

Food plants and good gardening for healthy diets in Swaziland

An introduction by Bruce R French
Food Plants International



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GROW

Helping the Hungry Feed Themselves



A Project of the Rotary Club of Devonport North District 9830
& Food Plants International

www.learn-grow.org

Food plants and good gardening for healthy diets in Swaziland

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Quote in Eden project UK

"When I first started farming, I grew vegetables such as cabbages, Kales and tomatoes. We used to think that modern crops were better than the foods we grew up eating. Now I grow crops like spinach, nightshade, spiderplants, amaranthus, jute plants, sweet potatoes and pumpkins. They suit Kenya's climate and soils and are rich in important micronutrients. Most are sold from supermarkets in Nairobi.

Stephen Kimondo, Kenyan Farmer

Nutritious food produced naturally

There are over 1,000 food plants in Swaziland for people to enjoy



Many local and well adapted food plants deserve greater attention

Choose local food plants – *local plants suit local conditions*

If you have to start spraying
– it's probably the wrong
plant in the wrong place!



Amaranth



Sorghum



Pigeon pea



Cow pea



Cassava

If you can't get
seeds or planting
material from local
gardens – it's not a
suitable local plant!

There are lots of good local food plants to grow

Local plants
suit local
conditions and
don't fail



Local plants
are adapted to
local pests and
disease



Feeding children well is very important

Children need protein to grow well

Children need iron to keep their blood good

Children need Vitamin A for good eyesight.

Everybody needs a wide range of food plants to get a balanced diet


A mug full of only maize causes malnutrition!



Choose nutritious plants

Dark green tropical leaves
provide minerals and
vitamins



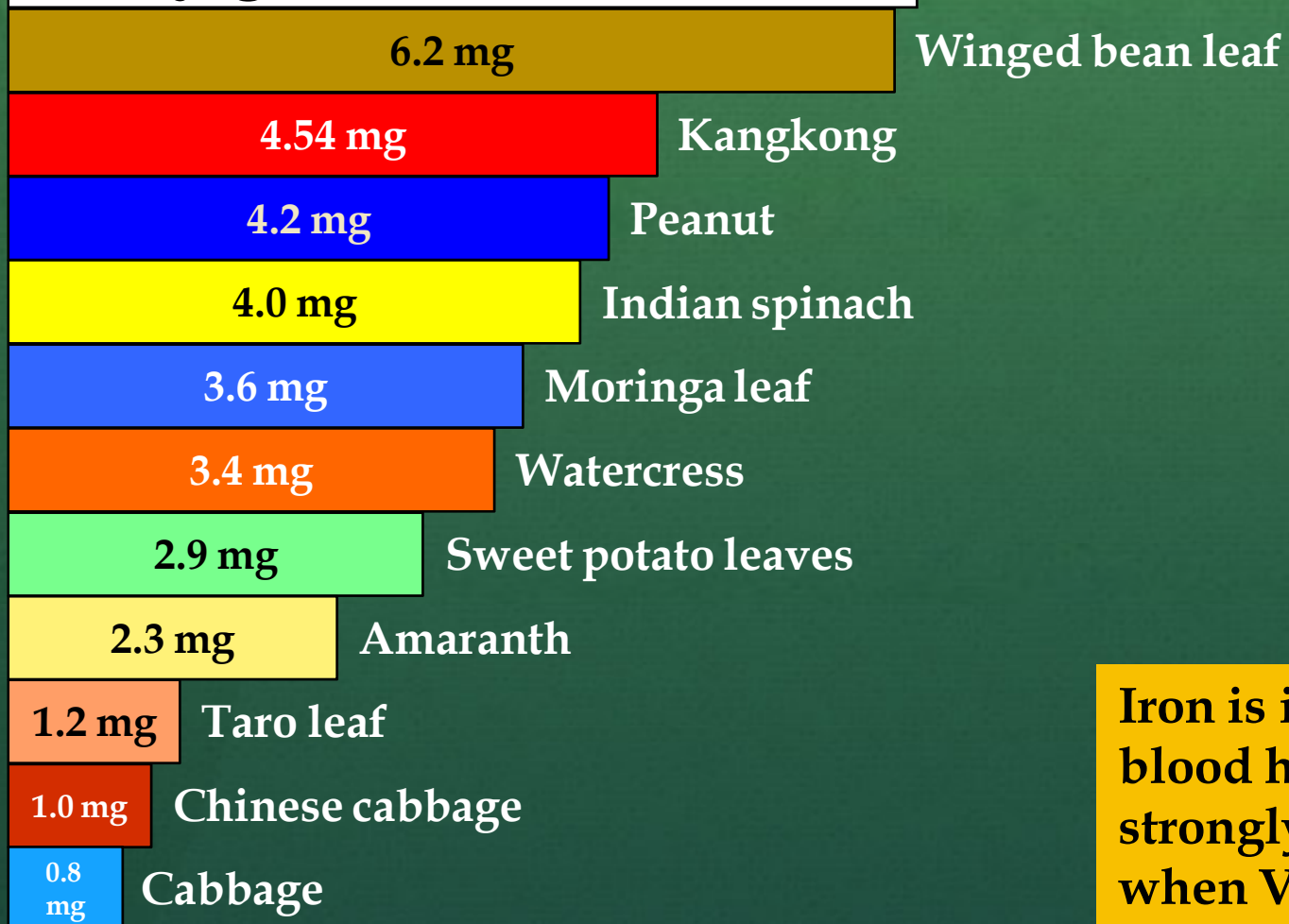
	Protein	4 times
	Vit A	6 - 8 times
	Vit C	7-20 times
	Iron	7- 8 times
	Zinc	4 times
Compared to cabbage		



Cabbage fills your stomach
but has no food value

Green leafy vegetables for iron

Leafy greens - Iron content



Winged bean leaves & flowers

Iron is important to keep our blood healthy so we can work strongly. Iron is more available when Vitamin C is also present.

