



Discover Partner Conference 2019

Trainers' Resource Handbook



Group photo of participants during the 2019 Conference
An exciting and unforgettable experience!

Discover encourages us

- *to discover local resources for health and healing,*
- *to discover what we can do ourselves, and*
- *to rediscover and use our traditional vegetables, medicines and skills.*

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Introduction

In November 2019 30 members of Discover met for one week to share knowledge and experience. This handbook is a summary of some things that were shared.

This handbook is also a resource for all Discover partners in Uganda. The inputs summarised here show how the work of all our partners is enabling self-reliance, food security, improved health and economic well-being to grow in their communities. Local partnerships with other agencies accelerate these developments.

This is surely a major contribution to establishing a bedrock of peace, stability and even democracy in Uganda.



By video, each morning we heard a recording from Pamela Spence about human physiology. Pages 6 to 17 describe the inputs. From her previous visits Pamela felt that this knowledge would greatly help us as we treat patients for a wide variety of health problems with medicinal plants.

Pamela is a medical herbalist, writer and educator based in Scotland. She holds a Bachelor of Science honours

degree in Herbal Medicine and is a member of the National Institute of Medical Herbalists. The picture shows her with her husband and son.

Each participant shared highlights from their experience. Many presented their herbal products.

A visit in the rain to Yusuf's amazing plantation of indigenous trees was followed by a trip to the beautiful Sipi Falls. The terrible effects of tree cutting were very clear, and therefore a big encouragement to us all to plant trees.



It was an honour to be present at this event. I wish every participant success in the future. I hope too that as a result of meeting each other in this way the network in Uganda will grow and flourish.



The notes on page 5 are important. One day Discover in Uganda will have to become independent of any support from Germany.

Keith Lindsey

31 January 2020

Discover Conference Partners - Locations



- 1 Alex Macakadho and Okello Felix
- 2 Andrew Kyambadde
- 3 Anna and William Mwesigye
- 4 Emmanuel Masereka, Biira Janet Mujungu
- 5 Enid Kiviri
- 6 Eric Kihuluka, Kibwika Stephen and Richard Hamba
- 7 Felly Namuli
- 8 Joseph and Milly Grace Ogwal
- 9 Judith Bakirya
- 9 Daniel Twesige
- 10 Millard Odoma and Christopher Nyakuni
- 11 Rehema Namyalo, Evelyne Nakamatte and Judith Nambi
- 12 Robert Bwambale and Isaac Mbusa
- 13 Thomas Kenja and Mbambu Zelina
- 14 Tony Wambazu and Yusuf Makabuli
- 15 Candiru Jeska and Christopher Nyakuni
- 16 Aida Anyango

- | | |
|--------------------------------|--------------------------------|
| Pakwach Herbal Resource Group | Pakwach |
| Discover Kabongezo | Kabongezo, Mityana District |
| Wilan Products | Luwero |
| Biogardens | Kirembe, Kasere |
| Vumbula Kalerwe | Kalerwe, Kampala |
| Mikwano | Kaliro District |
| Vumbula Kaboyo | Kaboyo; Lwengo District |
| Discover Northern Uganda | Lira |
| Busaino Fruits & Herbs | Jinja |
| Scope Foundation | Jinja |
| JAFORD | Nyirivu / Arivu, Arua District |
| Vumbula Masaka | Kirimya, Masaka |
| Bumbura Maliba | Maliba, Kasere |
| IPOA Women's and Orphans Group | Kijengi, Kasere |
| Salem Uganda | Nakaloke, Mbale |
| Ambazu Savings Group | Lodonga, Yumbe District |
| Kolonyi Farmers Group | Kolonyi, Mbale District |

What is distinctive about Discover?

Discover- the name is the programme
Freedom to develop new ideas and products
Encourages individual research
Empowers at the grassroots
Values locally available resources
Gives wholeheartedly, gives knowledge free of charge
Generous and compassionate
Emphasis on recognising and developing own potential
Serves irrespective of status / no discrimination re religion or tribe
Comprehensive trainings that include a wide range of topics
Empowers with rural technologies / Emphasis on practical activities
Plant identification
Feeds its participants
Literature - informed by scientific research
Holistic development, physical, social, economic and spiritual
Supports individual innovations
Helps families with conflict resolution
Economically viable products
Unity (common ethos) in diversity (each Discover centre develops in its own way)
Sharing strengths and experiences
Non-hierarchical
Communication up and down - close contact with founder – each has a direct link
Relatively low budgets

What challenges do we have?

Some see us as witches
We have no national platform, no national committee

Groups seldom meet each other
Lack of effective communication between members
Finance for training in poor communities
Contaminated environments
Drought
Registration and marketing
New product development
Lack of production facilities
Lack of new, innovative skills
Lack of funds for specific projects
How to become independent of Germany
Lack of equipment – laptops, projectors, cameras
Lack of land
Lack of transport

Ideas: How to overcome the challenges

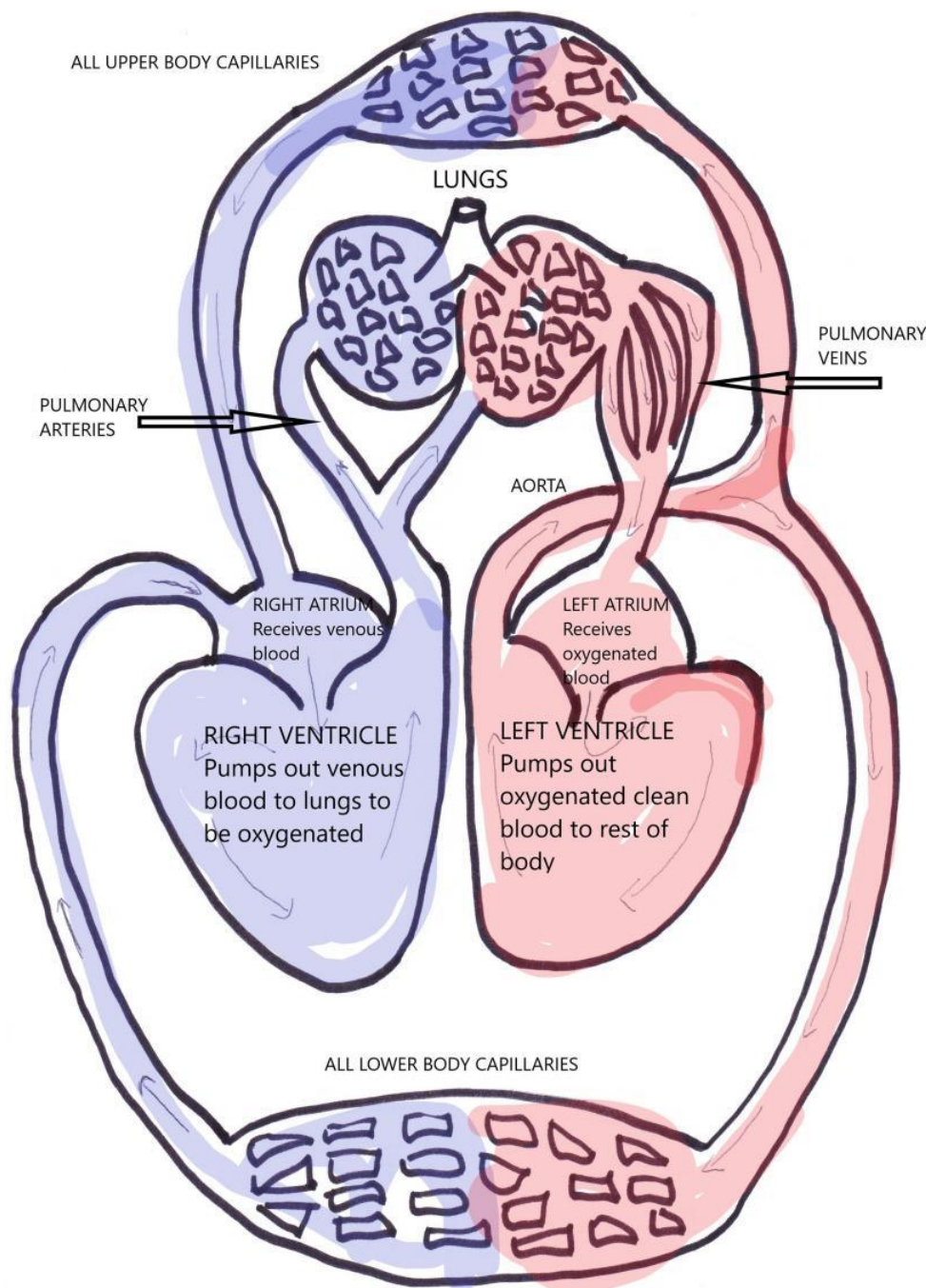
Farmers grow products on their own land and give to the Discover centre
Use our own land as a demonstration plot
Exchange visits
Each group to develop a strategic plan which is then used to develop a strategic plan for Discover as a whole
Database of information about each group
Ensure Discover community groups are strong
Central Uganda resource centre
Do we need a national leader / coordinator?
Remember what has made Discover strong
Discover leadership must coordinate, negotiate with national bodies and build on existing strength

THE CIRCULATORY SYSTEM

All parts of the body that circulate blood are called **BLOOD VESSELS**. They are all connected.

The largest ones are the **ARTERIES & VEINS**.

ARTERIES carry oxygenated (red) blood from the left heart around the body **VEINS** carry 'spent' blood (blue) and waste to the right heart to go to the lungs **CAPILLARIES** are the smallest blood vessels with porous walls that allow oxygen and nutrients to pass into the surrounding tissues.



Blood flows out of the left heart, round the body and back to the right heart where it is sent to the lungs to get fresh oxygen. It is then sent from the lungs to the left heart where it begins its journey round the body again.

BLOOD is made up of: Red Cells, which carry oxygen, White Cells, which fight infection, Platelets, which clot blood and Plasma, which is liquid, carries nutrients & takes away waste.

THE CIRCULATORY SYSTEM

Key things that can go wrong:

High blood pressure - arterial pressure is too high leading to heart damage over time.
Myocardial infarction (heart attack) - a blood clot is stopping the heart muscle getting the oxygen it needs to work.

Cardiac arrest - the heart muscle has stopped beating.

Stroke - blood clot is stopping oxygen getting to the brain and can cause lasting brain damage.

Varicose veins - painful, protruding veins in the legs
Ulcers - caused by poor circulation in the lower limbs.

Remember:

Heart attacks, cardiac arrests and strokes are life threatening emergencies. Try to get medical help if you can. While natural medicine is not appropriate treatment, we can help keep people healthy and reduce heart disease by promoting healthy diets and exercise.

What herbs do we know that can help keep the circulatory system healthy?

