Recipes for Vitamin A-rich bananas
Developed for South Kivu, Democratic Republic of Congo
Cifukama with vegetables

Ingredients

- 10 bananas
- 2 cups beans (300g)
- 1 bundle amaranth / pumpkin leaves
- 2 heaped tablespoons groundnut flour
- 1 medium tomato
- 1 medium onion
- 1 ½ tablespoons cooking oil
- 2 teaspoons iodised salt
- 1 litre of water

Preparation

1) Bananas and beans

1. Sort the beans and soak them overnight, discard the soaking water and wash the beans.
2. Boil the beans with salt until almost soft (1 hour).
3. Reduce the water until it is just covering the beans. Keep the removed water aside.
4. Peel bananas and add them to the beans.
5. Continue boiling until bananas and beans are ready (30 minutes).
6. Remove from the fire and mash the mixture to a uniform hard consistency. All bananas should be well mashed, though not all beans need to be mashed.
7. Add the water that was removed from boiled beans a little at a time to the mixture during mashing to ease mixing and achieve the required consistency.
8. Cut in small pieces and place on a perforated tray to remove excess water for 10-15 minutes.

Suitable for Bira, Lahi, Pisang Papan bananas
Serves 2 people
Preparation time: 120 minutes
Cifukama with vegetables

Preparation
2) Vegetables

1. Wash vegetables thoroughly and cut up the leaves (for pumpkin leaves, the top layer of veins are removed prior to washing and cutting)
2. In a little water (1/4 cup), boil the vegetables in a covered pan until half cooked (5 minutes)
3. In a separate pan, fry the onions in cooking oil and add tomatoes
4. Mix groundnut flour in a little water (4 table spoons of water) to make a paste
5. Once tomatoes are soft, add the vegetables (with their water) and groundnut flour paste and stir well
6. Cook for 5-8 minutes

Serve the banana-bean mixture together with the vegetables while hot

Nutritional content:
100g (half of a clenched fist) of this recipe provides:
Energy 72 Kcal; Protein 4g; Iron 4mg; Zinc 0.5mg; Vitamin A 69µg RAE

Recipe developed for South Kivu, Democratic Republic of Congo
**Futari**

**Ingredients**
- 12 bananas
- 2 heaped tablespoons of sardines (sambaza/dagaa - Can be fresh or dried)
- 8 heaped tablespoons soy flour
- 2 medium tomatoes
- 1 medium onion
- 2 ½ tablespoons cooking oil
- 1 teaspoon iodised salt
- 3 cups water (¾ litre)

*Suitable for Bira, Lahi, Pisang Papan bananas*
*Serves 2 people*
*Preparation time: 45 minutes*

**Preparation**
1. Peel bananas and place in pan
2. Add fish, chopped tomatoes, chopped onions, salt and 2 cups of water
3. Boil for 25 minutes until almost ready
4. In a separate container add 1 cup of water to soy flour to make uniform paste
5. Add the soy flour paste and cooking oil to the banana mixture; continue to boil for 10 minutes until ready
6. Mix ingredients using ladle or by tossing in the pan, without excessively breaking the bananas
7. Serve while hot
Nutritional content:

100g (half of a clenched fist) this recipe provides:
Energy 116 Kcal; Protein 5g; Iron 5mg; Zinc 0.1mg; Vitamin A 50µg RAE

Recipe developed for South Kivu, Democratic Republic of Congo
Banana - Soy Porridge

Ingredients
- 17 heaped tablespoons banana flour (140g)
- 8 heaped tablespoons soy flour (70g)
- 2 cups of water (½ litre)
- Sugar

Suitable for Apantu, Bira, Lahi, Lai, Muracho, Pelipita, Pisang Papan, To’o, Tudlo Tumbaga bananas
Serves 4
Preparation time: 20 minutes

Preparation
Porridge
1. Mix banana flour and soybean flour thoroughly
2. Add a ½ cup of water to the flour mixture to make a smooth paste
3. Add the paste to 1½ cups of boiling water
4. Boil for 10-15 minutes
5. Add sugar to taste
Banana - Soy Porridge

Preparation

Banana Flour
1. Wash and peel the bananas when they are starting to ripen (more green than yellow)
2. Slice into thin chips and place on a clean tray/surface
3. Dry in shade until chips are brittle (do not dry under direct sunlight)
4. Sort and grind the dried chips into a flour using a mortar and pestle or mill
5. Sieve the flour to remove large particles
6. Place flour in a clean air tight container or polythene bag and store in a cool dry place
7. Best dried in the dry season

Nutritional content:
100g (half of a clenched fist) of this recipe provides:
Energy 74Kcal; Protein 3g; Iron 5 mg; Zinc 0.3mg; Vitamin A 16 µg RAE

Recipe developed for South Kivu, Democratic Republic of Congo
Enriched Sorghum Porridge