Some tropical green leafy vegetables rich in iron



Kangkong



Okra



Amaranth



Indian spinach



Moringa



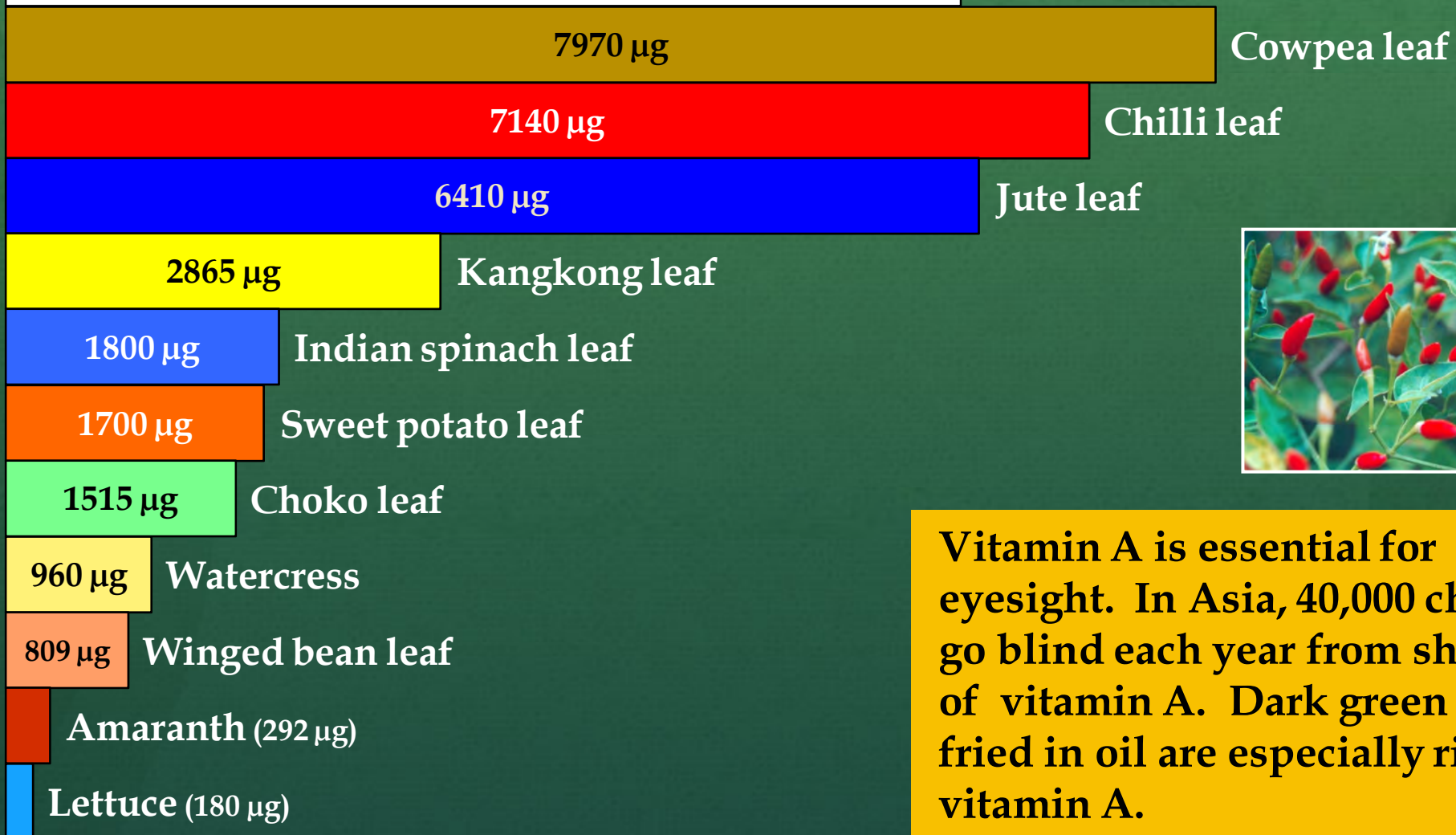
Sweet potato leaves



Watercress

Vitamin A for good eyesight

Leafy greens – Vitamin A content



Vitamin A is essential for eyesight. In Asia, 40,000 children go blind each year from shortage of vitamin A. Dark green leaves fried in oil are especially rich in vitamin A.

