

## FREQUENTLY ASKED QUESTIONS



### **COUCH GRASS: What do I do about couch grass? (kapinga)**

Couch grass must be dug up and carried off the land or be killed with glyphosat herbicide (Roundup).

### **DISEASES: see PESTS**

### **FERTILISER: What if I don't have fertiliser?**

Use compost, manure or antheap as substitute in the hole. Don't spread it over the field. Put it in the hole only. Jam tin size. There is more information available from Foundations for Farming on how to make compost.

### **FERTILISER: What if there are no anthills, compost or manure in my area?**

Move out of the desert! If there aren't any of these in your area then it is likely that there is no other plant life either, so it won't be a good idea to plant a crop here.

### **FERTILISER: If I haven't got AN fertiliser how can I topdress my crop?**

Topdress with chicken manure, if you've got, which is high in nitrogen. You can use a chicken manure tea very effectively, which makes it go further.

### **GROUNDNUTS: How can I plant groundnuts with 75cm row spacing?**

One row every 75cm is an insufficient density for groundnuts to peg into the soil. The answer is to plant down the 75cm row and then place another parallel line either side of that 15cm from the centre line. This forms a bed that gives the cover to facilitate the pegging.

### **INTERCROPPING: What about intercropping – don't we see that in Creation?**

In the Bible God says don't mix your seed in the same field (Lev 17:17) which shows God is talking about a systematic way of doing things. It is also an unnecessary sophistication that deviates the novice from the basic principles of management. If we give too many of these sophisticated interventions, they can be overwhelming. It is better to teach management skills by building on the blocks of the basic management principles. When one has reached an adequate level of management one can then consider more complex interventions.

### **MULCH: How can I mulch my crop with a communal grazing scheme?**

Fence your field to keep other people's cattle out. But if you do that you are often seen as being antisocial and contradicting the custom and most often the fences will be cut down and cattle allowed to enter it. The answer is to have faith that we can change this cultural norm. The only way to do this is to demonstrate the incredible value of mulch by taking a small piece of land near your homestead and putting on high levels of mulch and defending it with all you have. Then at the end of the season you invite your local headman and councillor to see the substantial benefits of mulching. Persevere with this process, having faith that eventually your community will voluntarily overturn the cultural norm. (Offer to buy your neighbour's mulch and he will wonder why it is so valuable, and maybe soon not want his cattle to eat it!)

### **MULCH: When should I put my mulch on my crop?**

As early as possible, preferably by using your crop residue from your previous crop, from harvesting time onwards. It is very important to have God's blanket throughout the dry season.

### **OTHER CROPS: Can Foundations for Farming apply to other crops and livestock?**

Yes because all crops have been created by God for man and there was never any ploughing in God's natural creation at the time. The same principles (on time, to standard, minimum wastage, with joy, being faithful with little, giving to receive) apply to livestock as well, and by observing what God does in nature.

### **PESTS: Don't you get a build-up of pests and diseases if you don't plough and burn?**

No, the converse happens. You get LESS pests and diseases because your plants are healthier and less stressed. Pests and diseases are attracted to stressed plants which have less resistance to disease.

### **PLANTING: In Creation, the trees aren't in a straight line, why do you talk about planting in straight lines?**

Straight lines really just facilitate ease of management. God is a God of order. We see this from the way He gave such precise and detailed dimensions and instructions for building the temple and Noah's Ark etc. This orderliness and accuracy is a way of teaching standards into our nation, which glorifies God. Some aspects of nature illustrate the character of God, but you can't take the analogy too far.

### **PLANTING (Dry): What about dry planting before the rains?**

We do not recommend it because of the extra risk involved. If you plant before the rains, you might receive just enough rain to germinate but not to sustain the plant until the full rains. Also, you might just wet your seed just enough so it swells but doesn't germinate, so you lose your seed. Be ready to plant at the first effective rain.

### **PLOUGH: Why does the Bible talk about the plough?**

Often these words of Jesus are quoted in the gospels: "Do not take your hand off the plough and look back". Jesus didn't come to teach us about technology, and secondly ploughing in those days was done at a very shallow level – it was just like scratching the soil surface. The objective was to achieve seed to soil contact. If your seed drops onto mulch, or God's blanket, it will dry up before it germinates. So you break the fallow ground to get the seed to soil contact. That is why we make small holes so that we can place our fertiliser underneath the seed and make sure of our seed to soil contact. It is deep inversion ploughing that is so destructive. Scratching the soil surface emulates the way the sharp hooped antelope scarify the soil and push the seeds into the profile. That is why God made antelope with small sharp hoofs.

