



Sweetpotato Processing and Recipes



Sweetpotato boiled roots



Sweetpotato composite flour



Sweetpotato porridge



Sweetpotato relish



Sweetpotato chapattis



Sweetpotato doughnuts



Sweetpotato juice



Sweetpotato buns



Sweetpotato crisps



Sweetpotato crackies



Sweetpotato cake



Sweetpotato soap

A farmer guide to sweetpotato processing and recipes



Natural
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Institute



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Participants of the sweetpotato integrated production and pest management (IPPM) farmer field schools (FFS) asked for a guide on sweetpotato processing and recipes that would help them remember what they had learnt in the FFS and support their continued learning. Together we assembled a draft guide, which was field tested and improved by the participants of 37 sweetpotato FFS run during the 2005/06 season in Uganda, Kenya and Tanzania. The guide is available in Swahili and English.

Other farmer guides on: sweetpotato pests and disease identification and management, and vine multiplication are being developed. These farmer guides complement the comprehensive manual previously developed for facilitators 'Manual for sweetpotato integrated production and pest management farmer field schools in sub-Saharan Africa'.

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- *Vine feed:* Vines can be fed fresh, dried, fermented, or made into silage. The most common practice is to feed fresh vines during harvest season (if sweetpotato is grown for roots or root/vine), and to dry the vines or make silage after harvest.
 - Drying: some farmers like to cut the vines before drying because the dried vines are difficult to cut, while others hang the whole vines on trees, fences, walls or other structures that are strong and high enough to support the vines.
 - Fermentation: fermented vines are favoured by pigs and provide protein at the lowest cost. The feed is made from a mix of chopped vines, rice bran, and salt and is ready to be fed after 10 days of fermenting.
 - Silage: this method is less common, but also an option for storage. In this case, vines are firmly pressed into a tank with a layer of salt placed on top before covering the tank. Sweetpotato forage can be ensiled in earth pits lined with either banana leaves or polythene sheet. Polythene bags could also be used to ensile sweetpotato vines. In order to prepare good quality silage from sweetpotato vines, the following principles should be considered.
 - An anaerobic condition should be maintained by compressing the forage material in silos to expel air.
 - Ensiled sweetpotato vines should be chopped into small pieces (2 – 5 cm).
 - Additives that supply carbohydrates such as sweetpotato roots, molasses or fresh sugar cane juice should be included. If making 100 kg of silage we need to add 2-5 kg of molasses or fresh sugar cane juice or 10–20% sweetpotato roots on fresh weight basis of ensiled forage material.



Good quality sweetpotato vines silage will be brownish green in colour. It will have a pleasant aroma (fruit smell) and can be fed free of choice to the animals.

Sweetpotato processing

Although sweetpotato is mainly consumed as fresh boiled roots, in some parts of East Africa it is traditionally processed into dried chips and/or flour to preserve the roots for household food security and to a lesser extent for sale in rural markets and of late to flour millers in urban centres.

Besides permitting better preservation, the drying and processing of sweetpotato into dried chips and flours offers other opportunities such as:

- facilitating storage and transport;
- reducing bulkiness and losses due to high perishability of fresh roots (if roots are left in the ground further weevil attack can occur);
- increasing shelf life;
- products with high nutritional value due to the fact that as a great part of the water content is removed, the carbohydrates, pectin, proteins, oils and mineral salts are concentrated in the tissues of the dried food products;
- creating new income opportunities for farmers such as new markets and new sources of income
- creating awareness of the opportunities for sweetpotato as an important commercial crop with a diverse range of uses, and consumers

Although sweetpotato flour has great potential for use as an ingredient in many marketable products, traditional processing methods of sweetpotato, which involve exposing peeled, sliced and unwashed slices directly to the sun present certain problems, including:

- high dependency on climatic conditions (if it is going to rain the product has to be gathered up and taken to a dry, safe place)
- high manual labour requirements for peeling, slicing, spreading out to dry, turning the product during drying, guarding product from hungry livestock, moving product if weather changes etc
- difficulties in maintaining hygienic conditions can lead to products becoming contaminated by micro-organisms and dust
- lack of control of enzymatic oxidative browning and other reactions leading to discoloured and/or strong smelling sweetpotato flour
- lack of uniformity in terms of chip size

Some of the factors commonly mentioned as affecting the quality of dried chips include: appearance; size of slices; uniformity and intensity of colour; defects such as skin planks; presence of contaminants.

