

Cabbages



If undelivered please return to the Mediae Company, P.O. Box 215- 00502, Karen

So you would like to grow Cabbages?



Winrose

Winrose decided to grow cabbages. Cabbages are a staple food for many Kenyans so there is a good market for cabbages.

Before you start a business, find out if your soil is good for cabbages, and which variety will grow best. Then you can look for a market and do a budget. This will tell you whether your business might work.

Do a Soil Test

Some areas and soils are better for growing cabbages than others. Cabbages do well in cool climates (16-20°C) with rainfall of 1500mm per year. They like well-drained fertile soils with a pH of 6.0-6.5. They grow at almost all altitudes, but prefer 800-2200m above sea level.

Ask **CropNuts** to come and do a soil test. They will take samples of your soil from your shamba to test. They will send you a report which will say:

- How healthy your soil is
- Which fertilizers to add to make your soil better
- Which crops will grow well in your soil.

If you follow the soil test advice, you will save money by using the right type and amount of fertilizer. You will get a bigger and better crop.



Green = nutrient levels are good
Red = nutrient levels are bad

How do you find a market?

Find out the average price of cabbages. You also need to find a buyer. It is better to sell all of your cabbages to 1 buyer.



PRODUCT

Is there a demand for cabbage?

What are others producing?

What does the market expect?



PRICE

What price will you sell at?

Do some varieties make more money?

Can you make a profit?



PLACE

Where will you sell?

Visit local shops, schools, hotels and markets.

Talk to your neighbours.



PROMOTE

How will you advertise?

OLX?

Social media?

Posters and flyers?

How will you water your crop?

Cabbages need adequate water to grow well. You cannot rely on the rains as sometimes they do not come or are not heavy enough.

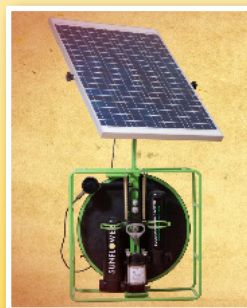
The DLTP Farmers decided to put in a **drip irrigation system** from **SunCulture**. Drip irrigation systems:



- Use less water as the water from the pipe goes directly to the plant roots.
- Water is not wasted on weeds.
- Plants do not get wet and have less fungal diseases.
- Once the drip lines are laid, you just have to turn on the tap when you want to water.

The DLTP farmers also decided to buy a **Futurepump** solar pump together. They saved a lot of money on electricity. The pump works by using energy from the sun. You can even charge your phone for mobile banking!

You can pay off the cost of the **Futurepump** after 3 seasons. After this, your pumping will be free!



How do you do a budget?

A budget is a plan of the income and costs of your business. It is for a specific period of time or a production cycle or season.

1. Find out your costs. Think of all of the things you need to grow cabbages. Think about seeds, fertilizers and water. Find out how much they cost.

2. Work out how much money you will make. Work out how long it will take for you to make money.

3. Work out your PROFIT:

income – costs = total profit

e.g. It costs 79,000/= to grow 1 acre of cabbages. Each acre gives 14,500 cabbage heads. Each cabbage head is sold for 20/=. This is a total income of 290,000/=. Therefore:

expected income of 290,000/= – production costs of 79,000/= = a profit of 211,000/=

Item	Budget
Soil Test	2,500/=
Fertiliser	50,000/=
Seeds	25,000/=
Tools	5,000/=
Labour	50,000/=
Other costs	XXXXX/=

What is a rolling budget?

This is a budget that is updated on a regular basis. It covers the costs for each week or month. It allows you to change your budget as you go along. e.g.

Date	Details	Budget	Money out
Week 2: 1-7 Feb 2017	Fertiliser	4,500/=	4,400/=
	Labour	6,000/=	6,500/=
	Miscellaneous (any costs you did not expect)	5,000/=	2,800/=
	TOTAL	15,500/=	13,700/=
Week 3: 8-15 Feb 2017	Labour	2,500/=	2,500/=
	Miscellaneous	6,000/=	5,500/=

Sometimes prices change. You can change your budget as you go. If your actual expenses are **the same** or **less than** the budgeted expenses, you are on the right track.

