Growing Gut Food

Colin Austin 1st Aug 2022

Overview

Growers breed beneficial microbes in organic matter in the soil, also adding rock dust which is broken down by the microbes into accessible minerals forming nutrient rich biologically active soil.

This soil is placed into Bioboxes which are seeded and plants grown. The microbes and minerals enter the plants we eat. The boxes are supplied to customers who harvest and eat the plants full of living microbes to enhance the gut brain which controls appetite, manages replacement of body part as they age and wear and host much of the immune system.

Our gut brain is the key to good health.

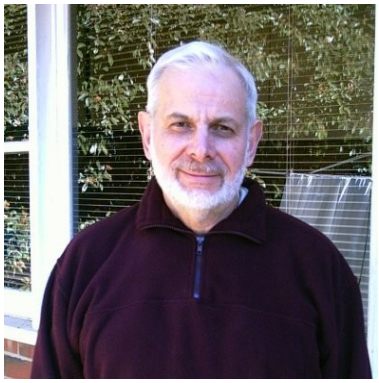
Consumer get gut food which is genuinely health at an affordable price, growers get paid for what they like doing while the Gbiota team provide the technology of growing gut food.

What we urgently need are growers who can supply their local community. Get a copy of the booklet below.

Food for Health

How to thrive, be fit and healthy in the future crazy world

Abstract



Colin Austin was selected by the Institute of Engineers as among the top one hundred innovators in Australia for his pioneering work on Computer Aided Engineering. But he started life with people, largely women digging up their lawns to grow food in the Victory gardens which supplied some 40% of fresh food in the war.

He now sees the supply of food that will make us healthy as the critical challenge of our era. He says while we have

made dramatic increases in food production, with the advent of chemical industrial farming our food is lacking the essential ingredients for health.

We need to feed our gut brain which is our regulator and protector. We face the threat 24/7 from some infectious disease, maybe a cold, flue, Covid, Monkey pox or something totally new or from an internal threat - accumulation of fat in our pancreas causing diabetes, our arteries causing heart attack or our brain causing dementia.

Poor diet is not the cause - it just removes our protective shield.

He says we need a two pronged approach, the technology of growing food that will make us thrive and be fit and healthy plus changing to a local community based food system which provides food with the essential minerals and living biota that form our gut brain which controls out appetite, replaces our body parts and hosts much of our immune system.

You can read this now - delay until you are waiting in hospital to have your leg removed from diabetes - but leave it too long and a heart attack or dementia will mean it is too late.

Visit his web site www.gbiota.com

Health start in the soil

Summary

The aim of the Gbiota team is to provide expertise on how to grow food that leads to good health.

The basic technology is straight forward - just add essential minerals to the soil, breed beneficial biota in organic matter and carefully control the moisture level by a system of partial flood, drain and wicking action, then grow selected plants. But there are two fundamental issues.

Taste and food cravings

The bulk of the food we eat is for energy - it is just fuel - largely sugars, fats and carbs. In our evolution we were short of energy food so we evolved to crave energy food. Today our modern food system provides us with ample energy food - but we still have the cravings for energy food.

But we also need a whole range of complex chemicals, minerals, vitamins, phytonutrients, micro-biota etc which are not burned as fuel but from part of our bodies - we call these gut food.

In the young soils in our evolution these were abundant so we did not develop a natural craving for these foods - just a craving for energy food, sugars, fats and carbs. This is at the core of our modern health problems.

Given the choice of cheese cake or boiled Brussels Sprouts most people go for the cheese cake. But our gut brain detects the deficiencies and send out signals so we eat more - typically more sugary, fatty food.

This actually changes our gut biota, which makes us crave yet more sugary fatty food.

This is the core reason for lower health levels and the increase in non-infectious or chronic diseases like diabetes.

It is pointless just growing really healthy food if no one eats it so we have to make the food really tasty so people actually want to eat it. Variety is the key - I grow some 27 different varieties, both vegetables and herbs. When added to a conventional sugar fatty food it adds both flavour and health benefits.

