

Permaculture Network In Malawi

Issue # 52: Nutrition

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Next Edition: Chikhalidwe

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You Are What You Eat!

Many people in Malawi use the term "food security" wrong. They think that if we increase maize production enough to last the country through the entire year, then we will all be healthy. They measure food security by the amount of calories a family can receive from an acre of maize. This is why agricultural research in Malawi is primarily focused on creating higher yielding maize seeds and government policies subsidize inputs and starter packs to help people to grow more maize. When the maize harvests fail, many organizations respond by importing maize. These types of activities are geared at promoting '*maize*' security, but do they promote *food security*? No!

Did you know that our bodies need 43 different nutrients to stay healthy, develop properly, and avoid diseases? Food security means that all people, at all time, have the foods they need to lead a healthy life.

Many people in Malawi base their entire diet on *ufa woyera* (highly refined maize flour). An average meal has up to three-quarters of *ufa woyera* and just a small portion of boiled greens or beans (*ndiwo*). How many nutrients do you think that *ufa woyera* gives us? Just **ONE** - carbohydrate. The tiny bit of *ndiwo* is all that they are using to get the remaining 42 nutrients. The result is that 50% of our children are developmentally stunted, 80% of them have iron deficiency, 59% have vitamin A deficiencies, nutritional rehabilitation units are taking in new patients every day, and many adults are susceptible to disease, especially people living with HIV.

We could bring all the maize in the world to Malawi and distribute it throughout the country—people would be very full, but they still wouldn't be healthy if they continue to eat large amounts of *ufa woyera* and small amounts of *ndiwo*.

Permaculture focuses on planting, growing, and eating a **diversity** of foods. This helps to ensure that we have year-round access to foods, that we can always eat a diet that provide all 43 nutrients, that we are using our land to its fullest potential, and that **we have true food security**. There is no reason why Malawi cannot achieve this: we have a 12-month growing season, hundreds of local foods that we could be growing, and foods that produce in every season of the year - even without irrigation. This issue of the newsletter will focus on nutritious solutions to some of the problems that we are facing here in Malawi and help to show how **we can all be full and healthy at the same time!**



Food Security:

**All people,
at all times, have
the foods they
need to lead a
healthy life.**

How do we eat 43 nutrients? Let Food Groups Guide you!

In the cover article, we referred to nutrients that our bodies need to sustain life. Nutrients are the part of foods that we must have for life and health. So, when we have good nutrition and good food security in our country, it means that the foods and drinks we eat are providing us with the nutrients we need for life and health.

A practical way to remember the nutrients is to learn the six basic groups of nutrients rather than remember each of the 43 nutrients. You can even relate the nutrients to a home and the things that are used to keep that home in order. Think of your body as your home!

Nutrients	Jobs
1) <u>Proteins</u> build the walls of our body (hair, skin, muscles, etc), just like <i>bricks</i> build our home. Bricks are made of many ingredients and so are protein; they are made up of smaller parts called amino acids and there are 8 types we need. 2) <u>Minerals</u> are like <i>mortar</i> that is used to hold bricks together in a wall. Minerals in our body join together different parts of the body. There are 14 minerals.	Building
3) <u>Carbohydrates</u> are what our body burns most often for fuel, much like <i>firewood</i> . Carbohydrates are used in the body to provide the first source of energy. 4) <u>Fats</u> are also burned for energy, but they give more fuel and are easy for our bodies to store for later use. This is much like <i>paraffin</i> in our homes; it is stored in a small jug and a little fuel goes a long way. There are 3 types we need.	Energy
5) <u>Vitamins</u> are like <i>watchdogs</i> which protect us from thieves while vitamins in our body protect us from diseases. There are at least 16 types of vitamins. 6) <u>Water</u> has many cleaning jobs in the body, similar to the way that we use <i>water for cleaning</i> in our homes.	Health

It is important to remember that all the nutrients need each other to work properly.

When we are planting (or shopping for) our food crops, we need to include a variety of foods which can provide all the nutrients we need. Nutritionists created food groups to help people select healthy diets. Malawi is now using a Six Food Groups, whereas previously we used three food groups. The main reason for this change was to help people get more variety in their diets.