Different sweetpotato varieties will have different dried chip and flour properties such as taste and colour, and it is worth testing several different varieties in order to choose which variety to plant for the different products.

Improved processing methods have been developed to help overcome some of the problems associated with traditional methods, in order to produce sweetpotato flour with improved odour, colour and nutritional quality. However, the cost of the improved methods is higher than that of the traditional methods, and therefore might be more suited to use by farmers working together in groups.

The steps to follow to obtain quality dried chips and flour are as follows:

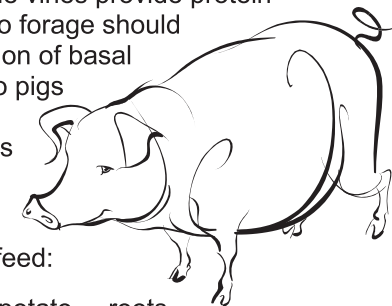
Selection of raw material: Select only healthy roots for drying

Cleaning, peeling and trimming: Any soil on the roots must be removed before the root is peeled using a clean knife. Any damaged parts of the root should be trimmed off and destroyed.

Washing and rinsing: A drum washer has been developed to help with washing. The drum washer consists of a 200 litre oil drum mounted on a horizontal axle. The drum is cut lengthwise to provide a door which can be opened and closed during loading and washing of the roots respectively. Inside the drum are brushes which are fixed on a horizontal axle. A handle is fixed on the axle to rotate the drum and wash the roots. At one end of the drum an opening can be made to drain the dirty water after washing. The drum can be used to wash 40 kg of sweetpotato in 10-20 minutes using 30 litres of clean water. If drums are not available a large saucepan, basin or open jerry-can can be used. After washing, rinse the roots in clean water.

Sweetpotato as animal feed

Both sweetpotato roots and vines are good materials for animal feed. The roots provide energy derived from starch while vines provide protein and fibre. It is recommended that sweetpotato forage should either be wilted or dried if intended for provision of basal diet to the animals. Roots are generally fed to pigs while the vines are feed for a variety of animals, including goats, pigs, cows, chickens and rabbits.



A few considerations need to be kept in mind when using **sweetpotato roots** as pig feed:

- *Trypsin inhibitors:* Some sweetpotato roots, depending on the variety, possess chemicals that inhibit the digestive enzyme trypsin. This leads to reduced nutrient absorption from the sweetpotato roots and other feeds consumed at the same time. Cooking the sweetpotato roots before feeding them to pigs, breaks down the trypsin inhibitor and prevents this problem. It is good practice to cook the roots before feeding them to livestock.
- *Starch digestibility:* The starch of some sweetpotato varieties is difficult to digest and absorb. Slicing and drying the roots seems to break down the starch structure and improve the digestibility.
- *Starch content:* For animal feed it is better to choose roots of sweetpotato varieties that are high in starch content and lower in yield than those that are low in starch but high in yield. Low starch content means high water content in the roots and pigs can become bloated if the root moisture content is too high.

By the same token, when using **sweetpotato vines** as animal feed, it is good to consider the following factors:

- *Vine production:* If vines are the objective of production, the sweetpotato can be planted on flat fields at a spacing of 30-40 cm between plants and 40-50 cm between rows. Planting too close limits the efficiency of photosynthesis. Depending on the rainfall levels, vines can be harvested 30-45 days after planting and every 15-25 days after that. The optimal way to cut multiple vines is to cut 1-2 of the longest branches of each plant leaving about 10 cms for resprouting.

Sweetpotato soap

This recipe is still under development, to date the following ingredients have been used to produce soap, however it does not yet produce enough lather.