GARLIC (*Allium sativum*) is very useful to help reduce fatty deposits on the insides of the arteries. These deposits are linked to many different forms of cardiovascular disease. It can also lower blood pressure.

GINGER (*Zingiber officinalis*) when taken raw in hot water or in a tincture helps to improve circulation to the hands and feet.

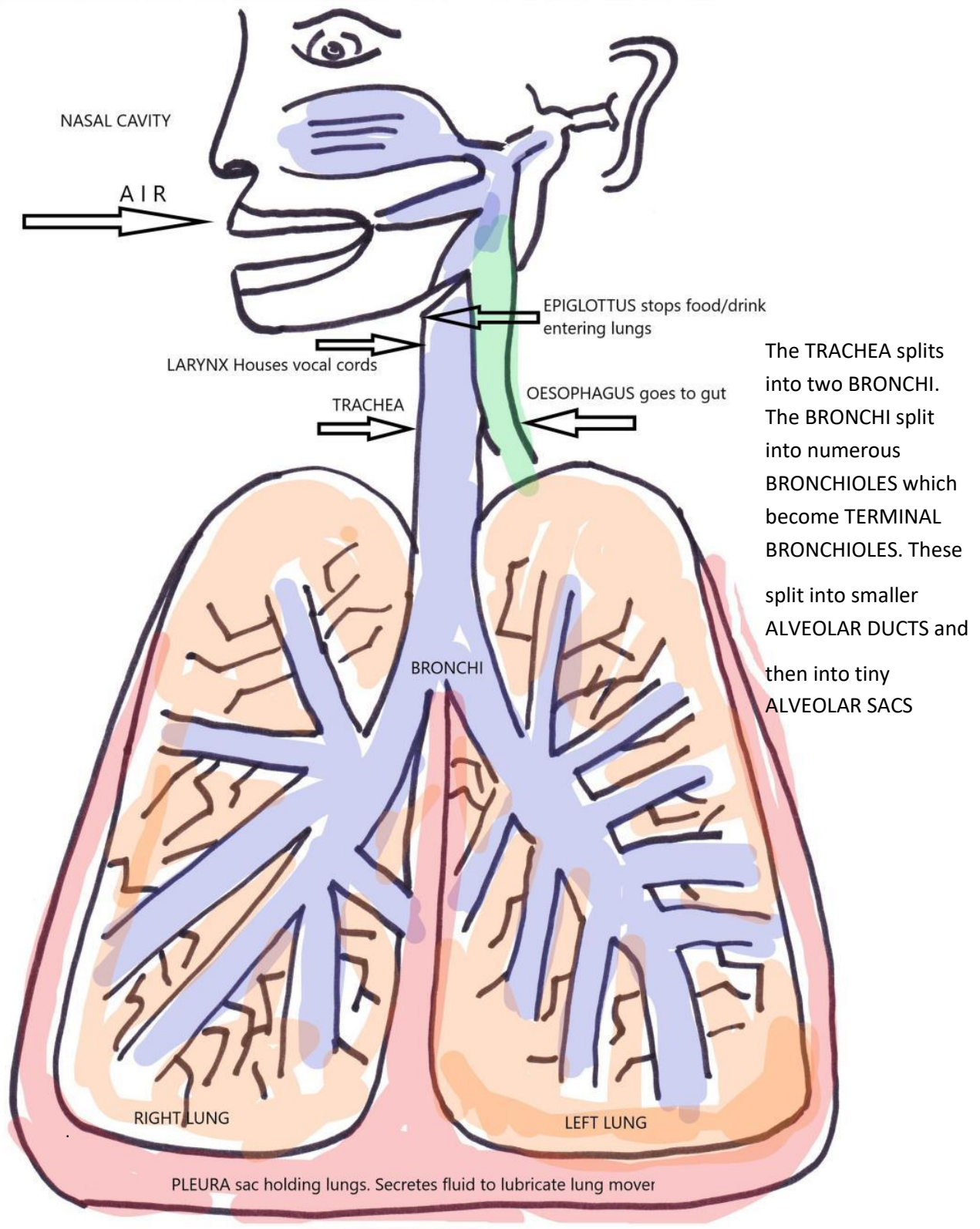
The group added some herbs they know are good for the circulatory system. Members, use this space to add further appropriate herbs.

1. Beetroot juice
2. Okra
3. Exercise and drinking enough water
4. *Hibiscus sabdariffa* (tea)
5. *Centella asiatica* (tea)
6. Artemisia (tea)
7. Chili
8. Rosemary and *Costus pictus* (both as tea)

THE RESPIRATORY SYSTEM

Air is sucked into the lungs bringing OXYGEN to the BLOOD in exchange for CARBON DIOXIDE which it expels.

The RIGHT HEART pumps blood through the capillaries in the lungs where this exchange takes place.



THE RESPIRATORY SYSTEM

Key things that can go wrong:

Asthma - chronic condition with acute episodes, difficulty breathing and wheezing. COPD - chronic obstructive pulmonary disease which can have several presentations. Shortness of breath is a key symptom.

Bronchitis - infection in the lungs

Pleurisy - severe pain caused by pleural sac rubbing together. Often accompanied by infection

Collapsed / punctured lung (pneumothorax) - requires emergency treatment Upper respiratory tract infections - colds, tonsillitis, infections of the sinuses.

Remember:

Acute asthma attacks and pneumothorax are both life threatening. Try to get medical help if you can. Natural medicine can help people to reduce the number of acute asthma attacks but is not the best medicine to treat an attack itself. Natural medicine can do a lot to improve the health of anyone with recurrent respiratory problems.

What common herbs do we know that can help keep the respiratory system healthy?

GARLIC (*Allium sativum*) taken raw contains an antibiotic component that can help the body to fight infections. Garlic must be crushed or sliced to activate this compound.

LEMONGRASS (*Cymbopogon citratus*) can help to support the immune system and is high in vitamin C which assists the body to fight colds and other viruses.

The group added some herbs they know are good for the respiratory system. Members, use this space to add further appropriate herbs.

Artemisia annua

Onions (for babies)

Bottle brush (Tea)

Euphorbia hirta

Basil (Ocimum)

Rosemary

Lavender (tea)

Centella asiatica

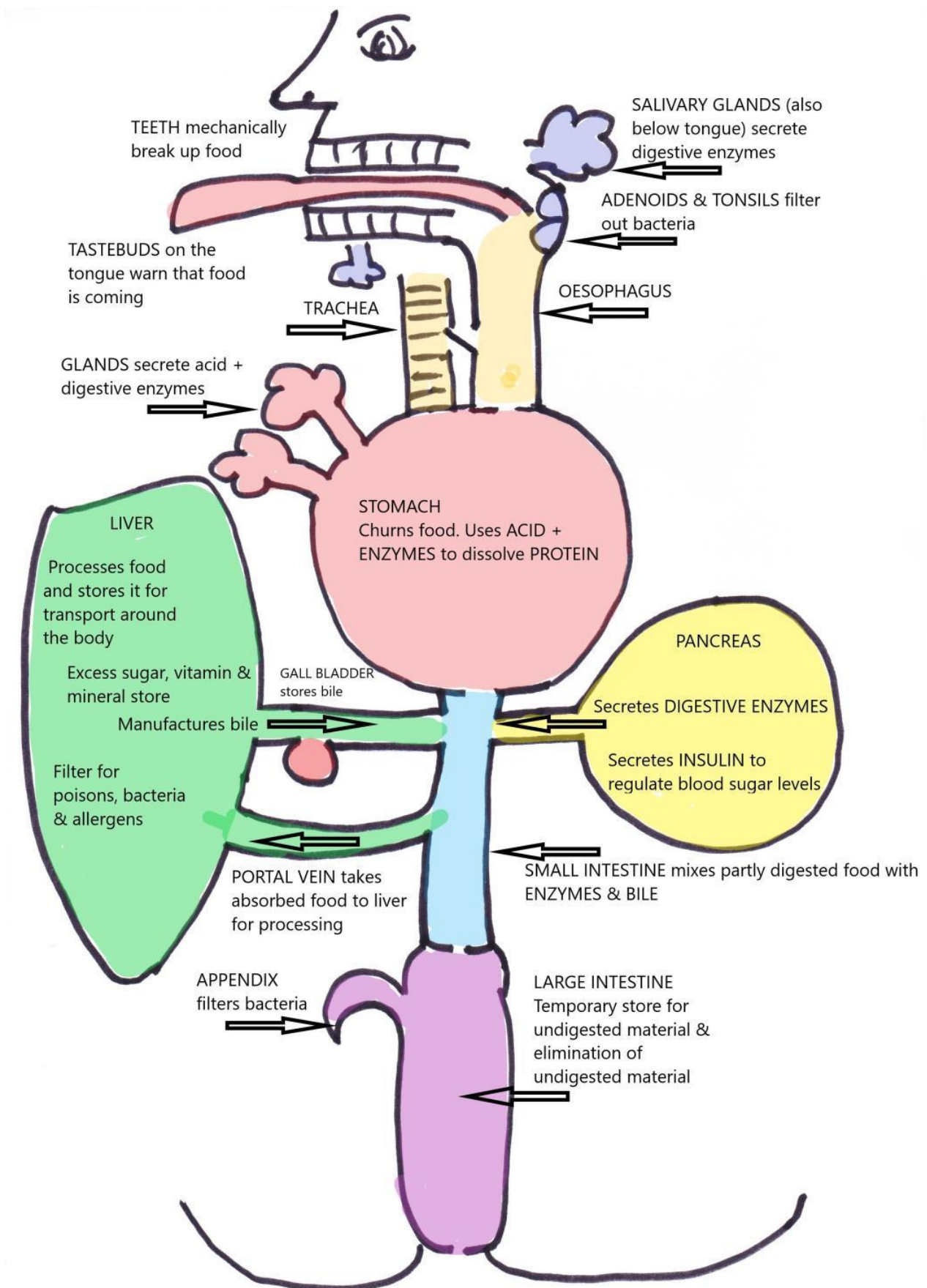
Lemon

Eucalyptus globulus

Ginger

Cloves

THE DIGESTIVE SYSTEM



THE DIGESTIVE SYSTEM

Key things that can go wrong:

Vomiting & diarrhoea - often caused by bacterial infection Constipation - inability to pass a bowel movement easily / daily. Reflux (heart burn) - stomach acid rising into the oesophagus

Wind / bloating - causing internal swelling and sometimes pain or discomfort. Gall stones - causing gall bladder spasm or blocking bile duct if acute.

Inflammatory bowel disease - ulceration in the bowel wall causing pain, diarrhoea, passing blood and mucous.

Diverticular disease - pockets in the lower intestinal wall that can become infected.