The foods in each of the Six Food Groups are grouped together by the nutrients in the food. They are not grouped by how the food grows! For example, you may find some foods that grow in the form of a fruit, but are actually a part of the vegetable or fat group. Almost all foods are a mixture of nutrients, but there are usually one of two nutrients that the food is really high in.



(Continued on next page)

The drawing on the bottom of the previous page shows the Malawi Six Food Groups: Staples, Fats, Fruits, Vegetables, Legues and Nuts, and Animal Food (similar posters produced by the Ministry of Agriculture are available from your local ADD, RDP or EPA office). The Six Food Groups, the main nutrients that they provide, and some examples of foods that you can plant or raise from each Food Group are shown below:

Food Group	Main Nutrients	Types of Foods	Examples
Vegetables	Minerals Vitamins	Leaves – Fruits – Fungi – Flowers – Roots	<i>Bonongwe - Chisoso - Luni Pumpkin - Tomatoes - Mlozi Onion - Garlic – Mushroom</i>
Fruits	Vitamins Carbohydrate	Fruits <i>(Except those in fats or vegetables) (Often sweet, tangy, and eaten raw)</i>	Papaya - Mango - <i>Matowo</i> Tangerine - Lemon - Banana <i>Mchisu - Gredilla - Masuku</i>
Legumes & Nuts	Protein Carbohydrate Minerals	Beans - Peas - Nuts <i>(Seeds in a pod)</i>	<i>Nsawawa - Mtedza - Nyemba Kakumpanda - Nandolo - Nzama Kalongonda - khungudzu</i>
Animal Foods	Protein Fat	Flesh - Insects - Eggs Milk - Milk products	Beef - Mice - Chicken - Pigeon Pig - Goat - Fish - <i>Ngumbi</i> - Eggs Milk - <i>Chambiko</i> - Cheese
Fats	Fat	Oil seeds - Animal fats - Fruits <i>(They feel "fatty" in your mouth)</i>	Pumpkin seed - Sesame seed Sunflower - Coconut - Butter Avocado pear - Cooking oils
Staples	Carbohydrate	Starchy roots - Cereal grains <i>(seeds without a pod and may have husk)</i>	Sorghum - Millet - Rice – Maize Wheat - Buye - Sweet potatoes, Yams - Cassava - <i>Tirigu</i>

Any combination of these Food Groups (along with water, sweets and alcohol) can make a snack or meal. Your pattern of snacks and meals is your diet. We all have our own patterns of eating and the factors influencing our diet (parents, religion, tastes, culture, season, etc.) are also numerous. Some people believe that diets are based purely on taste, but it is important to remember that tastes change over time -- **we can all make changes in our diets** (and the foods we grow) so that they provide us with better nutrition.

In Malawi, diets usually consist of meals of great mounds of *ufa woyera* and a little *ndiwo*. This meal is eaten over and over every day, every meal. This eating pattern (diet) cannot keep us healthy; there is too much from the Staple group and not enough of the other Food Groups. In addition, the over-processing of foods removes most of the nutrients before the food gets inside our bodies. This diet provides very few nutrients for the body and leaves the body weak, vulnerable to diseases, and susceptible to poor growth and healing.

A more nutritious diet consists of meals and snacks from each of the Six Food Groups every day, while processing and preparing the food to keep the most nutrients. Most people need to eat:

- **More** Vegetables, Fruits, Legumes & Nuts
- **Less** Staples

This picture shows the proportions of each of the food groups that should be covering our plates - each person is different, but something close to this would be sufficient!



Remember, a wide variety is the key! 🌍

Always something to eat with Permaculture: Choose the 6 Food Groups Every day!

Still not sure of how you can diversify your diet? Let us recommend a couple of great plants and animals that you can easily include in your gardens and on your plates. Chances are pretty good some of these are growing around you already!



Nkhululu

Animal Food Group

Dry season is the time to find these delicacies. They are a great source of protein, fat & minerals.



Amunaaligone

Vegetable Food Group

This edible leaf vegetable has a very unique, strong flavour. It can be steamed on it's own or added to other dishes to add nutrients and flavour. There's no need to rush off to the market to try this one, chances are pretty good that it is growing somewhere in your yard already!