Ingredients:

Sodium hydroxide

Sweetpotato residue (dregs left after squeezing mash sweetpotato roots for juice)

Salt

Animal fat

Lemon & Eucalyptus leaves

Optional: colouring



Slicing/ chipping

Following rinsing the sweetpotato roots should be pre-dried in a clean place in the sun for about 10 minutes to remove the surface water. A manual or mechanical chipper/ slicer is then used to cut the sweetpotato roots into uniform pieces of about 5 mm thick.



Soaking

Slices of white fleshed sweetpotato should be soaked in clean water for 90 minutes to help prevent discolouration. The volume of water used is twice the weight of the slices and just enough to cover them. Slices of orange fleshed sweetpotato should not be soaked as it will reduce the vitamin content.

Drying

The slices are then either sun dried on a raised tray for approximately 4-6 hours if weather conditions are suitable, or in a conventional dryer using firewood or charcoal as fuel. The drying tray should be raised off the ground to prevent dust and dirt contaminating the chips. If the drying process is not thorough, the chips will be prone to mould attack during storage. The drying rate will depend on the thickness of the slices, rate of turning chips as they dry and the amount of sliced chips placed on the tray. It is best if the process is started in the morning.



Sorting

The dried sweetpotato chips can be sorted for uniformity before packaging or further processing, if

Grinding

this might affect the quality, intended use or price.

Packing storage

The dried sweetpotato chips can be milled into flour.

and Sweetpotato flour can be safely packed and stored in polythene bags as well as baskets and tins. Sweetpotato chips can be stored in clean sisal or polypropylene sacks, granaries, and polythene bags. The use of black packing material (e.g. two black linings inside a sisal sack) helps to minimise the loss of vitamin A (which can be degraded through exposure to sun light) during storage. Care should also be taken to keep the products in a cool, dry, well ventilated location. Wooden pallets/ platforms can be used to stack the packed sweetpotato products on, to prevent moisture being absorbed from the floor. Regular monitoring of the stored products should be undertaken to build up knowledge about the products shelf life under the site specific storage conditions and to prevent large infestations of insects or rodents developing. Packages should be labelled with the: origin (farmer/ producer) of the roots and the chip processor; manufacturing date; sweetpotato variety; and expiry date. Products differ in their expiry periods, tests need to be done to see how long each one remains acceptable for. If compositional or nutritional information is needed this will require that a sample of the dry sweetpotato chips are analysed to give a representative content per batch or consignment.



To produce and maintain high quality dried sweetpotato chips careful monitoring of: moisture content (less than 10-15%); appearance/ colour; absence of undesirable odours; hygiene standards and cleanliness of chips; absence of contaminants (e.g. soil, hair etc); uniformity of shape; nutritive value (e.g. beta-carotene content) must be done.

Sweetpotato juice

Ingredients:

Sugar	4 cups
Boiled peeled sweetpotato roots	8 medium sized roots
Citric acid/ lemon juice	3 teaspoon/ 5 fruits
Water boiled and cooled	5 litres
Fruit flavouring (optional)	1 drop or add tamarind or passion or orange or pineapple to taste

Procedure:

1. Boil water and sugar and then leave to cool.
2. Mash boiled sweetpotato or blend, mix the product with the boiled water and then sieve/ filter.
3. Add citric acid/ lemon juice and fruit flavour if desired and mix well.
4. Pour into a jug, chill if possible and serve cold as fresh juice.



Sweetpotato flours

Farmers from Abuket FFS in Soroti, Uganda developed and trialled number of different sweetpotato flours for use in various products, details of which are given below.

Sweetpotato flour for making Atap (local bread)

Sweetpotato flour with optional additives of tamarind juice, lemon juice or dried powder made from sun dried slices of unripe mangoes and sour milk.

Sweetpotato composite flour for making Atap (local bread)

Mix sweetpotato flour with cassava and sorghum flour at weight ratios of 2:2:1. As above it can be enhanced with optional additives.

Sweetpotato composite flour for making porridge

Mix sweetpotato flour with maize flour at a weight ratio of 2:1. As above it can be enhanced with optional additives.