Haemorrhoids (piles) - often caused by chronic constipation and in pregnancy.

Veins can protrude from the anus (looking like bunches of grapes) and be painful and itchy.

Remember:

Disturbances in digestion can be a sign that a more serious illness is present. Many infections and viruses also present with digestive upset as part of the symptom picture. A healthy bowel should produce a formed bowel movement once a day. Dehydration can commonly cause constipation. Herbs with BITTER TASTES like *Artemisia annua* will support digestion.

What common herbs do we know that can help keep the digestive system healthy?

PAWPAW (*Carica papaya*) can be used to treat amoebic dysentery and as a prophylactic for worms and amoebas.

GINGER (*Zingiber officinalis*) is very useful taken as an infusion to stop nausea and support the digestion. It is particularly helpful for nausea and vomiting during pregnancy.

The group added some herbs they know are good for the digestive system. Members, use this space to add further appropriate herbs.

Constipation; drink a lot of water, sweet potatoes contain fibres, and eat vegetables

Eat less starchy foods,

Gallstones; eat lemon and ginger for many days

Haemorrhoids: artemisia (tea and ointment)

Lemon grass tea

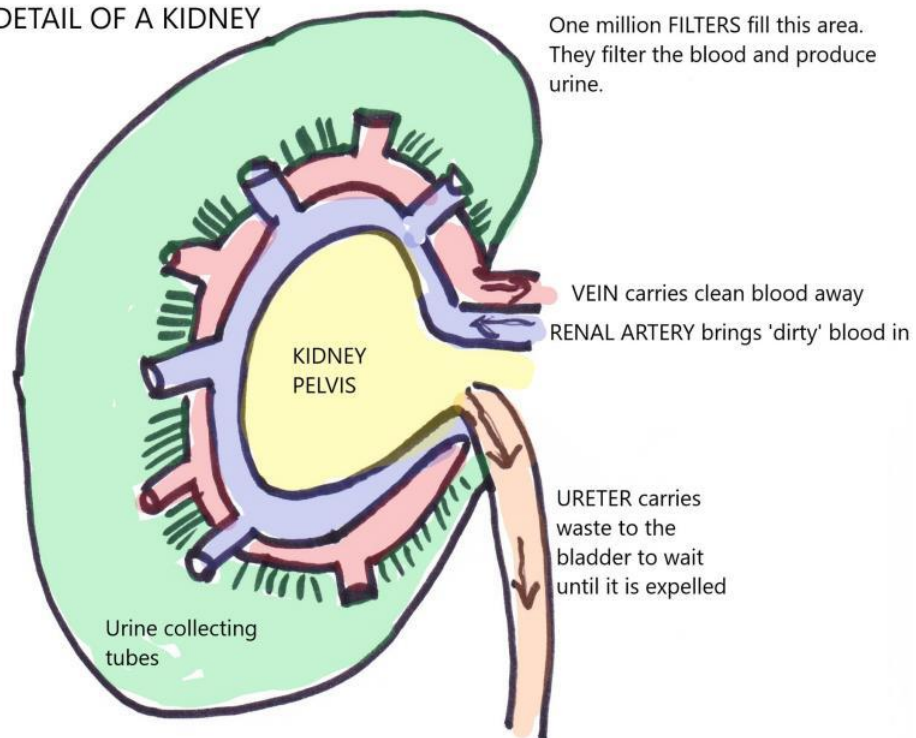
Cinnamon powder tea

Grains; maize, rice, sorghum, grain amaranth, soyabeans, oats, chia

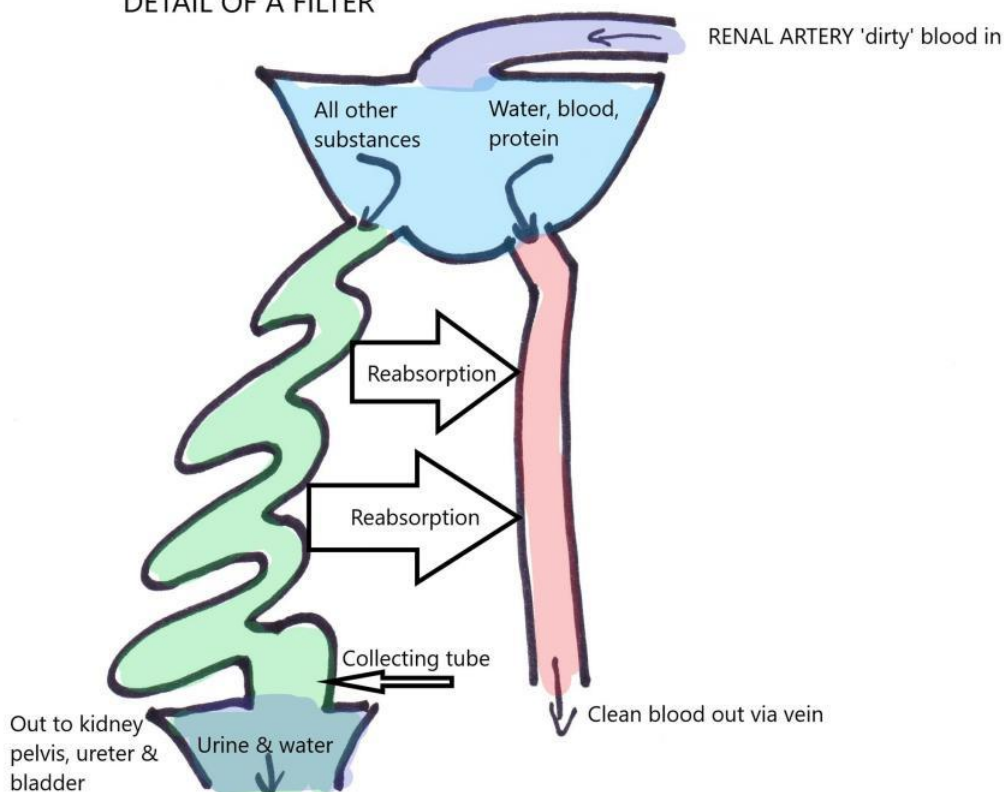
THE URINARY SYSTEM

The kidney is the main organ of the urinary system. Its main functions are to CLEAN THE BLOOD and REGULATE WATER & SALT levels which impacts the blood pressure. Excess substances are excreted in the urine via the ureter into the bladder and exit via the urethra.

DETAIL OF A KIDNEY



DETAIL OF A FILTER



THE URINARY SYSTEM

Key things that can go wrong:

Urinary tract infection- pain and discomfort with frequent passing of urine. Kidney infection - low back pain, fever, shivering and sometimes vomiting. See further notes below.

Dehydration - often as a result of diarrhoea and/or vomiting

Kidney stones - caused by infection and high calcium levels. Can travel down the ureter causing extreme pain.

Enlarged prostate - this ring-shaped male organ has the urethra passing through the hole in the middle. If the prostate swells it can cause men problems passing urine.

Remember:

Urinary tract infections can become complex and travel to the kidneys which is a much more serious situation requiring medical help. A person with a kidney infection will be very unwell with low back/side pain and probably a fever. If a person has been unable to pass urine for 24 hours this is a medical emergency and must be treated in hospital.

What common herbs do we know that can help keep the urinary system healthy?

CORNSILK (*Zea mays*) the hairs or silk on the inside of a head of maize can be used as a tea to soothe cystitis (urinary tract infection).

NASTURTIUM (*Tropaeolum majus*) can be used to support all infections of the urinary system when taken as a tea.

The group added some herbs they know are good for the urinary system. Members, use this space to add further appropriate herbs.

Artemisia tea

Eucalyptus tea

Eat onion raw

Euphorbia hirta tea

Cinnamon powder tea

Cypress tea

Spathodea campanulate

Hibiscus tea

Nettle tea

Costus pictus tea

Turmeric tea

Rosemary tea

Hoslundia opposita

Lemon grass tea

THE MUSCULO-SKELETAL SYSTEM

Our skeleton is made of bones which are animated by muscles that move them around. The muscle is made out of the belly (the fleshy part) and the tendons that insert into the joints. Muscles work in pairs - one flexes as the other contracts and this causes the attached bones to move and bend at joints.

There are three main types of muscle:

SKELETAL MUSCLE which is contracted or relaxed by conscious control

CARDIAC MUSCLE which works unconsciously and runs our circulatory system

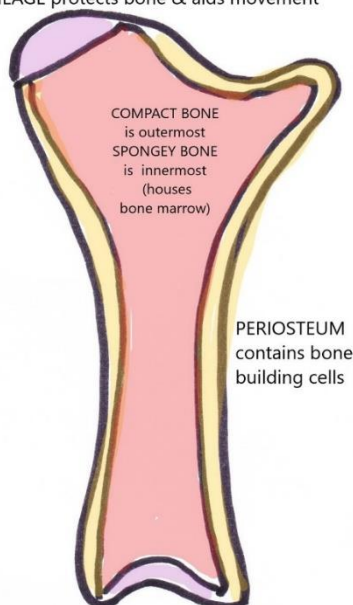
SMOOTH MUSCLE which works unconsciously and makes up many of our internal organs i.e. the digestive tract.

BONES protect the body and provide a framework. They manufacture RED & WHITE BLOOD CELLS in the bone marrow. They store calcium and release it into the blood. They are continually regenerating.

YELLOW MARROW is found in larger bones.

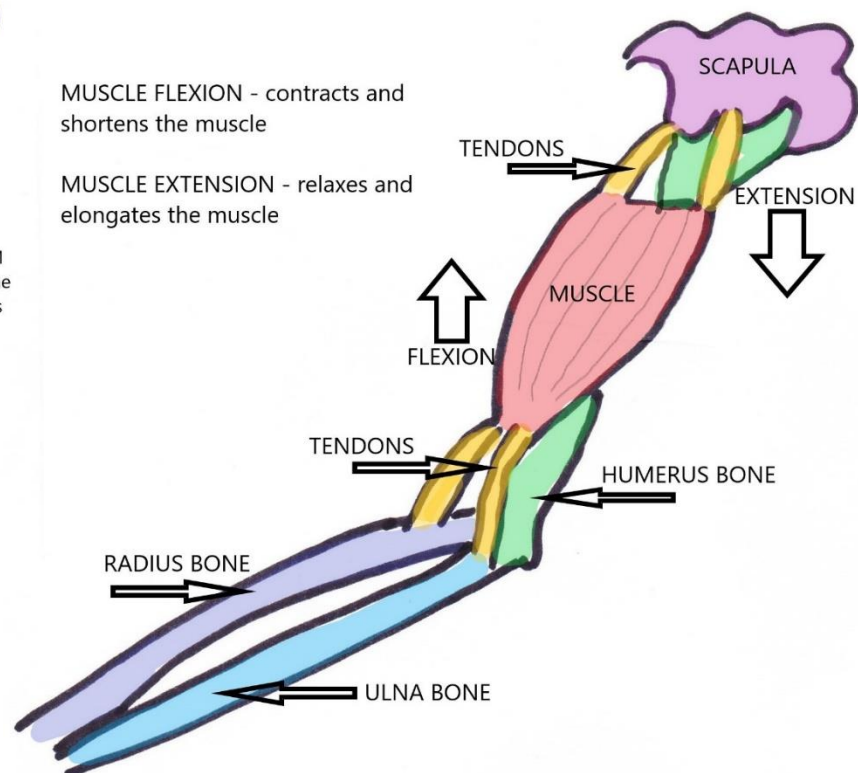
RED MARROW is found in small, flat bones.

