Technical Bulletin on
Value Added Products from Small Millets

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Scaling up Small Millet Post-harvest and Nutritious Food Products Project
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2. ADAI MIX

3. PAYASAM MIX

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IX. READY TO COOK SNACK MIXES

1. MURUKKU MIX

2. RIBBON PAKODA MIX

3. OMAPODI MIX

4. VADA MIX

5. VADAGAM

6. PAPAD

7. SMALL MILLET HEALTH MIX
Small Millets are one of the oldest food grains known to mankind and possibly the first cereal grain used for domestic purposes. In fact, while it is often called as grain because of grain-like consistency, millet is actually a seed. For centuries, Small Millets have been a prized crop in India, used in everything from traditional recipes to snacks and as cereal grain. They can adapt themselves to marginal soils and varied environmental conditions. Small Millets are staple diet for nearly 1/3rd of the world's population. Small Millets are small, round in shape and are white, grey, yellow or red in colour. They are most commonly available in the form of pearled and hulled kind. Small Millets are tasty grains that have a mildly sweet, nut-like flavour. Small Millets are thus an amazing grain offering great opportunities for diversified utilization and value addition. These Small Millets have diversified uses and high food value but the consumption of these Small Millets has declined for want of standardized processing techniques to compete with fine cereals. Hence utilization of small Millets in popular foods would find ready acceptability with the tag of ‘health foods’.

Small Millets have immense health benefits. They are good sources of protein, dietary fiber, energy and minerals when compared to rice. The high protein content provides several nutritional and physiological benefits. Grain has promising quantity of essential amino acids such as tryptophan, cystine, methionine with high biological value crucial to health and growth. The low fat and high fibre content helps in preventing obesity, reduces transit time and prevents constipation. The tiny "grain" is gluten-free and packed with vitamins and minerals. Small Millets are rich sources of nutrients which our body needs, such as magnesium, calcium, manganese, phosphorus, iron and antioxidants. Small Millets are considered as low glycemic index foods, which are helpful for diabetics. Small Millets in addition to nutritional benefits are rich in phyto chemicals, including phytic acid, which is believed to lower cholesterol and phytate, which is associated with cancer risk. Dietary fiber protects against hyperglycemia, phytates against oxidation stress by chelating iron involved in Fenton’s reaction, and some phenolics and tannins act as antioxidants. They are also valued for natural antioxidants and are gaining importance as complete nutrient source. Small Millets can be used for the preparation of traditional recipes, pasta products, puffed foods, bakery products and instant food mixes.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Small Millets</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>CHO (g)</th>
<th>Energy (Kcal)</th>
<th>Calcium (mg)</th>
<th>Phosphorous (mg)</th>
<th>Iron (mg)</th>
<th>Carotene (μg)</th>
<th>Thiamine (mg)</th>
<th>Riboflavin (mg)</th>
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</thead>
<tbody>
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<td>1.</td>
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<td>67.5</td>
<td>361.0</td>
<td>42.0</td>
<td>296.0</td>
<td>8.0</td>
<td>132.0</td>
<td>0.33</td>
<td>0.25</td>
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<tr>
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<td>Sorghum</td>
<td>10.4</td>
<td>1.9</td>
<td>72.6</td>
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<td>25.0</td>
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<tr>
<td>3.</td>
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<td>1.3</td>
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<td>344.0</td>
<td>283.0</td>
<td>3.9</td>
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</tr>
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<td>4.</td>
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<td>32.0</td>
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<td>0.11</td>
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<td>7.</td>
<td>Proso millet</td>
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<td>8.</td>
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<td>-</td>
<td>0.33</td>
<td>0.10</td>
<td>82</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
I. BREAKFAST RECIPES FROM SMALL MILLETS

1. IDLI

Ingredients

Finger millet/ kodo millet/
Little millet/ barnyard millet rice - 730 g
Black gram dhal - 250 g
Fenugreek seeds - 20 g
Salt - as required

Method

- Soak 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 100g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
<th>Calcium (mg)</th>
<th>Phosphorus (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger millet</td>
<td>68.96</td>
<td>11.02</td>
<td>1.40</td>
<td>3.12</td>
<td>3.93</td>
<td>302.32</td>
<td>305.14</td>
</tr>
<tr>
<td>Kodo millet</td>
<td>63.89</td>
<td>12.6</td>
<td>1.49</td>
<td>6.94</td>
<td>1.45</td>
<td>61.40</td>
<td>241.00</td>
</tr>
<tr>
<td>Little millet</td>
<td>65.06</td>
<td>11.32</td>
<td>4.05</td>
<td>6.24</td>
<td>8.14</td>
<td>13.44</td>
<td>211.92</td>
</tr>
<tr>
<td>Barnyard millet</td>
<td>63.10</td>
<td>11.1</td>
<td>2.08</td>
<td>7.52</td>
<td>4.73</td>
<td>56.30</td>
<td>307.00</td>
</tr>
</tbody>
</table>
2. DOSA

Ingredients

- Finger millet/ kodo millet/
- Little millet/ barnyard millet rice - 730 g
- Black gram dhal - 250 g
- Fenugreek seeds - 20 g
- Salt - as required

Method

- Soak small 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.
- Heat the tawa and grease with oil or ghee.
- Spread one scoop of batter evenly on the tawa and cook both sides.
- Serve hot with chutney / sambar.

