

Permaculture Network In Malawi

Issue #45

October – December 2003

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This Newsletter is in a NEW improved format!

We've changed to Microsoft Word for easier printing and easier sharing electronically.

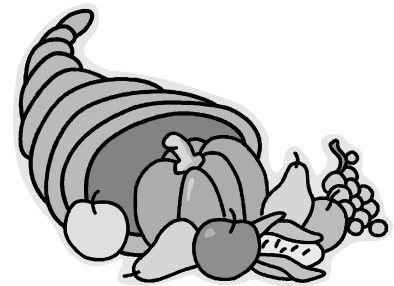
If you would like to receive the newsletter via e-mail to help save paper (and a tree!), please send an e-mail to:

Stacia & Kristof Nordin
nordin@eomw.net

Hungry Season? No Thanks, I'm full! *From the editors*

In this issue we examine issues surrounding the “Hungry Season” in Malawi. We look at some of its causes, but more importantly, some of the solutions that we can use to eliminate this problem.

Those who understand and practice Permaculture already know that there is absolutely no reason that there should be a Hungry Season in Malawi. In the last issue (*Issue #44, Seeing Solutions, Not Problems*), we discussed how rich Malawi is in potential. Potential to grow things year-round, potential to reduce disease, and the potential to provide nutritious food security that would make the Hungry Season a thing of the past. This is not just a “nice idea” that a few people have come up with, this is a realistic approach that many people all around the world are already implementing. People who use Permaculture principles to meet their needs are finding out that they can have food at their fingertips each and every day of the year.



In order to accomplish a “true” change in Malawi’s food security problems, however, it is going to take a “true” change in the way that people view modern agriculture and their definition of food. We need to differentiate between a real food crisis and when there is simply a shortage of maize. It is unacceptable in a land that has so much to offer to see people complaining of hunger or even dying from hunger-related illnesses. During the last “Hungry Season” you could visit almost any market in Malawi and see the vendors selling beans, vegetables, fruits, and delicacies such as *ngumbi* (termites), *bowa* (mushrooms), and *chikhande* (Africa bologna). But, these same vendors were complaining of “hunger”. How can a person be hungry with a surplus of food to sell? Others were selling goats at around 120 kwacha (normally 800-1000 kwacha) in order to purchase a small bowl of maize flour. The same goat, if eaten, would have provided much more protein, fat, and calories than the little bit of nsima could provide.

The media made last year’s situation even worse; they said that Malawians were so hungry that they had resorted to eating mice (can you imagine?) and tree roots (like cassava?) and even grass seeds (like millet, sorghum, and rice?). It all depends on how you look at a situation. Will you see solutions or only the problems?

Hopefully this edition of the newsletter will raise some new ideas that you haven’t thought of yet and perhaps give you some solutions that you can start to implement as soon as you are done reading this (no better time than the present!). Let’s start to make a difference in the future of Malawi, we could and should be the role model for the world. 🌍

Is Hunger a State of Mind? by Kristof Nordin

According to Dr. Glyyvns Chinkuntha, a farmer from Dowa whose innovative farming methods have earned him an honorary Doctorate degree from Chancellor College, up until 1950 there was only one year in Malawi's recorded history that was documented as a nation-wide food crisis. Today, however, this has become an annual event. It is so commonplace now that it even gets a whole season dedicated to it known as the "Hungry Season".



So what has happened in the last 50 or so years that caused this type of negative impact on Malawi's food security? The answer is not simple. There are many factors that have influenced how Malawi is growing its food, how it stores its food, and what Malawi actually believes to be "food". Many people claim that the increased population pressure is to blame for many of today's problems, but is this true? If anything, this seems like it would mean more hands to help in the fields and even more food that is being produced. At a recent meeting on food security in Malawi, people were raising the issue of too much land remaining idle without being farmed. Population may create a stress on the food supply, but let's look deeper at the problems that we are seeing.