Can you afford to start a cabbage business? Do you need a loan?

If you do not have enough money to cover the start-up expenses of your business, you may need to borrow money. Talk to banks and SACCOs. Some loans you can pay back using your mobile phone. Remember that loans are not free. You will have to pay back your loan with **interest**.

Buying Seeds

Royal Seed sells different varieties of seed. They have been bred so they are not affected by diseases. Choose your variety based on your soil test results, climate and what the market wants. Always plant certified seeds. Certified seeds:

1. Give high yields of good quality
2. Are resistant to some pests and diseases
3. They grow fast, at the same rate, and strong.

You will need 30g of seeds for ¼ acre. Buy seeds from agrovet.

Variety	Yields (tonnes per acre)	Matures in	Disease tolerance
Pretoria F1	60	75 days	Fusarium Yellow
Fabiola F1	60	75-80 days	Ringspot, Black Rot
Blue Jays F1	50	55 days	Fusarium Yellow, Black Rot
Copenhagen Market	30-35	65 days	

Set up your Cabbage Nursery

1. Clear all weeds and grass. Dig the soil well.
2. Mix in 1 debe of well-rotted manure. Raise the bed 15-20cm high. It should be 1m wide. Level the bed.
3. Make very shallow furrows less than 0.5cm deep, 20cm apart.
4. Mix seeds with soil, then spread thinly along the furrows.
5. Water with care. Cover the seeds lightly with soil. Mulch with dry grass.
6. After 7 days, take off the mulch and make a raised shade 1m high. Drench the seedlings with **Pearl 50EC** (20ml in 20L of water for ¼ acre) to control early pests.



Prepare your land

As soon as your seeds are planted in your nursery, plough your land. Break up lumps of soil. Mix in well-rotted manure or compost. Use 16 tonnes per acre. Smoothen the soil surface.

Your soil test will tell you which **fertilizers** to add to your soil and how much. **Mavuno Fertilizers** makes fertilizers specifically for green leafy vegetables like cabbage. Buy **Mavuno** fertilizers from agrovet.



Transplant your Seedlings

Transplant seedlings after 4-6 weeks, at 10-12cm tall. They should now have a few true leaves.

Dig planting holes 60cm (2ft) apart in rows 60cm (2ft) apart. If you are using drip irrigation, dig the holes 40cm apart.

Mix 1 bottle top of **Mavuno Green Leafy Vegetables Fertilizer** and a handful of manure with the soil in each hole. You will need 80kg of fertilizer per acre. Plant and **water** the seedling.

Topdress with 1 bottle top CAN per plant when the seedlings are 20cm tall.

Topdress again with 1 bottle top CAN per plant 3 weeks after the last topdress.



Transplant early in the morning (6-10am) or late in the afternoon (4-6pm).

Weeds

Weeds take water and nutrients from your crop. They also hide pests and diseases. Take out weeds when you see them.

You can also use herbicides. Always follow instructions and wear protective gear when using herbicides.

Pests and Diseases



Cutworms

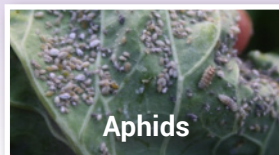
These are black caterpillars that cut stems at the ground level. The plants fall over. To control, spray after transplanting with 20ml **Umeme** in 20L of water.



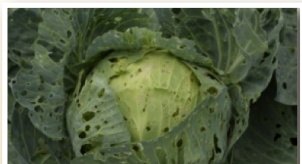
Whiteflies, Aphids, Sawflies, Caterpillars, Black Diamond Moths



Whiteflies are tiny white insects that suck the sap from cabbage leaves. **Aphids** are tiny insects that cause the spinach leaves to fold.



Sawflies, Caterpillars and **Black Diamond Moths** feed on leaves and make holes. They can eat all of your crop.

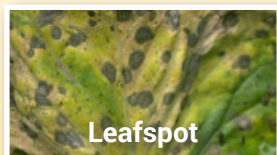


Kill these pests with **Cyclone**. Mix 30ml **Cyclone** in 20L of water in a knapsack.

