# **Appendix 3: Food preparation instructions**

### **General Instructions**

## Boiling water

Except where other instructions are provided, 'boiling water' means that the food is to be boiled in 'unsalted' tap water.

### Crush

When the preparation instruction states `crush', then the following procedure is to be followed:

- Place food into a plastic bag.
- With a rolling pin crush food so that the food pieces are no larger than half a centimetre in any one direction.

## Chop

Except where other instructions are provided, 'chop' means that the food is to be chopped with a stainless steel knife into pieces no larger than 1 cubic centimetre. In most cases, it should be possible to chop into pieces much smaller than this, which is desirable.

### Washing

Foods are to be washed in accordance with local practice and the food concerned.

#### Mix

When the preparation instruction states 'mix' or 'mix thoroughly', then the following procedure is to be followed:

- (1) For dry foods (such as bran) or semi-dry foods (such as cooked chopped meat):
  - Form the food into a cone or pile.
  - Flatten the cone slightly and separate into four equal segments.
  - Pull the segments apart so that four separate piles are formed.
  - Combine diagonally opposite piles and mix together thoroughly.
  - This process should be repeated until thorough mixing of the group of purchases has been achieved.

- (2) For foods containing juice such as tomatoes and oranges:
  - If possible, the food being prepared should be chopped in a large glass or stainless steel bowl so that all the juice is collected.
  - Mixing of the chopped pieces is then done in the bowl using gloved hands or stainless steel cutlery and should be mixed as thoroughly as possible.
  - For the purposes of the ATDS, any juice must be regarded as an integral part of the food being prepared for analysis. A proportional amount of juice and seeds must therefore be included in the sample containers.
- (3) For liquids such as milk and soft drink:
  - Liquids are to be measured into a large receptacle such as bowl or jug made of stainless steel or Pyrex. Plastic containers are to be avoided.
  - The total volume added to the jug or bowl should be thoroughly stirred with a stainless steel utensil before being poured into the sample containers.

## Cooking, Frying, Grilling

In the case of samples of meat, it is imperative that typical cooking behaviour be followed.

For example, meat that is fried will exude fat. As the fried food is removed from the fry pan some fat will remain in the fry pan and some will remain on the cooked meat product. The fat remaining in the fry pan is to be discarded and only the fat on the cooked food is to be included for analysis.

## Microwaving

The time required for microwaving will depend upon the power of the microwave. Broccoli, beans, peas and spinach are required to be cooked by microwave. The following procedure is proposed:

- 1. Place 900 grams of broccoli, peas, beans or spinach into a glass/ pyrex cooking dish that has a fitted lid and add one third of a cup of water.
- Place in 650-Watt microwave on high power setting for 7 minutes. Higher power
  microwaves should have the setting adjusted to medium or the time of cooking
  reduced as necessary. It may also be necessary to stir the vegetables during cooking
  to ensure even heat distribution.
- 3. Remove from microwave and allow to cool before handling.

### Gloves

Gloves are to be worn whenever the food being prepared could come into contact with hands. The gloves to be used are Ansell rubber gloves or latex gloves (subject to allergy concerns) not containing lubricant.

## Equipment

- Stainless steel knives
- Wooden cutting board (good quality, smooth, crack free)
- Stainless steel or teflon coated utensils (i.e. fry pans, spatulas, etc.).
- Glass/Pyrex equipment can also be used.
- For the purposes of mixing liquids, a large stainless steel or Pyrex receptacle such as a jug or bowl is to be used.
- Plastic bags for enclosing sample containers.

### Washing of Equipment

The analytical laboratory is to determine the detergent to be used in the washing of food preparation equipment. The detergent chosen should not interfere with the analyses for iodine, selenium, molybdenum, nickel, chromium or nitrites and nitrates.

## Handling Purchases in the Food Preparation Facility

Each purchase as provided by the purchasing officer should arrive in separate packaging. Unprocessed, raw foods such as steak and chicken fillets will be in separate packages labelled with the name of the food and the date of purchase. Manufactured, packaged foods will be labelled clearly with the date of purchase. Purchases from each jurisdiction will be in lots of six.

# Keeping Samples Separate

Care must be taken to ensure no mixing of any kind between the three groups of samples. This means careful cleaning of utensils between the three preparation procedures. To ensure accuracy and to keep food samples separate, the procedure for preparing one sample in readiness for analysis should be completed and all utensils cleaned thoroughly before the preparation of the next sample is started.