Fresh and living

Healthy food contains a mix of complex chemicals and living biota which happily breed away inside the plants. When the plants are picked they start to deteriorate, within twenty four hours of harvesting some critical components will have dropped to half.

Fresh has come to mean not gone rotten which is very different from eating ‘living’ food.

The conventional food system with mega farms and long distribution systems simply cannot deliver food before this deterioration has become significant.

This is fine for home growers but how do we make ‘just harvested’ plants widely available to the non-gardeners?

This is the major challenge facing the Gbiota food movement. We need a system of setting up local food systems where customer can pick and eat before the critical components deteriorate.

Become a Gbiota™ grower

This article aims to give an overview of the gbiota technology and how the local food community system works.

It is not intended as an instruction manual.

This detailed technical information is available to registered Gbiota™ Growers who are expected to follow the guide lines to ensure that quality is preserved. Having assured quality benefits both customers and growers.

The Gbiota team role is to support the growers with technical and umbrella marketing services - we are not in the business of supplying Gbiota produce.

Introduction

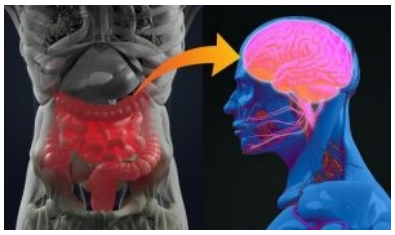
Despite what they try and tell you health does not come from some health bar full of sugars and fats - nor does it come from an extract from a plant in some remote corner of the world.

Adverts may say its existence was revealed by the last remaining monk who happened to die last Wednesday but passed the magic secret on to an executive of some mega company who just happened to be hacking his way through the jungle and just five jars are available on special.

The Internet may be one of the greatest innovations of our era but it has been taken over by the modern version of the snake oil salesman.

Simply eat real food grown in real soil and don't be taken in by the manipulative marketing.

Health starts in the soil



Health start in the soil and the trillions of microscopic creatures that make dirt into soil. These minute bugs process the minerals essential for our health so they are available in our food and they enter the plants which we eat where they form part of our gut brain which controls our body. They are essential for life.

The fake world

In our fake world of manipulated promotions and famous celebrities we have been destroying the very microbes that make real soil and allow life to flourish.

This fake world may feel a lovely comfortable place to stay, but every twelve seconds someone has a limb amputated from diabetes.

But if you are ready to move on from this fake world we can regenerate soil to grow real food to keep us healthy.

We can breed these beneficial microbes in waste food, organics and manure so they can regenerate real soil to make us healthy.

It is not so comfortable as the fake world, there are no famous celebrities whose job is just to be famous but if you can handle the thought of rotting fish heads and chicken manure then welcome to the real world - and you may just keep your leg or fight off Covid.

So let me start with the story of soil.

The story of soil

A long time ago (actually four billion years)

When the earth was first formed, some four billion years ago, is was just rocks which contained a broad spectrum of minerals.

Microbes very slowly broke these rocks down forming soil but it was very slow as there was no energy to drive the system.

But eventually - after some three billion years there was enough soil produced for plant for plants to grow leading to the greatest innovation of all time - photosynthesis. The plants would take the energy from the sun to make sugars which they exuded from their roots which fed the soil microbes leading to an explosion in the growth of soil.

Rocks are insoluble so we can't digest them but the soil biota break them down turning the minerals into soluble compounds animals, like us can digest.

Food cravings

Animals appeared that ate the plants then other animals that ate the animals that ate the plants. Eventually our ancestors appeared which did both. They were a successful creature - we had abundant food for our bodies (I am going to call this gut food) but we needed energy food - sugars and fats - so we evolved to crave sugary fatty foods which was in short supply - but did not develop cravings for gut food, which was abundant.

Hello agriculture

Then we developed agriculture which increased our supply of energy food but the soil was still young so there was plenty of microbes in the soil to continue to break down the rocks and release the minerals.

Agriculture led to cities with large populations where disease could readily spread and babies and young people died at an incredible rate - four out of five people would die before reaching adult hood. Those that survived lived a long life.

The prime cause of death was infectious diseases which killed the young.

