



# DEEP ROOTS

TRADITIONAL ROOT AND TUBER CROPS IN ZIMBABWE

THE ZIMBABWE TRADITIONAL AND ORGANIC FOOD FORUM

# ACKNOWLEDGEMENTS

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# CONTENTS

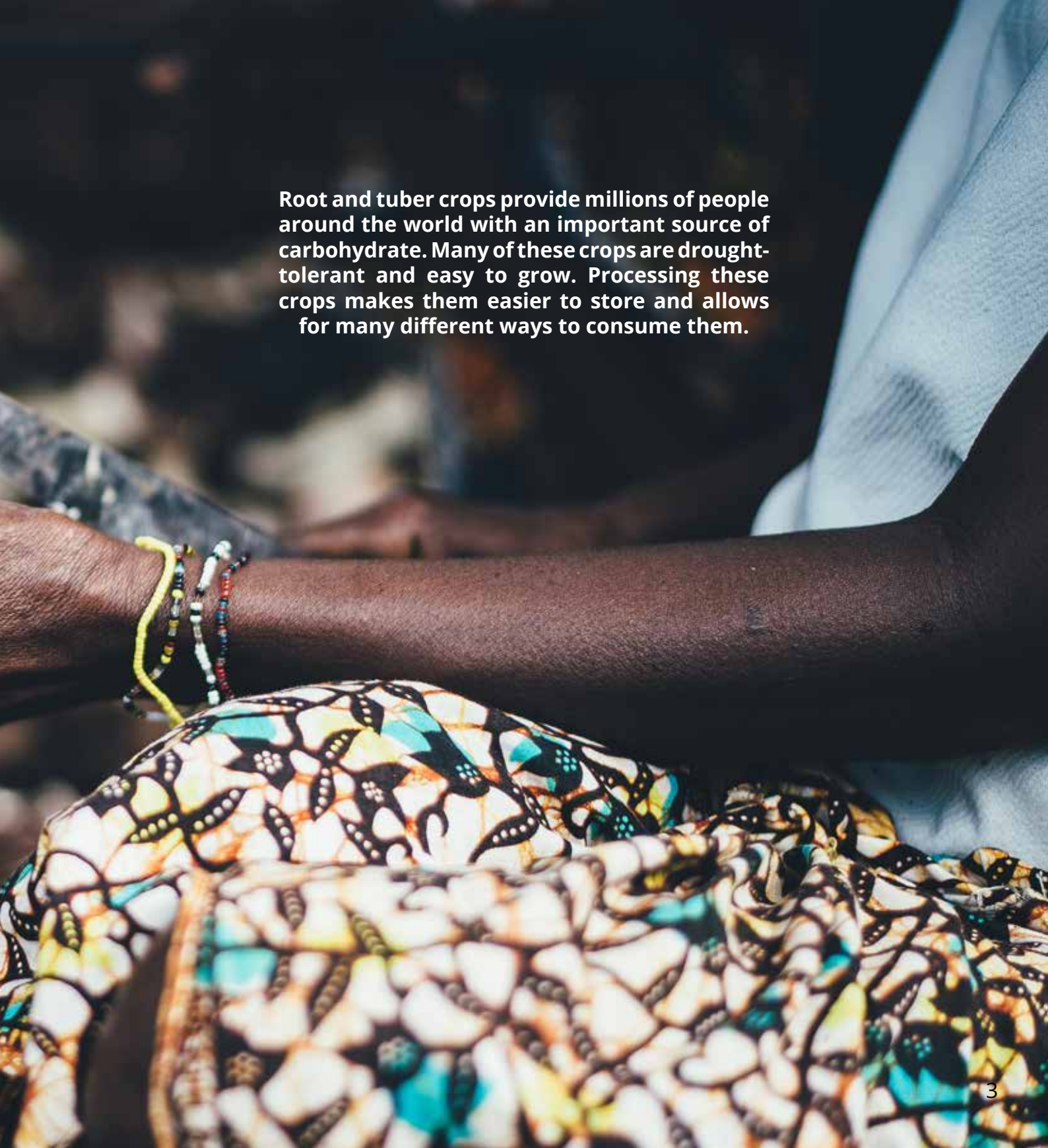
<b>Acknowledgements</b>	inside front cover
<b>Foreword</b>	2
<b>Getting off to a good starch</b>	
Nutritional benefits	4
<b>Rooting for...</b>	4
Cassava ( <i>Manihot esculenta</i> )	6
Sweet potato ( <i>Ipomoea batatas</i> )	6
Taro or cocoyam ( <i>Colocasia esculenta</i> )	7
Livingstone potato ( <i>Plectranthus esculentus</i> )	8
Other underutilised root and tuber crops	9
Manyanya ( <i>Dioscorea steriscus</i> )	9
Dwarf babiana ( <i>Babinia hypogea</i> )	9
African arrowroot ( <i>Tacca leontopetaloides</i> )	9
Yellow nutsedge ( <i>Cyperus esculentus</i> )	9
<b>A rooting interest</b>	9
Root and tuber crops fundis at the University of Zimbabwe	10
Grassroots farmers bring <i>tsenza</i> to Mbare market	10
The perfect mash for urban gardens	12
Tanzania migrant promotes sweet potatoes and cassava	13
Preparing <i>madhumbé</i> leaves the Indian way	14
Congolese chef putting down roots in Zimbabwe	15
<b>Recipes</b>	16
Sweet potato juice	17
Taro smoothie	17
Taro broth	17
Spicy roasted sweet potato and coconut soup	17
Root crisps	18
Sweet potato dip	19
Fufu with Saka Saka	20
Sweet potato Buddha bowls	21
Filipino cassava cake	22
	24
	inside back cover

