

Appendix II

Standard Recipes of food products

The standard recipes of the food products (bread, cookies, *chapatis*, *dhokla*, porridge, *potato bonda*, juice and curd) to study the acceptability trials of varying levels of inulin incorporation by substitution or addition are as follows:

II (i) Bread (Straight Dough Method of Bennion, 1939)

Ingredients	Amount(g)
Refined wheat flour/ maida	500
Milk Powder	10
Butter	30
Castor Sugar	30
Salt	10
Water	250
Calcium	2.5
Bread Improver	1

Method of preparation:

- 1) 25-30 ml of water is taken in a beaker and warmed to 37 C. The dry yeast cake was rubbed between fingers and soaked in lukewarm water. Little amount of sugar is also added to the beaker and the yeast was allowed to activate for 10-15 minutes.
- 2) Sieve the flour, add salt and mix. Add the activated yeast solution to it and slowly add water. Dough is kneaded on the slab with light folding motion-using palms of the hand for 10 minutes.
- 3) After kneading, the slab is greased and the dough is rolled over twice to grease it all over. It is then covered with a squeezed moist muslin cloth and allowed to rise

in a covered humid place for one hour.

- 4) Ripening of the dough is assessed by performing a simple test. A slight depression remained, when the surface of the dough is gently touched with a finger.
- 5) Thereafter the dough is punched and "knocked back" by plunging the first into middle of the dough. It is then allowed to rise again for 45 minutes until it increased in bulk under similar conditions.
- 6) The dough is made in to a round ball and then it is allowed to stand for 10 minutes. After that the dough is flattened to form a rectangle of the width of the baking tin using rolling pin. It was then rolled. The ends are sealed and placed in the baking tin. The dough is kept in the baking tins with seams upside down so that the gas does not escape during baking.
- 7) The moulded dough is kept for "Proofing" i.e. the moulded dough is allowed to rise in the baking tin for 35-40 minutes. Thereafter it is transferred to the preheated oven at 250 °C. The dough is baked for 30-35 minutes.
- 8) The baked bread is taken out of the oven. The crust is brushed with little amount of oil, cooled on wire racks, wrapped in polythene pouches stored in room temperature.

Inulin was substituted for refined wheat flour at 5% (25g inulin + 475g refined wheat flour), 10% (50g inulin + 450g refined wheat flour), 15% (75g inulin + 425g refined wheat flour), 20% (100g inulin + 400g refined wheat flour) and 22% (110g inulin + 390g refined wheat flour) level in breads.

II (ii) Cookies

Ingredients	Amount(g)
Refined wheat flour/ Maida	800
Baking Powder	10
Butter	500
Icing Sugar	500
Egg	6 in no.
Milk	10 ml
Almond essence	1/8 tsp
Almonds, blanched	30

Method of preparation:

- Set the oven at 175 °C (365 °F). Sieve the flour and baking powder together thrice.
- Cream the butter and sugar very well till light and fluffy, in a bowl with the help of a wooden spoon.
- Beat in the egg, gently add the flour, essence and milk to make a smooth dough.
- Roll out the dough on a floured board/ marble to 0.6 cm thickness and cut into round/oval/square shapes with floured cookies cutters. Prick with a fork. Sprinkle chopped almonds on cookies and press them down by rolling the cookies lightly with a rolling pin.
- Place the cookies on a lightly greased and floured baking sheet about 2 cm apart and bake for about 10-15 minutes till golden brown in colour.

Inulin was substituted for butter at 5% (25g inulin + 475g butter), 10% (50g inulin + 450g butter), 15% (75g inulin + 425g butter), 20% (100g inulin + 400g butter), 22% (110g inulin + 390g butter) and 25% (125g inulin + 375g butter) level in cookies.

