



FOUNDATIONS FOR FARMING



Revelation to Feed A Nation

The Problem

Africa has 30% of the world's natural resources and some of the best climate, rainfall and soils in the world. Africa has an abundance of arable land. Yet, 35% of the population is chronically undernourished and the whole continent of Africa only contributes 1.3% to the world's produce – it has the same GDP as a small country like Mexico.*

In the last 50 years, Africa has received over US\$ 2,000 billion of aid, yet the number of people living in poverty has increased.

While world grain production has been increasing, Africa's production has remained stagnant.

	1961		2005
USA	4.5 tonnes/ha	<	10 tonnes/ha
ASIA	2 tonnes/ha	<	4.5 tonnes/ha
AFRICA	1 tonne/ha	–	1 tonne/ha
ZIMBABWE	1.5 tonnes/ha	>	0.5 tonnes/ha

*Kofi Annan – World Economic Forum on Africa, February 2008

Why is Africa gripped by poverty and hunger? Why is the situation getting worse despite all the aid being given?

With the use of traditional farming methods, Africa has seen a decrease in yields and an escalation of costs over many years. In a climate where rainfall is often limited to short intense periods, ploughed land is washed away and only a small amount of the available moisture is retained. Traditional methods have sought to extract from the soil without protecting it.



The Solution – Foundations for Farming

Foundations for Farming can reverse these trends because it brings a very effective and appropriate technology and implementation system and deals with the socio-cultural causes of the problem.

It is a natural law that those who are faithful with what they have, gain more. *Foundations for Farming* principles protect and preserve the soil and rain a farmer is given.

In God's natural creation:

- There is no ploughing.
- There is a wonderful mulch cover from fallen leaves and plant material.

**Do not burn.
Do not plough.**

This greatly reduces soil erosion and captures and transfers the precious water effectively to the plants, reducing the risk from drought, pests and disease.



Foundations for Production

The *Foundations for Farming* principles can be applied in the smallest back yard garden to the largest commercial farm. On a small scale all work is manual and requires nothing more technical than a hoe.

Typically, you'll be able to grow sufficient food to:

- Feed your family
- Sell surplus to help buy next year's inputs
- Sell and make a profit and pay for other living expenses
- Give to others

We have testimonies of farmers who, by adopting *Foundations for Farming* methods, have increased their yield over tenfold i.e. 0.3 tonnes to over 3 tonnes.

Profitability is essential for sustained production and development. The only alternative to profitability for survival in the short term is begging or theft, both of which cause poverty in the long term.

Foundations for a Profit

Profitability is possible if you faithfully apply these management principles of doing everything:

1. On Time. Plan ahead. Prepare well. Start early. Never be late!

2. At A High Standard. Do every operation and detail as well as you can with no shortcuts. Be honest and honourable in all you do.

3. Without Wasting. Don't waste time, soil, water, sunlight, seed, nutrients, labour, energy, opportunity etc.

4. With Joy. If you do these first three things faithfully without self pity, complaining, blaming others, making excuses, but with thankfulness, there will be no need for fear and hopelessness and you will have hope and joy which gives you strength.

If Foundations For Farming is applied faithfully, Africa can feed itself.



Foundations for a Successful Crop

Step by step procedure for growing maize

a) Tools Required

- Hoes.
- 5ml, 8ml & 12ml cups or 450ml tin can for manure or compost.
- 75cm measuring stick.
- Measuring string with markers spaced every 60cm.
- Fertilizer or manure or compost.
- Seed.

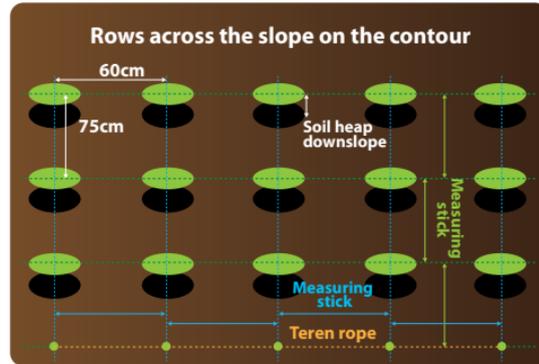
b) Land Preparation

- Do not burn.
- Stump and clear by chopping the plants off at the roots.
- Do not plough.
- Keep weed free.



c) Preparing Planting Stations

- Plant across the slope.
- Hole out 75cm x 60cm.
- Dig holes a hoe width wide and 8cm deep for fertilizer or 15cm deep for manure.
- Place soil heap on downslope side.
- Complete by at least three weeks before expected beginning of the rains i.e. by end of October in Zimbabwe.



d) Liming (Optional)

- This is necessary if you have acidic soils.
- Try to get a soil analysis done if you can.
- The amount of lime necessary will be according to your soil analysis, but 10ml should be a good general amount.
- Place lime evenly across the base of the hole.

