# POTENTIALLY IMPORTANT LEAFY GREENS AND VEGETABLES IN RWANDA

PRACTICAL WAYS OF GROWING LOCAL FOOD PLANTS AND DOING IT WELL



FOOD PLANT SOLUTIONS ROTARIAN ACTION GROUP

> Solutions to Malnutrition and Food Security



The Mustard Seed Institute

A project of the Rotary Club of Devonport North, and Food Plants International





www.foodplantsolutions.org

## Potentially important leafy greens and vegetables in Rwanda





The vision of the Mustard Seed Institute is to be a community-based social enterprise providing practical and sustainable solutions for extreme poverty eradication and peace building through research and innovation, training and skills transfer, mediation and dialogues, in the rural community of Rwankuba, Eastern Province, Rwanda.

The Mustard Seed Institute has partnered with Food Plant Solutions to improve the health and well being of the local community through education and advocacy on agricultural innovations, with a focus on gaining knowledge about which crops to grow in order to lower malnutrition levels amongst the local children.

For further details about the project please contact us at info@foodplantsolutions.org.

We welcome and encourage your support.



**Food Plant Solutions -** A project of the Rotary Club of Devonport North, Rotary District 9830 & Food Plants International



# Potentially important leafy greens and vegetables in Rwanda

Practical ways of growing local food plants, and doing it well

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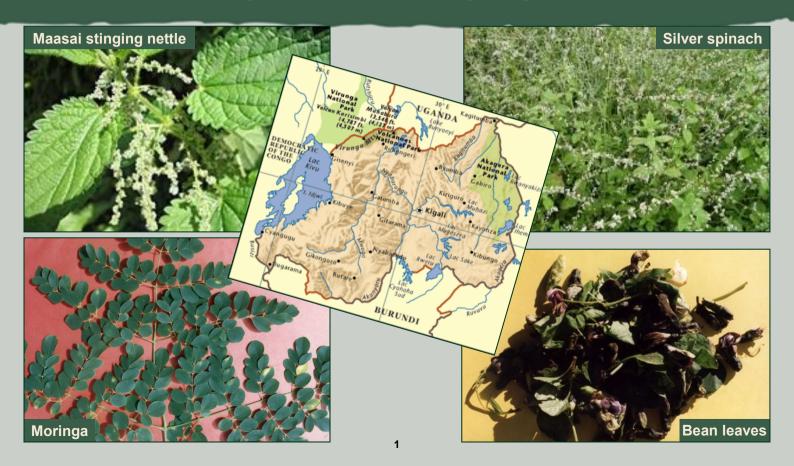
Other publications in this series:

Fruit and Nuts in Rwanda

Good Gardening and Growing Root Crops in Rwanda

Food Plants for Healthy Diets in Rwanda

# Rwanda - country of beautiful leafy vegetables



# Leafy greens - the health foods of the nation









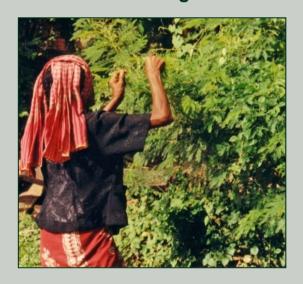
### Using leafy greens Collect and cook a mixture of leaves



**Healthy food** 



Many edible leafy greens grow around houses and along roadsides.



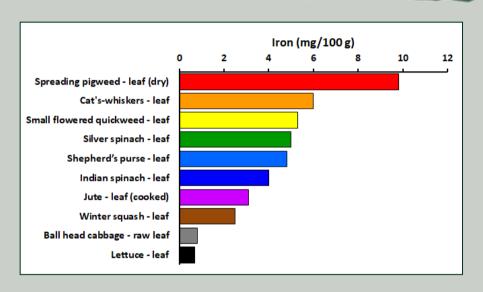


Green leafy vegetables should be cooked.

#### Healthy people eat leafy greens

- Many plants have edible leaves.
- Edible leaves are nutritious.
- Normally, all leaves should be cooked to kill bacteria.
- Everybody should eat a cup full of dark green leaves every day to stay healthy.
- Some leafy greens can be grown as hedges, in swamps, and on soils around houses to provide a regular daily supply of leafy vegetables.

#### Green leafy vegetables - Iron content





Iron is important, it is what makes our blood red.

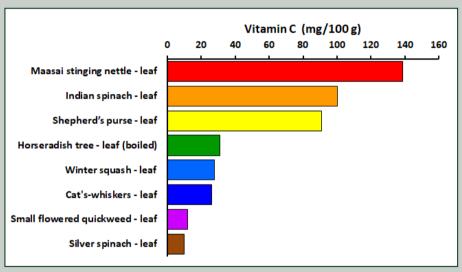
Iron helps oxygen get to our lungs. This helps us to have energy to work.

When we are short of iron we are called anaemic. Iron is more available when Vitamin C is also present.

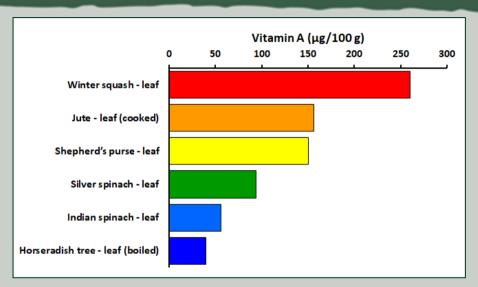
#### Vitamin C for good health

Vitamin C is important for helping us to avoid sickness.





#### Vitamin A value of leaves





Vitamin A is very important for eyesight and fighting disease, particularly in infants, young children and pregnant women.