Sweetpotato pie

Ingredients:

Sweetpotato flour	1 cup
Wheat flour	2 cups
Fat	8 tablespoons
Salt	to taste
Rice	2 cups
Coriander leaves	1 bunch
Minced beef	½ kg
Egg plants	1 large
Onions	1 medium
Tomatoes	2 medium
Mixed spices	1 teaspoon
Milk	1 cup
Egg	1

Procedure:

1. Prepare the coriander leaves, onions and tomatoes and cut into separate containers.
 2. Fry onions with 2 table spoons of oil.
 3. Add tomatoes, let cook then add the coriander.
 4. Add minced beef and let cook for 20 minutes
 5. When about ready add mixed spices and let cook for another 10 minutes.
 6. Sort rice, wash once and bring 4 cups of water to boil.
 7. Pour rice into boiling water, add a little salt then cook for 15 minutes or until there is no water left.
 8. Clean egg plants and cut into slices.
 9. Use 2 tablespoons of fat to shallow fry the slices, and arrange in a greased baking tin.
 10. Pour the rice on the arranged egg plants.
 11. Pour the beef on the rice and distribute it evenly.
 12. Melt the remaining fat, reduce heat.
 13. Fold the mixed flour into the melted fat, a little at a time.
 14. Add milk to flour - fat mix and continue till all flour is used.
 15. The mixture should spread when poured.
 16. Pour the mixture onto the beef and spread evenly.
 17. Beat the egg and spread on the pastry.
 18. Bake in oven at 170°C (350°F) for 30 minutes.
 19. Remove and serve as complete meal.
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Favourite sweetpotato recipes

A huge number of products can be made from sweetpotato; many of them are described below.

Equipment

The following is a list of equipment that could be useful for making the following recipes. If you don't have all the equipment to hand, don't worry, be creative and try to think about what you could use instead.

- Cooking range/ fire, preferably an improved charcoal stove
- Fuel/ firewood
- Water
- Cooking pans with lids
- Chapatti pan
- Chapatti rolling board and pin, or a soda bottle
- Mixing bowls
- Deep frying pan
- Wooden cooking stick
- Wooden cooking spoon
- Table spoons
- Tea spoons
- Kitchen knives
- Noodle machine
- Draining spoon
- Trays
- Cups and mugs
- Plates
- Baking tins
- Kitchen grater
- Sieves/ white cloth (e.g. muslin) for filtering
- Basins
- Working surface that is raised
- Chopping board
- Weighing machine
- Wheel barrow
- Local winnower
- Polythene

Sweetpotato porridge

Ingredients:

Sweetpotato flour	1 heaped table spoon
Millet/sorghum/ cassava or maize flour	4 heaped table spoon
Soya flour	1 heaped table spoon
Lemon	1 small
Sugar	2 table spoons
Water	6 cups

Procedure:

1. Bring five cups of water to boil.
2. Mix the cereal/root crop flour with the soya flour and make a paste with the remaining one cup of water.
3. Pour the paste into the boiling water and keep stirring to prevent lumps.
4. Make juice from the lemon while the pot continues to boil for 20 minutes.
5. The cooked product should jell
6. Remove from fire add lemon juice and sugar.
7. Cool, then serve warm. Milk can be added if desired.



Sweetpotato crisps

Ingredients:

Sweetpotato roots	6 medium
Oil	2 cups
Salt and red pepper	to taste
Water	2 containers

Procedure:

1. Remove soil from roots and peel as you place in clean water. Wash off any soil.
2. Slice into very thin pieces using a knife or larger blade of grater.
3. Drain off the water.
4. Heat the oil and deep fry till starting to brown.
5. When brown remove and drain.
6. Add salt and red pepper to taste, serve warm or cold.



Sweetpotato biscuits

Ingredients:

Sweetpotato mash	1 cup
Wheat flour	2 cups
Sugar	3 tablespoons
Salt	pinch
Blue band	3 tablespoons
Baking powder	1 tsp
Water or milk	2 cups

Procedure:

1. Sift the dry ingredients in a mixing bowl.
2. Add the blue band and rub in till the mixture crumbles.
3. Add water or milk, knead to a stiff paste
4. Roll out on a floured board.
5. Cut into shapes and arrange on a greased baking pan.
6. Prick with a fork to prevent dough from rising.
7. Bake for 15 minutes at 175°C (350°F) or until evenly brown.