If you ask people what their Great Grandparents used to eat, the answer is usually "nsima", but when you ask what this nsima was made from you get a variety of answers such as: millet, sorghum, green bananas, and cassava (maize is seldom mentioned). You can also ask about the other staples, fruits, vegetables, nuts, and beans that used to be eaten in Malawi and you will also get a wide variety of answers—much more variety than is being utilized today. This lack of diversity in the foods we are currently growing and eating seems to be one of the causes for the problems that we are seeing today.

Another issue is food storage. People are trying to grow their entire annual food needs in a short 3-4 month growing season and then making these reserves

last for the remainder of the year. Much of this food is sold before it even reaches the *nkhokwe* (silo) in order to cover the costs of the fertilizer and seeds that were purchased to grow it. The remainder of the crops that are being stored are often subject to insect damage, rotting, and even theft. The overall result is a large gap when food reserves run out and the next crops are still growing. This is the period that has been deemed the "Hungry Season".

Thirdly, nutritious foods have become stigmatized in Malawi. People tend to believe that "foreign" foods must be better than the ones that are readily available throughout the country. This mindset has persuaded people to shift from the healthy foods that their Grandparents used to eat to less nutritious, high maintenance foods like maize, cabbage, and Irish potatoes. People who eat local foods are seen as being poor or bad farmers, rather than people who are utilizing all their resources to improve their lives.

Lastly, there has been such an emphasis on maize, that people now think the only "food" is maize nsima. A person could eat a healthy meal of all six food groups, but if it doesn't contain maize nsima, the person will say that they haven't eaten. This, combined with the loss of knowledge of local food options, has led to a chronic problem of people going hungry each year. When the maize runs out, people turn to the donors to import more maize instead of looking at local solutions. If we continue to ignore the vast amount of other food options that Malawi has to offer, then we will continue to face these yearly issues of hunger. The ironic thing is that we could bring all of the maize in the world to Malawi, and we still wouldn't have a healthy diet (we sure would be full though!) A healthy diet depends on eating a VARIETY of foods each and every day.

Nutritionists in Malawi have been looking at local food options and have come up with a list of over 500 different foods that we could be eating! With so many options available to us, we need to start asking ourselves whether our hunger is real, maize-based, or just a state of mind? We have the capacity to change our future, so let's do it. 🌍

Win a Permaculture Training Package! What Are You Doing To End Hunger In Malawi?

All you have to do is write to us and describe how you have used Permaculture principles to help find solutions to food security problems, malnutrition, or the "Hungry Season". All submissions should be received by March 31st. Entries will be judged on creativity, the use of Permaculture principles, and the impact on hunger-related problems in Malawi. The winning entry will be published in the next issue of the

Permaculture Network Newsletter. **Send all submissions to:**

Permaculture Contest, Stacia & Kristof Nordin, PO Box 208, Lilongwe (or at) nordin@eomw.net

Fast Food (to help end hunger)

Portions of this article are reprinted with permission from: Elevitch, C.R. And K.W. Wilkinson (eds). 2001. *The Overstory Book: Cultivating Connections with Trees. Permanent Agriculture Resources, Holualoa, Hawaii.*

Perennial plants are ones which you plant once and they will keep growing and producing for many years. Crops such as maize are considered to be “annual” crops because they need to be replanted each year. With thoughtful incorporation of perennial crops, you can have access to more food year-round as well as benefit the annual crops that you are trying to grow!

The purpose of gardening with perennials is to get the highest return with the least amount of effort. When choosing species to serve this purpose, use plants that:

- Are highly productive even in poor conditions
- Have multiple edible parts such as leaves, fruits, flowers, and/or tubers
- Contribute important nutrients to diet
- Provide multiple functions in the landscape such as ground cover, hedge, animal fodder, etc
- Are competitive with weeds
- Are pest and disease resistant
- Require minimal care
- Enhance other parts of the landscape
- Can make use of wasted, low fertility, or unproductive spaces
- Can begin producing within 2-12 months
- Will continue producing for more than a year (perennial)
- Are easy to propagate and are widely adapted to a range of climates and soils

Malawi contains thousands of useful plants that can be used to meet these purposes, and hundreds of these are also edible. The following are just a few ideas for plants that you can add to your homes, workplaces, gardens, or fields to help combat hunger and reduce the amount of energy that will be needed for food production.

