

**Discover News-sheet  
for colleagues in Africa  
January 2020**



**The climate crisis in Africa: Preventing malnutrition**

As the dry seasons become longer, what vegetables and fruits do you have in the gardens, to ensure that you and your family do not go hungry?

Here are a few of my ideas. You may have better ideas! Let me know so I can share with others.

**1. Plant drought-resistant, traditional vegetables**

Many vegetables that were commonplace in the past have largely been forgotten.

Root crops sit in the ground until the rains come. Whenever it is that rains do come, they then begin to grow. Root vegetables

include the (Irish) potato, sweet potato and yams, for example taro. Once harvested, these crops can be stored in a cool, dark place. The green tops of sweet potatoes may also be eaten.



Taro (*Colocasia esculenta*)



*Solanum aethiopicum*  
- black nightshade

Above ground crops which are also robust in variable climatic conditions include African spinach (*Amaranthus dubius*), okra, jute, cowpea, pigeon pea, vegetables in the sesame family, black night shade, amaranth and pumpkin.

Crotalaria is a useful vegetable which is cooked like amaranth leaves (dodo). It is also an excellent green manure, planted early and dug into the soil. It can restore badly degraded land.

**2. Grow moringa and grain amaranth**

Both moringa leaves and the seeds of grain amaranth are extremely nutritious. As well as many minerals and vitamins, they contain more protein than any other known plants. Moringa seldom loses its leaves, and therefore provides a constant source of nutrition. Nevertheless, it is also good to have a ready supply of moringa leaf powder. Harvest the leaves, dry them (in the shade), pound and sieve them. You can then store them for many months in dark, airtight containers in a cool, dry place. A heaped teaspoonful scattered over the meal gives the body a remarkable health boost.



Congolese women prepare moringa leaf powder



Samuel Waiswa with superb grain amaranth flourishing in Uganda

The grains of grain amaranth may similarly be harvested, dried and stored. They may then be crushed and used to make porridge. One can add other grains such as maize, millet, soya and chia. Eric Kihuluka in Uganda sometimes adds wheat germ or bran, quinoa, sorghum, oats and rice. Together, moringa and grain amaranth are the best possible insurance against hunger and malnutrition!

### 3. Fruit trees that are drought resistant

Tamarind, kei apple, pomegranate, date palm and loquat. In southern Africa the kei apple is referred to as a “famine food”. It is rich in vitamin c and many anti-oxidants.

### 4. A summary of the body’s nutritional needs and why vegetables and fruits are so very important

Almost all vegetables are very nutritious as they contain many very important vitamins and minerals.

Orange fruits and vegetables contain vitamin A, which is essential for good eyesight and a strong immune system. These include papaya, sweet potato, carrots and pumpkins.

Vitamin C is present in all fresh fruits and green leafy vegetables when first prepared. Vitamin C helps to protect one from infection.

Minerals are necessary for bone development (calcium), blood generation (iron), muscle development (magnesium) and regulating blood pressure (potassium). Minerals are found to a greater or lesser extent in all vegetables.

Proteins are essential for growth and for maintaining all body functions. They are found in large quantities in moringa leaves and the grains of grain amaranth.

Starch is necessary for energy and is found in root vegetables such as cassava, potatoes and yams.

I sincerely hope that you and your family and community always have enough to eat and do not go hungry!

Keith

Useful resources:

1. Eden Demonstration Farm in Arua, Uganda, is a superb teaching centre for herbs, vegetables and trees. Well worth a visit with your group! Contact David Sharland, Email [sharlandhd@gmail.com](mailto:sharlandhd@gmail.com)
2. REAP has a similar teaching garden near to Kisumu in Kenya, which also includes fish farming and fuel-efficient stoves. Contact Rosalia Oyweka, Email [royweka@yahoo.com](mailto:royweka@yahoo.com).
3. The Farmer Field School in Kaliro, Uganda, run by the Mikwano project, is a teaching centre which includes herbs, vegetables and farm animals. Contact Eric Kihuluka, Email [kihulukawalya2@gmail.com](mailto:kihulukawalya2@gmail.com).
4. A super video and text about edible cover crops: <https://www.leafforallife.org/how/making-edible-cover-crops/index.html>
5. A super, very comprehensive database from the World Agroforestry Centre which lists a vast number of crops and food trees that grow in Africa. See <https://tinyurl.com/uhyswnb>.