CARTILAGE protects bone & aids movement



MUSCLE FLEXION - contracts and shortens the muscle

MUSCLE EXTENSION - relaxes and elongates the muscle



THE MUSCULO-SKELETAL SYSTEM

Key things that can go wrong:

Injury - broken bones, muscle and tendon strain are all common Osteo- arthritis - painful, swollen joints. Worse for use, better for rest. Bursitis - painful swelling of the joint capsule

Poor circulation - cold hands and feet despite warm weather.

Remember:

Osteo-arthritis and rheumatoid arthritis are two very different conditions. Osteo-arthritis is caused by wear and tear on the joint and usually affects one or more joints in different parts of the body. Rheumatoid arthritis is an auto-immune condition and joints are equally affected across the body starting with fingers and toes and working up to the trunk. It requires medical attention. Poor circulation in the feet can be a sign of diabetes especially if there is loss of sensation. This is a serious medical condition and needs attention from a doctor.

What common herbs do we know that can help keep the musculo-skeletal system healthy?

CHILLI (*Capsicum minimum*) can be used in ointments to improve circulation and to relieve pain in arthritic joints. Care on broken skin!

TURMERIC (*Curcuma longa*) is used to reduce inflammation and relieve arthritic pain.

The group added some herbs they know are good for the musculo-skeletal system. Members, use this space to add further appropriate herbs.

Ginger oil and tea

Clove oil

Castrol oil

Soya bean oil

Shea butter oil

Drink a lot and do exercises

Massage using citronella oil or lemon grass oil.

Rosemary tea

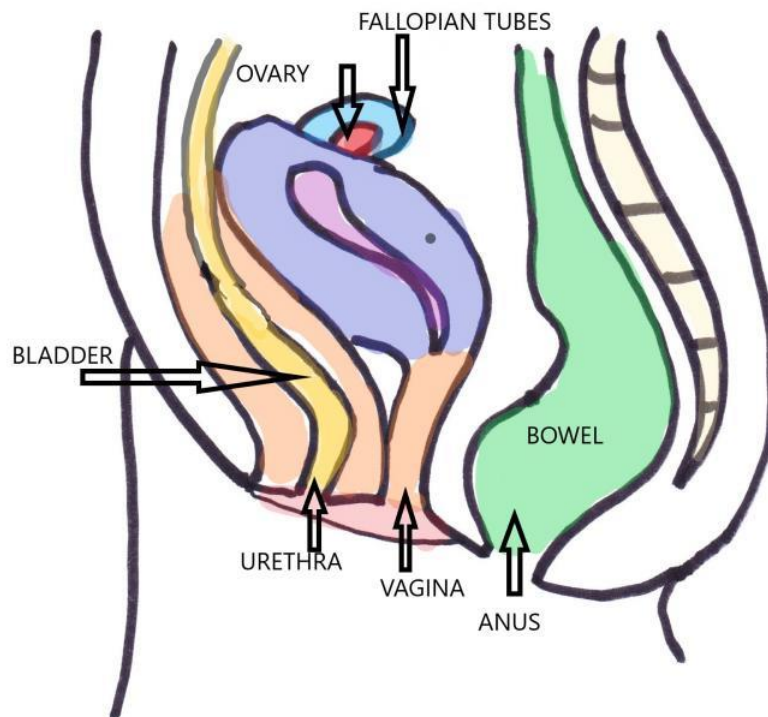
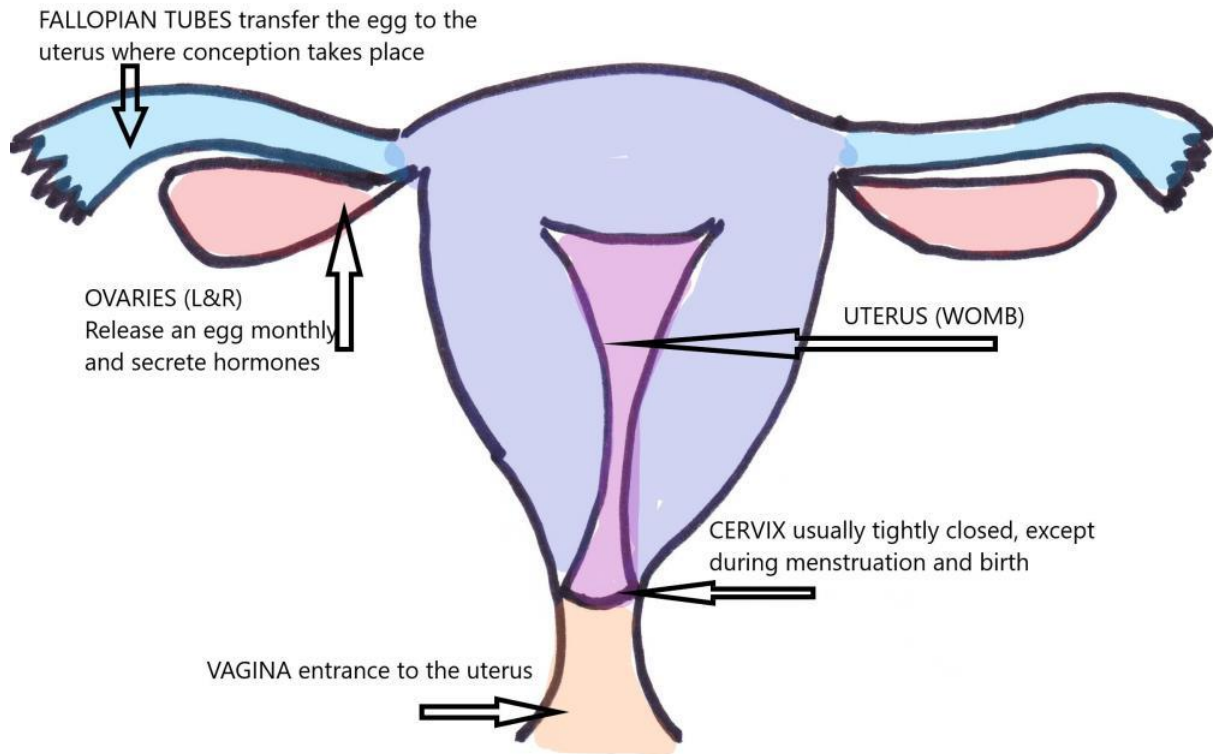
Comfrey root oil and leaf tea

Costus pictus tea from leaves and rhizomes

Zanthoxylum gillettii

Eat plenty silver fish

THE FEMALE REPRODUCTIVE SYSTEM



THE FEMALE REPRODUCTIVE SYSTEM

Key things that can go wrong:

Painful or heavy periods - heavy periods can cause anaemia due to blood loss. Miscarriage - loss of an unborn baby.

Endometriosis - condition causing severe pain during the monthly period.

PCOS - Polycystic Ovarian Syndrome causes multiple cysts to grow on the ovaries and can cause pain, absent or irregular periods, acne, heavy hair growth, and infertility.

Remember:

While it might feel uncomfortable to ask a woman if she is pregnant, not doing so may harm her unborn baby if you give her herbs that should not be taken in pregnancy.

Bleeding in any woman who has been menopausal (stopped her periods) for over 1 year needs to be investigated as it may signal that there is a more serious underlying illness.

Malnutrition can cause a woman to stop having her period, so diet is very important.

What common herbs do we know that can help keep the female reproductive system healthy?

MORINGA (*Moringa oleifera*) is important to resolve anaemia (low iron count) in a woman who experiences heavy bleeding. Anaemia can make bleeding more severe, so it is important to ensure her iron levels are high enough to help reduce blood flow.

BITTER ALOE (*Aloe ferox*) can be used to reduce heavy menstrual bleeding.

The group added some herbs they know are good for the female reproductive system. Members, use this space to add further appropriate herbs.

For painful periods:

Artemisia annua

Amaranth flour

Hoslundia opposita

Cocoyam flour

Hibiscus sabdariffa

Aerial roots of *Ficus natalensis*

Centella asiatica

Mucuna tea

Cypress tea

Production of Moringa oil, Neem oil and Avocado oil

Alex Macakadho and Felix Okello

Procedure for producing oil from moringa and neem seeds:

1. Dry seeds in hot sunshine or, better, in a solar drier.
2. Remove the shells.
3. Pound the seeds to powder.
4. Mix the powder with a little warm water
5. Squeeze the mixture by hand and the oil will start to come out



The moringa seeds were first pounded to powder, warm water was added and then the mixture was squeezed.

With avocado seeds, remove all the flesh and dry the seeds for at least two days in a solar drier. To make them into powder, either use a grater or place inside a plastic bag and hit with a hammer or mallet. Then the procedure is the same as for neem and moringa seeds.

Uses of the above oils

Moringa oil, neem oil or avocado oil may be added to soap for healthy skin.

Moringa oil:

1. Use as cooking oil. Moringa oil is rich in vitamin C and anti-oxidants. This it strengthens the immune system.
2. Rub into your hair – moringa oil rejuvenates hair by providing the hair roots with vitamins and minerals.
3. Rubbed on the skin moringa oil has an anti-aging effect.
4. Moringa oil is good for treating many skin infections.

Neem oil:

1. Externally for scabies, eczema, ringworm and candida. Neem oil may be diluted with vegetable oil.
2. Internally for candida in the mouth, mix neem oil with honey.
3. In agriculture as an organic pesticide, dilute neem oil in water, add a little washing up liquid and spray.
4. To repel insect pests in seeds stored for sowing – mix the seeds, e.g. bean seeds, thoroughly with a little neem oil. Foodstuffs are better mixed with neem leaves to avoid the bad taste.

Avocado oil

1. Internal inflammation such as arthritis or gastritis. One can take avocado oil or avocado seed powder.
2. Use on the skin to moisturise and nourish it.