Perennial Vines:

Sweet Potato (*Ipomoea batatas*)—can be managed as a ground cover in which case it will be used for its delicious young leaves and stem tips, rather than for the tuber. A patch of sweet potato managed for leaf production will also serve as a perennial source of propagative material for future tuber or leaf plantings.



Lablab Bean (*Dolichos lablab*)—Red lablab is a very vigorous nitrogen fixing vine which produces abundant edible pods that can be eaten young as a vegetable. Mature seeds can also be dried and stored for later use as a legume.

Passion Fruit (*Passiflora* spp.)—is a vigorous twining plant that can produce large amounts of fruit after a year. Many species of passion fruit can tolerate a large amount of neglect, while producing 2-3 crops per year. A beautiful addition to the landscape!

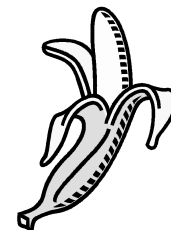
Perennial trees and shrubs:

Moringa (*Moringa oleifera*)—is a tree which can be kept bushy by continual tipping of the new branches. The new leaves and tips are used in stir fries and soups. The African variety (*M. stenoopetala*) has a wonderful nutty flavor. Both species are drought tolerant, and have many other uses, such as medicine, water purification, etc.

Cassava (*Manihot esculenta*)—is very easy to grow from stem cuttings, and is a prolific source of carbohydrates from its edible tubers. The cooked leaves can be eaten as a nutritious green vegetable. All parts of this plant must be carefully cooked to remove toxins. This plant is very hardy and grows in a wide variety of conditions.

Pigeon Pea (*Cajanus cajan*)—is a remarkably useful and productive shrub or small tree. The young pods are used as a vegetable, and the mature seeds as a grain legume. Produces well even in dry conditions. Long-lived agroforestry selections have an upright form and high vegetative growth, and can be used for fodder and green manure banks, as well as hedges and quick windbreaks.

Papaya (*Carica papaya*)—develops fruit rapidly, usually within a year if well mulched and watered. Fruits can be eaten green or ripe. Young leaves can also be used a vegetable, and the plant has medicinal properties.



Banana (*Musa* spp.)—is remarkably productive and useful, providing fruit, fodder and mulch material. Many varieties perform well in partial shade, and can be integrated into a stacked system. 🌍

Always Something to Eat During the Hungry Season!

Choosing to plant (or keep) a wide variety of foods accessible to us helps to prevent hunger and malnutrition:

There is NO reason to have a hungry season!

Below are some examples of what you could be eating today if you had it in your *munda*! I'll cover a little bit on what nutrients are in the foods, but space is not adequate to go into detail! ~ Stacia ~

Mapayala Fruits

Mapeyala Leaves

It seems impossible to be hungry or undernourished in *Mapeyala* season! It is considered a 'perfect food' as it is loaded with nutrients protein, fat, vitamins, and minerals. It is energy dense because it is very high in fat (it is part of the fat food group for this reason.)

In Malawi, mapeyala is usually eaten plain or with salt or sugar. It can also be used in salads and sandwiches or as 'guacamole' - mashed and mixed with garlic, onions, tomatoes, cumin, peppers and lemon.

The leaves of the *mapeyala* tree are used as a medicinal tea and are used to add extra iron and folate in the blood. They are especially good for treating anemia when there is blood loss, blood damage because of disease, or because of a poor diet. We like the taste of the tea, too! Leaves can be used fresh or dried and stored for use later. 🌱

Chigwada

The leaves of the cassava plant are a terrific *ndiwo* to have at any time of the year. We have the sweet cassava root type in our yard and we use the leaves all year round for eating, and when there are too many leaves for us to eat, we use it for mulching the soil, too! We also have the larger tree cassava, which has bigger, darker leaves that have fewer and fatter 'fingers' instead of the 6 thin ones shown in this picture.