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Table A3.1: Food preparation instructions

Food	Sampled in	Preparation
Almonds, raw	ACT, NSW, VIC	Chop almonds and mix together thoroughly.
Apple, unpeeled, varieties commonly available	NT, QLD, SA, TAS, VIC	Core and chop apples and mix the cubes together thoroughly.
Avocado, varieties commonly available	ACT, NSW, TAS, VIC, WA	Slice avocadoes in half, remove stone, and scoop out flesh with a stainless steel spoon. Chop avocado flesh and mix the cubes together thoroughly.
Bacon	NSW, NT, SA	Remove bacon rind. Chop and mix together thoroughly. Fry the bacon until tender.
Baked beans, in tomato sauce, canned	SA, QLD, TAS	Include sauce. Mix together thoroughly.
Bananas, varieties commonly available	ACT, VIC, WA	Remove skin, chop bananas and mix together thoroughly.
Beans, green, raw	ACT, NSW, TAS, VIC, WA	Top and tail beans and remove 'string' if necessary. Microwave until cooked. Chop beans and mix together.
Beef steak, rib/ribeye/ sirloin	ACT, NSW, NT, QLD, SA	Grill the three purchases of beef steak. When cooked, trim off excess fat. Discard the fat in the grill tray. Chop the cooked meat as finely as possible.
Beer, 3.5% alcohol	NSW, NT, QLD	Mix in a large stainless steel or glass bowl.
Beetroot, canned	QLD, TAS, VIC	Drain the contents of each of the three cans, chop and mix together.
Biscuit, plain, savoury	QLD, SA, WA	Mix the crushed biscuits thoroughly in a large bowl.
Biscuit, plain, sweet	NSW, QLD, VIC	Mix the crushed biscuits thoroughly in a large bowl.
Bread, multigrain	ACT, NSW, SA, WA, QLD	Include one end crust from each loaf. Chop and mix the bread.
Bread, white	ACT, NSW, NT, QLD, SA	Include one end crust from each loaf. Chop and mix the bread.
Bread, wholemeal	ACT, QLD, SA, TAS, WA	Include one end crust from each loaf. Chop and mix the bread.
Breakfast cereal, single grain	NSW, NT, WA	Crush and mix together.
Breakfast cereal, mixed grains	QLD, SA, TAS	Crush and mix together.

Food	Sampled in	Preparation
Broccoli, fresh	ACT, NSW, NT, SA, WA	Remove stalks and cut into flowerets. Mix thoroughly. Microwave until cooked. Chop and mix thoroughly.
Butter, regular	QLD, SA, WA	Mix thoroughly.
Cabbage, varieties commonly available	NT, QLD, TAS, VIC, WA	Remove outer leaves and discard. Slice cabbage thinly. Mix thoroughly, boil cabbage in unsalted water until cooked.
Cake, chocolate, iced	QLD, SA, WA	Crumb and mix together.
Carrots	NSW, NT, QLD, TAS, WA	Top and tail the carrots. If the carrots are unblemished, rinse only, if not, peel and remove blemishes. Slice carrots thinly. Boil carrot slices in unsalted water.
Celery, raw	ACT, NT, QLD, SA, VIC	Separate celery stalks and trim of leaves and base of stalk. Chop and mix celery stalks.
Cheese, cheddar, full fat	NT, QLD, SA, TAS, WA	Chop into small cubes and mix.
Cheese, cottage	QLD, VIC, WA	Chop and mix in a large glass or stainless steel bowl.
Cheese, processed, cheddar type	NSW, WA, VIC	Chop and mix in a large glass or stainless steel bowl.
Chicken, breast, fillet, skinless	NSW, TAS, WA	Grill the three purchases of chicken breast. Discard the fat in the grill tray. Chop the cooked chicken as finely as possible. Mix the cubes together thoroughly.
Chocolate, milk	ACT, NSW, VIC	Chop and mix together thoroughly.
Coconut, desiccated	NSW, WA, VIC	Mix together thoroughly.
Cream, pure (not thickened)	NSW, SA VIC	Shake and invert containers to ensure thorough mixing of contents. Mix together in large stainless steel or glass bowl.
Cucumber, raw, varieties commonly available	ACT, NSW, TAS, VIC, WA	For each purchase, top and tail cucumbers, chop and mix.
Dairy Blend (not reduced fat)	NT, QLD, NSW	Mix thoroughly.
Eggs, chicken	ACT, NSW, NT, QLD, SA	Hard boil the 18 eggs, remove shells. Chop and mix thoroughly.
Fish, fillets, types commonly available	NSW, NT, QLD, SA, TAS	Grill until cooked through. Remove bones. Chop and mix the pieces of fish.
Fish, battered, takeaway	ACT, NT, QLD, VIC, WA	Chop and mix thoroughly.