### **PLOUGH: If my soil is very, very hard, should I rip or plough first?**

From many years of experience, we have found this not to be necessary if mulch is brought into the system. If you have very little mulch, ripping down the 75cm rows just below the plough pan will be sufficient.

**PLOUGH: Won't my field become compacted if I don't plough?**

No. It is actually ploughing that causes compaction because you're breaking the soil structure and breaking the root anchorage. Therefore there is nothing that holds the soil up when it rains, and the soil gets very heavy and it slumps, causing compaction. This forces you to plough again next year, and you get stuck in a vicious cycle of ploughing, which keeps compacting the soil.

**PLOUGH PANS: What about plough pans?**

It is not necessary to break the plough pan, but again it is important to have a good mulch cover, which captures our rainfall and infiltrates it downwards quickly to soften the plough pan, allowing the roots to finish the breaking process.

**RAINFALL: How much rain do I need before I can start to plant?**

Providing adequate rain has fallen, the most reliable optimum planting date in most areas in Zimbabwe is about the 25th November. However, with the better preparation and soil moisture retention techniques, an earlier planting date could be considered. This would increase yield potential due to the increased accumulated heat units available to the crop. However, up until the first week in November you should only consider planting if a total of over 100mm rain has fallen.

Oct 10 – Nov 5	Nov 5 – Nov 15	Nov 15 – Nov 25	Nov 25 – Dec 5	Dec 5 →
100mm	85mm	70mm	50mm	25-35mm

**SEED: What are the advantages of OPV seed over hybrid seeds?**

OPV seed is half the cost of hybrid seeds. They have an 18% lower potential yield than hybrids. However, if you select the seed from the centre of your field you can use that same seed for 3 consecutive years after the first generation. This means in the end, per year, it is one eighth of the price of a hybrid. The 18% yield deficit is not a serious factor at the lower-to-medium yield levels.

**SEEDS: Should I soak my seeds before planting?**

No. The extra risk of losing your seeds is not worth the benefit, if any.

**SIZE OF PLOT: What size plot do I need in order to feed my family?**

A 50mx50m plot can easily yield you 1500kg per annum which can easily feed a large family.

**STALK BORER: What about stalk borer?**

The stalk borer life cycle can be broken by slapping over your maize stalk right at ground level during the harvesting process. The stalk borer pupates just above ground level in the upright stalk. If the stalk is broken more than 4cm above the ground, the pupa survives to pupate into the moth and so the cycle continues. But if the stalk is broken down at less than 4cm above the ground, and lies horizontally on the soil surface, the pupa gets exposed to the sun and dies.

**TERMITES: What about termites? Aren't you encouraging too many termites to take your crop out by using mulch?**

Termites are your friends! Termites prefer dead tissue to living tissue. If you don't have any mulch then the termites might attack your blooming plants. In twenty years of experience with FFF in many countries in Africa, termites have never been a problem when adequate amounts of mulch are placed on the ground. When the stalks of the mulch are eaten, the termites leave little tubes of soil on the surface, which also act as an insulation and a cushion to break the impact of the

raindrops. The termites take the dead plant material into the soil profile, thereby increasing its organic matter levels, which increases the fertility of the soil.

**TOP DRESSING: What about a second top dressing?**

A second top dressing is only necessary on very sandy soils in very wet seasons where any applied nitrogen would have leached out of the profile. In all other situations, it is better to put down all your top dressing within three weeks of crop emergence.

**VIRGIN LAND: How do you open up virgin land that has never been used before?**

You carefully stump out the trees and remove the roots, preferably putting your topsoil in an outer circle around the tree stump. Then you put your subsoil on the inner circle. You return the subsoil to the bottom when you refill the hole, and your topsoil back on top where it's meant to be. You then chop your wood and carry it off. Also remove any brushwood, scrub bush and perennial plants. Chop the grass and any annual weeds and spread them evenly as mulch right there. Fill in any animal burrowings and level off reasonably by hand. Finally, plant straight into that lovely soil that has never been inverted for hundreds of years.

**WATER LOGGING: Surely in a wet season you will capture too much moisture causing water logging?**

The reverse is true because you have maintained your soil structure by not ploughing. You get better drainage and more aeration and you get less water sitting in pools, which create anaerobic conditions.

**WEEDS: Won't weeds increase if I don't plough?**

The opposite happens because when we plough we bury seeds into the profile at different levels and it builds up a reservoir of seed in the profile that germinate for many years to come because seeds can remain dormant in the soil for up to forty years. If you don't plough, all seed deposit is on the surface and you deal with them by continually hoeing.