

# Food skills

## Fermenting

### Teaching resource

The method of fermenting vegetables like cabbage and beetroot was traditionally used as a way of preserving seasonal produce so it could be eaten throughout the year.

The process involves putting the vegetables into an environment that stops unwanted bacteria from growing while allowing the beneficial bacteria to grow. This is most commonly achieved by adding salt.

The beneficial bacteria (*Lactobacillus*) produces lactic acid which further prevents the food from

spoiling and gives the fermented vegetables their distinctive sour flavour. These beneficial bacteria are naturally present on vegetables so don't need to be added.

### How much salt to use:

It is important to use the correct amount of salt. The amount of salt is 2.5% of the total weight of vegetables and water in the fermenting vessel (i.e. glass jar). For larger pieces or whole vegetables you still need to cover them with brine but the process is a bit different.



### For larger pieces or whole vegetables:

- Place vegetables into fermenting vessel and cover with water
- Weigh total amount including the water
- Multiply this total by 0.025 to get the amount (grams) of salt to add
- Example
  - 800g carrot sticks + 300ml water = 1.1kg
  - 1.1kg x 0.025 = 27.5g salt (round to 30g)
- Pour the water into a different bowl and mix with the salt to dissolve to create a brine
- Pour this brine back over the vegetables in the fermenting vessel and push down so the vegetables are all covered
- Larger vegetables that ferment well include;
  - Carrot sticks
  - Cucumbers sticks or pieces
  - Chillies
  - Sliced radish

### For finely sliced or leafy vegetables:

- Weigh the vegetables you plan to ferment
- Multiply the total weight by 0.025 which will give you the amount (grams) of salt to add
- Example;
  - 800g cabbage x 0.025 = 20g salt
- Massage the salt into the vegetables which will draw the liquid out to create its own brine
- Pack the vegetables tightly into the fermenting vessel and push down so the brine covers all of the vegetables
- Vegetables that ferment well include;
  - Shredded cabbage
  - Finely sliced carrots, turnips or daikon
  - Grated horseradish and beetroot



# Kimchi

Makes 1.5kg

## Ingredients

*1 Chinese cabbage,  
sliced into 2 cm pieces  
(wong bok or napa cabbage)*

*¼ cup salt*

*water to cover*

*1 tablespoon sugar*

*4 cloves garlic, peeled  
and crushed*

*2 tablespoons crushed  
ginger*

*1-5 tablespoons*

*Korean chilli powder*

*2 tablespoons nori flakes*

*2 tablespoons fish sauce*

*½ Daikon radish, sliced  
into matchsticks*

*4 spring onions, sliced*

## Method

1. Place cabbage in a large bowl, sprinkle with salt and gently massage with your hands. Set aside to allow the cabbage to soften.
3. Press the cabbage down into the bowl and cover with water. Allow to stand for 30 minutes to 2 hours.
5. Rinse the cabbage under cold running water and drain thoroughly, squeezing out the excess liquid.
6. Make a paste out of the sugar, garlic, ginger, chilli flakes, nori flakes and fish sauce.
7. Mix together the drained cabbage, paste, daikon and spring onions so all the cabbage is evenly coated.
8. Press the mixture into a clean 4 litre plastic container until there are no gaps and the liquid covers the cabbage.
9. Using a piece of plastic (e.g. ice cream container lid), place on top of the cabbage. Weigh the plastic down with something heavy.
11. Place the lid on the container loosely so air can escape during the fermenting process. Place in a cool dark place.
13. It will ferment and bubble for a week or two, press down gently every now and again to expel the air bubbles.
14. Once it has stopped bubbling place in smaller containers with airtight lids and store in the refrigerator. It will keep for a couple of months.

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