“YENY-NGEC” – Discover Lira Northern Uganda



Location: Northern Uganda: Lango Sub-region, which comprises the eight districts of Lira, Apac, Oyam, Alebtong, Otuke, Dokolo, Amolatar and Kole with a total population of 2.5 million. These are all areas that suffered terribly from the atrocities of the LRA led by Kony.

Our vision: To create enlightened communities of naturally healthy people, a sustainable local economy and an ecologically stable environment.

Our mission: To mobilize, sensitize, train and engage professionals and members of the community in the local production of natural medicines for healing, to bring peace among people and with the environment.

Joseph and Milly Grace Ogwal and their committee established a “Regional Natural Health Innovation Team” includes “YENY-NGEC” – Discover Lira Northern Uganda and “Jomigo”, which is their family enterprise.

This team has initiated, manages and runs:

1. JOPIT United Peasants of Anyomore (JUPÖA) is a cooperative of peasants who have committed themselves to improve health by increasing production of highly nutritional and medicinal crops. JOPIT means the people who have the passion and potentials to feed the growing population. Other cooperatives formed include APIT-PE-WANY, Clamil Women’s Group and Ojwina Women’s Group.
2. Training seminars in local communities teach the identification and cultivation of medicinal plants, the production and use of natural medicines, organic agriculture and simple technologies.
3. Medicine production and sale, including artemisia products for malaria and fibroids, moringa products for malnutrition, boosting immunity and diabetes and a range of medicinal wines, teas and ointments.
4. Rural irrigation demonstrations to train youths in drought resilience.
5. A demonstration garden and training in organic agriculture.
6. The planting of indigenous and leguminous trees.
7. Work with primary and secondary school students.

Many people with a wide variety of health problems, some of which are very serious, are treated.



Many well packaged medicines are made, including a range of delicious medicinal wines.



Following training of the JUPÖA group, Okino Francis had a wonderful harvest of chilies.



Secondary school students learning about *Artemisia annua* and how to make a vertical organic garden with onions

JAFORD (Joint Action for Rural Development)
Millard Ondoma and Christopher Nyakuni

Location: Nyirivu Village, near to Arua

Membership: 79

Our objectives:

1. Initiate projects to solve our own issues in the villages.
2. Improve on community health and sanitation.
3. Reduce illiteracy level by explaining to the community the importance of education.
4. Remind the leaders to take responsibility and making them accountable to the public.

Our activities:

- We sensitise community on the importance of education, environment, food production and security.
- We train our people on natural medicine. We make medicinal products and encourage people to make them and use them.
- We train members of the community and various leadership on peace building and Conflict Resolution. We have formed a “Peace Team” comprised of religious, political and community leaders, and representatives of women, youth, elders and people with disabilities. When a conflict occurs, this team meets to address the issue.
- We make tippy-taps and encourage people to use them to improve hygiene.
- We mobilize the community, especially the youth, to work on the roads by using simple tools.
- We use a biblical methodology called Contextual Bible Study (CBS)



JAFORD improved a 4 km stretch of the road from Nyirivu Primary School to the main Kampala road. Here they are repairing a culvert.



Trip to the Sipi Falls in the Elgon Mountains

We enjoyed a morning visit during which Yusuf showed us the extent of deforestation and where people had lost their lives through landslips. He pointed out villages where the community is looking after a tree nursery.

The Falls are one of many beauty spots in Uganda that are seen more by foreign tourists than by Ugandan people themselves.

Ambazu Savings Group

Candiru Jeska and Christopher Nyakuni

AIM: we aim to empower families through savings, food security, health and sanitation. This aim is stated in our constitution.

OUR ACTIVITIES:

1. Weekly savings of 5,000/= minimum to 20,000/= maximum plus weekly savings of 1,000/= to 2,000/= as social fund to cater for eventualities such as death or sickness.
2. We give loans to members at an interest rate of 10% to be repaid in 30 days. At the end of every year in December we share our savings between all the members.
3. We share issues related to domestic violence and intervene to solve. When a family has some issues such as domestic violence, land wrangle etc, we help to solve the problem.
4. We have rented two acres of land for agriculture. We grow vegetables and crops that withstand dry season like cassava, sweet potatoes. The produce is sold during times of scarcity.
5. We provide skills training in vegetable growing, natural medicine, making tip tap, financial management, leadership skills etc.



Members of Ambazu Savings Group have benefited in the following ways:

1. Good relationship among savings group members and in their families. In the evaluation of last year's activities, only one case of domestic violence was reported among members compared with 3 cases in 2018.
2. The membership increases every year due to the good record. Last year we were 45 members this year we are 58 members already we shall stop at 60 for this year.
3. Through our savings group members have:
 - Paid their children in schools
 - Acquired pieces of land
 - Bought household properties
 - Bought motorcycles and bicycles
 - Solved death related issues
 - Celebrated weddings
 - Gained leadership skills and experience
 - Linked up with other groups, associations and NGOs.

OUR PLAN FOR THIS YEAR

1. To double our savings. Last year 36 million was saved. Our aim this year is 70 million.
2. Skills training in natural medicine, organic gardening, energy saving stoves and domestic violence
3. To plant more crops like groundnuts, beans and cassava.
4. To teach the community about savings and food security.
5. To buy utensils and chairs for hire. People will hire the items and pay us.
6. To establish a poultry farm.

Mikwano – Eric Kihuluka

Eric Kihuluka and his colleagues have animated officials from the Departments of Education, Health, Agriculture and Community Relations, clan leaders and volunteers throughout Kaliro District in the drive towards improving the health and well-being of all the population. The King of Busoga and religious leaders also give their support.

A) Schools work

1. Almost 200 out of 220 schools in Kaliro District have received seeds and have established school gardens. Often each class has its own garden for which they take responsibility. The benefits:

- a) Children and teachers are enthusiastic – they have become much more motivated as teachers and pupils in general.
- b) They learn skills which will help them when they finally leave school.
- c) Through the children many parents have become interested and help with the school gardens. From one school children were given 2 or 3 seeds to take home. Some of their parents are now growing vegetables for sale.
- d) Some children from senior 4 (O level) and senior 6 (A level) with long holidays went home and grew vegetables which gave them income to pay for their future education.



Children and teachers at Kasokwe Primary School stand in one of their school vegetable gardens

2. Almost all the schools now provide school lunches. These consist of maize porridge supplemented by vegetables from the school gardens. The benefits:

- a) The nutritional level of the children has improved,
- b) They now understand much more about nutrition and hygiene
- c) Children can concentrate much better during afternoon school.
- d) Absenteeism has reduced and academic performance has improved significantly.

3. More than 30 schools have introduced music, dance and/or drama into the curriculum. Some conduct quizzes and formal debates. The benefits

- a) Children and teachers enjoy these classes and become highly motivated.
- b) Children think about and challenge many social issues and negative aspects of the prevailing culture, e.g. relationships between men and women, forced marriages.



Children at Kanankamba Primary School practice a drama which looks to the issue of child marriage.

4. Schools are planting fruit and indigenous trees. In total 1000 trees have been planted and are being cared for by the pupils. The benefits:

- a) The trees will provide shade, fruits and improve soil fertility.
- b) The children learn to care for the environment and understand the importance of trees for mitigating the effects of climate change.

B) Farmer Field School (FFS)

Since early 2019 the Farmer Field School has been developed on a 4 acre site provided by the King of Busoga. Two very dedicated, full-time gardeners were employed immediately the project began. The gardeners are supported by a handful of volunteers.

The FFS comprises a vegetable and fruit garden, a plant nursery, animal section, animal feed production and teaching facility.

Vegetable section:

The following are grown: maize, beans, kale (sukuma wiki), celery, coriander, onions, squash, egg plants, African eggplants, courgettes, beetroot, pumpkins and amaranth.



Maize grown with and without handfuls of well-rotted pig and cow manure.
The entire garden is an excellent demonstration and teaching facility

A new chicken house was built with 2.6 million Uganda shillings raised from the sale of vegetables from the garden and the labour of volunteers.

Animal section: This includes cows, pigs, goats, rabbits and poultry. Kaliro District gave the FFS 200 laying chickens.

Instruction is given to teachers and farmers in: vegetable cultivation, animal husbandry, mulching, liquid manures, production of animal feed, increasing soil fertility by promoting “effective microorganisms” and the natural control of plant pests and diseases.

Income which is generated is reinvested in the project. The FFS also produces food from which the gardeners, trainees and volunteers all benefit.

Animal Feed: In July 2019, the Ministry of Agriculture were already so impressed with the FFS that



Eric and Steve by the fodder grinder supplied by the Ministry of Agriculture

they donated mixing and milling machines for animal fodder. Kaliro District contributed cement and iron bars. The fodder is a mixture of maize, sorghum and amaranth. The FFS had to find their own resources for constructing a suitable, secure building. These machines also provide a source of income when neighbouring farmers bring their crop residues for milling.

The house for these machines and the new chicken house were both constructed using bricks made on site.

C) Training

As well as regular training with small groups in the Farmer Field School, Mikwano has run several training seminars for farmers in natural healthcare and organic farming, for Community Health Workers (CHWs) in natural healthcare and nutrition, for women’s groups in savings and credit, post-harvest handling of cereals and conflict resolution in communities and families and for Parent Teacher Associations in conflict avoidance and resolution, nutrition for the pupils, hygiene and sanitation, school gardens and how to protect them.

Typhoid – the response of Bumbura Maliba

Typhoid is characterized by intestinal inflammation and ulceration, fever and abdominal pain, and is caused by taking in *Salmonella typhi* and / or *Salmonella paratyphi* with **water** or **food**.

Transmission is most commonly by contaminated food or water, especially when contaminated with faeces, which may be the result of not washing hands after using the toilet, flies landing on the food or polluted water sources, especially after flooding.

Prevalence: In Kasese district it was reported at least 20 people had died and over 70 others admitted in various health units following an outbreak of typhoid fever in Busongora North constituency where Maliba Sub County is located.

Response of Bumbura Maliba:

1. We visited 102 homes over 5 days with the support of village health teams, local leaders and other community volunteers. We found 21 persons with typhoid infection.
2. We returned to the homes of the typhoid cases and inspected the hygiene standards, the toilet, their water source, their food preparation and utensils and the general environment. The toilets of all typhoid cases were, without exception, very poor.
3. We invited our members, local leaders, religious leaders, health workers and other community representatives and volunteers to attend a two-day training event on typhoid control and prevention. A total of 101 people attended.
At the event:
 - a) a lot of experience was shared.
 - b) a commitment was made to improve standards of hygiene and sanitation.
 - c) representatives of many agencies agreed to work more closely together
 - d) the public was encouraged to go for hepatitis B screening and vaccination.

