Onions





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

So you would like to grow onions?





Winrose

Ken and Winrose decided to grow onions. Onions have a good market, mature early and are profitable.

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

Ken

Some areas and soils are better for growing onions than others. Onions need soil to be at least 650 mm deep. They like light and well-drained soil. They grow well in acidic soil with a pH of 6.0-6.8.

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.



Green = nutrient levels are good

Red = nutrient levels are bad

A soil test will save you money. It will give you a bigger and better crop.

How do you find a market?



Which variety should you plant?

Choose your variety based on your soil test results. You can buy these varieties from *Royal Seed*:

Variety	Good for	Yields	Matures	Seeds for
		(per acre)	in	1 acre
Red Pinnoy	All areas	25 tonnes	90 days	1.2 kg
Red Creole	Med/low altitude	20 tonnes	150 days	1.2 kg
Bombay Red	All areas	20 tonnes	150 days	1.2 kg
Red Snack F1	All areas	25 tonnes	110 days	1 kg
Texas Grano	Both cool and	21 tonnes	120 days	1.2 kg
	warm climates			

Always buy certified seeds. 95-100% of the seeds will grow, so you will use less seed. Certified seeds also:

- 1. Give high yields.
- 2. Are resistant to diseases
- 3. Have a longer shelf life.

Buy certified seeds from agrovets.



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 onions. 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:

 Amount made Costs = Total profit

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

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e.g. It costs 125,000/= to grow 1 acre of onions. Each acre gives 16,000 kg of onions. Each kg is sold at 30/=. This is a total income of 480,000/=. Therefore: expected income of 480,000/= – production costs of 125,000/= = a profit of 355,000/=.

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. For example:

Date	Details	Budget	Money out
Week 2:	Herbicide	4,500/=	4,400/=
1-7 Feb 2017	Labour	6,000/=	6,500/=
	Miscellaneous (this is any costs you did not expect)	5,000/=	2,800/=
	TOTAL		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 total budget is the same or more than your total money out, you are on the right track.

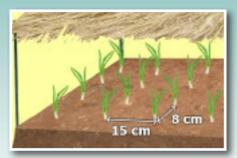
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Can you afford to start an onion business? Do you need a loan?

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.

Set up your Onion Nursery

- 1. Prepare the soil so that there are no lumps. Raised beds will stop seeds being washed away by rain. Dig deep into the bed so the onions can grow good roots.
- 2. 1 week before planting, mix well-rotted manure into the soil. Use 2 buckets of manure per square metre.



- 3. Plant seeds 8 cm apart in rows 15 cm apart. Cover the seeds with soil. Water the seeds. Add dry grass as mulch. This will protect the soil and keep water in.
- 4. Once the seeds germinate, take off the mulch. Spray with **Master 72** and **Oshothion** from **Osho Chemicals** to control nursery pests and diseases.

How will you water your crop?

Onions need water to grow well. You cannot rely on the rains as sometimes they do not come.

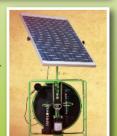
The DLTP Farmers decided to put in a *drip irrigation system* from *SunCulture*. Drip irrigation systems:

- 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.
- 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. 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!





Prepare your land

As soon as your seeds are planted in your nursery, start to prepare your land. Plough your land. Break up lumps of soil. Mix in well-rotted manure. Smooth the soil surface.

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



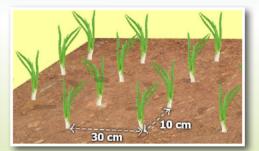
Transplant your seedlings



Transplant seedlings after 4 weeks, or when they are the same thickness as a pencil.



2 hours before transplanting, water the nursery. This is so you can easily remove each seedling with a small clump of soil. Transplant early in the morning (6-10 am) or late in the afternoon (4-6pm).



Start with the strong and healthy seedlings. You can leave the weaker ones in the nursery for longer to grow strong.

Plant the seedlings 10 cm apart in rows 30 cm apart. Plant in holes 1.5 cm deep.

Topdressing

Topdress your seedlings after 21-30 days. Topdress again 42-55 days after transplanting. Apply 120 kg of **CAN** to each acre. Buy **CAN** from agrovets.

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.

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Pests and Diseases





Treat Purple Blotch and Downy Mildew with **Control**.



Mix 12g (1 tablespoon) **Control** with 20L of water in a knapsack. Spray your onion plants 12 every 14 days.



Kill thrips with both **Nimbecidine** and **Final Flight** .

Mix 30ml Nimbecidine with 20L of water in a knapsack. Spray the plants 15 days after planting. Repeat every 15-20 days.





Mix 4g **Final Flight** with 20 litres of water in a knapsack. Spray when you see thrips. Repeat every 10 days.

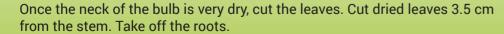
Harvest and Storage

Prepare to harvest when the soil at the base of the plants starts to crack. When 50-75% of the leaves have turned yellow and fallen over.

bend over the rest of the tops.

After a few days, pull the bulbs from the soil. Leave them on the soil surface to begin to cure.

Leave the onions in the sun for 10-14 days.



Grade the bulbs according to shape, size, colour and quality. Store well-cured onion bulbs for up to 6 months in a clean, cool, dark and dry place. Store in net bags, not sacks.

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 a white powder on the leaves – downy mildew?	Applied Control.
23/02/17	Heavy rain today	
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 onions? What mistakes did you make? What have you learnt?



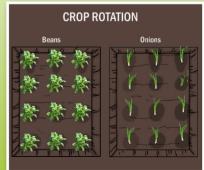
Rotate Crops

After your onion crop, try potatoes or beans. Afterwards, you can return to onions.

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. Beans and peas are very good for your soil as they add **Nitrogen**.



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For more information on Onions

To get a soil test, call *Daktari Wa Udongo* on 0790 499190 or send an email to *CropNuts* on support@cropnuts.com to find the closest field agent in your area.

Contact *Futurepump* on 0796 514 409 or email DLTP@futurepump.com Contact *Royal Seed* on +254 734 257 635.

For drip, mist or solar-powered irrigation systems call *SunCulture* on +254 (0)700 327 002. You can also go to their website to get a quote: http://sunculture.com/request-a-quotation

Contact Osho Chemicals on +254 711 045 000 or SMS 20560.



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

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

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