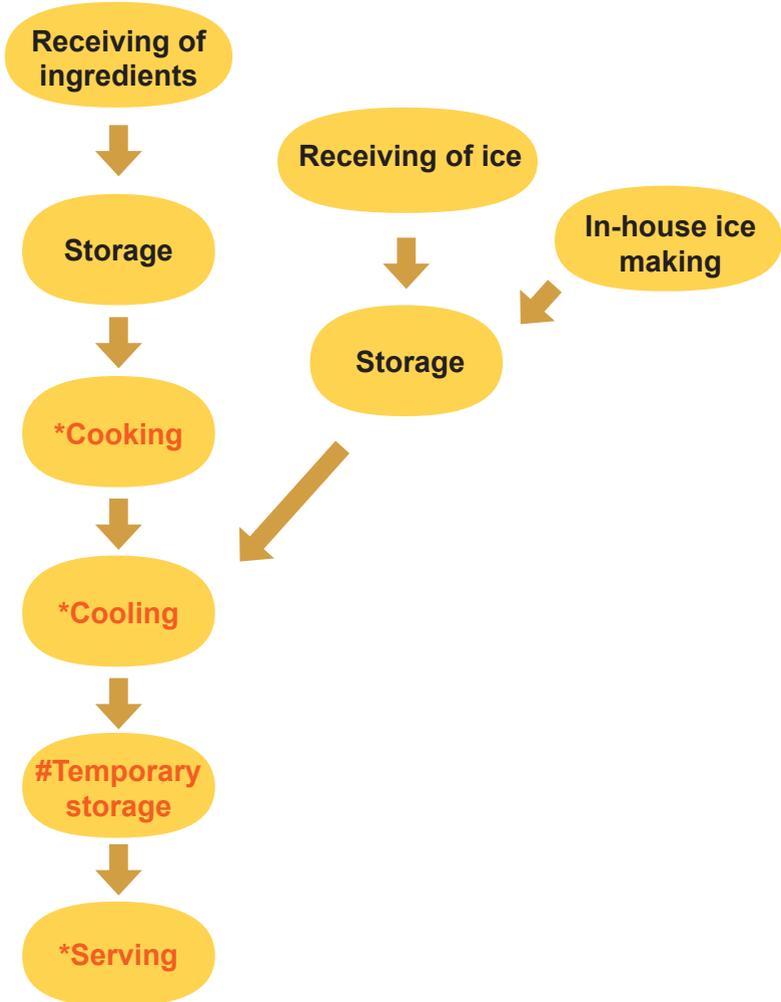
(1) Self-serve milk tea in food service area

Example of preparation process

Notes: _____

1. *indicates critical control point

2. #depends on process needs



(2) Self-serve milk tea in food service area

-Precautions for preparation of Self-serve milk tea in food service area



1 Receiving of ingredients (tea powder for commercial use, sugar, ice cubes)

- 1 Check for cleanness of packages and expiry dates upon receiving powdered ingredient, especially integrity of packages.
- 2 Make sure that the outsourced ice is made of portable water.



2 Storage (tea powder for commercial use, sugar, ice cubes)

- 1 Store the ingredients according to instructions given.
- 2 Seal the opened packages after use, especially powdered ingredients to avoid agglomeration and deterioration.



3 Cooking

- 1 Make sure that there is no abnormality in quality, no odor or lumps, and the ingredients have not expired.
- 2 Use boiling hot water for tea brewing and stir.



4 Cooling

- 1 Wear gloves if hands will come into contact with ice to avoid contamination.
- 2 Pay attention to cooling rate. Please refer to the general cooling section in this Guidance Note for more detail (p.14).



Temporary storage (depending on process)

- 1 If temporary storage of brewed tea is called for, store it refrigerated.
- 2 The brewed tea should be use up on the same day to keep them fresh. Discard after the day.



In-house ice making

Please refer to the shaved ice section in this Guidance Note (p.67).



Serving

- 1 Make sure containers of drink dispensers are clean before filling up, especially the outlet.



Keep the drink dispenser clean.



Keep the switch of drink dispenser clean.



Keep the outlet of drink dispenser clean.

- 2 Check temperature of drink dispenser regularly during service and clean both the switch and the outlet regularly.



Always make sure the dispenser is clean during operation.



Disassemble and clean the interior of the dispenser after operation.

Guidance Note for Foodservice Industry: Food Poisoning Prevention and Control for High-Risk Foods

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Taiwan Food and Drug Administration

Bldg. F, No.109, Ln. 130, Sec. 1, Academia Rd., Nangang
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