Leaves rich in Vitamin A

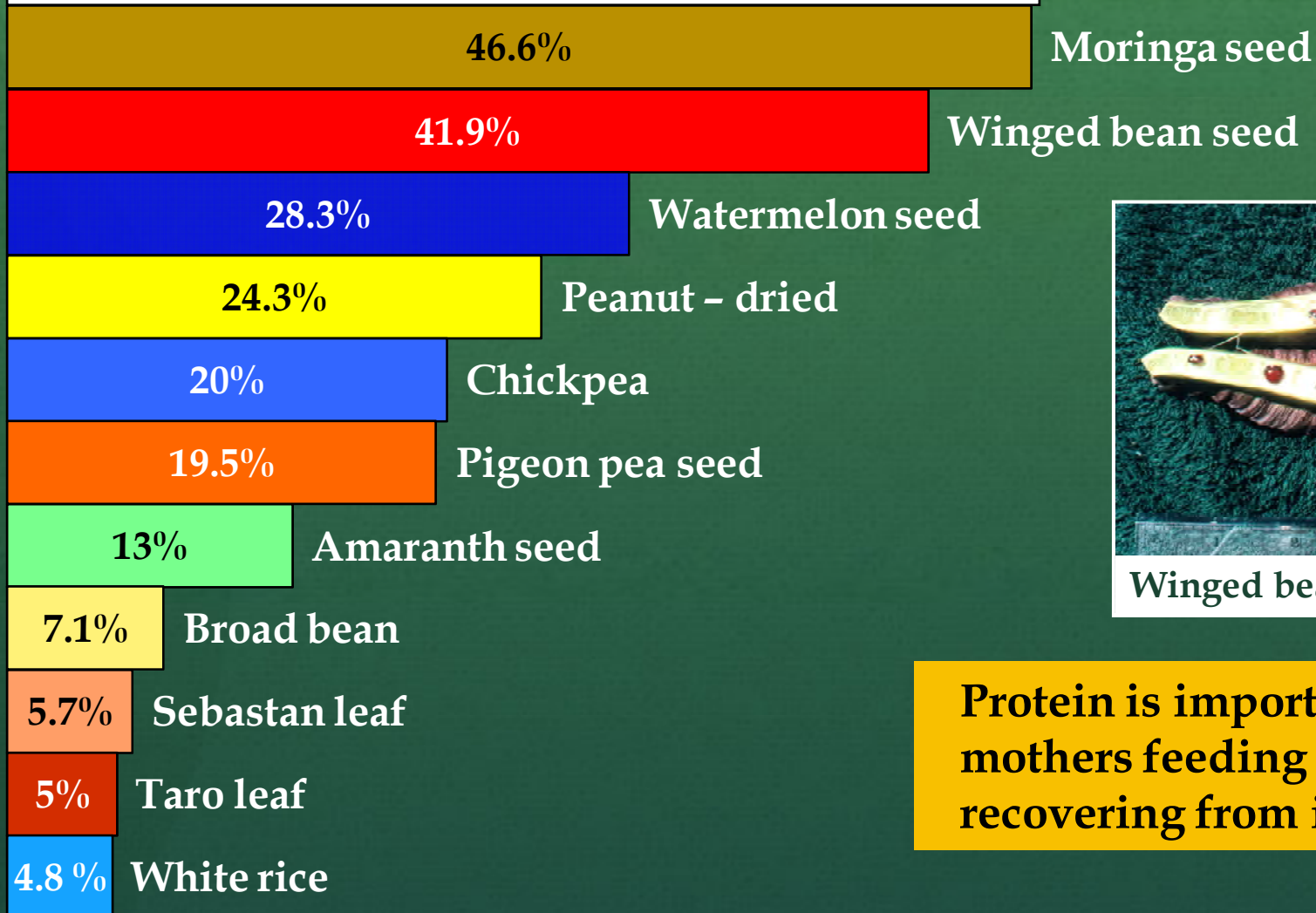


Choose dark green edible leaves

They are best cooked in oil

Protein for healthy growth

Protein content of selected plants



Protein is important for growth, for mothers feeding babies and for recovering from illness.

Protein foods



Trees and good soil

When the children of Israel were about to enter the promised land they asked two important questions.

Are there any trees on the land?

Is the soil good?

Numbers 13:20

**The clue to all good gardening
is to look after the soil and to
make good use of trees.**



A living soil



A dead soil

Trees are important

Avoid burning when clearing as it loses important nutrients and damages the soil



Some trees can be kept and gardens made underneath. Trees recycle nutrients.



Soil loss from tree removal

Growing plants well

Plants show us when they are not growing well

Of the 16 main nutrients needed for plants to grow well, this corn leaf is indicating the plant is short of a nutrient called nitrogen. It shows a dry 'V' shape down the centre of the oldest leaves. Other grass plants show similar signs. All green leaves need nitrogen.

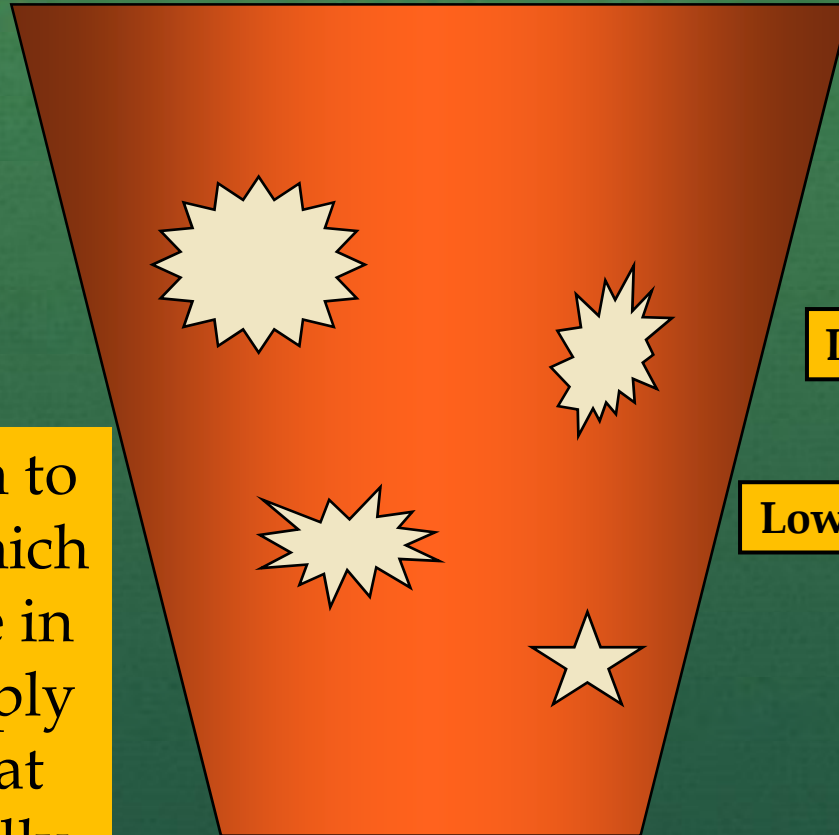
Nitrogen is in the air, but plants cannot use it unless small bacteria in the soil, and on the roots of bean family plants, change it into a form plants can use.

Using compost and plants in the bean family put nitrogen back into the soil



Plants need 16 nutrients to grow

We can learn to recognize which nutrients are in shortest supply by looking at plants carefully.

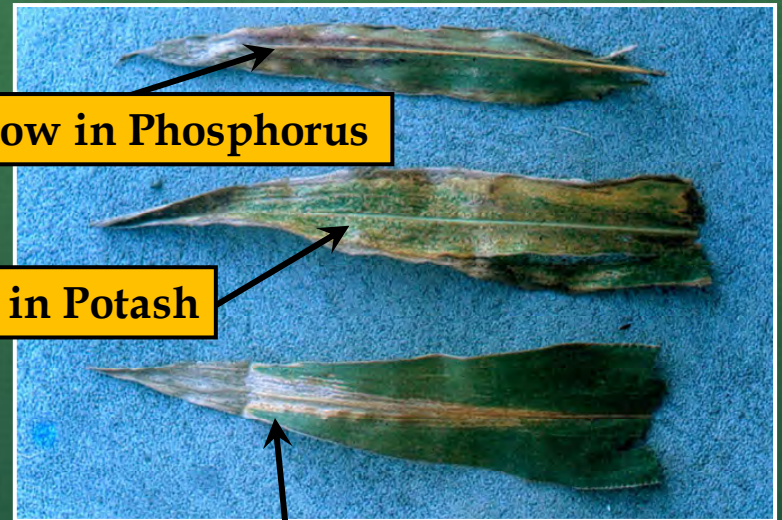


Signs of lack of nutrients shown by plants

Low in Phosphorus

Low in Potash

Low in Nitrogen



If we imagine soil as being like a bucket of nutrients, (plant food needed for the plants to grow), then we need to fix the lowest hole, (or add the nutrient which is in shortest supply), before the bucket can carry anything more!

Making compost

Compost is a lot of hard work for large gardens



If it has lived once
it can live again



Don't burn rubbish - compost it!

Use green and
brown, wet and dry
and keep it moist



Compost is perfect for small
backyard gardens

How to make compost

The rules for compost making:

- Build a simple, open box to keep animals out
- Mix green leafy and dry plant material
- Allow air to get into the compost
- Keep the compost bed moist
- Add anything that has been living before
- If possible, turn the heap to allow it to heat up and break down properly
- Add some old rotting material to start the process

**Compost allows things
that were alive to live
again!**



Mulch is very important

Old stalks help protect soil



Aim to keep the soil covered, using mulches after harvest and legume cover crops



Pigeon pea is a good shrubby legume for fallows



Mulch covered within rows

Don't burn rubbish, mulch it!