The result:

- a) The incidence of typhoid in the area decreased.
- b) Levels of hygiene and sanitation improved.
- c) Natural medicine started to be more widely practised.
- d) Members of the key agencies did indeed work more closely together.



A particularly poor toilet seen during the first series of visits



A much improved toilet constructed after the training event

Ebola Virus Disease by Robert Bwambale

Ebola is a highly contagious haemorrhagic viral disease with a high fatality rate. Neighbouring regions in Congo have registered over 3000 confirmed cases of ebola and over 2000 deaths.

Response of Bumbura Maliba to the crisis:

1. We organised a one-day sensitization meeting on Ebola infection on 1st July 2019 for Bumbura members and community leaders; religious leaders, health workers, teachers.
2. We formed a community taskforce. We taught members how to identify ebola patients, about personal protective equipment (PPE) and the importance of thorough handwashing and of monitoring patients.
3. We encouraged the community to use artemisia and moringa to strengthen immunity.



Transmission of ebola:

1. Via all body fluids, including breast milk and semen. Male ebola patients must abstain from sexual intercourse for 18 months even after being declared healthy, because they can still infect their partner.
2. In hospital, through reusing needles and syringes and exposure to infectious tissue, excretions or waste.
3. From dead patients; the virus survives in the dead body for a long time.

The virus can be killed by soap and water, 60-70% alcohol, chlorine in water, steam sterilisation and ultra-violet light.

Hand hygiene is the single most effective measure to reduce the transmission of infections.

Wash hands before contacting the patient, before any cleaning task, after any contact with body fluids, after touching a patient and after touching the patient's surroundings.

Symptoms of ebola

Early clinical features include weakness, fever, headache, muscle or joint pains, nausea, throat pain, abdominal pain, diarrhoea and conjunctivitis.

Late clinical features include diarrhoea, vomiting, confusion, shock, internal or external bleeding, skin rash, seizures, chest pain, respiratory distress.

Be suspicious if a person has

- Fever and three or the above symptoms.
- Fever and has had contact with an ebola patient or has been in an area where ebola is found.
- Sudden or unexplained death.
- Unexplained bleeding.

If you suspect someone is infected with the ebola virus:

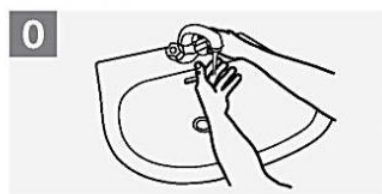
1. Alert the health authorities
2. Isolate the patient to prevent further cases.
3. Once the disease has been confirmed, inform the family of the patients and trace and test all previous contacts of the patient.

How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB



Duration of the entire procedure: 40-60 seconds



Wet hands with water;



Apply enough soap to cover all hand surfaces;



Rub hands palm to palm;



Right palm over left dorsum with interlaced fingers and vice versa;



Palm to palm with fingers interlaced;



Backs of fingers to opposing palms with fingers interlocked;



Rotational rubbing of left thumb clasped in right palm and vice versa;



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



Rinse hands with water;



Dry hands thoroughly with a single use towel;



Use towel to turn off faucet;



Your hands are now safe.



World Health Organization

Patient Safety

A World Alliance for Safer Health Care

SAVE LIVES

Clean Your Hands

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May 2009

Vumbula Masaka: Training seminars

Vumbula Masaka training team comprises Rehema Namyalo, Evelyne Nakamatte, Andrew Kyambadde and Judith Nambi.

We respond to invitations to run seven-day intensive training seminars in local communities. Most communities cannot pay for the training, so outside funding is required. Paying participants from other organisations make a significant contribution to the shared knowledge and experience as well as financially.



The Kasese Network

The “Kasese Network” was formed in 2015 of three very active groups in Kasese District; IPOA Women’s and Orphans Group led by Kenja Thomas, BioGardens led by Emmanuel Masereka and Bumbura (Discover) Maliba in Maliba led by Robert Bwambale. The aim was that these groups hold joint training activities and provide opportunities for the groups to share experiences and to learn from each other.

Since 2015 the following joint training activities have been held. Each included natural healthcare, organic agriculture, nutrition, conflict resolution and income generating activities. Some included special topics chosen by the Kasese Network team.



- February 2015: A five-day training for 21 people. Special topic: fuel efficient stoves
- March 2016: A five-day training was held in each of the three Network centres
- April 2017: Four-day training: food security and drought management
- September 2017: Two-day training in drought management and tree planting
- August 2018: with support from the Project “DRIP” in the UK a total of 47 rainwater catchment tanks were constructed in the villages of the three projects.
- December 2018: A study visit of 10 members from each of the three groups to a model farmer in Maliba.

From June to October 2018, with the support of the Erbacher Stiftung, training seminars were held for farmers, and for teachers and pupils from 2 schools in each of the Network villages. “Discover clubs” and school gardens were established at each of the 6 schools. The programme concluded with a joint visit to Tooro Botanical Gardens in Fort Portal to learn more about the cultivation and uses of medicinal plants and trees.

Kenja Thomas reported, “As a result of all these training events and all the activities of IPOA, families have more to eat, their gardens are much more productive, there are fewer conflicts in the communities and the entire environment has improved. In addition, they generate income from selling produce from their gardens, soap, herbal medicines, handicrafts and other products.”

You are invited to organise a training seminar for another group –
what is important? The experience of Vumbula Masaka.

A) Preparation, 3 – 4 months ahead:

1. A training seminar must only be held in response to an invitation, where the community has a genuine desire in to be trained.
2. Prepare a budget and ensure the necessary finance is available. Seek paying participants.
3. There must be a local, reliable person to take care of the local organisation, e.g. arranging the venue, seating and kitchen, mobilising and preparing about 30 participants, and agreeing an appropriate fee with the participants.
4. Together with the local organiser and members of the community, establish a demonstration garden with many vegetables and medicinal plants.
5. The trainers and local organiser must ensure that all necessary materials are ready and available before the training begins.
6. Seek the support of a local politician and the local health department, to ensure that you win the support of local agencies.

B) Food; See the “catering plan” below.

C) Trainers

Trainers must be competent in all the topics to be covered. There must be a least two and ideally three trainers. The training team is also strengthened to include a “trainee trainer”.

The trainers must meet each evening to evaluate the strengths and weaknesses of the day and to plan the next day.

D) Training methods

1. The training should be 80% practical and 20% theoretical. Participants remember best what they do themselves.
2. Involve participants as much as possible with questions and by inviting them to share their knowledge and experiences.
3. Include singing and dancing. The group may write their own songs and devise a drama.
4. Provide relevant written materials, such as the seminar handbook or Discover Starter-pack, posters and relevant handouts.
5. The take-home package should include the seminar products and seeds and seedlings.
6. Each day include a devotion and an evaluation of the previous day.

E) Planning for the future

Invite the participants to say what learning they intend to put in to practice and by when.

Suggest that they think about:

- a) Forming a local Discover group
- b) Establishing a group demonstration garden
- c) Linking with local traditional healers and health facilities

F) Reporting

Produce a written report which includes full details of the seminar, including the seminar programme, photographs and the participant’s names and contact details.

Prepare the seminar accounts.

Ask a participant to write a report of the seminar

G) Follow-up: After 3 to 4 months, visit the group again. Meet the group members together and visit each member at their home. Assess what they have achieved and give further advice.

Example of a 7-day training programme – Vumbula Masaka

Participants from other areas arrive the evening before the start

TIME	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
8:30am	DEVOTION						
8:40am to 10:30am	Opening prayers, Introduction, Expectations Garbage disposal Introduction of seminar leaders Introduction to organic gardening	Evaluation Production of candles, chalk and herbal Vaseline - theory and practicals	Evaluation Soil and water conservation methods for controlling soil erosion, Integrated pest and disease management	Evaluation Use of Artemisia to treat other diseases Treating malaria with other medicinal plants Healing massage	Evaluation Treatments of common diseases like diarrhoea, making ORS, and medicinal charcoal	Evaluation Production of medicinal oils and ointments	Evaluation Nutrition Important vitamins and minerals and their source in fruits and vegetables
10:30 to 11:am	BREAK HERBAL TEAS						
11am to 1pm	Compost, manure and liquid manures theory and practicals	Production of soya milk	Banana establishment and management. Simple technologies like SODIS, tippy-tap, charcoal fridge and fuel saving stoves	Identification of other medicinal plants from the field and sharing of experiences	Production of scabies oil, garlic oil and garlic honey	Production of soap, both washing and herbal.	Code of conduct Discussion concerning the formation of a local Discover group
1pm to 2pm	LUNCH						
2pm to 5pm	Sowing of Artemisia seeds Production of ginger and eucalyptus tinctures.	Production of bagiya, crisps, daddies, and half cakes	Introduction to natural medicine, Cultivation of Artemisia and its use to treat malaria.	Introduction to grain amaranth, making pops, porridge and tea Presentation of moringa and other medicinal plants	Diarrhoea tea and cough syrup	Production of liquid soap and black stones for snake bites	Issue of certificates by the district chairman Departure.

Training seminar – Meal plan - Vumbula Masaka

The break teas and meals form an important part of the training. The diet should be balanced, very nutritious and made up of foods which can be grown and produced at home. This meal-plan is now used as a guide by Vumbula Masaka for all trainings.

DAYS	Breakfast	Break Tea	Lunch	Evening herbal tea and supper.
Mon	Milk ginger, mucuna, brown bread boiled eggs pawpaw.	Artemisia, lemongrass, brown bread and banana	Matooke, rice, pumpkin, meat, beans, nakati pineapple, water and fruit juice	Artemisia tea, matooke, rice, millet, meat, beans, watermelon, amaranth, water.
Tues	Cinnamon tea, mucuna bread, fried eggs, and pawpaw	Hibiscus, ginger, boiled cassava and bananas	Matooke, posho, pumpkin, peas, cabbages, watermelon, water and fruit juice	Artemisia tea, matooke, posho, pumpkin, ground nuts, nakati and watermelon
Wed	Soya milk, lemon grass, mucuna, chapatti, pawpaw	Artemisia, rosemary, roasted g/nuts, and bananas	Matooke, taro/yam/millet, pumpkin, green beans, bugga/dodo, pawpaw, fruit juice	Rosemary, mucuna, matooke, Irish potatoes, cow peas, nakati, pineapples, water.
Thurs	Ginger tea, bread, boiled eggs pawpaw	Cinnamon tea boiled cassava, bananas	Matooke, rice boil, dry fish, Irish potatoes, eggplants/bitter berries, pineapples, water/ fruit juice	Lemon grass, matooke, millet, sweet potatoes, fresh beans, dodo, watermelon, water
Friday	Soya milk, cinnamon, bread, fried eggs, pawpaw	Amaranth porridge lemongrass tea, g/nuts and bananas	Matooke, cassava, chicken, fresh beans, Nakati, watermelon, water/ fruit juice.	Artemisia tea, matooke, pumpkin, posho, white beans, cabbages water, bananas
Sat	Lemongrass and ocimum tea, bread, boiled eggs, pawpaw	Ginger, lemongrass, popcorns, bananas	Matooke, posho, sweet potatoes, avocados, green beans, cabbages/ dodo, water / fruit juice	Rosemary, mucuna, matooke, millet, rice, cowpeas, nakati, watermelon, water
Sun	Soya milk, ginger, bread honey, fried eggs, pawpaw	Artemisia, ocimum, boiled cassava bananas	Matooke, Rice, cassava, meat, beans, red amaranth/dodo, pawpaw water, fruit juice.	Hibiscus tea, matooke, Irish potatoes, posho, white beans, nakati/ dodo, pineapple, water.

