Irish Potatoes





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

So you would like to grow potatoes?





So you would like to grow potatoes? Winrose and Leah decided to grow potatoes. Potatoes have a good market.

Before you start a business, find out if your soil is good for potatoes, 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.



Leah

Do a Soil Test

Some areas have soils that are better for growing potatoes than others. Before you plan further, find out if potatoes will grow well on your shamba. Potatoes grow best at 1,500-3,000m in a cool climate. They like regular rainfall of about 750mm. They also like slightly acidic, well-drained soils .

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 and if it has diseases or pests.
- Which fertilisers to add to make your soil better and how much to use.
- · Which crops will grow well in your soil.

Follow the advice on your soil test results to save money. You will get a bigger and better harvest.



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

How do you find a market?

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

PRODUCT		PLACE	SALE PROMOTE
Is there a demand for potatoes?	What price will you sell at?	Where will you sell?	How will you advertize?
What are others producing? What does the	Do some varieties make more money?	Visit local shops, schools, hotels and markets.	OLX? Social media?
market expect?	Can you make a profit?	Talk to your neighbours.	Posters and flyers?

How will you water your crop?

Potatoes need water to grow well. Sometimes rains are not enough or do not come at all and you may need to irrigate your crop. Hosepipes and watering cans waste time, water and money.

The DLTP Farmers decided to put in a drip irrigation system from SunCulture. They:



- 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 which reduces 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 potatoes. Think about seeds, fertilisers 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 100,000/= to grow 1 acre of potatoes. Each acre gives 200 bags of potatoes. Each bag is

sold for 1,200/=. This is a total income of 240,000/=. Therefore: **expected income** of 240,000/= – production costs of 100,000/= = a profit of 140,000/=

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:	Fertiliser	4,500/=	4,400/=
1-7 Feb 2017	Labour	6,000/=	6,500/=
	Miscellaneous (any costs you did not expect)	5,000/=	2,800/=
	TOTAL	15,500/=	13,700/=
Week 3:	Labour	2,500/=	2,500/=
8-15 Feb 2017	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 can meet your targets.

Do you need a loan to start your potato business?

If you do not have enough money to cover the start-up and running 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.

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

Which variety should you plant?

Choose your variety based on your soil test results, climate and what the market wants. Always buy certified seed tubers. Certified seeds tubers:

- 1. Grow fast and give high vields
- 2. Are resistant to some pests and diseases
- 3. Ensure that you get the variety you want.

Buy seed tubers that are well sprouted with 4-5 sprouts.

Prepare your land



Your soil test will tell you which fertilisers to add to your soil and how much. Usually you will be told to add an NPK fertiliser at planting. This contains Nitrogen, Phosphorous and Potassium, and sometimes other nutrients too.

Plant your potatoes



Dig rows 75 cm apart and 25 cm deep.

Managing your crop

Weeds take water, nutrients and space from your crop. They also hide pests and diseases. Weed by hand or use a jembe.



When your potato plants are 15-25cm tall, heap soil arould the roots. This gives more space for the tubers to grow big and they are less likely to turn green. Green potatoes do not fetch a good price.

the sprouts upwards.

30 cm

Plant your potatoes 30 cm apart with

Pests and Diseases





Leaf Miners

Leaf miners are insect larvae that live in and eat the leaves of your potatoes. They make white lines on the leaves.



Mix 10g Cyro-Guard with 20L of water in a knapsack. Spray the leaves when you see signs of Leaf miners.

Bacterial Wilt

Bacterial Wilt has no cure. Dig out sick plants with a clump of soil, then burn them away from your healthy crop.

Prevent Bacterial Wilt by:

- Planting only certified seed tubers
- Practising crop rotation
- · Use only clean farming tools.

Blight



Blight is caused by a fungus. Your crop is more likely to get Blight during cold weather.

To prevent Blight mix 40g Oshothane in 20L water & spray every 14 days after germination. To treat Blight, mix 30g Mistress in 20L of water in a knapsack. Spray the plants.







Mix 4g *Final Flight* with 20L of water in a knapsack. Spray when you see Thrips or White fly. Repeat every 10 days.

Kill thrips and white fly with both Nimbecidine and

Thrips and White Fly

Mix 30ml Nimbecidine

with 201 water in a

knapsack. Spray the plants 15 days after

planting. Repeat every

Final Flight.

15-20 davs.



Harvest your Potato Crop

Potato crops usually are ready for harvest after 3-5 months, depending on variety. You will get a higher yield if you leave the potatoes in the ground until they fully mature. Allow the crop to die back naturally.

When fully mature, harvest the potatoes within 2 weeks. Before storing, cure them in the sun for 3-5 days. This helps the skin to harden and reduces diseases.

Store your Potato Crop

Only store clean, dry potatoes. They must have mature skins free from wounds, rots or any diseases.



Store potatoes in a charcoal store until the market is good.

The walls are made of mesh wire packed with charcoal. The charcoal is kept wet by water from a tank. This keeps the store very cold.

Why keep records?

Keeping records of your crop helps you to manage your business better. Each day, write down anything important that happened that day. If there was a problem, record what you did about it.

Date	Details	Action
21/02/17	Saw brown lesions on potato leaf – blight?	Sprayed with Mistress.
23/02/17	Heavy rain today	
25/02/17	Saw some weeds	Removed and burnt weeds.

Rotate 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 (note that Capsicums are in the same family as potatoes).

After your potato crop, plant maize. Then plant cabbages, then beans. After beans you can return to potatoes.

You will have healthier soil and a better crop. Beans and peas are legumes. They are very good for your soil as they add Nitrogen.



What next?

Look back at your budget.

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



For more information on Potatoes

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.

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 tomatoes and how much profit you can make.



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

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