



IDRC
International Development
Research Centre



CRDI
Centre de recherches pour le
développement international



Traditional Recipes from Little millet

**Dr. D. Malathi
Dr. G. Sindhumathi
Ms. T. Thilagavathi**

**Revalorizing small millets : “Enhancing the food and
nutritional security of women and children in rain fed regions
of South Asia using underutilized species”.**

**Post Harvest Technology Centre
Agricultural Engineering College & Research Institute
Tamil Nadu Agricultural University
Coimbatore - 641 003**

2012

Contents

INTRODUCTION	1
BREAK FAST RECIPES	3
1. Idli	3
2. Dosa	4
3. Idiappam	5
4. Rotti	6
5. Puttu	7
6. Uppma	8
7. Adai	9
8. Porridge	10
SWEETS	11
1. Halwa	11
2. Sweet Kolukattai	12
3. Kheer	13
4. Kesari	14
5. Sweet Adai	15
SNACKS	16
1. Vadai	16
2. Pakoda	17
3. Ribbon Pakoda	18
4. Omapodi	19
5. Murukku	20
6. Thattu Vadai	21
7. Hot Kolukkattai	22

INTRODUCTION

Little millet (*Panicum sumatrense*) known as Samai in Tamil and Katki in Hindi is a native of South Eastern Asia, grown throughout India to a limited extent but is of little importance elsewhere. Little millet is staple food of the poor and is crop of tribal areas and marginal lands. They are used as food in situations, where other food grains cannot be raised or purchased at economic prices. Among the minor millets little millet or samai is highly nutritious. In little millet, fat, iron and niacin content are higher than other cereals. Little millet protein contains amino acids in balanced proportions and is rich in methionine, cysteine and lysine. They are especially beneficial to vegetarians who depend on plant food for their protein nourishment. It contains high proportion of carbohydrate and dietary fiber which help in prevention of constipation, lowering cholesterol and slow release of glucose to the blood stream during digestion. Important vitamins such as thiamine, riboflavin and niacin are present in high quantities. It is reported that cardio vascular diseases, duodenal ulcers and hyperglycemia occur rarely in regular millet eaters. They also contain a wide variety of antioxidants.

The use of little millet in improvised bakery and traditional products would increase their utilization. Value added products from little millet can compete successfully in the emerging markets as functional foods, satisfying key criteria of affordability, easy to manufacture, good storage quality and relevance to health needs of the targeted group.

Nutritional Composition of Little millet (Per 100g)

S.No	Nutrients	Quantity
1	Moisture	11.5g
2	Carbohydrate	67.0g
3	Protein	7.7g
4	Fat	4.7g
5	Energy	341Kcal
6	Fiber	7.6g
7	Minerals	1.5g
8	Iron	9.3g
9	Calcium	17.0mg
10	Phosphorus	1410mg
11	Niacin	3.2mg
12	Folic acid	9.0µg

BREAK FAST RECIPES

1. IDLI

Ingredients

Little millet	-	780g
Black gram dhal	-	200g
Fenugreek	-	20g
Salt	-	as required



Method

- Soak little millet rice and black gram dhal separately for 4 hours and grind coarsely.
- Add salt, mix it evenly and allow it to ferment overnight.
- Pour batter into idli plates and steam cook for 10-15 minutes.
- Serve hot with chutney.

Nutrient content (Per 100 g)	
Carbohydrate	65.06g
Protein	11.32g
Fat	4.05g
Fibre	6.24g
Iron	8.14mg
Calcium	324.46mg
Phosphorous	256mg
Niacin	2.91mg
Folic acid	35.10 µg

2. DOSA

Ingredients

Little millet	- 780g
Black gram dhal	- 200g
Fenugreek	- 20g
Oil	- for shallow frying
Salt	- as required



Method

- Soak little millet rice and black gram dhal separately for 4 hours and grind into fine batter.
- Add salt, mix it evenly and allow it to ferment overnight.
- Apply oil on the hot plate and pour batter and cook till crisp dosa is obtained.
- Serve hot with chutney.