Mixed cropping helps soil cover

Food security is simple - *grow a range of local or well adapted plants*

There is
security in
diversity!

Because they are local, they
will have already survived
local conditions and pests



Because there is a variety they have different
tolerance to adverse conditions

Nutrition is simple - *eat a wide range of food plants*



Then if a nutrient is missing from one plant, it will be included in other plants and produce a balanced diet.

There is good nutrition in diversity!

Fruit for flavour and vitamins

Plant fruit trees now for your children and grandchildren later



Mango



Figs



Doub palm



Guava



Pineapple



Avocado



Tamarind



Key apple



Carob

Plant a mixture of plants together



Taro, sweet potato and corn mixed

Pests and disease always cause less damage in mixed groups of plants

In nature, different plants always grow together. This is a good ecological way to grow plants. It gives more stable production.



Choose planting materials well



Much local cassava has virus. Avoid this if possible.

Pumpkin plants grown from locally saved seed usually get a lot less disease, as they are well adapted.



Don't get all your corn seeds off one cob as they are related and will inbreed and get smaller each year.



Most beans have seeds that are easy to save and breed true



Always include beans

Plants in the bean family are high in protein and also improve the soil!

Peanuts and corn go well together



Pigeon pea survives drought and improves soils



Lima beans can climb fences or hedges



Bambara groundnut is a good local bean

Use plants that grow at different rates to get food regularly



Amaranth grows very quickly



Cassava will take at least 9 months



Blackberryed nightshade grows very quickly after rains



A guava may take 2-3 years to fruit

Growing more food needs care!



Managing disease

We need to do the
best gardening
we can



Conserving nutrients



Stopping inbreeding



Restoring fertility

We need better
knowledge of food
plant resources

Some of the many food legumes useful to restore soil fertility

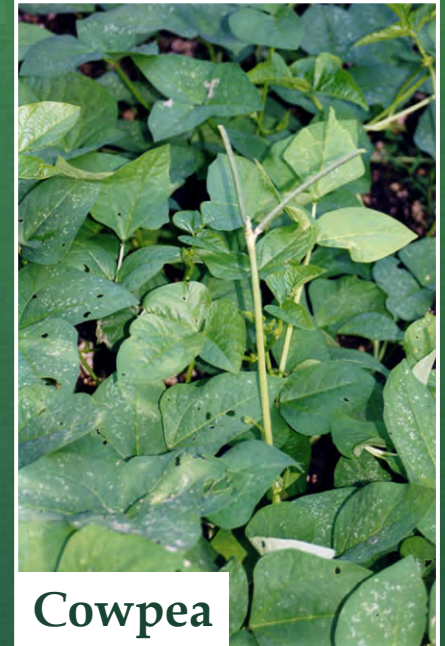


Pigeon pea



Peanut

All legumes
(plants in the bean
family) put
nitrogen back into
the soil



Cowpea



Winged bean



Lablab



Leucaena

Droughts and famines - *become more serious if the wrong plants are grown*



Rice needs
lots of water



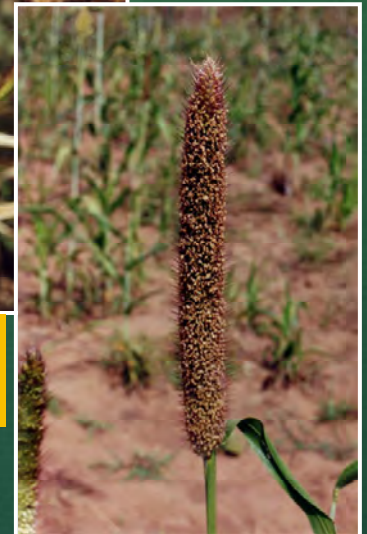
Corn needs
lots of water



Sorghum
needs less
water



Finger millet
needs less water



Bulrush millet
suits dry areas



Tropical cereal grains

Protect your family by growing a
range of different grain crops

Sorghum suits African soils, rainfall and conditions



Open types get less mould



There are several hundred types of sorghum

Sorghum tolerates poor soils and drought better than maize



Choose types that suit soils, climate, pests, disease, birds and other problems



Grow and keep a range of types of sorghum to suit changing conditions



Striga in sorghum fields



A sorghum field

The leaves of both Cock's comb and Cowpea can be cooked and eaten. Cowpea also adds nitrogen to the soil. Its seeds can be eaten.

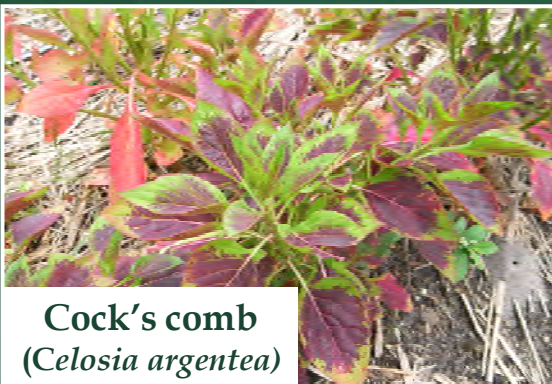
Sorghum and pearl millet can be damaged by plants called "Striga" that grow on the roots of the plant and damage the crop



A Striga plant

Intercropping sorghum with Cock's comb or cowpea helps reduce the damage from Striga.

Olupot, J. R. & others. 2003, Crop Protection. 22: 463-468



Cock's comb
(*Celosia argentea*)

Cowpea
(*Vigna unguiculata* subsp. *unguiculata*)

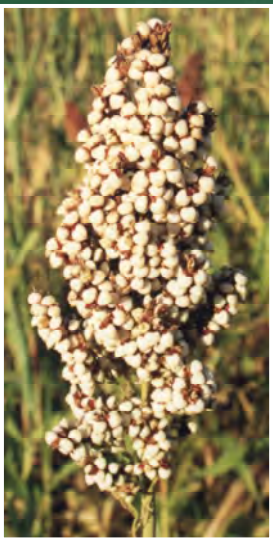


Coping with *Quelea* in sorghum



Quelea are the most common bird in the world and can devastate sorghum crops

Apart from trying to watch sorghum crops for days on end, the only known control is to try to catch the birds in nets in their resting places in the evening – then eating them of course!



Light coloured sorghum gets more bird damage but is also the more nutritious kind of sorghum. Dark coloured sorghums have antinutrients and tannin and are less well liked by people and also birds!