PRINCIPLES AND PRACTICE OF ORGANIC FARMING

1. **Conserve soil and water** to control soil erosion and avoid soil degradation, by:

- contour farming methods (cut off drainage, fanya chini, fanya jju, L- bridges, water basins etc.)
- planting hedgerows using citronella, vetiva grass, napier grass or elephant grass.
- planting agroforestry trees like *Ficus natalensis*, *Albizia coriaria* and *A. chinensis*, calliandra, lucaena, *Sesbania sesban*, fruit trees, etc.
- mulching and using cover crops like mucuna.

2. **Increase soil fertility, by**

- composting.
- making plant teas and animal dung liquid manures.
- growing green manure.
- mulching and planting cover crops like mucuna.

3. **Integrate crops and livestock.** For example, banana plants; After enjoying matooke as food, feed the peelings to animals and use their dung and urine to fertilize the soil around the banana plants.

4. **Integrate pest and disease management**

- use organic pesticides and fungicides, e.g. by mixing chili, wood ash, tobacco, or phytolacca.
- use soapy water with neem or melia leaves to control pests like caterpillars, moths, cutworms and aphids.
- use plant repellents like citronella to control snakes and mosquito breeding.
- practice companion cropping; intercrop some plants to repel the pests of others, e.g. plant cabbage together with onions or coriander to repel cabbage pests.
- plant decoy plants like marigold to control nematodes in bananas.

5. **All your activities should be multipurpose.** E.g., keep cows for manure, milk and meat and social cultural norms like paying dowry etc. Grow bananas for food, income, feeding animals, mulching, making crafts like baskets, mats and balls from the fibres and leafstalks and as a contribution for social gatherings etc.

6. **Plan your farm well:** Think about what to plant where and why. E.g. If you want a piggery unit, where should you put it? Behind the homestead? Why? Think about hygiene, avoiding bad smells and noise, manure collection, avoiding thieves etc.

7. **Keep good records:** Before starting any project, estimate the income and expenditure. Then you can judge whether the project is viable.

8. **Avoid work which nature can do for you.** E.g., Harvest rainwater in tanks or shallow wells that collect the runoff. Make compost from plant and animal waste.

9. **Ensure biodiversity;** having many different organisms together on the farm helps each one to survive, for example planting agroforestry trees provides shade for other crops, livestock feed, habitat for some birds and animals, provides oxygen and fresh air for humans, poles, posts, timber, balances the weather (rain formation), draws nutrients from the lower layers of the earth and fertilizes the soil to support shallow feeder crops, controls soil erosion etc.

10. **Work only where it pays:** Never do any work that will not benefit you or the community!

Teaching family planning and challenging cultural patriarchy

Evelyne Nakamatte and Rehema Namyalo

What are the challenges?

1. Absent fathers. They return from time to time, demand food and sex, and leave again. They play no role in caring for the children or sharing the work of the household.
2. Sexual abuse. Teachers who demand sex from pupils in return for a good exam result and employers who offer jobs in return for sex. Older men who pay school fees who demand sex, even without a condom. Some girls are even anxious about going to the outside toilet for fear of being raped.
3. Girls who need but have no sanitary pads must miss one week of school very month or drop out of school altogether.
4. Cultural attitudes.
 - a) Women who have been raped are often not treated well by their families.
 - b) Children are thought to belong to the man's clan and the women are therefore fulfilling their duty by becoming pregnant and delivering children!
 - c) If a girl or woman becomes pregnant against her will, many churches condemn having an abortion, with the result that dangerous abortions are conducted in secret.
5. Women who attend hospital for ante- and post-natal care are given advice about family planning. But the men do not attend! Some women use village birth attendants and receive no such advice.
6. Teenage pregnancies and child marriage.

Methods of birth-control

First and foremost: Husband and wife should talk openly with each other and decide how many children they would like to have. How many children can they afford to feed, clothe and educate? "Every child a wanted child" is a good principle for both parents.

1. Spacing. Have intercourse only when there is no danger of an egg being fertilised. The fertile period when one must avoid sex is usually days 8 to 10 in the 26 to 32 day cycle.
2. The man must use a condom during intercourse.
3. The morning after treatment: The woman must drink a cup of full-strength artemisia tea.

What can Discover partners do?

1. Invite your members and seminar participants to discuss:
 - a) the roles played by men and women in family life,
 - b) the challenges faced by teenage girls,
 - c) methods of family planning in which men take equal responsibility.
2. Provide young women and men the opportunity to share their challenges openly. First let the women talk in an all women's group, and the men in an all men's group. Each group should then share their conclusions with the others.
3. Local Discover projects organise a facility to produce reusable sanitary pads.
4. Introduce music, dance and drama in schools. Through this medium, cultural norms can be challenged in a lively way. The songs, dances and drama may then be shared in community groups and village meetings.

Chosen Farm and EcoSan Toilets – Andrew Kyambadde

When I attended the Vumbula / Discover seminar held on 11-17 April 2016 in Kirimya, Masaka, I was “set on fire”. After lessons on soil conservation and banana establishment and management, I knew how to make my dream of establishing my own farm come true. I spoke immediately with my family, who agreed to sell off our home at Ndejje on Entebbe Road and the land we had in Luwero with the aim of buying four to five acres of land on the Hoima road.

We asked God to help us to buy this land, which we did on 1st May 2016 and established Chosen Farm Kabongezo – Discover Centre Mityana.

Our aims were to

- (a) buy land on the main road.
- (b) grow bananas.
- (c) carry out poultry farming with local hens.
- (d) practice the Vumbula / Discover lessons, and to teach others on herbal medicine preparation, packing and value addition.



Andrew Kyambadde in his small maize field. Neighbouring farmers wanted to know why his maize looked so good.

As well as our main activities of organically grown bananas and local chickens, our farm includes medicinal plants, organic manuring, solar drier and dried fruits, a solar oven, a charcoal fridge, an Ecosan toilet system, a turkey project, a zero-grazing cow, a goat project and a mango project.

We thank God for our success: Our name has reached in far where we haven't yet physically reached. Because of our success with bananas, chickens and many other activities, we can feed ourselves and earn some money from sales.

In a short space of time, I have been appointed Secretary for Mityana district farmers' management committee, chairman of Kikandwa Local Chicken Farmers Association and Kikandwa sub County farmers' management committee. Our farm has qualified as a community model farm.



The EcoSan toilet system does not need water, is clean and smell-free and produces useful fertiliser.

We held our first week-long Discover training seminar at Chosen Farm in March 2019.

The Ecosan Toilet System – Benefits

It never smells. It separates urine from faeces. After use, we sprinkle wood ash on the faeces. The wood ash stops the smell and promotes the breakdown of the faeces into small particles. One month later it is used as fertilizer. We dig a rectangular pit one foot deep equidistant between four banana plants. This encourages the plants to extend their roots and feed from the fertilizer.

We collect the urine in a drum, add wood ash and chili, we also add leaves of *Phytolacca dodecandra* to fight nematodes and other banana pests.

WILAN PRODUCTS - Anna and William Mwesigye

Wilan Products is a registered business that was started in 2009 by Anna and William Mwesigye. We are located in Kigumira-Bukusu L. C. 1 in Luweero District.

We are a Community Based Organization with 8 groups within the district:

1. Butanza Women's Development Association (charcoal briquettes, savings, crafts, tie and dye and agriculture)
2. Katikamu Women's Group (crafts and savings)
3. Katuumu Women's Group (crafts and agriculture)
4. Katikamu Women's group (savings)
5. Namaliga Kapozi Group (savings and others)

Our products are:

- Herbs and beverages, including hibiscus drink.
- Artemisia herbal tea as leaves and tea bags for malaria and many other diseases.
- Chia seeds, which provide many nutrients and lower the risk of heart disease.
- Palm seed (Mpirivuma Powder), Cinnamon powder (Buddalasini), Cough and Flu Syrup.
- Herbal jelly and herbal soap, which promote healthy skin and treat skin sores, scabies, athlete's foot, haemorrhoids and candida.
- Bee venom therapy.

Benefits and Achievements

- Our products have a market.
- Our family has received good health treatment.
- Some of our products have been tested by the government chemist.
- We are registered as a business with the Government of Uganda.
- We have successfully treated many Ugandans and people of other nationalities with our products.
- With the income from the sale of our products we have trained many people in Natural Medicine.



Anna and William with some of their products

Challenges

- We are still negotiating with the Uganda National Drug Authority (UNDA) and the Uganda National Bureau of Standards (UNBS).
- We have not trained all our members on DISCOVER activities due to lack of finance.
- There are number of copy-cats.

Hopes for 2020

1. To train our members on Discover and other activities
2. To register with UNBS, UNDA.

Registration of products in Uganda

1. Advice from William:

Product registration

- You must be registered with the Government of Uganda as a company or as business. You will be given a Taxpayer Identification Number (TIN).
- Your product should be checked by the government lab and you must keep the results with you.
- Your premises should be up to the required standard
- Your production room and store must be two separate rooms.
- You must have water in your production room
- You need clean overalls for production
- You should have good machines for your products
- The packaging must be high quality with a label that includes the information below.

You can register a product online. The cost for registering a product is now 250,000/=. Previously it cost from 800,000/= to 1,000,000/=.

The label must include the following information:

- The name of the producer
- The name of the product
- The quantity
- The batch number
- The date packaged
- Expiry date
- Address of the producer
- Telephone number of the producer
- Email Address of the producer
- How to use the product
- Ingredients of the product

2. Advice from Judith Bakirya

Each local Discover group may seek help from the existing agencies:

Uganda Industrial Research Institute (UIRI, web: www.uiri.go.ug)

Makerere University.