We use *chigwada* in everything – raw in salads, cooked with other greens, eggs, beans, tomato sauces and, just this morning, with sauted potatoes. It is a very versatile vegetable! I choose primarily younger leaves when I'm using them in salads but even older leaves are good in cooked dishes.

Some of you may be asking, but what about the poisons in cassava? Well, I've asked a lot about this, too and it seems that there is a substance in the leaves that counteracts the poison when you chew, pound or cook the leaves. Our family and guests have eaten cassava leaves for years with no ill effects.

Cassava leaves are loaded with vitamins (A, B, C and K); minerals (calcium and iron); and some of the amino acids that make up protein in our bodies. 🌱

Baka

Let's talk about the benefits of including animals in our land designs. Since I don't have a picture of *ngumbi* (termites) handy (who are great soil builders), let's highlight ducks! Ducks require very little care and they do a terrific job in our gardens eating snails and a variety of different insects (including cockroaches!). The ducks help to aerate compost, mulch and soil while searching for their food. We give them a bucket of water every other day, which, when dirty, goes onto our gardens, full of feathers and other duck 'waste'.

What about nutrition? Duck eggs and meat can be a healthy part of the diet if eaten in small amounts. Eggs and meat have similar nutrients: You will get protein, fat, B vitamins, and the mineral iron, when you eat eggs or meat.

Nutrition of eggs varies a bit between the white part (which is high in protein) and yellow part (which is high in vitamin A, iron, and fat). Did you know that the protein in eggs is almost a perfect match to the types of protein that we need in our bodies?

Nutrition of duck meat and edible organs also varies from piece to piece (organs are higher in minerals and vitamins). 🌱





Kuganiza Patsogolo – Planning Ahead by Stacia Nordin

To get all the nutrients we need, we need to choose a variety of foods from each food group every day. How do we do this if we are only growing one or two foods? Diversity is the key to good health for our bodies; and it is also the key to good health for our environment.

These are the main reasons that nutritionists advised the Ministry of Agriculture, Irrigation and Food Security to change the way nutrition is taught from the old 3 food groups to the current 6 food groups that were released in the year 2000.

The 6 Food Groups

1. Legumes & nuts
2. Staples
3. Vegetables
4. Fats & Oils
5. Fruits
6. Foods from Animals

Look closely at the Malawi Food Guide posters on the accompanying pages. (*They may be difficult to see in this reproduced newsletter, if so, meet with your local extension worker from the MoAI&FS.*) Our *mundas* and *dimbas* should look just like this poster, both in variety and in balance.

Right now the diet and gardens in Malawi (and in much of the rest of the world) contain TOO MUCH from the staple food group and not enough from the other food groups. This is part of the reason that we are seeing so many problems with food & nutrition security in Malawi and the rest of the world. The current agricultural practices make almost all the food in Malawi available for harvesting at one time: from March to April.

If we want to end the hungry season, we need to plan ahead so that we have access to all six food groups each and every day of the year. There are many foods that are found in Malawi that can be grown and harvested throughout the year. Now that you know what the food groups are, you can practice using the food groups by listing the foods that you have available for each group. As you are doing this, try to include as many of the local or indigenous foods as you can. When you are done with this exercise you will be able to see if you are able to have a healthy diet all year round. If there are gaps during any of the seasons you can begin by filling them in with foods that you can get and establish around your home.

Food Availability Exercise: This table is a small example of one way to map out the foods you have, using only 2 foods for each food group. You can make a similar table but put more foods. Work together with a group that includes the young and old, men and women, to have the best results.