**Ingredients**

- 13 heaped tablespoons sorghum flour (110g)
- 8 heaped tablespoons soy flour (70g)
- 4 heaped tablespoons banana flour (35g)
- 2 cups of water (½ litre)
- Sugar

Suitable for Apantu, Bira, Lahi, Lai, Muracho, Pelipita, Pisang Papan, To’o, Tudlo Tumbaga bananas

Serves 4

Preparation time: 20 minutes

**Preparation**

**Porridge**

1. Mix sorghum, soy and banana flours thoroughly
2. Add a ½ cup of water to the flour mixture to make a smooth paste
3. Add the paste to 1½ cups of boiling water
4. Boil for 10-15 minutes
5. Add sugar to taste
Enriched Sorghum Porridge

Preparation
Banana Flour

1. Wash and peel the bananas when they are starting to ripen (more green than yellow)
2. Slice into thin chips and place on a clean tray/surface
3. Dry in shade until chips are brittle (do not dry under direct sunlight)
4. Sort and grind the dried chips into a flour using a pestle and mortar or mill
5. Sieve the flour to remove large particles
6. Place flour in a clean air tight container or polythene bag and store in a cool dry place
7. Best dried in the dry season

Nutritional content:

100g (half of a clenched fist) of this recipe provides:
Energy 74Kcal; Protein 3g; Iron 5 mg; Zinc 0.4mg; Vitamin A 7 µg RAE

Recipe developed for South Kivu, Democratic Republic of Congo

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Enriched Maize Porridge

**Ingredients**
- 13 heaped tablespoons maize flour (110g)
- 8 heaped tablespoons soy flour (70g)
- 4 heaped tablespoons banana flour (35g)
- 2½ cups of water (¾ litre)
- Sugar

**Suitable for Apantu, Bira, Lahi, Lai, Muracho, Pelipita, Pisang Papan, To’o, Tudio Tumbaga bananas**

**Serves 4**
**Preparation time: 20 minutes**

**Preparation: Porridge**

1. Mix soy and banana flours thoroughly
2. Add a ½ cup of water to the maize flour to make a smooth paste. Make a separate paste of the soy and banana flour mixture with ½ cup of water
3. Add the maize flour paste to 1½ cups of boiling water
4. Boil for 15 minutes
5. Add the soy and banana flour paste and boil for additional 10-15 minutes
6. Add sugar to taste
Enriched Maize Porridge

**Preparation**

**Banana Flour**

1. Wash and peel the bananas when they are starting to ripen (more green than yellow)
2. Slice into thin chips and place on a clean tray/surface
3. Dry in shade until chips are brittle (do not dry under direct sunlight)
4. Sort and grind the dried chips into a flour using a pestle and mortar or mill
5. Sieve the flour to remove large particles
6. Place flour in a clean air tight container or polythene bag and store in a cool dry place
7. Best dried in the dry season

**Nutritional content:**

100g (half of a clenched fist) of this recipe provides:
- Energy 94Kcal
- Protein 4g
- Iron 5mg
- Zinc 0.3mg
- Vitamin A 5µg RAE

Recipe developed for South Kivu, Democratic Republic of Congo
Recipes for Vitamin A-rich bananas

- Recipes were developed through a participatory process with banana farmers in South Kivu, DRC to incorporate the Vitamin A-rich bananas and improve the nutrient quality of the meals.
- Recipes are applicable among banana producing and consuming regions of Eastern Africa.
- The Vitamin A-rich bananas mentioned in these recipes are naturally rich in vitamin A and they are from the countries in the table:

<table>
<thead>
<tr>
<th>Banana</th>
<th>Type</th>
<th>Country of origin</th>
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<tbody>
<tr>
<td>Apantu</td>
<td>Plantain</td>
<td>Ghana</td>
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<tr>
<td>Bira</td>
<td>Plantain</td>
<td>Papua New Guinea</td>
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<tr>
<td>Lahi</td>
<td>Plantain</td>
<td>Hawaii</td>
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<td>Lai</td>
<td>Dessert</td>
<td>Thailand</td>
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<td>Muracho</td>
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<td>The Philippines</td>
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<td>Pelipita</td>
<td>Plantain</td>
<td>The Philippines</td>
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<td>Pisang Papan</td>
<td>Plantain</td>
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<td>Tudlo Tumbaga</td>
<td>Dessert</td>
<td>The Philippines</td>
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Content: Banana farmers (South Kivu, DRC); Deborah Nabuuma (Bioversity International, Uganda); Muller Kamira (Bioversity International, South Kivu-DRC); Alice Simbare (Bioversity International, Burundi); Beatrice Ekesa (Bioversity International, Uganda)

Nutrient content: Food and Nutritional Evaluation Laboratory (FANEL) hosted within the nutrition platform at the Biosciences for East and Central Africa (BecA) Hub at the International Livestock Research Institute (ILRI)

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