A *Quelea* bird

Pearl millet - *Pennisetum glaucum*



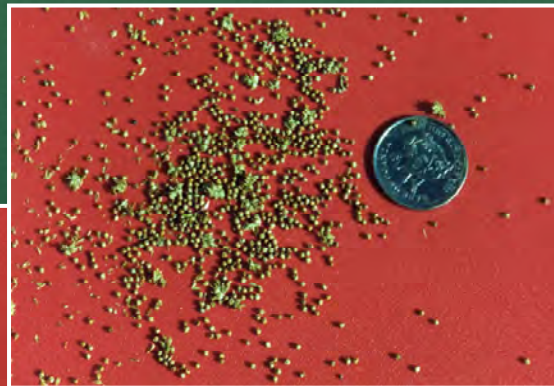
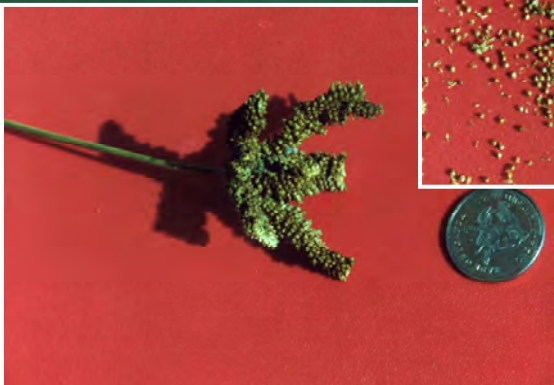
Suits very
arid regions



Finger millet - *Eleusine corocana*



Suits arid regions



Saving your own seed

In many small gardens, corn plants and cobs are small, because the seed is inbred.



You can't save your own seed from hybrid corn



If you get all the seed off one cob, these are all related and will become inbred and small.

Seed from a range of cobs, or better still, from a range of gardens, should be mixed together to stop inbreeding.



Changing plants as soils become poorer is “mining” the ground



Yams need
fertile soil



Taros need
good soil



Chinese taro
survives on
poorer soils



Sweet potato can
grow on moderate
soils



Cassava will
still produce on
poor soils

Tropical root crops



Cassava - *the most common tropical root crop*



Cassava can survive drought and will grow in poor soils but must be well cooked



Virus affected in Africa

Young leaves can be cooked and eaten



Nutritious leaves



Needs cooking to remove cyanide



Amaranth – *an attractive leafy vegetable*



hybridus



cruentus



tricolor

Imbuya

Several different amaranth species occur in Swaziland and are good food.

Seed saving is easy by rubbing the seed heads in your hand (but be careful of the spiny variety!) then blowing the rubbish away.



They grow quickly and leaves can be picked regularly.

The small seeds can be mixed with some dry sand to make it easier to scatter them evenly over a finely prepared garden bed.

Pigeon pea is a good fallow



Pigeon pea will keep growing in the dry season because it puts down deep roots.

Seeds grow easily. Plants can be cut back and allowed to re-grow. It can be used as a hedge.



Cajanus cajan



Pigeon pea is a legume so puts nitrogen back into the soil. The stems are useful firewood.

The leaves, pods and seeds are edible and the leaves can be used for mulch.

Cat's whiskers – *a wonderful vegetable*



A local vegetable far more nutritious than cabbage.

Ulude

Cleome gynandra



It grows quickly after rain.

It will grow in poor soils but does best in fertile soil. Pick the tops out to delay flowering and get more leaves.



Improved kinds are available

Seed are easy to save but grow best if stored for 6 months before sowing. Seed can be scattered over the garden bed.

Vegetable jute



A popular, nutritious annual vegetable that suits warmer lowland areas.

Young leaves can be harvested after 6 weeks and picked 6 - 8 times over the next 3 - 4 months.



Ligusha

Corchorus olitorius

It can grow in a range of soils but is best in moist soils with good levels of organic matter.



The seeds are small and can be mixed with sand to make it easier to broadcast the seeds. Small plants can be transplanted. Seeds are saved from pods for re-planting. A spacing of 30 - 40 cm is suitable.

Fat Hen or Lamb's quarters



Imbilikicane
Chenopodium album



Plants are grown from seed. Seedlings can be transplanted at a spacing of 30 cm. It does well in soils with lots of nitrogen.

A common annual leafy vegetable that is often self-sown at higher altitudes in Swaziland.

Young leaves are cooked and eaten. Seeds are probably best sprouted then eaten.



Cowpeas

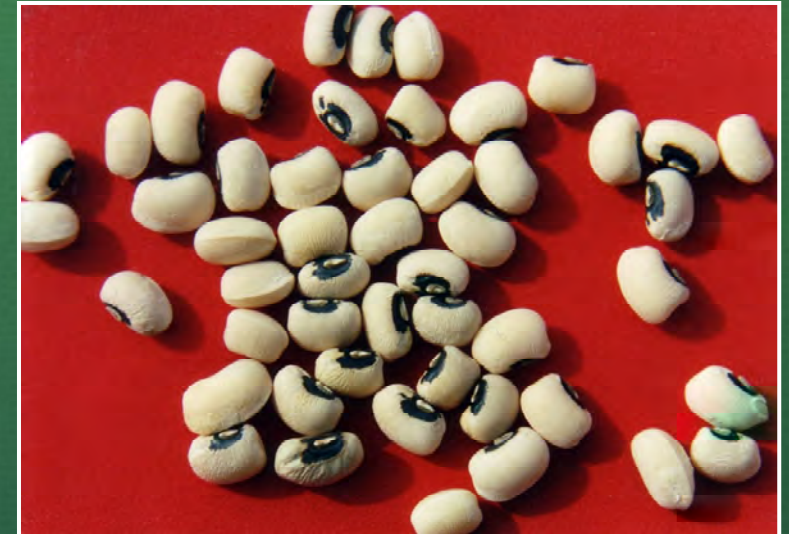


It should be widely used to protect and restore soils.

Tinhlumaya

Vigna unguiculata ssp unguiculata

The young leaves are a nutritious leafy green. The seeds store well and are cooked and eaten. The young pods can be cooked and eaten.



Plants are easily grown from seed. The temperature needs to be above 12°C. It grows well in warm places. It suits semi-arid areas and can be used as a green cover crop.

Black jack



The leaves are commonly eaten in many tropical countries, including Swaziland.

It is claimed it extracts iodine from soils helping overcome iodine deficiency.