NUTRIENT CONTENT (per 100g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
<th>Calcium (mg)</th>
<th>Phosphorus (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger millet</td>
<td>68.96</td>
<td>11.02</td>
<td>1.40</td>
<td>3.12</td>
<td>3.93</td>
<td>302.32</td>
<td>305.14</td>
</tr>
<tr>
<td>Kodo millet</td>
<td>63.89</td>
<td>12.6</td>
<td>1.49</td>
<td>6.94</td>
<td>1.45</td>
<td>61.40</td>
<td>241.00</td>
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<td>11.32</td>
<td>4.05</td>
<td>6.24</td>
<td>8.14</td>
<td>13.44</td>
<td>211.92</td>
</tr>
<tr>
<td>Barnyard millet</td>
<td>63.10</td>
<td>11.1</td>
<td>2.08</td>
<td>7.52</td>
<td>4.73</td>
<td>56.30</td>
<td>307.00</td>
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</table>
3. Paniyaram

Ingredients

- Finger millet/ kodo millet/
  - Little millet/ barnyard millet rice - 450 g
  - Black gram dhal - 200 g
  - Fenugreek seeds - 20 g
  - Onion (chopped) - 150 g
  - Green chillies (chopped) - 40 g
  - Cumin seeds - 20 g
  - Curry leaves - 20 g
  - Oil - 100 ml
  - Salt - as required

Method

- Soak millet rice, black gram dhal and fenugreek seed separately for 4 hours and grind into the fine batter.
- Add salt and allow it to ferment overnight.
- Add all the ingredients (chopped onion and chillies) and mix thoroughly.
- Apply oil to the paniyaram mould and pour the batter.
- Cook both sides and serve hot with chutney.

NUTRIENT CONTENT (per 100g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
<th>Calcium (mg)</th>
<th>Phosphorus (mg)</th>
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<tr>
<td>Finger millet</td>
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<td>3.57</td>
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<tr>
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<td>54.30</td>
<td>9.50</td>
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<td>1.98</td>
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</tr>
<tr>
<td>Little millet</td>
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<td>8.99</td>
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<td>5.46</td>
<td>3.75</td>
<td>14.40</td>
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</tr>
<tr>
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<td>51.50</td>
<td>8.23</td>
<td>2.85</td>
<td>3.41</td>
<td>2.82</td>
<td>27.50</td>
<td>183.50</td>
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</table>
4. IDIAPPAM

Ingredients

Finger millet/ kodo millet/
Little millet/ barnyard millet flour - 500 g
Sugar - 250 g
Coconut milk - 250 ml
Salt - 10 g
Water - as required

Method

- Steam the Small millet flour for five minutes.
- Blend steamed flour with salt and water thoroughly.
- Extrude the dough using idiappam machine and steam for 20-25 minutes
- Serve hot with coconut milk and sugar.

NUTRIENT CONTENT (per 100g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
<th>Calcium (mg)</th>
<th>Phosphorus (mg)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>72.00</td>
<td>7.30</td>
<td>1.30</td>
<td>3.60</td>
<td>3.90</td>
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</tr>
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<td>5.03</td>
<td>11.00</td>
<td>4.50</td>
<td>0.69</td>
<td>20.30</td>
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<tr>
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<td>67.00</td>
<td>7.00</td>
<td>4.70</td>
<td>7.60</td>
<td>9.30</td>
<td>17.13</td>
<td>215.12</td>
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<tr>
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<td>60.58</td>
<td>3.98</td>
<td>1.14</td>
<td>4.90</td>
<td>2.94</td>
<td>16.75</td>
<td>175.00</td>
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5. ROTTI

Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
</tr>
</thead>
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<td>Finger millet/ kodo millet/</td>
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</tr>
<tr>
<td>Little millet/ barnyard millet flour</td>
<td>400 g</td>
</tr>
<tr>
<td>Raw rice flour</td>
<td>200 g</td>
</tr>
<tr>
<td>Onion (chopped)</td>
<td>150 g</td>
</tr>
<tr>
<td>Green chilies (chopped)</td>
<td>70 g</td>
</tr>
<tr>
<td>Asafoetida</td>
<td>30 g</td>
</tr>
<tr>
<td>Cumin seeds</td>
<td>30 g</td>
</tr>
<tr>
<td>Curry leaves</td>
<td>20 g</td>
</tr>
<tr>
<td>Oil</td>
<td>100 ml</td>
</tr>
<tr>
<td>Salt</td>
<td>20 g</td>
</tr>
<tr>
<td>Water</td>
<td>as required</td>
</tr>
</tbody>
</table>

Method

- Mix Small millet flour and rice flour thoroughly.
- Add other ingredients with required amount of water and knead to a thick dough consistency.
- Flatten the dough on pre-heated tawa and cook with oil.
- Serve it hot.

NUTRIENT CONTENT (per 100g)

<table>
<thead>
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<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
<th>Calcium (mg)</th>
<th>Phosphorus (mg)</th>
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<tbody>
<tr>
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<td>2.93</td>
<td>3.37</td>
<td>251.45</td>
<td>209.93</td>
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<tr>
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<td>47.50</td>
<td>5.96</td>
<td>11.20</td>
<td>4.80</td>
<td>2.38</td>
<td>90.60</td>
<td>139.70</td>
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<td>5.85</td>
<td>3.22</td>
<td>5.53</td>
<td>6.88</td>
<td>16.14</td>
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<td>11.50</td>
<td>5.12</td>
<td>4.18</td>
<td>17.80</td>
<td>176.50</td>
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</table>
6. PUTTU

Ingredients

- Finger millet/ kodo millet/
- Little millet/ barnyard millet flour - 600 g
- Jaggery - 200 g
- Shredded coconut - 200 g
- Salt - 20 g

Method

- Add required amount of water and salt to Small millet flour and mix it thoroughly without lumps.
- Steam the flour for 20-25 minutes.
- Add sugar and shredded coconut.
- Serve it hot.

NUTRIENT CONTENT (per 100g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
<th>Calcium (mg)</th>
<th>Phosphorus (mg)</th>
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</thead>
<tbody>
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<td>Finger millet</td>
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<td>1.14</td>
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<td>6.23</td>
<td>7.66</td>
<td>6.06</td>
<td>7.16</td>
<td>15.55</td>
<td>215.05</td>
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<td>4.70</td>
<td>9.66</td>
<td>6.60</td>
<td>3.84</td>
<td>16.63</td>
<td>224.00</td>
</tr>
</tbody>
</table>
7. UPPMA

Ingredients

Finger millet/ kodo millet/

Little millet/ barnyard millet rava - 600 g
Onion (chopped) - 200 g
Green chilies (chopped) - 50 g
Oil - 80 ml
Curry leaves - 20 g
Mustard seed - 10 g
Black gram dhal - 20 g
Bengal gram dhal - 20 g
Water - as required
Salt - as required

Method

- Grind millet rice into grits (rava).
- Roast the rava till it becomes light brown.
- Fry all the ingredients except rava with oil.
- Add water, salt and allow it to boil.
- Add roasted rava slowly with continuous stirring.
- Cook it for 15-20 minutes.
- Serve hot with chutney.