Nutrient content (Per 100 g)	
Carbohydrate	65.06g
Protein	11.32g
Fat	4.05g
Fibre	6.24g
Iron	8.14mg
Calcium	324.46mg
Phosphorous	256mg
Niacin	2.91mg
Folic acid	35.10 µg

3. IDIAPPAM

Ingredients

- Little millet flour - 1Kg
- Water - 300ml
- Salt - as required



Method

- Steam the little millet flour for five minutes.
- Blend steamed flour with salt and water thoroughly and extrude in idiappammachine.
- Steam the extruded dough for 20-25 minutes.
- Serve hot with coconut milk and sugar.

Nutrient content (Per 100g)	
Carbohydrate	67.0 g
Protein	7.7g
Fat	4.7g
Fibre	7.6g
Iron	9.3mg
Calcium	17mg
Phosphorous	220mg
Niacin	3.2mg
Folic acid	9.0 µg

4. ROTTI

Ingredients

Little millet flour	- 650g
Chopped onion	-300g
Green chillies	- 20g
Chilli powder	- 5g
Cumin seed powder	- 5g
Turmeric powder	- 10 g
Chopped curry leaves	- 10g
Oil	- for shallow frying
Salt	- as required
Water	- as required



Method

- Mix little millet flour and rice flour thoroughly.
- Add other ingredients with required amount of water and mix uniformly to a thick dough consistency.
- Flatten the dough on dosa plate and cook with oil.
- Serve it hot.

Nutrient content (per 100g)	
Carbohydrate	47.79g
Protein	5.85g
Fat	3.22g
Fibre	5.53g
Iron	6.88mg
Calcium	38.9mg
Phosphorous	168.98mg
Niacin	2.32mg
Folic acid	7.36 µg

5. PUTTU

Ingredients

Little millet flour - 750g
Sugar - 150g
Grated coconut - 100g
Salt - as required
Water - as required



Method

- Fry the little millet flour in a pan, stir it continuously until there is a slight change in colour, remove the flour, bring down to cool.
- Mix salt in hot water and sprinkle water little by little to the little millet flour and mix it thoroughly.
- Little millet flour should be wet enough, keep stirring it with fingers and do not mould it into a dough.
- Spread the little millet flour on the idlimould such that it does not take the shape of the idli. Steam cook for 4 - 5 minutes.
- Remove it from the idlimould, mix well with sugar and grated coconut.
- Little millet puttu is ready to serve.

Nutrient content (Per 100 g)	
Carbohydrate	66.46g
Protein	6.23g
Fat	7.66g
Fibre	6.06g
Iron	7.16mg
Calcium	15.55mg
Phosphorous	198.15mg
Niacin	2.48mg
Folic acid	8.00 µg

6. UPPMA

Ingredients

Little millet rawa	- 600g
Chick pea	- 100g
Black gram	- 100g
Carrot (chopped)	- 50 g
Tomatoes (chopped)	- 50 g
Onions (chopped)	-50g
Green chillies (chopped)	- 20 g
Curry leaves	- 20 g
Coriander leaves	- 10 g
Oil -	- for shallow frying
Salt	- to taste



Method

- Sieve little millet rawa and roast till it becomes light brown.
- Cut onions, chillies, carrots, tomatoes and chop coriander leaves.
- To oil add mustard, black gram dal, chick pea, green chillies, onions, carrots, tomatoes, curry leaves and fry thoroughly.
- Add sufficient water, salt and allow it to boil.
- Add little millet rawa slowly while mixing simultaneously.
- Cook for 15 - 20 minutes.
- Spread coriander leaves and serve it hot.