Sweetpotato pineapple upside down cake

Ingredients:

Sweetpotato flour	1 cup
Wheat flour	3 cups
Eggs	4
Blue Band	5 tablespoons
Baking powder	3 teaspoons
Sugar	3 tablespoons
Pineapple	1 small ripe

Procedure:

1. Sift all dry ingredients in a mixing bowl.
2. Cream the blue band and sugar in a small bowl.
3. Break eggs one at a time and pour into cream mixture.
4. Mix well then pour in dry ingredients and fold in, to give a runny mix.
5. If hard add water or milk to make mixture runny and smooth.
6. Clean the pineapple and peel. Slice pineapple into 1 inch thick pieces.
7. Grease baking tin and arrange the pineapple slices in it.
8. Pour cake mix into tin and bake in oven at 176°C (360°F) for 30 minutes or till brown.
9. Remove and turn contents onto a plate or small tray. Serve as dessert.

Sweetpotato cake

Ingredients:

Sweetpotato mash	1 cup
Wheat flour	3 cups
Eggs	4
Blue band/ sunflower oil	5 tablespoons
Baking powder	3 teaspoons
Lemon	1 medium
Sugar	3 tablespoons
Water or milk	adequate

Procedure:

1. Sift all dry ingredients in a bowl.
2. Add the sweetpotato mash and 4 tablespoons of blue band and rub in.
3. Beat the eggs and add to the bowl and mix well.
4. Grate lemon rind and add to the bowl and mix.
5. Make juice from the lemon and add to the bowl contents and mix well.
6. If consistency is not runny, add a little water or milk.
7. Grease baking pan and pour in contents.
8. Bake in oven at 175°C (360°F) for 30 minutes or till brown.
9. Alternatively bake on open fire (see tips on open-fire baking below)



Tips on open-fire baking

1. Pre heat the charcoal stove /jiko
2. Grease a heavy pan with lid, pour the mixed dough contents into the pan then cover the pan with lid.
3. Remove fire from stove and place on the lid evenly.
4. Leave very little fire in the fire – box and cover with ash.
5. Place covered pan with fire on the ash covered stove.
6. Keep fire on lid burning by adding twigs for 2 minutes
7. Let cook for another 30 – 40 minutes depending on type of charcoal.
8. Remove lid with fire, test cake with knife by piercing in the middle.
9. If done knife should come out dry - if not done knife will be wet with uncooked contents.
10. If done remove and cool cake on rack. If not done return and replace lid with fire for a while then remove.

Sweetpotato “Mshenye”

Ingredients:

Sweetpotato roots	10 medium
Maize	2 cups
Beans/ cow peas or green grams	4 cups
Salt	to taste
Water	adequate

Procedure:

1. Sort maize and beans and pre-soak for 6-8 hours.
2. Boil the maize and beans till almost cooked.
3. Remove soil from sweetpotato roots and peel.
4. Wash and slice the sweetpotato roots into desired shapes.
5. Add the sliced sweetpotato roots to the maize and beans and let cook.
6. When sweetpotato roots are soft and maize and beans well cooked mash.
7. Add salt to taste and serve as balls heaped on plates.

Sweetpotato mandazi

Ingredients:

Sweetpotato mash	½ cup
Wheat flour	2 cups
Sugar	2 tablespoons
Salt	pinch
Cooking oil	2 cups
Baking powder	1 tablespoon
Lukewarm water	adequate

Procedure:

1. Put the sweetpotato mash in a mixing bowl and sift in the dry ingredients.
2. Add water and mix into a dough.
3. Knead the dough well while adding 2 tablespoons of oil.
4. On a floured surface, roll the dough to about 1 cm thickness.
5. Cut into desired shapes.
6. Deep fry while turning till golden brown.
7. Remove from oil, drain and serve warm or cold.