NUTRIENT CONTENT (per 100g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
<th>Calcium (mg)</th>
<th>Phosphorus (mg)</th>
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<tbody>
<tr>
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<td>8.84</td>
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<td>158.00</td>
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<tr>
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<td>53.78</td>
<td>9.46</td>
<td>3.57</td>
<td>5.10</td>
<td>6.79</td>
<td>18.94</td>
<td>216.10</td>
</tr>
<tr>
<td>Barnyard millet</td>
<td>45.20</td>
<td>5.65</td>
<td>9.32</td>
<td>6.55</td>
<td>3.83</td>
<td>18.54</td>
<td>213.00</td>
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8. ADAI

Ingredients

Finger millet/kodo millet/

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

Method

❖ Soak 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 tawa, spread the adai batter and cook.
❖ Serve hot with chutney.

NUTRIENT CONTENT (per 100g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
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<th>Iron (mg)</th>
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9. KITCHADI

**Ingredients**

- Finger millet/ kodo millet/ Little millet/ barnyard millet rava - 500 g
- Carrot - 50g
- Beans - 50g
- Onion (chopped) - 200 g
- Green chilies (chopped) - 50 g
- Oil - 80 ml
- Curry leaves - 20 g
- Mustard seed - 10 g
- Black gram dhal - 20 g
- Bengal gram dhal - 20 g
- Water - as required
- Salt - as required

**Method**

- Grind Small millet rice into grits (rava).
- Roast the rava till it becomes light brown.
- Fry all the ingredients except rava with oil.
- Add water, salt and allow it to boil.
- Add roasted rava slowly with continuous stirring.
- Cook it for 15-20 minutes.
- Serve hot with chutney.

**NUTRIENT CONTENT (per 100g)**

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<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
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10. CHAPPATHI

Ingredients

- Finger millet/ kodo millet/
- Little millet/ barnyard millet flour - 100g
- Wheat flour - 25 g
- Onion - 20 g
- Domestic leaves - 20 g
- Curry leaves - 5 g
- Coriander leaves - 10 g
- Green chilies - 4 no.
- Cumin seed - 1 teaspoon
- Salt - as required
- Oil - as required

Method

- Add salt and water to the flour and knead it into soft dough.
- Make round balls and roll to flat chappathi.
- Toast the chappathi on a preheated pan.
- Serve hot with any curry or chutney.

NUTRIENT CONTENT (Per 100 g)

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<th>CHO (g)</th>
<th>Protein (g)</th>
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11. KHAKRA

Ingredients

Finger millet/ kodo millet/
Little millet/ barnyard millet flour - 500 g
Wheat flour - 500 g
Salt - 20 g
Water - as required

Method

❖ Add salt and water to the flour and knead into soft dough.
❖ Make balls (30 g) and roll into round shape.
❖ Toast the khakra on a preheated pan, press with a dry cloth and turn frequently.
❖ Serve hot with channa masala or dal.

NUTRIENT CONTENT (Per 100 g)

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12. SMALL MILLET METHI RICE

Ingredients

Finger millet/ kodo millet/
Little millet/ barnyard millet rice - 700 g
Oil - 50 g
Mustard - 10g
Black gram dhal - 10g
Bengal gram dhal - 10g
Methi leaves - 125g
Onion - 50 g
Green chilies - 20g
Lemon juice - 10 ml
Curry leaves - as required
Turmeric - a pinch
Salt - as required

Method

❖ Cook the rice.
❖ Fry all the ingredients except rice.
❖ Add rice slowly with continuous stirring.
❖ Serve hot with coconut chutney.

NUTRIENT CONTENT (Per 100 g)

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Technical bulletin on value added products from small millets

II. SWEET RECIPES

1. SWEET PONGAL

Ingredients

Finger millet/ kodo millet/
Little millet/ barnyard millet rice - 400gm
Green gram dhal - 200gm
Jaggery/sugar - 300gm
Cashew - 50gm
Raisins - 50gm
Ghee - as required
Cardamom - as required

Method

❖ Cook Small millet rice and green gram dhal.
❖ The pongal in low flame by adding the ghee with continuous stirring.
❖ Add roasted cashew nut, cardamom and raisins.
❖ Sweet pongal is ready to serve.

NUTRIENT CONTENT (Per 100 g)

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<th>Protein (g)</th>
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2. HALWA

**Ingredients**

- Finger millet/ kodo millet/ little millet/ barnyard millet flour - 200 g
- Wheat flour - 100 g
- Powdered sugar - 350 g
- Ghee - 300 g
- Cashewnuts - 50 g
- Water - as required

**Method**

- Fry Small millet flour and wheat flour with half the amount of ghee.
- Add fried flour to the boiled milk and water with continuous stirring to avoid lumps.
- When it solidifies, add sugar, ghee and cook to the required consistency.
- Add roasted cashew nuts and raisins when the solid mass leaves the sides of the pan.
- Spread on a greased tray and cut into pieces.

**NUTRIENT CONTENT (per 100g)**

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
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3. SWEET KOLUKATTAI

Ingredients

Finger millet/ kodo millet/
Little millet/ barnyard millet flour - 600 g
Jaggery - 200 g
Shredded coconut - 100 g
Roasted bengal gram dhal - 50 g
Sesame seeds - 50 g
Cardamom - as required
Salt - as required

Method

- Add required amount of water and salt to the Small 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 cook the filled dough in idli cooker for 15 minutes.
- Serve it hot.