# FOREWORD

This booklet was produced in commemoration of the 11th Good Seed and Food Festival held in Harare in September 2023. The aim of the festival is to celebrate Zimbabwe's traditional and agroecologically produced seeds and foods and particularly the work of smallholder farmers and wild collectors. The 2023 festival featured a wide range of stallholders, farmers, private sector companies, and NGOs showcasing their work. A wide range of local produce and products including traditional grains, legumes, indigenous fruits and vegetables, herbs and spices, teas and traditional medicinal plant products, nuts and nut butters, honey, insects, dried meat and small livestock preserves, cosmetics, and appropriate technology was on display and for sale. As usual there was a colourful seeds fair dedicated to traditional farmer-saved seed varieties.

This year our booklet focuses on root and tuber crops, which used to be grown and eaten more widely in Zimbabwe but have gone into decline, particularly since maize has become widespread as a staple. We look at the more common crops such as cassava and sweet potato which have been introduced from elsewhere, and also some of the indigenous crops that have been cultivated or harvested from the wild in Zimbabwe for millennia. The aim of the booklet is to raise awareness on the value of these crops, contributing to health and nutrition, food security, incomes, and climate change adaptation. It is our hope that more people will recognise this value and increase production and consumption of these crops.





**Root and tuber crops provide millions of people around the world with an important source of carbohydrate. Many of these crops are drought-tolerant and easy to grow. Processing these crops makes them easier to store and allows for many different ways to consume them.**

# GETTING OFF TO A GOOD STARCH

Over the eons, many plant families across the world evolved root and tuber organs to store water and nutrients to tide the plants over hard times. Humans have been collecting, cultivating and consuming root and tuber plants, including potatoes, yams and cassava, since ancient times. These plants were particularly important to early farmer societies because they reproduce vegetatively, are easy to cultivate and produce high yields. Some root and tubers contain poisonous or bitter substances to deter animals from eating them and thus damaging the plants. They require special processing to make them edible to humans.

This booklet is focusing on starchy tropical root and tuber crops (RTC) that have become part of the traditional cuisine of Zimbabwe. RTC have many advantages over other staples. They produce more edible energy per hectare per day than any other crops and are some of the most efficient converters of solar energy into biomass. Their yields are approximately double those of cereal grains. They can produce even higher comparative yields to cereals in low rainfall areas with poor soils. RTC are easy to grow and have high resistance to pests and diseases. They do well in mixed crop systems and in small spaces such as urban gardens. If irrigated, some can be harvested all year round and can be stored underground for several months. RTC have a wide range of processing and value addition options. They can be cooked as part of regular meals or prepared as tasty, portable snacks. The leaves and stems of many RTC have a comparatively high protein content and can be cooked and eaten by people or fed to livestock.

But RTC have been neglected compared to other crops. The main disadvantage of RTC is that they are bulky with high moisture content making them expensive to transport. Compared to cereals they have a short shelf-life limiting their marketability.

Zimbabweans used to eat many more types of RTC before the introduction of maize and wheat. According to the United Nations Food and Agriculture Organisation, compared to other countries in the East and Southern African region, Zimbabwe has some of the lowest production and consumption levels of RTC. Coincidentally we also have some of the highest levels of overweight and obesity. It is time to rethink our choice of staples and diversify into more healthy alternatives.

## Nutritional benefits

RTC are excellent sources of energy and their high moisture and fibre content make them ideal foods for people wanting to lose weight or needing to switch to low calorie, high fibre diets for health reasons. RTC contain several beneficial phytochemicals and have important antioxidant, immunomodulatory, antimicrobial, antidiabetic, antiobesity, and hypocholesterolemic properties. Cassava and sweet potatoes contain vitamin C while taro (*madhumbe*) is high in potassium.









# ROOTING FOR...



## CASSAVA

*(Manihot esculenta)*, *chinangura*,  
*mufarinya* (Shona)

Cassava is the most widely cultivated root crop in the tropics. It is a major staple for more than 500 million people. Cassava originated in South America and was brought to Africa by Portuguese traders in the 1500s. It is primarily a root crop, but the leaves and shoots, which are relatively high in protein, are also often eaten. The crop grows easily from cuttings, has a long growing season (8–24 months) and is tolerant of pests and diseases, poor soils and low rainfall. It produces higher yields (20–40 tonnes per hectare) than most other staples and can be left in the ground for up to three years before harvesting. It is usually harvested between January and April. Although cassava is highly drought tolerant and has great potential as a cash crop, it is not widely grown or consumed in Zimbabwe.