Chuchuza

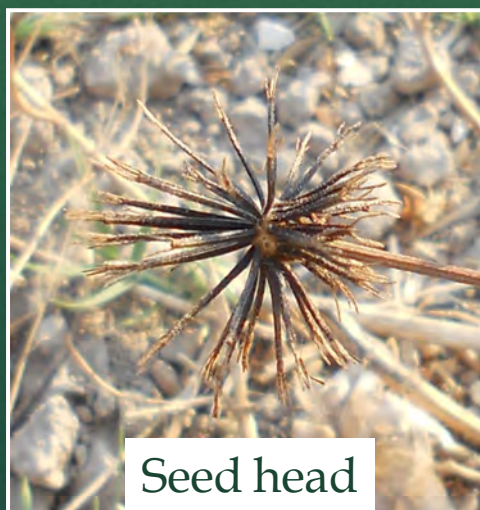
Bidens pilosa



It is almost too easy to collect seeds as they stick in your socks and clothes as you walk around!

It needs moist soil and does not suit dry areas.

Seeds need light and a loose soil to grow. Fertile soils give more leafy plants.



Seed head

Like many leaves, it is best used in a mixture of leaves that are cooked as potherbs.

Black nightshade



The ripe fruit and young leaves are cooked and eaten.

Umsobo
Solanum nigrum



The leaves of Blackberried nightshade are eaten in most tropical countries, including Swaziland, but in temperate countries they are considered poisonous.



In many place this plant is self sown but in others it is cultivated as a food plant simply by scattering the seeds from the ripe fruit. It grows very quickly.

A free book on this important food plant can be found on the IPGRI website

Pumpkins



The seeds are edible raw or roasted and are rich in protein, iron and zinc needed for growth of children.

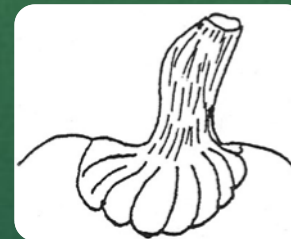
Ematsanga
Cucurbita spp.



In many countries, pumpkins are grown for the young leaves rather than the fruit.



C. maxima



C. moschata

The pumpkin with raised parts near the stalk (*moschata*) suits more tropical climates.



Pumpkins are easily grown from seed saved from the fruit. It is best to save your own seed from pumpkins that are growing locally as these get much less pest and disease.



Taro



Taro leaves

All taro contains oxalates that can burn the throat. Some kinds are avoided.

Taro is an important root crop as well as an attractive leafy vegetable.



Var. *antiquorum*

Emadumbe

Colocasia esculenta

This variety of taro suits places with a long dry season as the leaves die right back and the corm can be stored.

Taro can be grown from the small side corms or from the top of the main corm. Taro is planted at the bottom of a hole, as it grows upwards.



Sweet potato

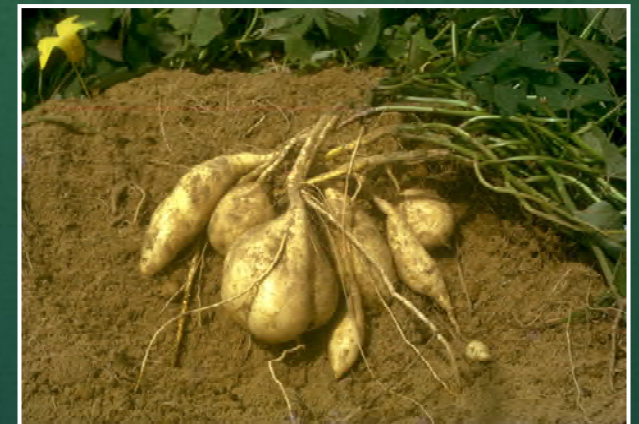
Sweet potato is normally grown from cuttings of the vine. These can be 30 cm long and are often planted in loose soil in a mound.

It needs to be in full sun and requires an acid soil between pH 5.2 - 6.8.



Sweet potato grows well in areas with a temperature between 21 - 26°C. It needs well drained or aerated soils as it will not form tubers in wet or clay soils.

Sweet potato is an important root crop and the leaves can be eaten as a vegetable.



Potato



Potatoes will not form tubers in hot climates. The best temperature is an average of 18°C.



Potato leaves and green potato tubers should not be eaten.



Plants are grown from tubers. Due to virus diseases, it is necessary to get fresh seed tubers every few years. Large tubers can be cut to include a bud or "eye". A seed piece of 40 - 50 g is suitable. It is best to inter-crop as this stops bacterial wilt spreading.



Broad-leaved aloe

It grows in almost desert areas where there are hot summers and cold winters. It needs well-drained soil.

The flowers are eaten cooked with peanuts or added to soup. They can be dried and stored for later use.



This is a traditional vegetable of Swaziland.

Emahala
Aloe saponaria

Plants can be grown from seeds. The seeds are simply spread over a well prepared seed bed. The seedlings can be transplanted after one year.

Peanuts

Maize and peanuts make a good mixed cropping system.



Maize and peanuts make a nutritious meal

The leaves of peanut can be cooked and eaten as well as the tasty underground seeds or nuts.



Arachis hypogea



Peanuts are grown from seeds. They need to be put in a flat, well drained seed bed. They need a temperature between 24 - 33°C. The seeds are planted 2 - 3 cm deep. The plant is pulled up and harvested when the leaves start to dry off. Being a legume, peanuts provide nitrogen for other crops.

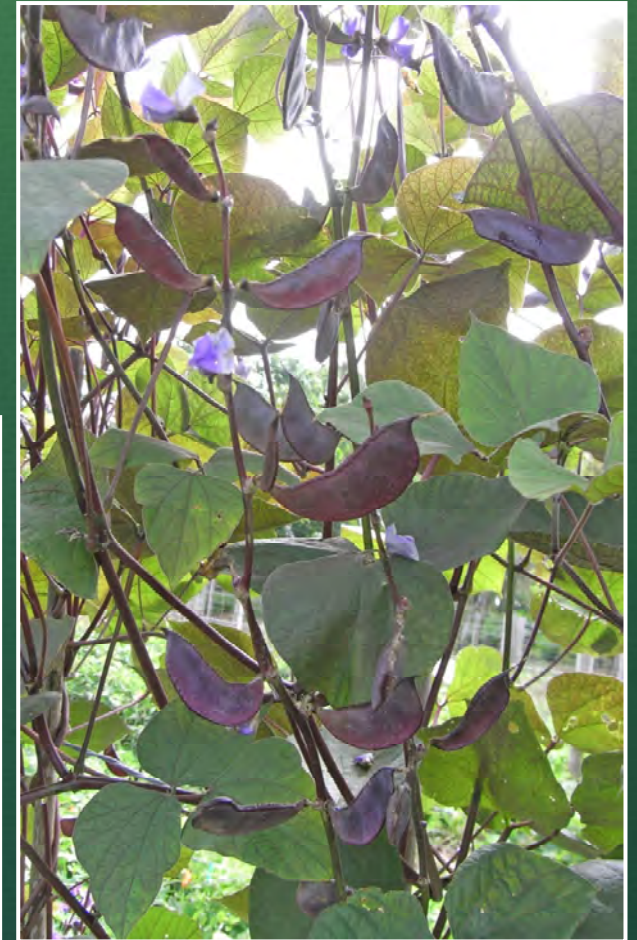


Lablab bean

A subtropical climbing bean that can grow in fairly dry conditions.