NUTRIENT CONTENT (Per 100 g)

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<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
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4. PAYASAM

Ingredients

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<tr>
<td>Jaggery</td>
<td>- 300 g</td>
</tr>
<tr>
<td>Cardamom powder</td>
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<td>Cashew nuts</td>
<td>- 50 g</td>
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<td>Raisins</td>
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<tr>
<td>Water</td>
<td>- 350 ml</td>
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Method

- Boil milk and water for 10 minutes.
- Add Small 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)

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<th>Name of the Product</th>
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5. ADHIRASAM

Ingredients

Finger millet/ kodo millet/
  little millet/ barnyard millet flour - 250g
  Raw rice flour - 250g
  Jaggery - 500g
  Cardamom powder - as required
  Dry ginger - as required
  Water - as required
  Oil - for frying

Method

- Mix Small millet flour and raw rice flour thoroughly.
- Sprinkle little water, mix it thoroughly and keep it for four hours.
- Mix jaggery with required water and heat to syrup consistency.
- Add jaggery syrup and stir the flour to make smooth dough.
- Allow it to ferment overnight at room temperature.
- Flatten the fermented dough on a greased polythene sheet.
- Deep fry the flattened dough in hot oil for 2-3 minutes till it turns golden brown.

NUTRIENT CONTENT (Per 100 g)

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<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
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6. KESARI

**Ingredients**

- Finger millet/ kodo millet/
- little millet/ barnyard millet rava - 300 g
- Sugar - 400 g
- Milk - 100 ml
- Ghee - 100 g
- Cashew nuts - 50 g
- Raisins - 50 g
- Water - 500 ml
- Lemon yellow colour - as required

**Method**

- Heat ghee in a pan, add Small millet rava and fry till it turns light brown.
- Add sugar, milk and a pinch of required colour to water and allow it to boil for 5-10 minutes.
- Add Small millet rava to the boiling water with continuous stirring and cook for 15 to 20 minutes.
- Decorate with cashew nuts and dry fruits and serve it hot.

**NUTRIENT CONTENT (Per 100 g)**

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7. SWEET ADAI

**Ingredients**

- Finger millet/ kodo millet/ little millet/ barnyard millet flour - 400 g
- Roasted bengal gram flour - 150 g
- Green gram flour - 150 g
- Jaggery - 300 g
- Water - as required

**Method**

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

**NUTRIENT CONTENT (Per 100 g)**

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
<th>Calcium (mg)</th>
<th>Phosphorus (mg)</th>
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8. MLLET BOLI

Ingredients

- Refined wheat flour - 500g
- Salt - 1 pinch
- Water - as required

Stuffing

- Finger millet/ kodo millet/
  - little millet/ barnyard millet rava - 100g
- Sugar - 150g
- Ghee - 40g
- Cardamom - 10g
- Water - 1 cup

Method

- Mix refined wheat flour with required amount of water to thick dough consistency.
- Make balls and roll it in to round shape in polythene sheet.
- Add sugar, cardamom and ghee to the Small millet rava and cook till the mix does not stick to the sides of the pan.
- Fill the mixture on the dough sheet, fold it and roll as thin as possible.
- Toast the boli on a preheated tawa.

NUTRIENT CONTENT (Per 100 g)

<table>
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<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
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III. SNACKS

1. VADA

Ingredients

- Finger millet/ kodo millet/
- little millet/ barnyard millet rice - 500 g
- Bengal gram dhal - 250 g
- Onion (chopped) - 150 g
- Green chilies (chopped) - 80 g
- Curry leaves - 20 g
- Salt - as required
- Oil - for frying

Method

- Soak millet rice and bengal gram dhal for 4 hours and grind coarsely to thick consistency.
- Mix all the ingredients into the dough.
- Make small round balls and flattened on a greased polythene sheet.
- Deep fry the dough in hot oil till they turn golden brown in colour.
- Serve hot with chutney.

NUTRIENT CONTENT (Per 100 g)

<table>
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<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
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2. PAKODA

Ingredients

Finger millet/ kodo millet/
little millet/ barnyard millet flour - 750 g
Onion (chopped) - 150 g
Green chilies (chopped) - 50 g
Cumin seeds - 30 g
Curry leaves - 20 g
Salt - as required
Water - as required
Oil - for frying

Method

❖ Add all the ingredients and water to the flour and make it into thick dough.
❖ Deep fry the dough in hot oil in different shapes.
❖ Serve hot.

NUTRIENT CONTENT (Per 100 g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
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3. RIBBON PAKODA

Ingredients

- Finger millet/ kodo millet/
- little millet/ barnyard millet flour - 900 g
- Butter - 50 g
- Chili powder - 30 g
- Sesame seeds - 20 g
- Salt - as required
- Water - as required
- Oil - for frying

Method

- Add all the ingredients to the flour and mix it thoroughly.
- Prepare the dough by adding water.
- Extrude the dough in a hand extruder and deep fry in hot oil till they turn golden brown colour.
- Extrude the dough in a hand extruder through ribbon pakoda dye.
- Deep fry the extruded ribbon pakoda till they turn golden brown.

NUTRIENT CONTENT (Per 100 g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
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4. HOT KOLUKATTAI

Ingredients

Finger millet/ kodo millet/
little millet/ barnyard millet flour - 600 g
Onion (chopped) - 150 g
Green chilies (chopped) - 50 g
Curry leaves - 20 g
Coriander leaves - 20 g
Asafoetida - 20 g
Mustard seed - 20 g
Black gram dhal - 20 g
Oil - 100 ml
Salt - as required
Water - as required

Method

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

NUTRIENT CONTENT (Per 100 g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
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<th>Phosphorus (mg)</th>
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5. MURUKKU

**Ingredients**

- Finger millet/ kodo millet/
- little millet/ barnyard millet flour  - 850 g
- Chili powder                - 30 g
- Sesame seeds                - 30 g
- Cumin seeds                 - 20 g
- Asafoetida                  - 20 g
- Butter                      - 50 g
- Salt                        - as required
- Water                       - as required
- Oil                         - for frying

**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 in hot oil till it turns golden brown in colour.

**NUTRIENT CONTENT (Per 100 g)**

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
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<th>Calcium (mg)</th>
<th>Phosphorus (mg)</th>
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6. OMAPODI

Ingredients

- Finger millet/ kodo millet/
- little millet/ barnyard millet flour - 800g
- Rice flour - 160g
- Chili powder - 20g
- Pepper powder - 20g
- Salt - to taste
- Water - as required

Method

- Mix together Small millet flour, rice flour and sieve.
- Prepare thick dough by adding required water
- Extrude the dough in a hand extruder through omapodi dye.
- Deep fry the extruded omapodi till they turn golden brown.