Nutrient content (Per 100g)	
Carbohydrate	53.78g
Protein	9.46g
Fat	3.57g
Fibre	5.10g
Iron	6.79mg
Calcium	48.94mg
Phosphorous	237.78mg
Niacin	2.48mg
Folic acid	35.61 µg

7. ADAI

Ingredients

Finger millet rice	- 400 g
Red gram dhal	- 150 g
Green gram dhal	- 100 g
Parboiled rice	- 100 g
Chilli powder	- 30 g
Cumin seeds	- 30 g
Asafoetida	- 20 g
Curry leaves	- 20 g
Oil	- 150 ml
Salt	- as required



Method

- Soak little millet rice, red gram dhal, black gram dhal and parboiled rice for 2 hours.
- Grind the soaked materials into coarse batter.
- Add red chilli powder, asafoetida, curry leaves, cumin seeds and salt to the batter and mix it thoroughly.
- Apply oil on the dosa plate and spread the adai batter and cook.
- Serve hot with chutney.

Nutrient content (Per 100 g)	
Carbohydrate	64.07g
Protein	13.74g
Fat	4.01g
Fibre	4.96g
Iron	12.9mg
Calcium	57.1mg
Phosphorous	277.90mg
Niacin	2.78mg
Folic acid	60.52 µg

8. PORRIDGE

Ingredients

Little millet powder	-500g
Jaggery	- 250g
Milk	-250ml
Water	- 2 litre



Method

- Boil jaggery in water and strain out the impurities.
- Add the little millet powder in cold water and ensure there are no lumps. Mix it with jaggery water.
- Simmer till porridge starts to thicken. Add milk or water to get the required consistency.

Nutrient content (Per 100 g)	
Carbohydrate	68.25g
Protein	4.75g
Fat	3.40g
Fibre	3.80g
Iron	5.36mg
Calcium	58.50mg
Phosphorous	142.50mg
Niacin	1.6mg
Folic acid	6.62 µg

SWEETS

1. HALWA

Ingredients

Little millet	- 300g
Powdered sugar	-300g
Ghee	- 300g
Cashewnuts	- 100g
Cardamom powder	- 1 pinch



Method

- Fry little millet flour in half the amount of given ghee in a heavy bottom vessel.
- Cook the flour in water.
- When it thickens add sugar.
- When the halwa forms a mass add the remaining ghee.
- Stir continuously till the halwa leaves the sides of the pan and the ghee separates from halwa.
- Add the fried cashew nuts and cardamom power.
- Spread on a greased tray.

Nutrient content (Per 100g)	
Carbohydrate	52.15g
Protein	4.45g
Fat	36.10g
Fibre	2.41g
Iron	3.41mg
Calcium	13.7mg
Phosphorous	111.30mg
Niacin	1.08mg
Folic acid	2.70 µg

2. SWEET KOLUKATTAI

Ingredients

Little millet flour	-750g
Coconut shreds	- 80g
Jaggery	- 150g
Cardamom	- 20g
Salt	- to taste



Method

- Add required amount of water and salt to the little millet flour and mix it thoroughly.
- Prepare filling by mixing shredded coconut, jaggery and cardamom powder.
- Flatten the dough on a plantain leaf.
- Fill the mixture on the dough and fold it.
- Steam the filled dough in *idli* cooker for 15 minutes.
- Serve it hot.

Nutrient content (Per 100 g)	
Carbohydrate	66.38g
Protein	6.39g
Fat	6.87g
Fibre	6.39g
Iron	7.59mg
Calcium	28.15mg
Phosphorous	193.40mg
Niacin	2.48mg
Folic acid	7.75 µg

3. KHEER

Ingredients

Little millet rice	-	300g
Jaggery	-	300g
Cardamom powder	-	20g
Cashew	-	50g
Raisins	-	50g
Ghee	-	80g
Milk (ml)	-	100ml
Water (ml)	-	3.5litre



Method

- Boil milk and water for 10 minutes.
- Add little millet rice, jaggery and cook for 10 – 15 minutes.
- Fry cashew nuts and raisins in ghee.
- Add cardamom powder, fried cashew nuts and raisins to the kheer.