Lablab purpureus

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



Okra



Okra is a commonly used vegetable in Africa. The leaves, pods, seeds and flowers are eaten.



Pods and seeds help thicken soups. Leaves can be dried and stored. Leaves and pods are rich in Vitamin A, which is needed for good eyesight.

It needs a temperature between 20 - 36°C and adequate rain.



Plants can be grown from seeds. The seeds are easily collected. Seeds often start to grow more easily if they are soaked for 24 hours before planting.

Abelmoschus esculentus

Key apple



This spiny shrub grows where temperatures are 14 - 22°C. It can withstand drought but not frost.



The ripe fruit are cracked and allowed to rot for one week before the seeds are removed and planted.



Dovyalis caffra

This popular subtropical fruit is rich in Vitamin C. The fruit are acidic and used for desserts and in jams.



Figs



Zulu fig – *Ficus lutea*

There are 20 fig species that provide leaves or fruit for food in Swaziland.



Bark cloth fig – *Ficus natalensis*



Sycamore fig – *Ficus sycamorus*

Most can be grown from seeds and some can be grown from cuttings.



Strangler fig – *Ficus thonningii*

Nutritional information for selected food plants of Swaziland

Common name	Scientific name	Edible part	Moisture	Energy kJ	Protein	Provit A	Provit C	Iron	Zinc
Amaranth	<i>Amaranthus sp.</i>	Leaf, seed	-	-	-	-	-	-	-
Avocado	<i>Persea americana</i>	Fruit	74.4	805	1.8	480	11	0.7	0.7
Bambara groundnut	<i>Vigna subterranea</i>	Seed	-	1572	18.4	-	-	-	-
Bark cloth fig	<i>Ficus natalensis</i>	Fruit	-	-	-	-	-	-	-
Black jack	<i>Bidens pilosa</i>	Leaf, seed	82	239	4.1	-	50	-	-
Blackberried nightshade	<i>Solanum nigrum</i>	Leaf	87	160	4.3	70	20	1	-
Broad bean	<i>Vicia faba</i>	Dried seed	10	1448	26.2	130	16	6.7	1.9
		Fresh seed	76	315	7.1	35	140	1.9	
Broad-leaved aloe	<i>Aloe saponaria</i>	Leaf, flower	-	-	-	-	-	-	-
Bulrush millet	<i>Pennisetum glaucum</i>	Seed	13.5	1363	12.7	-	-	3.5	-
Cabbage	<i>Brassica oleracea v capitata</i>	Leaf	93	125	1.6	1	41	0.8	0.8
		Leaf - raw	93	96	1.5	280	46	0.8	0.2
Carob	<i>Ceratonia siliqua</i>	Seed	6.9	1534	4.8	-	-	-	-
		Pod	11.2	753	6.5	-	-	20.3	20.3
		Flour	11.2	753	1.4	-	-	-	-
		Leaf	-	-	-	-	-	-	-
Cassava	<i>Manihot esculenta</i>	Tuber	62.8	625	1.4	30	15	0.23	0.23
		Leaf	82	382	7.1	57	275	7.6	-
Cat's whiskers	<i>Cleome gynandra</i>	Leaf	86.6	142	4.8	-	26	6	-
Chickpea	<i>Cicer arietinum</i>	Seed	9.9	1362	20.2	190	3	6.4	-
Chilli	<i>Capsicum frutescens</i>	Fruit	74	395	4.1	7140	121	2.9	-
		Leaf	-	-	-	-	-	-	-
Chinese cabbage	<i>Brassica rapa subsp chinensis</i>	Leaf	-	-	-	-	-	-	-

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Common name	Scientific name	Edible part	Moisture	Energy kJ	Protein	Provit A	Provit C	Iron	Zinc
Chinese taro	<i>Xanthosoma sagittifolium</i>	Root	67.1	559	1.6	5	13.6	0.4	0.4
		Leaf	90.6	143	2.5	3300	37	2.0	-
		Shoot	89.0	139	3.1	-	82	0.3	-
Choko	<i>Secium edule</i>	Leaf	91	105	4	151	24	1.4	-
		Boiled fruit	93.4	100	0.6	5	8	0.2	0.3
		Raw fruit	94	80	0.7	15	14	0.4	0.4
		Root	34	34	0.2	4	4	0.1	-
Cock's comb	<i>Celosia argentea</i>	Leaf	84	185	4.7	-	33	7.8	-
		Seed oil	-	-	-	-	-	-	-
Corn	<i>Zea mays</i>	Seed	10.4	1528	10	100	4	409	-
Cowpea	<i>Vigna unguiculata subsp unguiculata</i>	Dry seed	11.2	1189	23.5	-	1.5	6.4	-
		Leaf	88.4	143	4.2	712IU	35	4.7	4.7
		Boiled leaf	91.3	92	4.7	576IU	18	1.1	0.2
Fat Hen or Lamb's quarters	<i>Chenopodium album</i>	Boiled lead	88.9	134	3.2	970 RE	37	0.7	0.7
		Leaf	87.7	113	5.3	33	108	-	-
Finger millet	<i>Eleusine coracana</i>	Seed	11.7	1594	6.2	-	-	5.3	-
Guava	<i>Psidium guajava</i>	Fruit	77.1	238	1.1	60	184	1.4	1.4
Indian spinach	<i>Basella alba</i>	Leaf	85.0	202	5.0	56	100	4.0	-
Jute	<i>Corchorus olitorius</i>	Raw leaf	80.4	244	4.5	6410	80	7.2	-
		Cooked leaf	87.2	155	3.4	519 RE	33	3.1	3.1
Kangkong	<i>Ipomoea aquatica</i>	Leaf	90.3	126	3.9	40	60	4.54	-
		Boiled lead	92.9	84	2.1	520	16	1.3	1.3
Key apple	<i>Dovyalis caffra</i>	Fruit	-	238	0.4	-	-	-	-