There are sweet and bitter varieties of the crop. The roots of sweet cassava varieties can be eaten raw, roasted in an open fire, or boiled. After harvesting, the fresh tuber must be eaten or processed within 24 to 48 hours though. The fresh roots of the bitter types contain traces of cyanide, which needs to be removed through washing, boiling, or fermenting before they can be consumed by people or livestock.



Cassava has been developed into a wide range of different foods in West and East Africa. Most notable is *fufu*, which is a kind of stiff porridge similar to *sadza*. The washed, peeled roots can be boiled or roasted and eaten as a snack, or cut into thin slices and made into chips. Cassava flour does not store well and should be used when fresh. Young cassava leaves can be cooked as a relish. They are usually chopped, then pounded in a pestle and mortar, before boiling. Cassava roots have industrial applications for production of flour, clear beer, starch, syrups and animal feed as well as in the making of paper, glue, textiles, and ethanol fuel.





## SWEET POTATO

*(Ipomoea batatas)*, *mbambaira* (Shona),  
*imbambayila* (Ndebele)

Sweet potato is native to tropical America but is widely grown in many tropical and subtropical countries in different ecological regions around the world. The plant is an herbaceous perennial vine and many different varieties have been developed. Sweet potato can be grown all year round under irrigation and the crop can withstand adverse climatic conditions making it a useful “insurance crop” for farming households. The roots can be harvested gradually over a long period of time improving household food security. Sweet potatoes are grown in most parts of Zimbabwe.



Sweet potatoes are the most nutritious of the common RTC containing the highest levels of protein, vitamins and minerals. White or pale-yellow fleshed varieties are less sweet and less moist than those with pink or orange flesh. Orange-fleshed varieties have been developed to contain high levels of vitamin A as well as vitamins B, C, E and K. Sweet potatoes are rich in dietary fibre and beneficial compounds such as phenolic acids and anthocyanins. Extracts of sweet potato peels have shown to reduce plasma glucose levels of diabetic patients. The roots are boiled, roasted, or fried as chips. The leaves can be stir fried and eaten as a vegetable.





# TARO OR COCOYAM

(*Colocasia esculenta*), *madhumbe* (Shona)

Taro is a herbaceous perennial plant grown for its edible tubers. The young leaves are also edible, and some varieties have been developed specifically for the leaves. The plant originated in tropical Asia and was first grown in Africa hundreds of years ago. It is the staple food in many islands of the South Pacific, such as Tonga and Western Samoa, and in Papua New Guinea. The tubers are widely eaten in West Africa. In Zimbabwe, they are mainly grown in the eastern districts, in wetland areas or under irrigation as they require wet conditions. They are harvested throughout the year 8 months after planting. Two types are grown in Zimbabwe, the *madhumbes* which produce smaller tubers and *magogoyas* which produce large tubers and are more popular having a less slimy texture and more starch.

The tubers are a good source of potassium. They are eaten boiled or roasted and may also be sliced thinly and fried into chips. The tubers can be processed into flour for making bread, muffins and other products including tacos. The leaves and stalks contain calcium oxalate crystals which can irritate the mouth if eaten raw but are destroyed through boiling or steaming thoroughly.





## LIVINGSTONE POTATO

*(Plectranthus esculentus)*, *tsenza*, *shezha* (Shona)

Livingstone potato is an indigenous perennial shrub with yellow pea-like flowers which can grow 1 to 2m tall. The plant is a member of the mint family and the leaves, which form in opposite pairs along the stem, smell faintly minty. The plant grows wild in woodlands and grasslands at medium altitudes and has been cultivated by communities in the eastern districts of Zimbabwe since ancient times.

The tubers are more nutritious than most other RTC with high levels of calcium, iron, vitamin A, and potassium. The tubers can be harvested from March to August and after peeling and washing, they can be eaten raw as a refreshing snack, boiled or roasted. *Tsenza* can also be made into a gluten-free flour which can be used as an ingredient in baking or made into a tasty porridge.



## OTHER UNDERUTILISED ROOT AND TUBER CROPS

**Manyanya, manyenya (Shona) (*Dioscorea steriscus*)**

Many members of the *Dioscorea* genus produce edible tubers. Manyanya is a wild climbing plant that is common in the hot and dry northern districts of Zimbabwe. The tubers are harvested between May and July and boiled or roasted. To remove indigestible substances, they must be soaked for some days in several changes of water before cooking. *Dioscorea* species consumption has been shown to enhance bone strength and has been recommended for older women to reduce the risk of osteoporosis during menopause.

**Dwarf babiana (*Babinia hypogea*), hwenya (Shona)**

Dwarf babiana is a short perennial herb with blue-mauve scented flowers. It is found in sandy soils amongst grass in hot, dry areas. The small, hairy tuber is harvested between March and April and eaten raw or boiled.