Nutrient content (Per 100 g)	
Carbohydrate	54.72g
Protein	4.10g
Fat	12.24g
Fiber	2.80g
Calcium	50.55mg
Phosphorous	95.90mg
Iron	4.36mg
Niacin	1.08mg
Folic acid	3.26 µg

4. KESARI

Ingredients

Little millet fine rava	- 300g
Sugar	- 400g
Milk	- 100ml
Ghee	- 100g
Cashew	- 50g
Raisins	- 50g
Water	- 2.5 litre



Method

- Heat one teaspoon of ghee in a pan, add little millet rava and fry till it turns light brown.
- Boil water and milk thoroughly then add pinch of kesari colour.
- Add sugar and boil for 5 to 10 minutes.
- Now add rava slowly to that boiled water and mix thoroughly, cook for 15 to 20 minutes.
- Decorate with cashew nuts and dry fruits and serve it hot.

Nutrient content (Per 100 g)	
Carbohydrate	65.14g
Protein	3.82g
Fat	14.17g
Fiber	2.40g
Calcium	28.75mg
Phosphorous	80.46mg
Iron	3.52mg
Niacin	1.06mg
Folic acid	2.70 µg

5. SWEET ADAI

Ingredients

- Little millet millet flour - 400g
- Roasted bengal gram flour - 150g
- Green gram flour - 150g
- Jaggery - 300g
- Water - as required



Method

- Prepare jaggery syrup with required amount of water.
- Add little millet flour, roasted bengal gram flour, green gram flour to the syrup, mix thoroughly.
- Knead the mix to a thick consistency.
- Flatten the dough on a dosa plate and cook till golden brown colour.
- Serve it hot.

Nutrient content (Per 100 g)	
Carbohydrate	72.99g
Protein	1024g
Fat	2.87g
Fiber	3.31g
Calcium	50.75mg
Phosphorous	211.75mg
Iron	6.51mg
Niacin	1.83mg
Folic acid	45.45 µg

SNACKS

1. VADAI

Ingredients

Little millet grains	- 300g
Black gram dal	-600g
Onions (chopped)	- 20g
Green chillies	- 30g
Coriander leaves	-20g
Curry leaves	- 30g
Oil	- for deep frying
Water	- as required
Salt	- to taste



Method

- Soak the little millet grains and black gram dal together for 5-6hrs.
- Drain the water and grind to smooth batter.
- Add salt, onions, green chillies, coriander leaves, curry leaves to the above batter.
- Make small round balls; press to flatten it slightly on well greased polythene sheet.
- Deep fry the vadasin oil, till it turns golden brown in color.
- Serve hot with coconut chutney.

Nutrient content (Per 100g)	
Carbohydrate	56.88g
Protein	17.08g
Fat	2.31g
Fibre	3.25g

Iron	5.28mg
Calcium	130.88mg
Phosphorous	303.73mg
Niacin	2.92mg
Folic acid	85.58 µg

2. PAKODA

Ingredients

Little millet flour	- 700g
Rice flour	- 150g
Onion	- 100g
Green chilli	- 20g
Curry leaves	- 20g
Coriander leaves	- 10g
Oil	- 250 ml
Salt	- to taste



Method

- Sieve little millet flour and rice flour together.
- Add salt, chilli powder, chopped onions, chopped green chillies, coriander leaves, curry leaves, to the sieved flour and mix with water to smooth dough consistency.
- Heat the oil and put this dough in different shapes, deep fry using medium flame till it attains golden color.
- Serve it hot.

Nutrient content (Per 100g)	
Carbohydrate	59.12g
Protein	6.56g
Fat	28.38g
Fibre	5.56g
Iron	6.73mg
Calcium	15.10mg
Phosphorous	181.37mg
Niacin	2.57mg
Folic acid	9.01 µg

3. RIBBON PAKODA

Ingredients

Raw rice flour	- 400g
Little millet flour	- 400g
Roasted Bengal gram flour	- 100g
Chilli powder	- 20g
Cumin seeds	- 20g
Hydrogenated fat	- 50g
Asafoetida	-10g
Oil	- for deep frying
Salt	-to taste



Method

- Mix little millet flour and rice flour and sieve.
- Add water to get a thick paste like consistency.
- Extrude the dough in a hand extruder through dye.
- Deep fry the extruded ribbon pakoda till they turn golden brown.
- Allow to cool and pack it in polythene covers.