Chigwada, Mpira

Vegetable Food Group

This is a member of the cassava family, but instead of developing an edible tuber, this plant grows into a large tree with edible leaves. The leaves of this tree remain edible throughout the entire dry season and may also be used as fodder for cows, goats, or rabbits.



Mapira, Sorghum

Staples Food Group

Ask someone over the age of sixty what this plant is and they will probably tell you they, or their grandparents used this plant to make *nsima* from it every day! It grows very easy in its native African habitat. In about three months, you will enjoy your first harvest and you'll continue to enjoy for the plant's entire 1-3 year lifespan. Feeling creative? Try making *thobwa* from it.



Masuku, Loquat

Fruit Food Group

Everybody loves *masuku*! Eat this fruit raw or make it into juice. This fruit is available right in the middle of the "hungry season" and always grows in vast abundance -- sometimes thousands of fruits per tree. Not only is it prolific, but it's good for you too -- a great source of vitamins A and C.



Mkhunguzu, hyacinth bean
Legume & Nut Food Group

A wonderful perennial bean that can continue producing for many years. The young pods can be steamed or you can boil the mature seeds just like any other legume. The plant has a beautiful smell as it is growing.

Everyone can live longer & stronger with good nutrition!

“*Chakudya*,” (food) is usually the answer health workers and HIV volunteers receive when they ask people living with HIV what they most need. The wish list may continue to include things like orphan care, drugs, etc., but nearly always, their primary concerns remain centred upon nutrition and food. People with HIV have an especially tough time achieving nutrition security as members of their family (either themselves or their caregivers) are removed from the agricultural workforce and their finances are diverted from their fields to health care bills. At the same time that it may be harder to access food, HIV is increasing their bodies demand for nutrients.

This is a very serious situation as people living with HIV have special nutritional needs. Because HIV attacks the immune system, an important part of living healthy with HIV is to provide the immune system with extra strength and protection. Strengthening our immune systems can help us all prevent diseases; so what is covered in this paper will benefit us all.

Improving the immune system is done through many parts of one’s lifestyle such as getting exercise, rest, and finding satisfaction in one’s life, but one of the most important parts of improving the immune system is through eating well. This is because the body uses the foods we eat to: build the body, provide energy, and prevent diseases. There is a common saying that goes “You are what you eat”, and this is literally true. If the foods you are eating don’t provide the materials the body needs, then the results are a poorly built (weak) body, with no energy, and frequent diseases. This is a problem for people without HIV, but it is deadly for people living with HIV.

Key nutrition recommendations for people living with HIV and everyone else who wants to keep a strong immune system:

- Eat a variety of foods from the Six Food Groups every day.
- Eat unprocessed foods that are not highly refined such as wholewheat brown bread rather than white bread and *mgaiwa* rather than *ufa woyera*.
- Eat 5 servings of fruits and vegetables every day to provide vitamins and minerals.
- Drink at least 2 litres of clean, safe water every day - some people need 4 or more litres a day, especially when sweating, vomiting or having diarrhoea.
- Eat fermented foods like *chambiko*, yoghurt, and *thobwa* - these foods are easy to digest.
- If you are having trouble eating, try eating small frequent meals throughout the day to help getting more food into your body (even as many times as eight times a day!)
- Eat steamed, boiled or roasted foods rather than fried foods to aid digestion.
- Use good hygiene when preparing foods.
- Breathe clean air - avoid smoke and smoking.
- Avoid consuming alcohol and refined sugar.
- Do regular exercise to keep fit.
- Get treatment for any illness as soon as possible to keep your immune system strong
- **Continue to always learn more!** Get in touch with your local HIV organization to find out more information on eating well with HIV - or contact us. 🌍



Have you had your share of these immune boosting foods today?

Resource: Organic Consumers' Association

I receive OCA's free web news every week or so. It has a lot of useful information and action that I can take to support a more sustainable world. The OCA is a great example for Malawi to follow.

For those that don't have access to the internet, I will be watching out for relevant information from them to include here in the newsletter.