People who are short of Vitamin A have trouble seeing at night.

In plants, this chemical occurs in a form that has to be converted into Vitamin A in our bodies.

# Small flowered quickweed - fresh leaves are a good source of Vitamin C

The leaves and the young stems can be eaten raw or cooked.



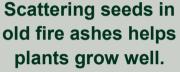


Galinsoga parviflora

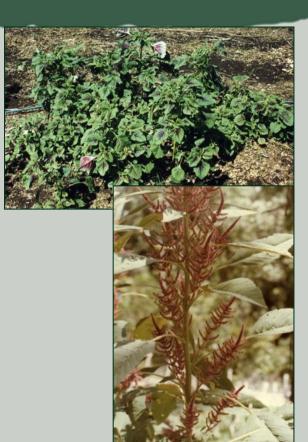
### Amaranth - a quick growing green and a home garden favourite



Amaranthus spp







#### Cat's whiskers



Leaves can be harvested 4-5 weeks after planting.

Cleome gynandra

#### Shepherd's purse



Young tender leaves are eaten.

The leaves are a good source of Vitamin A.

Leaves can be cooked as a vegetable or eaten raw in salads.





Capsella bursa-pastoris

#### **Sweet potato leaf**



Leaves are edible raw or cooked.

**Ground cover or climbing plant.** 



Ipomoea batatas

### Maasai stinging nettle

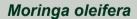


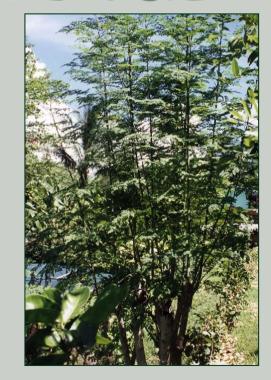
Urtica massaica

### Moringa



A fast growing tree.
The young tops and leaves are eaten cooked.





#### Cassava



Manihot esculenta

Young leaves are edible after cooking.



#### Indian spinach



The leaves can be fried, steamed and used in soups and stews.



It grows up fences, sticks or over stumps.





#### **Taro leaf**

A good quality delicacy.





Colocasia esculenta





### Silver spinach



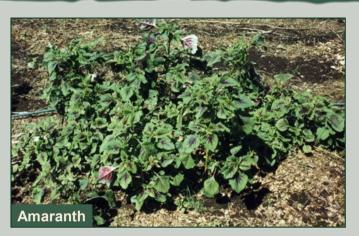
The young shoots and leaves are cooked and eaten.



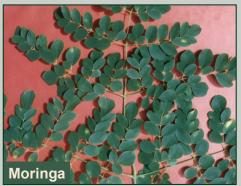


Celosia trigyna

#### Leafy greens of Rwanda







Dark green leaves should be eaten daily.

They should be cooked and can be steamed, fried or boiled.



#### **Edible leaves**



#### **Edible leaves**



#### **Edible leaves**



#### **Plant poisons**

Some foods contain substances that can cause illness. Check preparation methods before eating. Some examples are:

- Bacteria on leaves can cause stomach upsets. Food should be cooked to kill bacteria.
- Cyanide is a poison commonly found in plants (e.g. cassava). It makes them bitter, but is destroyed when food is well cooked.
- Oxalates are common in plants (e.g. taro). They are sour and can burn the throat. Changing the water during cooking can reduce oxalates.
- Plants can accumulate nitrates that are poisonous to children. This
  happens when excess nitrogen fertilisers are added to some leafy
  vegetables (e.g. amaranth).

### Vegetable foods of Rwanda







Bottle gourd



#### Vegetables for variety and nutrition

Some vegetables and edible leaves should be planted near houses so they are easily available, even on wet days, or when people can't get to distant gardens.



As some vegetables only grow in certain seasons, families should plant a wide range to provide food all year.

**Carrot** 

#### **Vegetables -** nutritious and tasty







#### Finger millet - versatile seeds



The seeds can be roasted or ground into flour.



Eleusine coracana



### Eggplant

The fruit can be eaten fried, gilled, baked, stuffed or stewed.

They can also be dried for storage.



Solanum melongena



#### Bitter cucumber

The young, bitter fruit can be boiled, stuffed, fried or pickled.

Momordica charantia

Soaking seeds for 24 hours before planting improves germination.

The leaves are also eaten.



### **Pumpkin**

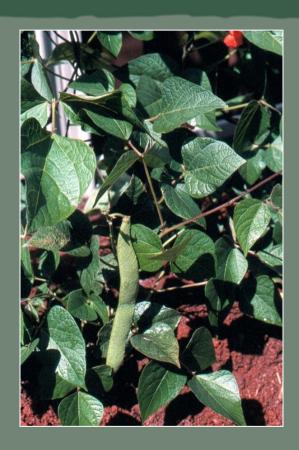
The fruit can be baked, boiled, fried, steamed or mashed.



Cucurbita maxima



#### Scarlet runner bean





A climbing bean that can re-grow from the tubers.





#### **Bottle gourd**



Young fruit can be boiled, steamed, fried or pickled.
Young tips and leaves can be eaten.



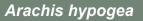
Lagenaria siceraria

#### **Peanut**

Grows best in dry areas.

Seeds can be eaten raw or cooked.





#### Pigeon pea - a shrub with edible seeds and leaves



Being a legume it puts nitrogen into the soil.



The leaves, pods, seeds and sprouts can all be cooked and eaten.





### Sorghum

#### Sorghum bicolor







The seed is eaten as cereal and ground to make flour. It is used for dumplings, fried cakes and drinks.

#### **Acknowledgements**





#### The Mustard Seed Institute

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