NUTRIENT CONTENT (Per 100 g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
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<th>Calcium (mg)</th>
<th>Phosphorus (mg)</th>
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7. THATTU VADAI

**Ingredients**

- Finger millet/ kodo millet/ little millet/ barnyard millet flour - 800 g
- Roasted bengal gram dhal - 100 g
- Butter - 50 g
- Chili powder - 30 g
- Curry leaves - 20 g
- Salt - 20 g
- Water - as required
- Oil - for frying

**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 golden brown.

**NUTRIENT CONTENT (Per 100 g)**

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
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8. SEEDAI

**Ingredients**

Finger millet/ kodo millet/ little millet/ barnyard millet rava - 600g  
Black gram flour -200g  
Jaggery -200g  
Cardamom -5 No.  
Ghee - to fry  
Sesame - as required  
Water - as required

**Method**

- Mix the roasted Small millet rava with black gram flour.
- Add powdered cardamom and sesame to the mix.
- Add sugar syrup and mix with the seedai mix.
- Make small balls and fry it in hot oil or ghee.

**NUTRIENT CONTENT (Per 100 g)**

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
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<th>Phosphorus (mg)</th>
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9. SMALL MILLET VEGETABLE PAKODA

**Ingredients**

- Finger millet/ kodo millet/ little millet/ barnyard millet flour - 250g
- Bengal gram flour - 75g
- Carrot, beans, peas - 50 g
- Onion - 75g
- Green chilies - 6 no.
- Curry leaves - as required
- Coriander leaves - as required
- Oil - as required
- Salt - as required

**Method**

- Add all the ingredients and water to the flour and make it into thick dough.
- Deep fry the dough in different shapes in hot oil.
- Serve it hot.

**NUTRIENT CONTENT (Per 100 g)**

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
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<th>Phosphorus (mg)</th>
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</table>
IV. PUFFED PRODUCTS

1. SMALL MILLET POPCORN

Ingredients

Finger millet/ kodo millet/
little millet/ barnyard millet - 250g
Water - as required

Method

- Soak the Small Millets for 1 to 2 hours.
- Drain the water and temper the grains for 30 minutes.
- The tempered grains were surface dried for 1 hr.
- Evenly grained, processed sand was heated in a kadai to a temperature of 270°C.
- The Small Millets were puffed till the process was complete.

NUTRIENT CONTENT (Per 100 g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
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<th>Calcium (mg)</th>
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V. PASTA PRODUCTS FROM SMALL MILLETS

1. VERMICELLI

Ingredients

- Refined wheat flour - 80g
- Finger millet/kodo millet/little millet/barnyard millet flour - 20g
- Water - 30 ml
- Salt - to taste

Method

- Sieve refined wheat flour and Small millet flour blends in a BS 60 mesh sieve.
- Add water, salt and knead the flour into smooth soft dough.
- Keep it for 30 minutes and extrude using a hand extruder.
- Steam the vermicelli for 5 minutes.
- Dry the vermicelli and pack in airtight bags/containers.

NUTRIENT CONTENT (Per 100 g)

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<th>Protein (g)</th>
<th>Fat (g)</th>
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2. MACARONI

Ingredients

Finger millet/ kodo millet/

little millet/ barnyard millet flour - 200 g
Refined wheat flour - 800 g
Salt - as required

Method

❖ Add water and knead the flour into smooth soft dough.
❖ Cook this dough for five minutes.
❖ Press this dough using hand extruder.
❖ Dry the macaroni and pack in airtight bags/containers.

**NUTRIENT CONTENT (Per 100 g)**

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VI. BAKERY PRODUCTS FROM SMALL MILLETS

1. SMALL MILLET BREAD

Ingredients

- Refined wheat flour - 800g
- Finger millet/ kodo millet/ little millet/ barnyard millet flour - 200g
- Sugar - 170g
- Fat - 20 g
- Salt - 20g

Yeast liquid

- Sugar - 10g
- Warm water - 500ml
- Yeast - 30g

Method

- Prepare yeast liquid by dissolving the sugar in the water. Sprinkle the yeast. Leave for 10-15 minutes until fluffy.
- Rub fat into flour add salt and yeast liquid. Prepare dough.
- Turn onto lightly floured board and knead till soft and elastic (20 minutes for kneading).
- Cover and leave to rise. Remove and knead lightly. Grease 2 bread tins.
- Divide dough into two. Stretch each piece as oblong, the same width as tin and fold over in three.
- With the seam underneath, smooth over top, tuck in ends and place in tin.
- Place in a covered vessel or greased bag and leave to rise (20 to 30 minutes).
- Bake in a very hot oven for 30 to 40 minutes at 200°C.

NUTRIENT CONTENT (Per 100 g)

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<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
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2. SMALL MILLET BUN

Ingredients
- Refined wheat flour — 800g
- Finger millet/kodo millet/little millet/barnyard millet flour — 200g
- Water — 500ml
- Milk — 20g or Milk powder - 100ml
- Yeast — 20g
- Sugar — 200g
- Salt — 15g
- Fat — 30g

Method
- Yeast liquid: yeast with little warm water and pinch of sugar.
- Mix sugar and salt in the remaining milk.
- Mix flour, milk powder and make a well in the centre.
- Add soften yeast froth and sugar and salt mixed water.
- Knead to soft dough. Incorporate fat white kneading.
- Leave the dough for proofing. Knock back and knead lightly.
- Divide into 60g balls and leave it for rising.
- Glaze it with egg and bake at 200°C for 10 to 15 minutes.

NUTRIENT CONTENT (Per 100 g)

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<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
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3. SMALL MILLET BISCUIT

**Ingredients**
- Refined wheat flour - 500g
- Finger millet/ kodo millet/
- little millet/ barnyard millet flour - 500g
- Fat - 400g
- Sugar - 250g
- Baking powder - ¼ teaspoon

**Method**
- Sieve flour with baking powder.
- Cream, fat and sugar till light and fluffy.
- Sieved flour is mixed to the above cream.
- Make smooth dough necessary.
- Sheet the dough and cut with the biscuit cutter.
- Bake at 160°C for about 15 minutes.