**African arrowroot (*Tacca leontopetaloides*), bepe (Shona)**

African arrowroot is a rare plant found in grassy woodlands in north to northeastern parts of Zimbabwe. The starchy tuber is harvested between November and May. Toxic substances are removed through pounding and washing in several changes of water. After pouring off the water, the arrowroot is dried, powdered and used to make a highly nutritious porridge which is fed to infants and sick people.

**Yellow nutsedge (*Cyperus esculentus*), pfende (Shona)**

This perennial sedge is common in wetlands and grassland, irrigated fields and lawns. The grass-like plant produces a yellowish-brown flower head. Young tubers are harvested most of the year and can be eaten raw or cooked as vegetables. The tubers are highly nutritious and are a good source of protein, vitamins and minerals as well as containing beneficial antioxidants, anti-carcinogens, anti-inflammatories, and anti-diabetic substances. In Spain they are considered a valuable health food called *chufas* and are made into a refreshing health drink called *horchata de chufa*.

# A ROOTING INTEREST

## ROOT AND TUBER CROP FUNDIS AT THE UNIVERSITY OF ZIMBABWE

Drs Gaudencia Kujeke and Annia Matikiti have been championing underutilised and neglected RTC for many years through the Department of Plant Production Sciences and Technologies in the Faculty of Agriculture, Environment and Food Systems at the University of Zimbabwe.

Hailing from rural Mutare, Dr Matikiti grew up eating cassava, sweet potato and taro. Tucked away in the grounds of her Harare home, she showed us her amazing urban polyculture. The quarter-acre plot is positively bursting with food crops. The usual suspects are there, including maize and beans, but this multilayered garden also houses bountiful fruit and nut trees, granadillas, strawberries, herbs, traditional vegetables, taro, West African plantain and different varieties of sweet potato and cassava. Annia advocates self-sufficiency and is a proponent of intercropping noting that “growing many crops together saves space and gives you more food. Staggered planting is also important, especially for RTC, so that you have food all year.” Research does not end in the garden. Her kitchen is equally important. New recipes are tried and tested on the family. “My children love these crops.” Annia makes flour and drinks from taro and sweet potato. All the RTC that she grows are also sliced and fried into chips as a tasty snack.

At the UZ, Dr Matikiti focuses on investigating and promoting taro (*madhumbe*). She has studied different varieties and production methods to increase yields. Yields can be increased through applications of cattle manure and -where irrigation is available- staggering planting throughout the year to achieve year-round production. *Madhumbes* are grown in the eastern districts, but you also find them in other parts of the country. Annia explains: “when a woman marries she will move to the area of her

husband and if she is a *madhumbe* grower she will normally take some tubers with her thus introducing the crop to a new area.”

Annia has also worked on developing recipes to popularise *madhumbe* such as *madhumbe* tacos made by pounding and kneading boiled *madhumbe* into a flat shape. Dr Matikiti laments that consumption of all traditional RTC has declined so much in Zimbabwe compared to other countries in the region. Even South Africa boasts higher production of *tsenza* and *madhumbe* and cassava is common in Mozambique, Malawi, and Zambia. “Zimbabweans were heavily influenced by colonialism and our Western education system made these crops into ‘poverty foods’” says Annia, “After working a lot in Ghana and Nigeria, I became aware of how much maize we eat in Zimbabwe.”





Dr Kujeke did her PhD on *tsenza*, looking at landraces and the biodiversity of *tsenza* in the region, agronomic practices in *tsenza* production and ways to improve them, peoples' perceptions towards the crop, its nutritional value and value addition. Gaudencia discovered that while *tsenza* can be found growing in the wild in a wide range of habitats across Zimbabwe, seven indigenous landraces are currently cultivated, mainly in the eastern districts, including Hwedza, Rusape and Marondera. Tragically they are no longer grown in Mutasa district as former *tsenza* farmers have switched to tobacco. "The crop is labour-intensive, and the tubers are small making processing difficult; this slows down adoption." Gaudencia has been working with smallholder farmers to introduce better production methods to increase yields, and better peeling techniques.

Most of the *tsenza* growers are women and the crop is grown for both food and sale making important contributions to the lives of its rural growers. There is a good *tsenza* market in Mbare, Harare as well as Rusape and Marondera. The crop has a good nutritional profile compared to several other RTC, excellent flavour and texture. *Tsenza* are also an important cultural food that people associate with their traditions and heritage. *Tsenza* is versatile in that it can be made into a diverse range of food products including gluten-free flour which can be used as an ingredient in baking or made into a tasty porridge. Gaudencia trialled recipes with *tsenza* at the Harare Good Food Festival. She is currently working on a recipe book to popularise the crop further.

Both researchers emphasised the benefits of growing and eating a diverse range of RTC in addition to cereals. It is nutritionally better; it means you always have a wide range of food in the household, and you have insurance against drought and disease.