Sweetpotato relish

Ingredients:

Sweetpotato leaves	1 kg
Onions	2 medium
Tomatoes	4 medium
Carrots	4 medium
Oil/Fat	4 tablespoons
Salt	1 tablespoon
Warm water	½ container
Flavour*	

Procedure:

1. Clean leaves by removing dirty and very old ones.
2. Prepare the onions, tomatoes and carrots and slice into separate dishes.
3. Shred the leaves.
4. Wash twice in warm water to remove the anti-nutrients.
5. Heat the oil and fry onions till they start to brown. Add carrots.
6. Add tomatoes and let cook for a while.
7. Add the vegetables and let cook for 5 minutes
8. Add the flavour and stir the contents and let cook till done.
9. Serve with bananas/ ugali/ atap or kaunga, sima or nshima/rice.

*The flavour could be 2 cups of milk (sour or fresh), ½ kg groundnut paste, ½ kg sesame paste, coconut milk, or soya flour etc.



Sweetpotato bread

Ingredients:

Grated sweetpotato	½ cup
Wheat flour	2 cups
Yeast	1 teaspoon
Sugar	1 tablespoon
Salt	pinch
Luke warm water or milk	adequate
Oil	2 tablespoons

Procedure:

1. Mix yeast and sugar in a cup.
2. Add 3 tablespoons of water or milk to the cup and leave to rise.
3. To quicken the rising process, cover cup with a warm cloth and put in the sun for 5 minutes or 10 minutes at room temperature.
4. Mix grated sweetpotato with other dry ingredients in a mixing bowl.
5. Add the yeast mix and water into mixing bowl.
6. Knead into dough and add the oil to make it smooth.
7. Divide into two parts.
8. Grease bread tins and shape each dough and place in tin.
9. Leave to rise until it has doubled in size.
10. Bake in oven at 200°C (400°F) for 15 - 20 minutes.
11. Remove and allow to cool and then wrap.

Sweetpotato jam

Ingredients:

Sweetpotato roots	3-4 medium
Sugar	1 kg
Lemon juice (as a preservative)	1 lemon
Water	1 cup

Procedure

1. Peel sweetpotato roots and boil till soft, then mash while still hot.
2. Prepare syrup by mixing 1 cup of water to 1 kg of sugar, then boil while mixing with a wooden spoon.
3. Add the mash to the boiling syrup and allow it to simmer until the jam becomes amber in colour.
4. Remove from heat, taking care not to let it burn. Mix in the lemon juice.
5. Bottle, seal and label the jam.



Sweetpotato buns

Ingredients:

Sweetpotato mash	1 cup
Wheat flour	3 cups
Sugar	2 tablespoons
Salt	pinch
Yeast	1½ teaspoons
Oil/Fat	3 tablespoons
Water	adequate
Lemon peel (grated)	2 teaspoons

Procedure:

1. Put yeast with 1 teaspoon sugar in a cup.
2. Add 2½ tablespoons of warm water and leave to rise.
3. Put the mashed sweetpotato in a mixing bowl and sift in the dry ingredients and grated lemon.
4. Add oil/fat and rub in till it crumbles.
5. Add risen yeast and mix.
6. Add water and knead till done to required texture.
7. Roll into a ball, put into mixing bowl and cover with wet cloth or put into an oiled polythene bag and let it double in size.
8. Knead the doubled dough, then divide it into equally sized small balls and roll out to make desired shapes.
9. Put in oiled baking pan and leave at room temperature for 10 minutes.
10. Bake for 20 minutes at 170°C or 350°F or till crust is golden brown.



Sweetpotato chips

Ingredients:

Sweetpotato roots	6 medium
Oil	2 cups
Salt	to taste
Water	2 containers

Procedure:

1. Remove soil from roots, then peel, wash and place them in clean water.
2. Chip into desired shapes.
3. Heat oil and deep fry the chips.
4. When starting to brown, remove and drain oil.
5. Salt and serve warm or cold.