Both these agencies help small organisations to register their products with:

Uganda Registration Services Bureau (URSB, web: ursb.go.ug)

Natural Chemotherapeutics Research Institute (NCRI, web: health.go.ug/national-disease-control-departments/natural-chemotherapeutics-research-institute-ncri)

National Drug Authority (NDA, web: nda.or.ug)

Scope Foundation, Jinja

Founder and Discover lead partner: Daniel Twesige

Aim: To develop a support structure for children with incarcerated parents in Uganda



Scope was founded in 2016 and registered as a grassroots non-government organization. Children with incarcerated parents in Uganda receive little support but are often victimized and discriminated against in the community. The result is that many become delinquent and hardcore criminals themselves.

What we have done so far:

- We have saved five young girls with a parent in prison from child marriage and taken them back to school.
- We are supporting 150 children in primary and secondary school whose parents are serving 10 years and above in prison, and some for life.
- We have supported 25 families in sustainable agriculture and farming as a business.
- Eleven families with incarcerated parents have set up small backyard medicinal gardens with artemisia, lemon grass, *Aloe vera*, onions and amaranth. They report that their family members no longer fall sick with malaria, headache and flu.
- We have established medicinal gardens in two primary schools and 4 secondary schools in Bugembe.
- We have been given permission to conduct transformational sessions with inmates in three prisons.



Daniel and Rehma (social worker)
during a family support visit)



Demonstrating how to prepare a
vegetable garden and growing grain
amaranth in a school

- Ten former inmates who participated in our re-entry program have been out of prison for over two years. They have not reoffended and are succeeding in jobs we linked them to.
- We have successfully trained 40 women prisoners in craft and liquid soap making.
- We have established Community Action Teams and School Action Teams to prevent violence against children. These arose from our annual 19 Days of activism, to campaign against the abuse of and violence towards children and youth.

Latest news: We have received a grant from the skills development facility of the private sector foundation to train 60 caregivers of children of incarcerated parents in farming as a business, soybeans value addition and preparation of organic manure. This runs from December 2019 to March 2020.

Vumbula Kalerwe – Enid Kiviiri

Location, Kalerwe slum in Kampala. When it rains heavily all the houses are flooded and everything, including the beds, must be raised off the ground.

Membership: 25. We meet every Saturday for prayer, Bible reading and to contribute to the savings scheme.

Every day the group makes and sells mandazis to children at the school. They give 10% of the proceeds to the church, the balance is divided by two, half is distributed between the members and half is invested in their projects.

Our products include artemisia and honey tea for ulcers, skin care ointment, eucalyptus ointment for colds, cough syrup, herbal soap and moringa juice. We sell briquettes, dadies and fried soya seeds.

Some members do business, for example with ointments. This helps them both financially and with their health, especially the aged. The income helps them to buy food and to meet the needs of their families, including what the children need for school.



Vumbula Kalerwe members meet in very simple conditions. Some products are displayed on the shelf.

Vumbula Kalerwe holds a training seminar every year. In 2019 this training included teachers and pupils from four schools. The teachers are now mixing moringa with the pupil's beans and mixing amaranth in the maize flour for both porridge and posho. They are making liquid and herbal soap for the school, and moringa juice which they sell to the children.

Grace Learning Centre, Kirimya - Judith Nambi Mugisha

I founded this school in my village. I am the headteacher with a staff of 15 trained teachers. I attended my first Discover training in 2014, which was organized by Namyalo Rehema. I learned about grain amaranth, artemisia, organic farming, how to produce herbal soaps and much more.

The knowledge I gained from this training was so beneficial to my life and work that I immediately integrated it into what I teach at school. I taught teachers, pupils and their parents. This new knowledge has made our teaching unique and holistic, and it has also changed my way of living. That's why, as soon as I had been trained, I decided to integrate the discover knowledge into our curriculum. We now have gardens around the school which are cared for by parents and children.

We make herbal Vaseline for skin infections, which have been a big problem, we grow artemisia and treat malaria, we grow grain amaranth and mix with maize flour to make porridge for the children, we grow velvet beans and moringa and we make and serve lemon grass and rosemary herbal teas. We also have happy parents, because they spend much less money treating their children for coughs, malaria and worms!

My dream for the future is to hold a one week or two weeks trainings for children from other schools during holidays. If Discover can partner with us, we will be very grateful.

I am proud now to be a member of the training team together with Rehema Namyalo, Andrew Kyambadde and Evelyn Nakamatte. I am continuing to develop new knowledge and skills.

10 Million Trees Project – Yusuf Makabule

Together with other local organisations, SALEM Uganda has been part of the 10 Million Trees Project for the past 5 years. The central aim of the project is to reforest Mount Elgon, which has been severely deforested. This will have the benefits:

1. That rainfall, even when very heavy, will soak into the ground and catastrophic landslips will no longer occur.
2. That the trees will provide sustainable supplies of food, fuel and shelter, as well as improved incomes, thus alleviating poverty.
3. That local communities benefit economically from the trees that are grown.
4. That the local communities on Mount Elgon therefore develop commitment to managing tree nurseries and to planting and caring for trees.

Every year around 200,000 trees are grown in the Salem nursery. Altogether 39 community nurseries have been established.

Yusuf emphasises “tree-growing” rather than “tree planting”, because of the importance of caring for trees once they have been planted.



Part of the Salem Uganda nursery



Yusuf Makabule speaks passionately about the great importance of planting trees.

The trees planted by this project are mostly agroforestry, drought resistant trees that grow well with agricultural crops and fix nitrogen in the soil. They include *Grevillea robusta* (silk oak), *Maesopsis eminii* (Musizi), *Cordia abyssinica* (cordia), *Milicia excelsa* (Mvule), *Prunus Africana* (African cherry), *Maesopsis eminii* (umbrella tree) and fruit trees, e.g. mango and avocado.

To provide shorter term benefits, the following species have also been integrated; calliandra, leuceana and sesbania. These are harvested for firewood, fodder and poles, while the slower growing trees become

established and grow to provide environmental benefits and soil stability.

Training Days in villages near Mount Elgon

Yusuf Makabule and Tony Wambazu

Tony and Yusuf have organised occasional training days in villages near to Mount Elgon on natural healthcare, the use of locally available resources and tree growing.

The lessons benefitted from the expertise of some of the participants, who have experience with important crops and trees.



Tony teaching in simple conditions in Nasenyi Village

Busaino Fruits and Herbs, Jinja - Judith Bakirya

I am a social entrepreneur, farmer and a rights activist. My passion is to bring harmony and laughter to the world through the amazing power of plants. We aim to become the largest private sector rural herbal manufacturing enterprise in Uganda.

Busaino Fruits and Herbs is an Adventure Farm. We practice permaculture on 1064 acres. This includes “agri-culture” and positive indigenous African farming practices.

On the farm we:

- 1) Preserve and multiply disappearing varieties of indigenous herbs for learning, education and income.
- 2) Promote diversity, we intercrop fruits, herbs, flowers for beauty and food crops such as bananas climbing beans.
- 3) Integrate livestock (sheep, cows and chickens) to eat the grass, give food and manure and dung for biogas.
- 4) Preserve the integrity of the soils with organic cultivation and limited tillage.
- 5) Preserve indigenous trees (mulongo, mwizabagya, kanzironziro etc.) and grow and propagate trees which are good for agriculture (musizi, nkuraidho, gasiya, leucaena etc.).
- 6) Use and value renewable resources and services: We collect rainwater and use shallow wells. We use solar energy wherever possible.
- 7) Produce no waste, every by-product is used.
- 8) Produce organic fruits (avocadoes, mangoes and jackfruit), integrated with herbs and trees, all blending in like a tropical forest. Fresh fruits grown organically in the tropical sun and given time to mature naturally have a special aroma that is unique to this region.



Judith Bakirya (centre) with her partner Patrick Kiirya and other visitors on their tropical farm

Busaino Fruits and Herbs is also a social, community enterprise. We promote permaculture for “climate smart schools” and have started rural manufacturing with rural women. We aim to increase environmental protection, jobs and incomes, community interaction, beauty, relaxation and learning.

We welcome agri-tourists and learners (schools and colleges, individuals and groups) who come to see forest fruit farming, our stone houses, the gentle hills and farm trails, and like to listen to birds and animals and to interact with local communities.

Our future programme includes:

- Training 1250 rural families in the surrounding 4 districts of Jinja, Mayuge, Bugiri and Namayingo and across the border in Western Kenya.
- Teaching 356 rural women to grow, process and package herbal medicine.
- Establishing 10 climate smart schools.
- Encouraging young “agri-preneurs” in schools and in the community, trained in botanical gardens management, agri-tourism and agri-education
- Offering support to Discover Network members who are specialising in herbal medicine processing, research, and multiplying herbal plants.

Visit us in Wanyange, Jinja!

Responding to the Climate Crisis

Isaac Mbusa

Because of human activity, our climate is changing faster today than in the last 2,000 years. The climate massive impact, especially on the availability of water and therefore food security.

Effects of climate crisis

- Dry seasons have become longer.
- Rainfall is torrential, resulting in flooding, severe soil erosion, landslips and loss of life.
- Water stress – there is too little or too much water.
- We have greater difficulty in growing vegetables and fruit, resulting in hunger, malnutrition and health problems in people and more plant and animal diseases.
- Soils lose fertility, contributing to poor harvests.
- The snow on the Rwenzori, Kilimanjaro and Mount Kenya mountains is disappearing fast.

Causes of the climate crisis

Throughout the world and especially in the rich countries: Fossil fuels are burnt in power stations, industry, aeroplanes, ships, lorries and cars, intensive agriculture, the manufacture of concrete, the internet and forest fires.

In Africa, cutting trees and clearing vegetation, especially by burning, poor methods of farming including the use of synthetic fertilizers, and opening up land, especially wetlands, for agriculture and building. This happens through ignorance, or a lack of understanding.

What can we do?

- Plant and care for trees everywhere, in our homes and meeting places. Encourage everyone to grow trees, both singly and as hedges.
 - In forests, trees have a good effect on the climate,
 - On hills, they enable heavy rainfall to soak into the ground instead of causing flooding,
 - In our fields, the right trees increase soil fertility, provide shade and provide fruit or timber.
 - Plant trees in school grounds with teachers and pupils and teach them to care for them. The schools will enjoy shade and fruits.
- Make and use briquettes and energy saving stoves to reduce the need for firewood.
- Construct a biogas digester, which produces gas for cooking and very good fertilizer.
- Practice organic farming which improves soil fertility and stores much more carbon in the ground.
- Ensure that the ground is always covered with crops or mulch to increase soil fertility and reduce evaporation.
- Build contours on slopes to stop heavy rainfall from causing soil erosion.
- Stop people smoking; - their smoke is like that of industry being put in the atmosphere.



Plant trees! When you plant trees with children, they learn the importance of trees at an early age. They may also develop a love of nature and the environment.