Nutrient content (Per 100g)	
Carbohydrate	59.12g
Protein	6.56g
Fat	28.38g
Fibre	5.56g
Iron	6.73mg
Calcium	15.10mg
Phosphorous	181.37mg
Niacin	2.57mg
Folic acid	9.01 µg

4. OMAPODI

Ingredients

Little millet flour	-800g
Rice flour	- 160g
Chilli powder	-20g
Pepper powder	- 20g
Salt	- to taste
Oil	- for deep frying
Water	- as required



Method

- Mix together little millet flour and rice flour and sieve.
- Add water to get thick dough like consistency.
- Extrude the dough in a hand extruder through omapodi dye. Deep fry the extruded omapodi till they turn golden brown.
- Allow to cool and pack in polythene covers.

Nutrient content (Per 100 g)	
Carbohydrate	66.62g
Protein	10.90g
Fat	4.65g
Fibre	6.07g
Iron	7.52mg
Calcium	86.90mg
Phosphorous	244.59mg
Niacin	2.94mg
Folic acid	36.05 µg

5. MURUKKU

Ingredients

Raw rice flour	- 400g
Little millet flour	- 400g
Roasted Bengal gram flour	- 100g
Chilli powder	- 20 g
Cumin seeds	- 20g
Hydrogenated fat	- 50g
Asafoetida	-10g
Oil	- for deep frying
Salt	-to taste



Method

- Add all the ingredients to the flour and mix uniformly.
- Prepare thick dough by adding required water.
- Extrude the dough in hot oil using a hand extruder.
- Deep fry till it turns to golden brown colour.
- Allow it to cool and pack in air tight containers.

Nutrient content (Per 100 g)	
Carbohydrate	65.53g
Protein	8.37g
Fat	8.07g
Fibre	4.12g
Iron	5.20mg
Calcium	48.10mg
Phosphorous	203.22mg
Niacin	2.52mg
Folic acid	21.55 µg

6. THATTU VADAI

Ingredients

Little millet flour-	700g
Chena dal	- 60g
Vanaspathi	- 200g
Curry leaves	- 20g
Chilli powder	- 20g
Water	- as required
Salt	- to taste



Method

- Add all the ingredients to the flour and mix thoroughly.
- Prepare thick dough by adding required water.
- Flatten the dough to thin round shapes on a polythene sheet.
- Deep fry it in hot oil till they turn to golden brown.
- Allow it to cool and pack in air tight containers.

Nutrient content (Per 100 g)	
Carbohydrate	46.18g
Protein	6.70g
Fat	33.38g
Fibre	4.80g
Iron	6.11mg
Calcium	15.80mg
Phosphorous	165.10mg
Niacin	2.16mg
Folic acid	20.15 µg

7. HOT KOLUKKATTAI

Ingredients

Little millet flour	- 780g
Onion	- 150g
Green chillies	- 50g
Curry leaves	-10g
Mustard	-10g
Salt	- as required



Method

- Add required quantity of water to the little millet flour and mix thoroughly without lumps.
- Season the ingredients and add to the little millet flour mix.
- Boil the mix with continuous stirring till it reaches a thick dough consistency.
- Form the dough into oval shapes and steam for 15-20 minutes in *idli* cooker.
- Serve it hot.

Nutrient content (Per 100g)	
Carbohydrate	40.95g
Protein	6.40g
Fat	14.50g
Fiber	6.70g
Calcium	68.90mg
Phosphorous	210.42mg
Iron	4.50mg
Niacin	3.10mg
Folic acid	18.15 µg