**NUTRIENT CONTENT (Per 100 g)**

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4. SMALL MILLET CAKE

**Ingredients**
- Refined wheat flour - 700g
- Finger millet/ kodo millet/ little millet/ barnyard millet flour - 300g
- Sugar - 800g
- Fat - 800g
- Egg - 20 No.
- Vanilla essence - a few drops
- Baking powder - 1 teaspoon

**Method**
- Sieve flour and baking powder twice.
- Cream fat and sugar till light and fluffy.
- Beat the egg with vanilla essence.
- Fold in flour.
- Prepare cake batter.
- Pour it in the tins and bake at 190°C for 20 minutes.

**NUTRIENT CONTENT (Per 100 g)**

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5. SMALL MILLET DOUGH NUT

Ingredients

- Refined wheat flour - 800g
- Finger millet/ kodo millet/ little millet/ barnyard millet flour - 200g
- Baking powder - 1 teaspoon
- Dalda - 30g
- Egg - 1 No.
- Salt - 15 g

Yeast liquid

- Yeast - 30g
- Water - 500ml
- Sugar - 150g
- Oil - to fry

Method

- Warm the water, add sugar and sprinkle yeast on the top.
- Allow it to rise for 5 to 10 minutes.
- Mix warm milk, sugar and salt. Sieve flour and make a shallow centre.
- Add egg, yeast liquid, sugar and salt.
- Add milk and prepare soft dough.
- Mix in fat while kneading.
- Allow it to rise to a double volume for one hour.
- Roll out 1.3rd of an inch. Cut with a doughnut cutter.
- Fry in medium heated oil till golden brown in colour.
- Roll in powdered sugar.

NUTRIENT CONTENT (Per 100 g)

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6. SMALL MILLET BREAD ROLL

Ingredients

- Refined wheat flour - 800g
- Finger millet/ kodo millet/ little millet/ barnyard millet flour - 200g
- Dalda - 20 g
- Salt - 15g

Yeast liquid

- Sugar - 180g
- Warm water - 500ml
- Yeast - 20g

Method

- Prepare bread dough used for preparing rolls.
- Divide dough into 60g pieces.
- Roll into various shapes.
- Place on greased trays and leave to rise (30 minutes).
- Glaze and bake in hot oven for 15 to 20 minutes.

NUTRIENT CONTENT (Per 100 g)

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VII. INSTANT SMALL MILLET MIXES

Preparation of Quick Cooking Small Millets

❖ Clean, wash and pearl the Small Millets.
❖ Dry the grains in a cabinet drier at 60°C for six hours.
❖ Pack the dried grains in airtight bags/containers.

Preparation of Dehydrated Vegetables

❖ Select fresh and firm vegetables.
❖ Wash the vegetables in running tap water.
❖ Cut the vegetables into small pieces of uniform size.
❖ Steam blanch all the vegetables for 3-5 minutes except onions and tomatoes.
❖ Dry all the vegetables in cabinet drier at 60°C for 6 hours separately.
❖ Pack the dehydrated vegetables separately in air tight bags/containers.
❖ Use as required for the recipe.
1. VENPONGAL MIX

Ingredients

Finger millet/ kodo millet/
little millet/ barnyard millet - 500g
Green gram dhal - 250 g
Cashew nut - 100 g
Curry leaves - 20 g
Cumin seeds - 50 g
Pepper - 50 g
Ginger - 30 g
Oil - 10 ml
Salt - as required

Method

❖ Mix all the ingredients in 10 ml of oil.
❖ Pack in airtight bags or container.
❖ Cook one part of instant pongal mix with three parts of water.
❖ Serve hot with chutney or sambar.

NUTRIENT CONTENT (Per 100 g)

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2. TOMATO MIX

Ingredients

- Finger millet/ kodo millet/ little millet/ barnyard millet - 500 g
- Tomato - 300 g
- Onion - 100 g
- Green chilies - 50 g
- Curry leaves - 20 g
- Ginger - 10 g
- Turmeric - 20 g
- Salt - as required
- Oil - 10 ml

Method

- Mix all the ingredients in 10 ml of oil.
- Pack in airtight bags or container.
- Cook one part of instant tomato mix with three parts of water.

NUTRIENT CONTENT (Per 100 g)

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3. BISIBELABATH MIX

Ingredients

Finger millet/ kodo millet/
little millet/ barnyard millet  - 550 g
Red gram dhal  - 50 g
Bengal gram dhal  - 50 g
Coriander  - 20 g
Fenugreek  - 10 g
Turmeric powder  - 10 g
Brinjal  - 50 g
Carrot  - 50 g
Beans  - 50 g
Potato  - 50 g
Onion  - 50g
Green chili  - 10g
Tomato  - 50 g
Oil  - 10ml
Salt  - as required

Method

- Mix all the ingredients in 10 ml of oil.
- Pack in airtight bags or container.
- Cook one part of instant Bisibelabath mix with three parts of water.

NUTRIENT CONTENT (Per 100 g)

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</table>
4. PULIYOTHARAI MIX

**Ingredients**

- Finger millet/ kodo millet/ little millet/ barnyard millet - 500g
- Tamarind powder - 200g
- Chili powder - 50g
- Bengal gram dhal - 100g
- Black gram dhal - 100g
- Turmeric - 50g
- Oil - 10 ml
- Salt - as required

**Method**

- Mix all the ingredients in 10 ml of oil.
- Pack in airtight bags or container.
- Cook one part of instant puliyotharai mix with three parts of water.

**NUTRIENT CONTENT (Per 100 g)**

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
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5. BIRIYANI MIX

**Ingredients**

- Finger millet/kodo millet/ little millet/barnyard millet - 500g
- Carrot - 50g
- Beans - 50g
- Peas - 50g
- Onion - 50g
- Tomato - 50g
- Curry leaves - 20g
- Chili powder - 50g
- Cloves - 20g
- Garlic - 50g
- Turmeric - 10g
- Mint - 50g
- Ginger - 50g
- Oil - 10ml
- Salt - as required

**Method**

- Mix all the ingredients in 10 ml of oil.
- Pack in airtight bags or container.
- Cook one part of instant Biriyani mix with three parts of water.