e) Fertilisation

- The amount of fertilizer you use will be based on your yield targets and your available resources.
- Ensure that your fertilizer or manure is available by the end of October to apply before the rains.
- If you are going to use inorganic fertilisers, apply a 12ml cup of maize compound fertilizer to each hole.
- If you are going to use manure, compost or ant heap apply a 450ml tin full.
- Place it evenly across the bottom of your hole.
- Cover the fertilizer slightly until you have your required seed planting depth in your hole and wait for the rains.



f) Planting

- Plant after good rains in November, preferably before 25 November. (2 ½ bags of grain per hectare are lost for every day you plant after 25 November – so plant on time!).
- Plant your seed within 2 days of soaking rainfall.
- Your seeds should be planted at a depth, which is the same as the length of a matchbox.
- Place 3 seeds in each hole. These will ultimately be thinned to 2 per hole, which will give a plant population of 44,000 plants/ha.
- Plant in a straight line across the row.
- Cover your seeds carefully with soil until it is level with the surrounding soil surface (no clods or stones over the seeds).
- There should be no mulch in the soil, which is used to cover the seed – full soil to seed contact is vital for seed germination.
- Cover as much of the field as you possibly can with mulch.



**Remember:
Standards = Precision!**

g) Weed Control – Three Vital Principles

- 1 Hoe the weeds when they are very small.
 - 2 Make sure you have a good crop canopy (roof) that shades out the weeds. This is achieved by having high standards and precision of planting holes, seed placement and covering resulting in evenness of growth and a full plant population.
 - 3 Keep weed free **throughout** the year, **especially at the end of the harvest!**
- Hoe just below the surface. Cut off roots – except for creeping grasses which must be sprayed or carried out to effectively eradicate them.

h) Thinning

- Thin to an average of two plants per hole. This is **VERY important!**
- Thin **weakest plant** or middle plant if three emerge.



Only do what you can manage. It is better to do a small piece very well, than a big piece badly.

- Leave three in the hole where one emerges on the previous hole so that there is an average of two per hole.
- ## i) Top Dress Fertiliser (if available)
- Apply a minimum of 5ml of AN fertilizer (or 200ml chicken manure) per planting station about two weeks after emergence when the plants are about 20cm tall.
 - If you are able, apply a second dose of the same amounts just before the maize tassels.
 - Place the dressing a minimum of 5cm from the stem base on the up slope side of the plants.
 - Place it equidistant from each plant in the planting station.



Two Foundations for a Successful Enterprise

1. Faithfulness with Little (Stewardship)

The bible tells a story of a master who entrusted some money to his servants while he was away on a journey. Some of his servants invested the money to earn a profit, while one servant buried the money in the ground and it did not earn profit. When the master returned, he was very pleased with the servants who had earned him a profit and put them in charge of many things. However, he was very angry at the servant who did not use the money to earn a profit, and he took away even the little he had, to give to the other servants.

This story illustrates that when we are faithful with even the little we have we gain more. If we are not faithful we experience loss. If you are faithful with the land you have, even a small piece, and steward it well, you will reap a good reward.

2. Giving Unselfishly

It is a universal law that the more you give into something, the more you will receive. We cannot expect the land to give us a harvest if we have not given to it with some sort of fertilization. Our farming enterprise will become more profitable the more we give of our time, energy & extra effort.

If you are willing to be a good steward, giving of all the resources you have available to you into your farming enterprise, you can become one of the best farmers in the world!

The Foundation

Foundations for Farming started many years ago when the farm which Brian Oldreive was managing in the North of Zimbabwe was nearing bankruptcy. Burning and deep soil inversion were common practice on the farm causing terrible sheet erosion to occur resulting in loss of seed and water. Increasing amounts of money were being spent on the machinery required for ploughing and double rollings of the lands, and yet the yields were declining.

Being a man of faith, Brian asked God to reveal a way for him to get out of the dire situation he found himself in. God began to reveal to him that in natural creation there is no deep soil inversion and that a thick 'blanket' of fallen leaves and grass covers the surface of the soil. This led him to research how he could apply these ways of nature to his farming. He began to experiment with Zero-Tillage using a simple hoe on 2 hectares at the highest standards possible. The results were outstanding and so he had the faith to increase the hectareage under

Zero-Tillage. Within six years the whole farm of 1,000 hectares was under minimum tillage and in subsequent years, due to the yearly profits from then on, other farms were bought and he oversaw the farming of 3,500 hectares. The success of the principles we advocate in this pamphlet are undeniable in his life's testimony.

Foundations for Farming was born out of a man basing his farming and life on the foundations found in God's word, the Bible. If you would like to find out more about these foundations, why don't you read the Bible for yourself? We recommend that you start by reading these verses:

Proverbs 3:5-6
Isaiah 58
Matthew 25:14-30
Luke 6:38
John 14:6-7
Romans 3:23
Romans 6:23



Foundations for Farming seeks to see the wonderful potential of the continent of Africa reached through the faithful stewardship of the land. Every great nation was built on the effective and productive use of the land and we believe this is the starting point for Africa too.

Contact *Foundations for Farming*

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