Sweetpotato soya chapatti

Ingredients:

Grated sweetpotato	1 cup
Wheat flour	2 cups
Soya flour	1 cup
Salt	1 teaspoon
Lukewarm water	adequate
Oil	½ cup

Procedure:

1. Mix dry ingredients together in a bowl.
2. Add the grated sweetpotato and mix.
3. Add 1 tablespoon of oil and mix well.
4. Add the water to the mixture in the bowl and knead till a stiff smooth paste is formed.
5. Divide the dough into 8-10 equal balls.
6. On a floured surface roll one ball at a time.
7. Fold each ball at a time to form a strip.
8. Coil each strip to form a circle and put aside for 20 minutes
9. On a floured surface, roll out each coil into a thin circular sheet.
10. Grease a shallow frying pan.
11. Fry each circular sheet on both sides till golden brown, make sure both sides are greased.
12. The resulting chapatti can be served with stew or sauce or tea.



Sweetpotato doughnuts

Ingredients:

Grated sweetpotato	½ cup
Wheat flour	2 cups
Yeast	1 teaspoon
Sugar	2 tablespoons
Salt	pinch
Oil	2 cups
Milk/Egg	optional
Cooking fat	1 tablespoon
Lukewarm water	adequate
Lemon peel (grated)	2 teaspoons

Procedure:

1. Put yeast and 1 tablespoon sugar into cup.
2. Add 3 tablespoons of warm water and leave for 10 minutes to rise.
3. Put the grated sweetpotato into a mixing bowl and sift in the dry ingredients.
4. Add in the grated lemon peel and mix.
5. Rub in the cooking fat and then add the risen yeast and mix.
6. Add water and knead to a dough.
7. On a floured surface, roll the dough slightly.
8. Make the dough into a ball and return to mixing bowl.
9. Cover the mixing bowl with wet warm cloth and leave to dough to double in size. Placing the bowl in the sun for 10 minutes, helps it rise.
10. Re-knead the dough after doubling and roll onto a floured surface.
11. Cut into desired shapes and deep fry till golden brown.



Sweetpotato crackies

Ingredients:

Sweetpotato flour <u>or</u> (mash)	1 cup (1½ cups)
Wheat flour	2 kgs
Salt	3 teaspoons
Garlic	5 pieces (small)
Green pepper local <u>or</u> (exotic)	12-15 pieces (3 pieces)
Sunflower oil	0.8 litres
Water	

Procedure:

1. Sift all dry ingredients in a mixing bowl.
2. Add sunflower oil.
3. Knead to form a smooth dough, till it leaves the bowl clean.
4. Add a little luke warm water and keep mixing until hard and smooth. Cover it immediately with a clean cotton cloth.
5. Cut and make into small balls, roll them till flat and transparent. Add juice from crushed green hot peppers depending on the consumers preference.
6. Heat oil and fry the flat crackies in it, when lightly brown remove them from the oil, drain the oil and let cool in a covered container.



Sweetpotato onion bites

Ingredients:

Sweetpotato mash	1 cup
Wheat flour	2 cups
Baking powder	3 teaspoons
Chilli pepper	¾ teaspoons
Salt	1 teaspoon
Spring onion leaves	½ cup
Water	
Cooking fat	1 teaspoon

Procedure:

1. Sift all dry ingredients in a mixing bowl. Pound the onions.
2. Add the sweetpotato mash and cooking fat and mix well to a dough.
3. Add water a little at a time and knead to a light texture, let it relax for 10-15 minutes.
4. Heat oil in a pan.
5. Make small sized balls and drop them into the hot oil.
6. Cook till brown drain and serve.

Sweetpotato strips

Ingredients:

Sweetpotato flour	1 cup
Soya flour	½ cup
Wheat flour	2 cups
Cooking fat	4 tablespoons
Eggs	1
Sugar	3 tablespoons
Oil	2 cups
Baking powder	3 teaspoons

Procedure:

1. Sift all dry ingredients in a mixing bowl
2. Add cooking fat and rub in.
3. Beat eggs and add to the bowl and mix.
4. Add a little warm water and knead to smooth dough.
5. Roll dough on floured surface to a thickness of 1cm.
6. Cut small strings from rolled dough.
7. Heat oil and drop in the strings and let cook.
8. When brown remove and drain.
9. Keep in covered container to prevent hardening.