## GRASSROOTS FARMERS BRING TSENZA TO MBARE MARKET

Chihota area in Hwedza North is a hub of *tsenza* production. The government agricultural research and extension department has recorded at least twenty growers in one ward. In Ward 10A, two women are keeping *tsenza* cultivation alive and well despite the unpredictable rainy season. Rosinah Chandisayita and Irene Wadyehwata (with assistance from her son Munyaradzi) have been growing *tsenza* since the 1970s but the crop seems to have been cultivated in Chihota for generations. The women say they grow the crop because they want to preserve their traditional culture as well as generate income.

The crop is planted from sprouting tubers on tall, raised beds, improved with cow manure, in wetland areas. "Making the beds is hard work and weeding is very labour intensive," says Mrs Wadyehwata. "This year we had to hire two people to help us with land preparation and weeding. Then there was a long dry spell, and we almost gave up on the crop but when we went back to weed the beds we found that the *tsenza* was still there and flourishing!" In May, if all goes well, Mrs Wadyehwata and Mrs Chandisayita expect to harvest about 25-30 and 90 20-litre buckets of *tsenza* respectively. They will keep some of the *tsenza* as food for the family and sell the rest at Mbare market in Harare where they can expect to get about US\$10 per bucket. These kinds of returns make the investment worthwhile. Of concern is that the people buying *tsenza* tend to be elderly meaning that there is no young market. This could lead to a decline in sales and ultimately production.

Mrs Wadyehwata says she likes to eat the *tsenza* raw as a refreshing snack, but it can also be boiled or added to stews in the same way as potatoes. In her family it is usually eaten at breakfast time instead of bread.







Benedict Musiiwa Muringazuva, Tintotenda Ntepo, George Namapalo, Lawrence Chimunhu, Fazila Mahomed and Norah Müller



## THE PERFECT MASH FOR URBAN GARDENS

A volunteer group have been transforming vacant plots in Harare into community-managed organic gardens. The Citizen's Initiative Zimbabwe (CIZW) began in Epworth in 2020 during the COVID pandemic, supporting vendors whose livelihood was crippled by the lockdowns. CIZW now mostly works with groups in various high density suburbs, turning land used as illegal dumpsites into urban farming plots. Vegetables are planted and managed by the community for food and sale. In 2022, in Kensington, CIZW were given access to a plot which had become an illegal dump site. Today the garden is blooming. Sweet potatoes are a main crop in all these gardens. One of the primary instigators behind CIZW, Fazila Mahomed, explained why: "Sweet potatoes are very easy to grow, less labour intensive than most other crops and have a lot of health benefits. They are also easy to cook, they are filling and can be eaten at breakfast, lunch, or dinner. Sweet potatoes can grow anywhere. Although the soil in the Kensington garden is not very good, we have been growing sweet potatoes for two years now and they seem to thrive. We've been encouraging all our groups to grow sweet potatoes. We are also working with Chikurubi Maximum Security Prison. We gave the prisoners sweet potato vines to plant and have been encouraging the kitchen to give the inmates sweet potatoes occasionally rather than a monotonous diet of *sadza* and vegetables."

Another CIZW team member, Lawrence Chimunhu, explained why he also loves sweet potatoes. "I love sweet potatoes because they are sweet and easy to prepare and they're something we grew up with as I lived with my grandmother who was a peri-urban farmer. I learnt that sweet potato is an easy crop to grow. My grandmother had many sweet potato recipes. Sometimes she roasted them, sometimes she cooked them with butter, sometimes she boiled them in their skins. We used to eat them with tea at breakfast time. She also taught me how to preserve them by burying them in a pit covered with ash on top. This keeps them fresh for two to three months. I think sweet potatoes are a good crop for Zimbabwe because they're drought resistant and don't need fertilisers or pesticides making them cheap to grow. They don't take up much space so are ideal for urban areas. It seems that more people are growing sweet potatoes than in the past. People have discovered the benefits of traditional foods, and the market has expanded."



## TANZANIA MIGRANT PROMOTES SWEET POTATOES AND CASSAVA

Mr Anganile Musukulu came to live in Zimbabwe from Tukuyu in Tanzania in 1988. He was surprised by the lack of variety in foods eaten by most people. "In Tanzania we don't eat much *sadza*. We eat many different types of food including plantain, cassava, rice, and maize but here its *sadza, sadza, sadza!*" He laughs. To compensate for this, Mr Musukulu, who is now retired, grows a wide range of crops on his plot in Epworth including cassava, sweet potatoes, a variety of legumes, fruit trees and herbs. "I come from a family of farmers" explains Mr Musukulu. Everyone in Tukuyu farms as there is no industry there. There is plenty of rain so we can grow many different types of crops. It is harder in Zimbabwe because it is very dry."

Initially he struggled to grow sweet potatoes; they were attacked by moles. He has discovered that the plants thrive in sacks filled with rich soil and compost. The sacks produce large tubers, and he expects to get at least 12 potatoes per sack. He grows cassava from cuttings planted in beds and they seem to do well as long as the soil around the cuttings is not compact-

ed. "They are easy to grow," says Mr Musukulu. "They don't need much attention and in about 8 months you can start harvesting. They also store well." Mr Musukulu's wife, Agnes Ndlovu, who is from Mozambique, and their children, also love cassava. The family eat the crop in a variety of ways, boiled, roasted, or made into flour and cooked like *sadza*. Mr Musukulu thinks more Zimbabweans should start eating cassava. "The only way to make it more popular is to get it into supermarkets and promote the nutritional benefits" he says.