II (iii) *Chapati*

Ingredients	Amount(g)	Volume/no.
Wheat flour	200	2 ¼ Katori
Water(as required)	200ml	1 1/3 katori

Method of preparation

- Add water gradually to flour and knead till it becomes soft and smooth.
- Divide into 8 equal portions and make into smooth balls with the help of fingers and palm.
- Roll into uniformly thin round sheets.
- Roast on hot *tawa* and let it remain for few seconds.
- Turn and wait till the side on the *tawa* has a few brown marks.
- Turn and place the *chapati* on the flame to puff.

Inulin was substituted for wheat flour at 5% (10g inulin + 190g wheat flour), 10% (20g inulin + 180g wheat flour), 15% (30g inulin + 170g wheat flour) and 20% (40g inulin + 160g wheat flour) level in *chapati*.

II (iv) Dhokla

Ingredients	Amount(g)
Rice	28
Curd	168
Red gram dal	28
Black gram dal	4
Ginger	2
Turmeric	0.5
Red chillies	1
Oil	0.5
Salt	To taste

Method of preparation:

- Red gram, black gram and rice are washed, dried and coarsely powdered.
- The powder is soaked in curd overnight.
- In the morning slices of ginger and rest of the condiments are added to the powder and mixed well.
- Some water is kept boiling in a vessel.
- Small steel plates are oiled and the mixture is poured into them.
- The plates are kept in water and the pan is covered with a well fitting lid.
- The *dhoklas* are then steamed for about 15 mins till done.

Inulin was substituted for rice pulse mixed flour at 5% (3g inulin + 57g rice pulse mixed flour), 10% (6g inulin + 53g rice pulse mixed flour), 15% (9g inulin + 51g rice pulse mixed flour) and 20% (12g inulin + 48g rice pulse mixed flour) level.

II (vi) Cereal Pulse Porridge

Ingredients	Amount(g)	Measurement
Broken Wheat	100	2/3 katori
Green gram dal	50	1/3 katori
oil	30	2tbsp
water	600ml	4 katori
salt	To taste	-
Cumin seeds	5	1tsp

Method of preparation:

- Heat oil /ghee, add cumin seeds.
- Fry broken wheat and green gram dal till golden brown.
- Add water, and salt and cook for 2 minutes on slow fire.
- Next the mixture is cooked for three minutes in pressure cooker at 15 lbs pressure.

Inulin was added in cereal pulse porridge at 5% (7.5g inulin + 100g broken wheat + 50g green gram), 10% (15g inulin + 100g broken wheat + 50g green gram), 15% (22.5g inulin + 100g broken wheat + 50g green gram), 20% (30g inulin + 100g broken wheat + 50g green gram) level.

II (vi) Potato Bonda

Ingredients	Amount(g)	Volume/No.
Potatoes	300	4
Onion	150	3
Bengal gram flour	50	$\frac{3}{4}$ katori
Rice flour	10	1 tbsp
Oil(absorbed)	62	13 tsp
Green chilies	4	2
Curry leaves	1	10
Turmeric	0.5	a small pinch
Mustard	2	a pinch
Asafoetida	0.5	a little pinch
Green coriander	2	$\frac{1}{4}$ small bunch
Water	30ml	2 tbsp
Salt	to taste	-
Soda	2	A pinch

Method of preparation:

- Boil, peel and break potatoes into small pieces (half mashed).
- Slice onions, chop coriander and chilies.
- Fry mustard seeds, turmeric, and asafoetida and curry leaves in a teaspoonful of oil including salt.
- Mix all the ingredients together. Divide the mixture into small balls (12).
- Make a batter with rice flour, Bengal gram flour, soda, a little salt and water.
- Dip potato balls one by one in the batter and fry them in hot oil. Serve hot.

Inulin was added in Bengal gram flour batter at 5% (2.5g Inulin + 50g Bengal gram batter), 10% (5g inulin + 50g Bengal gram batter), 15% (7.5g inulin + 50g Bengal gram batter), 20% (10g inulin + 50g Bengal gram batter).