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Food	Sampled in	Preparation
Fish, frozen crumbed, oven bake	TAS, VIC, WA	Bake each purchase of crumbed fish according to the instructions on the packaging. Chop and mix thoroughly.
Grapes, varieties commonly available	NSW, NT, SA, TAS, VIC	Remove stalks from each sample of grapes. Chop grapes, remove seeds and mix together thoroughly in a large glass or stainless steel bowl.
Ham, leg	QLD, SA, VIC	Chop and mix together thoroughly.
Hamburger, with or without cheese	NT, QLD, TAS, VIC, WA	Chop and mix hamburgers together thoroughly.
Ice cream, full fat, vanilla	NSW, VIC, WA	Mix together thoroughly.
Infant cereal, mixed	QLD, VIC, WA	Mix the contents of three packets of infant cereal. Prepare the cereal in accordance with the instructions in the label.
Infant dessert, dairy based	NSW, ACT, VIC	Combine each purchase into a large glass or stainless steel bowl and mix.
Infant dessert, fruit	SA, NSW, TAS	Combine 300 grams from each purchase into a large glass or stainless steel bowl. Mix.
Infant dinner, containing meat, chicken or fish	QLD, VIC, WA	Combine 300 grams from each purchase into a large glass or stainless steel bowl. Mix.
Infant formula, powder, cow's milk based	NT, QLD, SA	Make up 360 ml of the formula using tap water according to manufacturer's directions in a stainless steel or Pyrex bowl. Mix together.
Juice, orange	ACT, NSW, NT, SA, WA	Shake and invert containers to ensure thorough mixing.
Lamb chops, loin	ACT, NSW, NT, SA, VIC	Grill the three purchases of lamb chops.  When cooked, cut all the meat away from the bone and trim off excess fat. Discard the fat in the grill tray. Chop the cooked meat as finely as possible.
Lettuce, raw, varieties commonly available	ACT, NT, QLD, SA, VIC	Remove any shrivelled outer leaves and roots, if any. Weigh 300 grams from each purchase of washed lettuce, including some outer and some inner leaves (i.e. 900 grams in total). Some purchases may consist of more than one lettuce. Ensure that for such a purchase, the 300 grams is made up of approximately equal proportions of the lettuces in the purchase. Chop and mix.

Food	Sampled in	Preparation
Liver, lamb	ACT, NSW, TAS, VIC, WA	Weigh 300 grams of lamb liver from each purchase (i.e. 900 grams in total). Trim and slice the liver. Grill slices of liver until cooked. Chop and mix cooked liver.
Mango, varieties commonly available	NSW, NT, QLD	For each purchase, slice mangoes in half, remove stone, and scoop out flesh with a stainless steel spoon. For each purchase, chop mango flesh and mix the cubes together thoroughly. Mix the cubes together thoroughly.
Margarine or margarine spread, polyunsaturated	QLD, SA, WA	Mix thoroughly.
Milk, full fat, unfortified	ACT, NSW, QLD, TAS, VIC	Mix together in large stainless steel or glass bowl.
Milk, modified, low fat, unfortified	NSW, NT, SA, TAS, WA	Mix together in large stainless steel or glass bowl.
Mushrooms, raw, button or field	ACT, NT, QLD, SA, VIC	Wash the mushrooms and wipe dry with paper towel. Chop and mix.
Nori sheets, dried	SA, VIC, WA	Crush and mix thoroughly.
Oats, rolled	QLD, SA, WA	Mix together thoroughly. Add 1800 mls water per 100 g oats. Simmer until cooked. Cool.
Oil, canola	QLD, SA, WA	Mix together in large stainless steel or glass bowl.
Olives, green or black, pitted	ACT, NSW, VIC	Drain the olives. Discard the liquid. Chop and mix thoroughly in a large bowl.
Onions, varieties commonly available	NT, QLD, TAS, VIC, WA	Peel, chop and mix thoroughly in a large bowl. Analysed raw.
Orange, varieties commonly available	ACT, NSW, SA, TAS, WA	Peel and discard peel. Using gloved hands, break the oranges into segments into a large bowl (glass or stainless steel). Take care to include all juice. Mix the segments thoroughly in the bowl using gloved hands.
Parsley, fresh, flat or curly varieties	ACT, NSW, TAS, VIC, WA	Chop and mix thoroughly in a large bowl.
Pasta, white	NSW, NT, SA	Cook the pasta according to the instructions on the packaging. Chop and mix thoroughly in a large bowl.
Peach, canned in natural juice	NSW, QLD, TAS	Include a representative proportion of juice. Chop and mix together.