Food Group	Food	Hot & Wet Dec – Mar	Cool & Moist Apr – Jul	Hot & Dry Aug – Nov
Legumes & Nuts	<i>Chimbamba</i> (Similar to lima bean)		x	x
	<i>Kungudzu</i> (Climbing bean)		x	x
Vegetables	<i>Chigwada</i> (Cassava leaves)	x	x	x
	<i>Kanzota</i> (Tastes similar to parsley)	x	x	
Fruits	<i>Chidede</i> (Jamaican Sorrel)		x	
	<i>Matowo</i> (African “bubble gum”)	x		
Staples	<i>Ntochi owisi</i> (Green Bananas)	x	x	x
	<i>Mawere</i> (Millet)		x	
Fats	<i>Nthenga</i> (Pumpkin Seeds)	x	x	x
	<i>Mapeyala</i> (Avocado Pear)	x		x
Animal Foods	<i>Ngumbi</i> (Termites)	x		
	<i>Mazira</i> (Eggs)	x	x	x

How many foods are actually available to us in Malawi?

Local knowledge combined with research shows us that there are about: 46 Fats, 146 Fruits, 28 Legumes & Nuts, 283 Vegetables, 52 Staples, and 22 animals/insects that contribute meat, eggs and milk. So why are people complaining that they are hungry? What has happened to the wide variety of foods that Malawi used to have?

Learn about local foods. Collect seeds from nature, plant them. Use local foods in your meals, make creative dishes and products – market them and sell them!

Permaculture Highlight:

International Volunteer Day Together We Grow!

**YOUR garden COULD
be highlighted here!**

Write to the Newsletter Editors describing how you integrate Permaculture and Nutrition into your life and/or work! Include a photo of your work if you have one.

This year the Volunteer Sending Agencies in Malawi celebrated International Volunteer Day with Lighthouse centre in Lilongwe by designing and planting a wide variety of food and medicines at the centre.

On Saturday, 6 December, Volunteers from each of the agencies in Malawi, along with over 200 other interested people, joined together to plant over 300 trees, herbs, bushes and climbing plants. Species were chosen that are indigenous to Malawi (or well-adapted) and that have medicinal or nutritional benefits.

The day was truly amazing. People participating said that it was one of the best things they ever did and that they will remember the day forever. In the early morning hours, people from all backgrounds were working together in groups, singing songs, digging holes, bringing compost, making borders around the plants with stones, and writing labels with the plant's name on them.

Participants were refreshed and nourished with a baobab drink and bananas – reinforcing the message of local nutritious foods for health.

After planting (which only took about 2 hours), the crowd enjoyed edutainment through songs, dramas, and dances about the importance of a variety of foods and messages about HIV. There were booths for people to learn more about what each of the Volunteer Sending Agencies are doing. Speakers included a Volunteer talking about her experience; the head of VSO focused on partnerships; the director of Lighthouse described their work; and to top off the event the guest of honour was Ms. Louise Setshwaelo, the head of FAO in Malawi. Ms. Setshwelo arrived early in the morning to participate in the planting without any fanfare. The Volunteer spirit that was generated that morning was truly impressive.

A lot of work went into the planning of this event, and a lot of people donated plants, seeds, tools, time and energy to get the job done. It would be impossible to acknowledge everyone here. A few notable contributions include:

- ✂ Plants, tools and garden decorations – The volunteers brought these items and there were also donations from Four Seasons & Western;
- ✂ VSO provided bananas for eating and the flyer design for the event;
- ✂ WUSC brought Baobab drinks and made IVD direction signs for the event;
- ✂ JOCV gave paint and chicken bedding/manure;
- ✂ US Peace Corps donated garden signs, compost and technical expertise for garden design;
- ✂ Overall coordination on the day's event – Lighthouse centre staff

The pictures on the right give a little glimpse into the day's work. In each place that you now see a garden, there was only dirt, grass and/or waste piles. We designed each area according to the location and the growth over the past month has been incredible! (Come and see for yourself next time you are near LCH!).