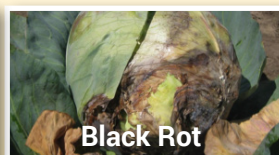


Leafspot, Black Rot and Ringstop

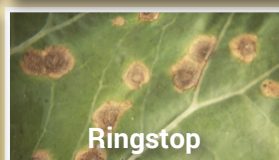
Diseases caused by fungi. Treat with **Sulcop** 50DF. Mix 50g **Sulcop** in 20L of water in a knapsack. Spray the leaves. It works better when it is used to prevent disease.



Leafspot



Black Rot



Ringstop



Damping Off

This disease lives in the soil and causes the crop to dry. Drench with **Pearl** while in the nursery and after transplanting.

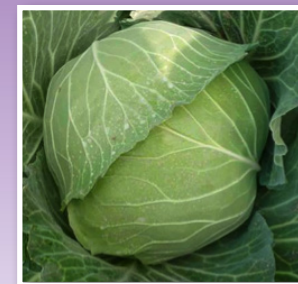
Mix 20ml of **Pearl** in 20L of water.



Harvest

Harvest cabbages when the heads are firm. This will be about 2.5 months after transplanting.

Leave on 3-4 'wrapper leaves' to protect the cabbage and keep it fresh.



Why keep records?

Keeping good crop-growing records will help you to run your business better. Keep records on field history, problems faced, major activities like planting, spraying, diseases, harvesting, etc.

Date	Details	Action
21/02/17	Saw holes in the leaves – caterpillars?	Applied Cyclone.
23/02/17	Heavy rain today	Will delay irrigation for 3 days.
25/02/17	Saw some weeds	Removed and burnt weeds.

What next?

Look back at your budget.

Have you made money from your first crop of cabbages? What mistakes did you make? What have you learnt?

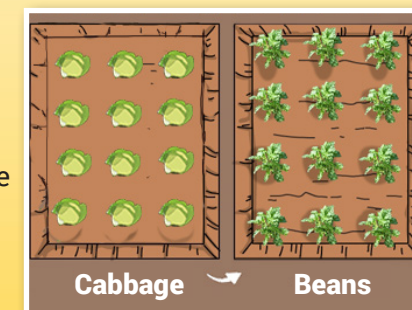


Rotate your crops

Different crops take different nutrients from the soil. They also have different pests and diseases. These can build up if you plant the same crop again and again.

To reduce pests and diseases and to keep your soil healthy, rotate your crops. This is where you plant a crop from a different family. You will have healthier soil and a better crop.

After your cabbage crop, try planting beans, potatoes then maize.



For more information on Cabbages

To get a soil test, call **Daktari Wa Udongo** on +254 790 49919 or send an email to **CropNuts** on support@cropnuts.com to find out the closest field agent in your area.

Contact **Osho Chemicals** on 0711 045000 or email marketing@oshochem.com or SMS 20560.

To purchase cabbage seeds, contact **Royal Seed** on 0734 257635 or email customerservice@khs.co.ke

For drip, mist or solar-powered irrigation systems call **SunCulture** 0700 327002

Contact **Mavuno Fertilizers** on 0702 891893 or email info@mavunofertilizers.com

Contact **Futurepump** on 0796 514409 or email DLTP@futurepump.com

Use our budgeting tool, **Budget Mkononi** on our website www.dontlosetheplot.tv and learn the costs of growing cabbages and how much profit you can make.



Sign up to our mobile service iShamba for expert advice on growing cabbages. Simply SMS the word 'VIJANA' to 21606.

Produced by:



Watch us on Citizen TV, Kenya on:
Thursday 1.30pm (English)
Sunday 1.30pm (Kiswahili)



Watch us on ITV, Tanzania on:
Friday 6.30pm (Kiswahili)

Partners



Follow us on



www.facebook.com/DontLoseThePlot/



[@dltpTV](https://twitter.com/dltpTV)