# PREPARING MADHUMBE LEAVES THE INDIAN WAY

Fatima Kara is a Zimbabwean author, environmentalist and cook. She was born and raised in Bulawayo to parents who immigrated from Gujarat, India in the 1940s. She was not encouraged to cook as a child. "When I got married aged 25 I could not cook anything at all!" Fatima laughs. Her mother-in-law was not amused by the situation and Fatima learned by watching this accomplished vegetarian cook.

When members of the Indian community first arrived in Zimbabwe they quickly began to integrate local ingredients such as millets, cowpeas, pigeon peas, moringa, amaranth leaves, and taro into their delicate and highly sophisticated cuisine. In Zimbabwe Indian cooks tend to use taro leaves more commonly than the tubers. The leaves are used to make *pattas*, similar to Greek dolmades (steamed stuffed vine leaves), a traditional Indian delicacy reserved for special occasions due to its elaborate preparation method.

The first step in *patta* preparation is to make the spicy filling using tamarind juice, onion, tomato, sour milk, garlic, chillies and a little ginger, chana flour, mealie meal, oats and rice flour, cumin, coriander seeds, turmeric, and roasted crushed groundnuts. The paste is left to ferment overnight. The next day preparation of the leaves begins. Fatima uses leaves of a particular variety of *madhumbe*, with a purple stem and veins, that has been grown for the leaves rather than the tubers. Fatima chooses a large leaf for the outside of her *pattas* and four smaller leaves for the inside. The leaves are washed thoroughly to remove the calcium oxalate coating. After drying in the sun, the main stalk is removed, and a rolling pin is used to soften and flatten the leaves. The next step is where the skill comes in. The tamarind paste is spread thinly over the first large leaf; the smaller leaves are laid over the large leaf and the paste is spread in between. The leaves are carefully folded and rolled up to produce a sausage shaped roll. This is then thoroughly steamed. The steamed roll is then cut into slices and stir-fried until they turn a beautiful golden brown.

Fatima admits that *pattas* are hard work, but the end result is well worth the effort. It's time for cooks and chefs to join forces to come up with a new, tasty and exciting Zimbabwean cuisine.





## CONGOLESE CHEF PUTTING DOWN ROOTS IN ZIMBABWE

Sandra Salita grew up in Kinshasa in the Democratic Republic of the Congo. She moved to Zimbabwe in 2007 and decided to become a chef promoting Congolese food. Sandra got her first job in Zimbabwe at the Pan African Restaurant which sold a wide range of food from all over Africa. There Sandra developed her repertoire to include West African and central African dishes. She now runs a catering business mainly hired by embassies and other Zimbabwe-based Congolese people for functions. It is Sandra's dream to open her own restaurant.

Sandra was surprised by how much Zimbabweans love maize *sadza* and eat it for almost every meal. In most other parts of Africa people eat a wide range of different starches including yams, plantains, African rice and cassava. There are also many different ways to cook these starches.

In DRC, cassava roots are boiled whole or fried as chips. Boiled cassava can also be pounded and rolled into a sausage shape. It is then boiled for two more hours before being eaten. One of the most popular ways to eat cassava is to make *fufu*. This is similar to *sadza* but made with cassava flour. Cassava must be carefully processed before cooking. The root is usually soaked for around five days, then dried. After this the root is pounded into flour. Pounding removes the excess starch and acrid smell.

"Very few Zimbabweans eat cassava leaves" says Sandra "and that's a shame because they make the most delicious vegetable." Sandra prepares young cassava leaves by chopping them into small pieces then pounding them in a pestle and mortar. Once a paste-like texture has been achieved the leaves are boiled with a mixture of other vegetables such as onions, green pepper, garlic or eggplant. Palm oil is added; salt and dried fish can also be included. The leaves need to be cooked for at least an hour to make them palatable.

Sweet potato leaves are also widely eaten in DRC and are quicker to prepare. The young leaves are chopped and then stir-fried with a mixture of other vegetables including onions, garlic, okra, red and green peppers. Meat or dried fish can be added for extra flavour. The leaf relishes are commonly served with *fufu* or rice.





# RECIPES

## SWEET POTATO JUICE

### Ingredients

- 3 cups peeled, cooked sweet potatoes
- 1 ½ cups sugar
- Fresh lemon juice to taste
- Water as needed (about 3 cups)

### Directions

- Wash, peel and cut sweet potatoes into small chunks. Boil until soft.
- Puree the cooked sweet potato.
- In a jug, combine the sugar, lemon juice, sweet potato puree and enough water to achieve your preferred consistency.
- Refrigerate and serve cold.