Nutritional information for selected food plants of Swaziland

Common name	Scientific name	Edible part	Moisture	Energy kJ	Protein	Provit A	Provit C	Iron	Zinc
Lablab bean	<i>Lablab purpureus</i>	Dry seed	10	1428	22.8	-	Tr	9	-
		Young seed	86.9	209	3.0	14	5.1	0.8	0.8
		Fresh pod	86.7	203	3.9	-	1.0	2.4	-
Lettuce	<i>Lactuca sativa</i>	Leaf	-	-	-	-	-	-	-
Leucaena	<i>Leucaena leucocephala</i>	Leaf	-	-	-	-	-	-	-
Lima beans	<i>Phaseolus lunatus</i>	Seed	12	1407	19.8	Tr	0	5.6	-
		Seed - young	67.2	515	6.8	37	10.1	2.5	2.5
Mango	<i>Mangifera indica</i>	Fruit	83	253	0.5	1200	30	0.5	0.5
		Leaf	82.1	226	3.9	-	60	2.8	-
Moringa	<i>Moringa oleifera</i>	Leaf	76.4	302	5.0	197	165	3.6	-
		Flower	84.2	205	3.3	-	-	5.2	-
		Leaf boiled	87	189	4.7	883	31	2.0	0.2
		Pod – raw	88.2	155	2.1	7	141	0.4	0.4
		Seed	6.5	-	46.6	-	-	-	-
Okra	<i>Abelmoschus esculentus</i>	Seed	9.2	1721	23.7	-	-	-	-
		Leaf	81.0	235	4.4	116	59	0.7	-
		Fresh pod	88.0	151	2.1	185	47	1.2	0.5
		Cooked fruit	90.0	134	1.9	58	16.3	0.5	-
		Raw fruit	90.0	71	2.0	90	25	1.0	-
Peanut	<i>Arachis hypogea</i>	Dried seed	4.5	2364	24.3	0	Tr	2.0	2.0
		Fresh seed	45.0	1394	15.0	Tr	10	1.5	-
		Leaf	78.5	228	4.4	-	-	4.2	-
		Pod	-	-	-	-	-	-	-
		Sprouts	-	-	-	-	-	-	-

Nutritional information for selected food plants of Swaziland

Common name	Scientific name	Edible part	Moisture	Energy kJ	Protein	Provit A	Provit C	Iron	Zinc
Pearl millet	<i>Pennisetum glaucum</i>	Seed	13.5	1363	12.7	-	-	3.5	-
Pigeon pea	<i>Cajanus cajan</i>	Seed	10.0	1449	19.5	55	Tr	15.0	-
		Young pod	64.4	477	8.7	-	-	2.0	-
		Young seed	71.8	464	6.0	13	28.1	1.6	1.6
		Leaf	-	-	-	-	-	-	-
		Sprouts	-	-	-	-	-	-	-
Pineapple	<i>Ananas comosus</i>	Fruit	84.3	194	0.5	60	25	0.4	0.4
		Shoot	-	-	-	-	-	-	-
Potato	<i>Solanum tuberosum</i>	Tuber - baked	71.2	456	2.3	0	12.8	1.4	1.4
		Tuber	77.0	344	2.0	25	21	0.8	0.27
		Leaf	86.1	-	3.4	-	-	-	-
Pumpkin	<i>Cucurbita maxima</i>	Leaf	88	160	4.9	260	28	2.5	0.9
	<i>Cucurbita moschata</i>	Fruit	90	151	1.0	210	15	0.8	0.1
Silver beet	<i>Beta vulgaris v cicla</i>	Leaf	-	-	-	-	-	-	-
Sorghum	<i>Sorghum bicolor</i>	Seed	-	1459	11.1	-	-	-	-
Soybean	<i>Glycine max</i>	Seed	9	1701	33.7	55	-	6.1	-
Strangler fig	<i>Ficus thonningii</i>	Fruit	-	-	-	-	-	-	-
Sweet potato	<i>Ipomoea batatas</i>	Tuber	-	-	-	-	-	-	-
Sycamore fig	<i>Ficus sycamorus</i>	Fruit	-	-	-	-	-	-	-
Tamarind	<i>Tamarindus indica</i>	Fruit	38.7	995	2.3	20	60	1.1	1.1
		Flower	80.0	314	2.5	-	-	1.4	-
		Leaf	78.0	305	3.1	-	-	2.0	-

Nutritional information for selected food plants of Swaziland

Common name	Scientific name	Edible part	Moisture	Energy kJ	Protein	Provit A	Provit C	Iron	Zinc
Taro	<i>Colocasia esculenta var esculenta</i>	Root	66.8	1231	1.96	3	5	0.68	0.68
		Leaf	85.0	210	5.0	57	90	0.62	0.7
		Leaf stalk	93.0	101	0.5	180	13	0.9	-
Vegetable jute	<i>Corchorus olitorius</i>	Leaf - raw	80.4	244	4.5	3410	80	7.2	-
		Leaf - cooked	87.2	155	3.4	519 RE	33	3.1	3.1
Watercress	<i>Rorippa nasturtium-aquaticum</i>	Leaf	95	63	2.4	960	36	3.4	3.4
Watermelon	<i>Citrullus lanatus</i>	Seed	5.1	2330	28.3	0	0	7.3	7.3
		Fruit	94	92	0.4	20	5	0.3	0.1
White rice	<i>Oryza sativa</i>	Seed	11.4	1530	6.4	-	0	1.9	0
Winged bean	<i>Psophocarpus tetragonolobus</i>	Seed	8.5	1764	41.9	0	Tr	15	15
		Root	57.4	619	11.6	0	0	2	1.4
		Seed - young	87.0	205	7.0	13	18.3	1.5	0.4
		Leaf	95.0	197	5.0	809	30	6.2	1.3
		Fresh pod	92.0	105	2.1	-	-	-	-
Yams	<i>Dioscorea spp.</i>	Tuber	67 - 80.7	266 - 520	1.4 - 3.2	17 - 84	2.8 - 107	0.38 - 5.2	0.38 - 5.2
Zulu fig	<i>Ficus lutea</i>	-	-	-	-	-	-	-	-

Food Plants International

Compiling information on food plants of the world and getting the information back to those who need it most

- Information and pictures in this book may be used freely subject to the provisions of the Protocol for Engagement on the Learn♦Grow website: www.learngrow.org
- A powerpoint copy can be supplied for people who wish to translate it into local languages in Swaziland.
Contact: info@learngrow.org
- For technical information contact Bruce R French, 38 West St, Burnie Tasmania, 7320 Australia. Email: bfrench@vision.net.au
- For further information see www.foodplantsinternational.com

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