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Food	Sampled in	Preparation
Peach, fresh, varieties commonly available	NT, QLD, SA, TAS, VIC	Do not peel peaches. Split peaches, remove stone and chop peaches. Mix the cubes together thoroughly.
Peanut butter	ACT, VIC, WA	Mix thoroughly.
Peas, frozen	ACT, NSW, TAS, VIC, WA	Microwave until cooked.
Pie, meat, individual size	NSW, SA, VIC	If uncooked, bake according to instructions and cool. Chop and mix together thoroughly.
Pineapples	ACT, NSW, TAS, VIC, WA	Remove leaves and peel. Chop flesh.
Pizza, meat & vegetable-containing	QLD, TAS, VIC	Chop and mix thoroughly.
Pork Chops	QLD, SA, WA	Grill the three purchases of pork chops.  When cooked, cut all the meat away from the bone and trim off excess fat. Discard the fat in the grill tray. Chop the cooked meat as finely as possible.
Potato crisps, plain or flavoured	NSW, QLD, VIC	Mix the crushed potato chips/crisps thoroughly in a large bowl.
Potatoes, varieties commonly available	ACT, NSW, NT, QLD, SA	Wash thoroughly, peel and halve potatoes. Cook together in unsalted water. When cooked, drain potatoes, chop finely and mix.
Prawns, cooked, not frozen	ACT, NSW, NT, QLD, SA	Remove shell (if necessary) and devein prawns. Chop and mix together.
Pumpkin, varieties commonly available	ACT, QLD, SA, TAS, WA	Wash thoroughly, chop coarsely and leave unpeeled. Boil pumpkin in unsalted water. When cooked, remove the skin and mix.
Rice, white	ACT, NSW, SA	Measure 150 grams of rice from each sample. Cook together in unsalted boiling water. Drain.
Salmon, canned in brine	QLD, SA, WA	Drain the contents of each of the three cans. Chop and mix together.
Salt, table, non-iodised	QLD, SA, TAS	Mix together.
Salt, iodised	QLD, VIC, WA	Mix together.
Sauce, tomato	NSW, NT, WA	Mix together in large stainless steel or glass bowl.
Sausage, beef	ACT, NSW, NT, SA, WA	Separate sausages into individual links. Dry fry each purchase of sausages until cooked through. When cool, chop and mix in a large stainless steel or glass bowl.

Food	Sampled in	Preparation
Soft drink, cola and non-cola	QLD, SA, WA	Mix in a large stainless steel or glass bowl.
Soy beverage, plain, full fat	NSW, SA, VIC	Mix in a large stainless steel or glass bowl.
Spinach, fresh, 'baby' and mature varieties	NT, QLD, TAS, VIC, WA	Remove stalks below leaves. Mix thoroughly. Microwave until cooked. Chop and mix the spinach.
Strawberries, fresh	NSW, NT, QLD, TAS, WA	Wash and remove leaves and stalks. Chop and mix together.
Sugar, white	NSW, TAS, WA	Mix together.
Sultanas	ACT, NSW, VIC	Chop and mix together thoroughly.
Sweetcorn, kernels, frozen	NSW, WA, VIC	Microwave until cooked.
Tea, regular (not 'green' or herbal types)	NSW, SA, VIC	Brew one cup (250 ml) of tea using a teabag from each of the individual purchases. Wait 5 minutes for the tea to infuse. Mix the three cups of tea together thoroughly. Let cool.
Tomatoes, raw, varieties commonly available	ACT, NT, QLD, SA, VIC	Chop and mix together.
Tuna, canned in brine	NT, QLD, WA	Chop and mix together.
Water, bottled still	QLD, SA, VIC	Mix in a large stainless steel or glass bowl.
Water, tap	ACT, NSW, VIC, QLD, SA, WA, TAS, NT	Mix in a large stainless steel or glass bowl.
Watermelon	NT, QLD, SA, TAS, WA	Cut a cross section of watermelon from the melon. Remove the skin and seeds and chop into cubes. Perform this procedure until at least 500 grams of skinless and seedless watermelon pieces have been chopped. Mix thoroughly.
Wine, white	ACT, NSW, TAS, VIC, WA	Shake and invert the bottles several times to ensure thorough mixing of the contents. Mix in a large stainless steel or glass bowl.
Yoghurt, fruit, full fat	NSW, VIC, WA	Mix together.

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