## TARO SMOOTHIE

### Ingredients

- 1 cup mashed cooked taro
- 1 cup coconut milk
- 3 ice cubes
- ½ cup water
- 3 Tbsp white sugar

### Directions

Blend everything together until smooth. Add more water if needed to thin out the smoothie.





# TARO BROTH

## Ingredients

- 1 large yellow onion
- 1 celery stick
- 1 chicken breast
- 3 cloves garlic
- 1 chunk taro
- 2 sprigs thyme
- 3 cups vegetable broth
- Salt and pepper to taste
- Extra water

## Directions

Simmer all together until the taro cubes and chicken are cooked through.



# SPICY ROASTED SWEET POTATO AND COCONUT SOUP

## Ingredients (Serves 4)

- 1.5kg sweet potato, peeled and roughly cubed
- 2 Tbsp olive oil
- 1 onion, peeled and roughly chopped
- 1 tsp grated fresh ginger
- 1 Tbsp lemon juice
- 2 level Tbsp harissa paste (or red Thai curry paste, or a little chilli or cumin (or both))
- 1 can coconut milk
- 750ml vegetable stock
- Salt and freshly ground black pepper to taste
- 2 Tbsp chopped fresh coriander, for serving
- 4 Tbsp slivered almonds, toasted, for serving

## Directions

- Preheat oven to 200°C.
- Place the sweet potato in an ovenproof dish and drizzle with half of the olive oil, then roast for 25–30 minutes, or until golden and easily pierced with a knife.
- Meanwhile, heat the remaining oil in a pot and gently fry the onion and ginger for 7–10 minutes, or until the onions have softened. Stir in the harissa paste, simmer for 1 minute and then add the coconut milk (reserving 2–3 Tbsp in the can to garnish when serving), roasted potatoes and stock. Bring to a simmer and cook for a further 5 minutes.
- Remove from the heat, allow to cool and then blend to the desired consistency. Add in the lemon juice, season with salt and pepper, and reheat just before serving. Serve drizzled with the remaining coconut milk, the fresh coriander and a sprinkling of toasted almonds.





# ROOT CRISPS

Use freshly harvested roots/ tubers.

## Ingredients

- Root/ tuber vegetables such as cassava, potato, sweet potato, taro, *tsenza*, beetroot and carrot
- 1L cooking oil

## Directions

- Wash the products. Peel if using cassava and taro.
- Cut into very thin uniform slices.
- Dry slices thoroughly with a clean dish towel before frying don't leave them too long otherwise they will turn black.
- Heat about 4cm cooking oil in a deep frying pan. The oil should just start to smoke. To test the heat of the oil, place a slice into the oil. If it starts sizzling the oil is hot enough.
- Place some of the root and tuber slices in the frying pan. Cook a few slices at a time until golden brown.
- If using different root and tuber crops, fry each type separately leaving beetroot to last as it stains the oil pink.
- Remove the slices from the pan and place on paper or a sieve to remove the oil.
- Season to taste.



# SWEET POTATO DIP

## Ingredients

- 2 medium sweet potatoes
- 2/3 cup plain Greek yogurt
- 1 Tbsp light brown sugar
- 1 tsp lemon juice
- 1/4 tsp garlic powder
- 1/4 tsp ground cumin
- Salt and pepper
- 1 Tbsp chopped fresh chives

## Directions

- Preheat oven to 220°C. Line a rimmed baking sheet with foil or baking paper. Prick the sweet potatoes with a fork and place on the sheet, keeping space in between to allow the heat to circulate. Place the baking sheet in the centre of the oven. Bake the sweet potatoes until a knife can easily go through, about 45 minutes. Remove from the oven and allow to cool completely.
- Once the sweet potatoes are cool, scoop the flesh (about 1 1/2 cups total) into a food processor and add the yogurt, brown sugar, lemon juice, garlic powder, cumin, 2 tsp salt and several grinds of black pepper. Process until combined, scraping down the side of the processor bowl to make sure yogurt is fully incorporated. Transfer the dip to a serving bowl and gently fold in the chives.
- Serve at room temperature along with pita chips and mixed raw vegetables.



# FUFU WITH SAKA SAKA

## CASSAVA LEAF SOUP

### Ingredients

- 1 Tbsp oil
- 2 cups chopped red/white onion
- 7 medium garlic cloves, minced
- 3 peppers, green, red or yellow
- 700g cassava leaves
- 200g spinach leaves
- 4 very ripe tomatoes/ 4 Tbsp tomato paste
- 2 bird's eye chilli, chopped (optional)
- 5 cups water
- 2 stock cubes
- 1 can coconut milk
- 5 Tbsp peanut butter
- Chopped peanuts, for garnish

### Directions

- Bring water to a boil in a large pot. Wash the cassava leaves and remove the stems. Add the leaves to the water and boil for 5 minutes. Make sure all the leaves are fully submerged in the boiling water. Remove from heat and discard the water, using a colander.
- Rinse and squeeze the cassava leaves, then process them in a food processor until finely crumbled. Add the chopped onion, garlic, peppers, chilli, tomato/paste and stock cubes and process until smooth.
- Heat a large saucepan with oil over medium-high heat. Add the blended mixture and cook for about 5 minutes, stirring occasionally. Add the coconut milk and the water. Bring to a boil, then reduce to simmer for 45 minutes, stirring occasionally. Add the spinach leaves and simmer for 5 minutes. Then add the peanut butter, stir and let simmer for another 3-5 minutes. Check the seasoning; add salt if necessary.
- Garnish with chopped peanuts and serve hot alongside the fufu.