The Organic Consumers Association (OCA) is an online, grassroots non-profit public interest organization campaigning for health, justice, and sustainability. The OCA deals with crucial issues of food safety, industrial agriculture, genetic engineering, children's health, corporate accountability, Fair Trade, environmental sustainability and other key topics. They are the only organization in the US focused exclusively on promoting the views and interests of the nation's 50 million organic and socially responsible consumers.

The OCA represents over 850,000 members, subscribers and volunteers, including several thousand businesses in the natural foods and organic marketplace. Their US and international policy board is broadly representative of the organic, family farm, environmental, and public interest community.

The Organic Consumers Association was formed in 1998 in response to U.S. Department of Agriculture's controversial proposed national regulations for organic food. Through the OCA's and their partner's "Safeguard Organic Standards Campaign" the organic community over the last eight years has been able to mobilize hundreds of thousands of consumers to pressure the USDA and organic companies to preserve strict organic standards.

In its public education, network building, and mobilization activities such as its Breaking the Chains campaign, OCA works with a broad range of public interest organizations to challenge industrial agriculture, corporate globalization, and the Wal-Mart-ization of the economy, and inspire consumers to "Buy Local, Organic, and Fair Made."

OCA's has an Organic Agenda 2005-15 which aims to achieve the following 6 points:

Conversion of American agriculture to at least 30% organic by 2015. This includes major reforms in agricultural subsidies and helping family farmers make the transition to organic, develop local and regional markets, and adopt renewable energy practices.

Fair Trade and economic justice

Global moratorium on genetically engineered foods and crops (meaning to stop it).

Phase-out of dangerous industrial agriculture (an example would include "herbicide no-till" promoted in Malawi) and factory farming practices.

Universal health care with emphasis on prevention, nutrition, and wellness promotion.

Energy independence and the conversion of US and global agriculture, transportation, and utilities to conservation practices and renewable energy.

Their website, publications, research, and campaign staff provide a great service to the whole world. The media team provides background information, interviews, and story ideas to television and radio producers and journalists every day.

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From our Members: Healthy Malawi, Kande, Nkhata Bay

The Healthy Malawi Foundation would like to inform members/readers that they have excellent quality piglets for sale. The breed is Large white/cross/local. All piglets are weaned onto a high protein diet to ensure excellent growth and return for your money. All relevant vaccinations given.

The piggery was initially established to help support our Day Care Centre with sustainable food gardens. Not only do they provide wonderful manure for our gardens and a way for us to re-cycle all our leftovers, they also generate some income for our project. Just as important, it has emerged that local Agricultural and Veterinary Officers are taking a keen interest in us, and are being very supportive by encouraging local farmers to rear cross-bred pigs.

Our pigs can grow to a weight of 70-100 kg, sows produce large litters and are good mothers. They can farrow at least twice per year, and their meat is high quality. Their cross with a local breed, is resultant in a hardy pig that is less susceptible to disease.

Piglets are available for sale at various times throughout the year - so give us a call anytime! Our current price for a 8 week old piglet is K3000. 🌍

Healthy Malawi Foundation

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Write to the Newsletter:

Get your voice heard!

Send your message to the editors so it can be heard around the world! Articles are based on a theme that is posted in the previous issue. We welcome submissions and would love to receive a letter/article from YOU!

A Special Thanks to:
Carmen Aspinall
for helping to edit this issue
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Permaculture Network in Malawi

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*"See the world through the eyes of
Permaculture"*

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**Idyani zakudya zosiyanasiyana kuti mukhale
ndi thupi lathanzi ndi moyo wautali!**

Join / Support the Permaculture Network in Malawi

- **Permaculture Network in Malawi Membership Fees** are 400 mk for the calendar year. If you are able to pay more it allows us to sponsor people who can't afford the fees, to copy additional materials, and to take on more extensive projects.
- **Sponsorship:** If you can't afford the fees, or can only afford part of the fees, write us explaining why you are unable to pay, why you want the newsletter, and what you are doing with Permaculture – you need to write to us at least once a year.)
- **Payments:** We accept Malawi Kwacha check, postal order (to **Stacia Nordin**), or Malawian postal stamps. Include your name, address, all contact details, profession & specific Permaculture interests. Send payments & submissions to:

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Permaculture = Permanent Culture

Creating a sustainable world