**NUTRIENT CONTENT (Per 100 g)**

<table>
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<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
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<td>5.36</td>
<td>4.37</td>
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VIII. READY TO COOK SWEET MIXES

Preparation of Small millet flour

- Grind the dried grains to powder form in a pulverizer.
- Sieve the flour through BS36 sieve.
- Pack the flour in airtight bags/container.

1. HALWA MIX

Ingredients

Finger millet/ kodo millet/ little millet/ barnyard millet flour - 350 g
Sugar - 400 g
Milk - 100 ml
Orange colour - 10 pinch
Cashew nuts - 50 g
Ghee - 100 g

Instant mix

- Mix all the ingredients thoroughly except milk and ghee.
- Pack in airtight polythene bags/containers.

Preparation

- Add one part of halwa mix in milk.
- Mix thoroughly without lumps.
- Melt butter in a hot tawa.
- Cook the mix in low flame by adding ghee with continuous stirring.
- Cook, till the mix does not stick to sides of the pan.
- Spread on a greased tray, allow cooling.
- Decorate with roasted cashew nuts.

NUTRIENT CONTENT (Per 100 g)

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<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
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</table>
2. ADAI MIX

Ingredients
- Finger millet/ kodo millet/
  little millet/ barnyard millet flour - 600 g
- Roasted bengal gram flour - 50 g
- Green gram flour - 150g

Instant mix
- Mix all the ingredients thoroughly.
- Pack in airtight bags/containers.

Method
- Mix Small millet adai mix with required water to thick dough consistency.
- Flatten the dough on a tawa and cook both sides.

NUTRIENT CONTENT (Per 100 g)

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<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
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Technical bulletin on value added products from small millets

3. PAYASAM MIX

Ingredients
Finger millet/ kodo millet/
little millet/ barnyard millet vermicelli - 400 g
Sugar - 400 g
Milk - 100 ml
Cashew nut - 50 g
Raisins - 50 g
Ghee - as required
Cardamom - 10 nos.

Instant mix
❖ Mix all the ingredients thoroughly, except milk and ghee.
❖ Pack in airtight bags/containers.

Method
❖ Add Small millet vermicelli and sugar to boiling milk.
❖ Cook for 10-15 minutes.

NUTRIENT CONTENT (Per 100 g)

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<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
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4. SWEET KOLUKATTAI MIX

Ingredients

Finger millet/ kodo millet/
little millet/ barnyard millet flour - 600 g
Jaggery - 200 g
Shredded coconut - 100 g
Roasted bengal gram dhal - 50 g
Sesame seeds - 50 g
Cardamom - as required
Salt - as required

Method

❖ Mix all the ingredients thoroughly, except milk and ghee.
❖ Pack in airtight bags/containers.

Preparation

❖ Add one part of water to one part of kolukattai mix and mix well, to a thick dough consistency.
❖ Allow it to stand for 20 minutes.
❖ Make kolukattai shapes and steam for 5-10 minutes.
❖ Serve hot.

NUTRIENT CONTENT (Per 100 g)

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<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
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</table>
5. SWEET PONGAL MIX

Ingredients

- Finger millet/ kodo millet/
- Little millet/ barnyard millet rice - 400gm
- Green gram dhal - 200gm
- Jaggery/sugar - 300gm
- Cashew - 50gm
- Raisins - 50gm
- Ghee - as required
- Cardamom - as required

Instant mix

- Mix all the ingredients thoroughly, except ghee.
- Pack in airtight bags/containers.

Method

- Add one part of sweet pongal mix to two parts water and cook.

NUTRIENT CONTENT (Per 100 g)

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</table>
IX. READY TO COOK SNACK MIXES

1. MURUKKU MIX

Ingredients
Finger millet/ kodo millet/ little millet/ barnyard millet flour - 750 g
Bengal gram flour - 130 g
Chili Powder - 20 g
Sesame seeds - 50g
Butter - 50 g
Salt - as required
Oil - as required

Instant mix
◆ Mix all the ingredients thoroughly.
◆ Pack in airtight bags/containers.

Method
◆ Mix the Small millet murukku mix with hydrogenated fat and required amount of water.
◆ Press the dough in a hand extruder using required murukku shape dyes in oil (180°C).
◆ Deep fry them in medium flame till they turn golden brown colour.

NUTRIENT CONTENT (Per 100 g)

<table>
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<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
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</table>
2. RIBBON PAKODA MIX

Ingredients

Finger millet/ kodo millet/ little millet/ barnyard millet flour - 750 g
Bengal gram flour - 130 g
Chili powder - 20 g
Sesame seeds - 50 g
Butter - 50 g
Salt - as required
Oil - as required

Instant mix

- Mix all the ingredients thoroughly.
- Pack in airtight bags/containers.

Method

- Mix the Small millet pakoda mix with hydrogenated fat and required amount of water.
- Press the dough in a hand extruder using ribbon pakoda shape dye.
- Deep fry in hot oil till they turn golden brown colour.

NUTRIENT CONTENT (Per 100 g)

<table>
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<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
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3. OMAPODI MIX

Ingredients
Finger millet/ kodo millet/
little millet/ barnyard millet flour - 700 g
Bengal gram flour - 300 g
Salt - as required
Oil - as required

Instant mix
❖ Mix all the ingredients thoroughly.
❖ Pack in airtight bags/containers.

Method
❖ Mix the Small millet omapodi mix with hydrogenated fat and required amount of water.
❖ Press the dough in a hand extruder.
❖ Fry in hot oil till they turn golden brown colour.

NUTRIENT CONTENT (Per 100 g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
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</table>
4. VADA MIX

Ingredients

- Finger millet/ kodo millet/ little millet/barnyard millet flour - 600 gm
- Bengal gram flour - 300 gm
- Onion - 50 gm
- Green chilies - 20 gm
- Curry leaves - 30 gm
- Salt - as required
- Oil - as required

Instant mix

- Mix all the ingredients thoroughly.
- Pack in airtight bags/containers.

Method

- Mix the vada mix with required water to a thick dough consistency.
- Make small round balls and flatten on a greased polythene sheet.
- Remove and deep fry in oil, till they turn golden brown in colour.