## FUFU: FROM SCRATCH

If you ever get the chance to make fufu from scratch, have a go!

### Ingredients

- Cassava roots
- Water

### Directions

- Soak the peeled cassava in water. Make sure to cover it completely with water, then leave it, covered, to ferment. Drain and replace the water daily. After about 4-5 days, the cassava should be soft. If it's not, don't worry, not all the cassava gets soft.
- Cut in small pieces to facilitate blending.
- Pulse in batches with a little bit of water in a blender or food processor until it turns into as smooth a mixture as your blender will make it. Still add a little more water if needed.
- Squeeze the water from the cassava paste.
- Place the uncooked fufu in a saucepan on medium-low heat. Roll up your sleeves for the next part. Immediately vigorously and continuously stir the dough with a wooden spoon until it starts to bind together. Add a little bit of hot water if needed. If you see any lumps, firmly press and pound with the spoon against the side of the pot to break down any lumps. Keep stirring vigorously until cooked through. This takes about 10 minutes.

## FUFU: FROM CASSAVA FLOUR

Ingredients (Serves 6)

- 500g cassava flour
- 1L water

### Directions

- Sift the cassava flour to eliminate lumps.
- Add the flour to a saucepan on medium-low heat. Gradually add hot water to the flour, stirring vigorously and continuously with a wooden spoon to obtain a smooth, elastic dough.

### TO EAT:

- Once the fufu is ready, shape it into individual sized balls, and wrap the balls individually in plastic. This allows the fufu to retain its moisture and prevents it from forming a crust.
- Pinch off a little bit of the fufu and shape it into a small ball. Make a small indentation in the fufu and use this indentation to scoop up some of the soup or stew.



## Ingredients

- 1 large sweet potato, peeled and cut into 1cm cubes
- 1 large red onion, diced
- 3 Tbsp olive oil
- Salt and freshly ground black pepper
- 500g boneless, skinless chicken breasts
- ½ tsp garlic powder
- ½ tsp ground ginger
- 1 small clove garlic, minced
- 2 tbsp creamy peanut butter
- ¼ cup lime juice
- 1 Tbsp soy sauce
- 1 Tbsp honey
- 1 Tbsp sesame oil
- 4 cups cooked sorghum grain
- 1 avocado, thinly sliced
- 2 cups young amaranth leaves
- freshly chopped coriander, for garnish
- 1 tsp toasted sesame seeds



## Directions

- Preheat oven to 220°C. On a large baking sheet, toss sweet potatoes and onion with 1 tablespoon of oil and season with salt and pepper. Bake until tender, 20 to 25 minutes.
- Meanwhile season chicken with garlic powder, ginger, salt, and pepper. Pour 1 Tbsp of oil in a large frying pan over medium-high heat, and cook the chicken until golden and no longer pink, 8 minutes per side. Let rest 10 minutes, then slice.
- In a small bowl, whisk together garlic, peanut butter, lime juice, soy sauce, and honey. Whisk in sesame oil and remaining 1 Tbsp olive oil until smooth.
- Divide sorghum grain over four bowls and top each with sweet potato mixture, chicken, avocado, and amaranth leaves. Sprinkle with coriander and sesame seeds and drizzle with dressing before serving.

# SWEET POTATO BUDDHA BOWL



**Ingredients** (Makes one 20 X 20cm cake)

**For the cake:**

- 4 egg yolks, beaten
- 500g finely grated cassava
- 1 cup (250g) shredded coconut
- 1 cup (250ml) sweetened condensed milk
- 1½ cups (375ml) coconut milk

**For the topping:**

- 4 egg whites
- ¼ cup (65ml) sweetened condensed milk

**Directions**

- Preheat the oven to 180°C.
- To make the cake, combine the egg yolks, cassava, shredded coconut, if using, coconut milk and condensed milk in a large bowl and mix well.
- Pour the cake batter into a greased cake pan. The batter will appear to be very loose and wet at this point, but don't worry, the cassava will absorb most of the liquid during baking. Bake until the top of the cake appears dry, and no liquid is floating on the surface, 45–60 minutes.
- Meanwhile, for the topping, whisk together the egg whites and condensed milk until very well incorporated.
- Remove the cake from the oven and reduce the heat to 140°C. Evenly pour the topping over the cake. Return the cake to the oven and bake until the topping sets, about 15 minutes more.
- Remove the cake from the oven and let it cool completely, in its pan, before cutting it into squares. The cassava cake can be served at room temperature, or cold out of the refrigerator.

# FILIPINO CASSAVA CAKE