For more information on planning a similar event, contact:

Stacia Nordin, US Peace Corps, Box 208, LL (or at) ccc@mw.peacecorps.gov

Building Guilds for Food-Medicine-Beauty

**Permaculture Network Member
J. Treadwell**

Edutainment & Speeches

**Home Based Care Volunteers
Admire Plants**

Lighthouse Director & HBC Staff

Resources to Improve Food Security



Malawi Food Guide - Included in this newsletter as a handout. Use in your work and in your life. Copy it, post it, and pass it out. Get colour print copies from the Ministry of Agriculture (Agricultural Communications Branch in Area 4, Lilongwe). Draw your own on cardboard, poster board or other creative material. Preserve foods for each of the food groups and put them into a display for teaching.



Permaculture members! - Many of the people who receive this newsletter are implementing Permaculture principles and improving Food & Nutrition Security. Get together with other people in your area and share ideas. Write to the newsletter and tell us what you are doing!



Useful Plants of Malawi - Can be found in Agricultural Research libraries, NRC library, and possibly at Malawi University Libraries. An extremely useful book compiled by Jessie Williamson in the 1950's and revised up until 1975. It is in a scientific layout and needs to be adapted for the community level. US Peace Corps and FAO are in discussions about doing this with the National Herbarium.



Plants & Seeds - My knowledge of planting material is mostly in the Lilongwe area, please write and add to this list it seems like there are nurseries springing up everywhere - why not start one that focuses on seeds and seedlings of indigenous species?

- National Herbarium (Zomba and LL)
- City Council Nurseries (Area 13 in LL)
- Four Seasons (Area 3 and Area 12 in LL)
- Your market & kitchen! Local markets, especially the larger markets, are loaded with seeds seasonally. When you eat local foods that have seeds with them, always use some for planting.
- Agricultural Research Stations
- Department of Forestry - provides seeds to district forestry offices for community groups
- Wild Areas - Collect your own! Share with others! Sell!
- Wildlife & Environmental Society of Malawi - The secretariat located in Blantyre and there are several branches. They run tree nurseries in Zomba and Lilongwe, and may have additional ones.

Member News

Currently the network is being guided by several coordinators as outlined in a previous issue of this newsletter. We are still working on how to coordinate the Network better and will be looking for your ideas. One of the coordinators has drafted a questionnaire that is being reviewed and will (hopefully!) be included in the next issue of this newsletter looking for your input.



For now, continue to make your own connections with each other through the member list that is included annually with the newsletter. Keep in touch with the network via the Newsletter Editors and encourage others to join the network and share their work!

Submissions to the Newsletter

Each Permaculture Network Newsletter has the sections: Permaculture Highlight, Resources & Member News. The other articles are based on a theme that is always posted in the previous issue so that you can prepare articles along the theme.

We welcome submissions for any section and would love to see articles from new people!

Send your submissions to:

Newsletter Editors, Stacia & Kristof Nordin, PO Box 208, Lilongwe

Next Issue: Food Preservation



**Permaculture Network
In Malawi**

Kristof & Stacia Nordin,
PO Box 208, Lilongwe

*“See the world through
the eyes of Permaculture”*

To:

**Plan ahead to prevent the hungry season!
Ganizani patsogolo kupewa nthawi ya njala**

Join the Permaculture Network!

- 🌍 **Benefits** include quarterly newsletters with advice on implementing Permaculture, improving nutrition, local food & medicinal plants, resources, creative ideas, and contacts of people in Malawi who are also practicing the sustainable living of Permaculture.
- 🌍 **Fees** are 400 mk for the calendar year. Those who pay more can sponsor community groups who are unable to afford the fees (thank you!).
- 🌍 **Memberships** are for the calendar year. If your mailing label includes **“Payment Due!”** Please send your 2004 membership fee or a letter stating why you are unable to pay the fee and why you would like to receive it for free.
- 🌍 **Send** payment in the form of check, postal order or Malawian postal stamps along with your name, address, all contact details, profession & areas of interest with checks written and addressed to: **Stacia Nordin, PO Box 208, LL**