NUTRIENT CONTENT (Per 100 g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
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<td>58.62</td>
<td>14.02</td>
<td>2.45</td>
<td>3.26</td>
<td>4.19</td>
<td>12.35</td>
<td>312.37</td>
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<tr>
<td>Barnyard millet</td>
<td>58.47</td>
<td>10.23</td>
<td>2.19</td>
<td>4.95</td>
<td>3.87</td>
<td>54.20</td>
<td>240.85</td>
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</table>
5. VADAGAM

Ingredients
Finger millet/ kodo millet/ little millet/ barnyard millet flour - 900 g
Chili powder - 50 g
Cumin seeds - 50 g
Salt - 20 g
Water - 6000 ml

Method
❖ Add chilli powder, cumin seeds and salt to the flour.
❖ Mix with water to get thick batter.
❖ Drop the batter in greased plates using a spoon.
❖ Allow it to sun dry.
❖ Pack the dried vadagam in air tight bags or container.
❖ Deep fry the vadagam in hot oil when required.

NUTRIENT CONTENT (Per 100 g)

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
<th>Calcium (mg)</th>
<th>Phosphorus (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger millet</td>
<td>64.80</td>
<td>6.57</td>
<td>1.17</td>
<td>3.24</td>
<td>3.51</td>
<td>309.60</td>
<td>254.7</td>
</tr>
<tr>
<td>Kodo millet</td>
<td>59.31</td>
<td>7.47</td>
<td>1.26</td>
<td>7.21</td>
<td>1.45</td>
<td>24.30</td>
<td>169.20</td>
</tr>
<tr>
<td>Little millet</td>
<td>60.30</td>
<td>6.93</td>
<td>4.23</td>
<td>6.84</td>
<td>8.37</td>
<td>15.30</td>
<td>198.00</td>
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<tr>
<td>Barnyard millet</td>
<td>58.95</td>
<td>5.58</td>
<td>1.98</td>
<td>6.82</td>
<td>4.50</td>
<td>12.64</td>
<td>252.00</td>
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</table>
6. PAPAD

**Ingredients**
- Finger millet/ kodo millet/ little millet/ barnyard millet flour - 400 g
- Black gram flour - 600 g
- Oil - 50ml
- Cumin seeds - 50 g
- Salt - 50 g
- Sodium bicarbonate - 10 g

**Method**
- Mix Small millet flour, black gram flour and cumin seeds thoroughly.
- Add salt and sodium bicarbonate in water and sprinkle on the flour to make stiff dough.
- Divide the dough into small portions.
- Roll out into thin circular shapes, shade dry and pack.

**Nutrient content (100 g)**

<table>
<thead>
<tr>
<th>Name of the Product</th>
<th>CHO (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
<th>Calcium (mg)</th>
<th>Phosphorus (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger millet</td>
<td>64.20</td>
<td>17.32</td>
<td>1.36</td>
<td>1.98</td>
<td>3.84</td>
<td>230.00</td>
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<td>306.20</td>
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<tr>
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<td>3.58</td>
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<td>4.28</td>
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</tbody>
</table>
7. SMALL MILLET HEALTH MIX

Ingredients

- Wheat - 200g
- Kodo millet - 200g
- Little millet - 200g
- Foxtail millet - 200g
- Finger millet - 200g
- Whole green gram - 100g
- Whole Bengal gram - 20g
- Whole soya beans - 20g
- Sugar - 100g
- Peas (dried) - 20g
- Groundnut - 20g
- Almonds - 20g
- Cashew - 20g
- Dried ginger - 5 g
- Cardamom - 2 g
- Milk powder - 20g

Preparation of malt

- Wash millet seeds thoroughly in water.
- Soak the seeds for 5 hours
- Drain the excess water and tie in a muslin cloth.
- Allow the seed to sprout at room temperature (27±3°C) for 24 hours
- Shade dry the germinated seeds for 48 hours.
- Roast the seeds at 120°C and allow it to cool.
- Grind the germinated seeds to fine flour.
- Pack the flour in air tight bags or containers.

Nutrient content (100 g)

<table>
<thead>
<tr>
<th>Carbohydrate (g)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Crude Fibre (g)</th>
<th>Iron (mg)</th>
<th>Calcium (mg)</th>
<th>Phosphorus (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>77.48</td>
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<td>31.51</td>
<td>277.60</td>
<td>226.40</td>
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Raw materials

1. M/S. Eswari Enterprises
   Shop No.12/ Corporation Shopping Complex,
   West Arogyasamy Road,
   R.S.Puram, Coimbatore-641 002.

2. M/S. Viveka Agencies,
   657, Thomas Street,
   Coimbatore - 641 001.

Fats and Oils

3. M/S. Prabha Traders,
   918-A, Rangai Gowder Street,
   Coimbatore - 641 001.

Packaging materials

4. M/S. Thangam Paks,
   802, Raja Street,
   Coimbatore - 691001.

5. SEELERS INDIA AGENCIES,
   No-118/19, A-1 Block,
   8th main road,
   (Telephone exchange back side)
   Shanthy colony, Anna Nagar,
   Chennai - 600040.

Machineries

6. M/S. Arun's Engineering Works,
   No.213, Sitra Kalapatti Road,
   Near, LMW, Unit VIII,
   Kalapatti Post,
   Coimbatore - 641035.

7. Imayam Engineering Works
   Bakery Machines and Ovens
   Pollachi main road, Near Eachanari railway gate
   Coimbatore -641 021

8. SCIENCE WORLD
9. SRI GANESH MILL STORE,
Kings Complex,
344, Dr. Nagappa road,
Coimbatore-641018.

10. SARASWATHI INDUSTRIES,
41, A I G P Nagar,
Krishnapuram,
Saravanampatti (PO),
Coimbatore-641035.

11. VICTOR MACHINES,
4/235, Allamarakadu,
Munniyappan Kovil backside,
Salem-636004.

12. GANAPATHI COTTAGE INDUSTRIES,
38/16A, Kamarajar Nagar,
2nd Street, R.K. Puram, Ganapathi (PO),
Coimbatore - 641006.