They will tell you that the average age at death was 32 and that is **technically** true. It is just that so many people died really young it shifted the average - those that lived into adulthood had a long life. Very few people dies aged 32, That statistics for you.

Missing minerals

We grew plants in this soil and over many years the minerals in the soil became depleted, but we learned we could use chemicals to fertilise the plants.

It worked and modern chemical industrial agriculture was borne. But diseases like diabetes, heart attacks and dementia increased.

Widely reported deficits in a modern diet

Elements needed by plants	
Elements available from the air or water	carbon, oxygen, hydrogen
Primary elements from the soil	N, P, K
Secondary elements	Ca ,Mg, S
Trace elements	Mn, Fe, B, Zn, Cu, Mo, Cl, Co
Widely reported dietary deficits	
Elements needed by plants but we may need higher doses	Ca, Mg, Zn, Fe ,Cu
Essential extra elements needed for health	Selenium, Iodine, Vanadium, Chromium
Vitamins humans are generally short of	Omega 3, B12, B6, E, K

Then after the second world war we developed synthetic fertilisers creating the chemical industrial agricultural revolution which increased agricultural output dramatically.

But it killed of the microbes in the soil so the rocks were no longer being broken down to release minerals. Farmers compensated by using chemical fertilisers containing the minerals to grow the plants.

But we need more minerals than plants do so we became deficient in certain minerals.

You are probably aware you are low in Magnesium because the majority of the population are low in Magnesium.

If you are a female you probably also realise that you could be low in iron.

If you are male then you may not have caught up with the sniggering that if you are a sexually active male that one night of happy frolicking can deplete your zinc reserves. That is bad as zinc is important to our immune systems.

But the choice is not just between Covid or a happy night. By modifying your diet, you can ingest more zinc together with all the other minerals - magnesium, calcium, zinc, iron, copper, selenium, iodine, vanadium and chromium that are essential for health - all readily available from volcanic rock dust.

And no - you do not need you own private volcano - volcanic rock dust it readily available and it continuously being replaced - totally sustainable - as are the other key inputs - waste food and organics and manures.

But these shortage of minerals are something new - there used to be plenty of minerals in our food and we evolved with them over hundreds of thousands of years.

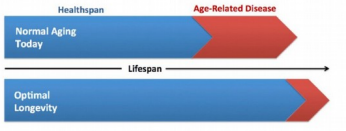
Food balance

There is nothing wrong with eating energy food, even though sugars, fats and carbs are considered harmful. We need energy and could not survive without energy food. But we also need, in much smaller quantities, gut food - the mineral, vitamins and living biota which are essential for health.

It is a question of ratios. If we don't eat enough gut food out gut brain senses the deficiency and send out signals for us to eat more. And if we just eat more energy food we will still not feel satisfied and will eat yet more which is the road to chronic diseases.

Our Gut Biota (they really matter)

Even more important - the microbes in the soil enter the plant which we eat and forms our gut brain which controlled our bodies. Out gut brain regulates our appetite, replaces our body parts as they wear and age and hosts our immune system.



Medical science is continuously improving and we have gained control over many infectious diseases. The main cause of death swapped from infectious disease to non infectious, or chronic, diseases like diabetes, heart attacks and dementia. (That just changed with Covid, hopefully only temporarily).

On balance our life span did not change that much but our health span reduced.

Cussed Covid

Then along came Cussed Covid and changed the rule book and we went back to the old pattern where infectious diseases killed more people that chronic or non infectious diseases.

Does that blow my argument that we should be eating food grown in mineral rich, biologically active soil? Well exactly the opposite. Doctors wanted to know why some people died of Covid while others seemed to dash around like normal even though they had Covid.

As expected they found that people who were fully vaccinated tended not to die. Lucky for them - they whole medical profession would have looked a bit of a dork if vaccination increase the risk of death. But they found two other factors - diet and stress.

Stress was expected - as it is well known that when stressed our bodies get flooded with cortisol which shuts down our immune system. Evolution had decided that if you were being chased by a hungry tiger looking for an easy meal - which is generally stressful - that it is better to shut down anything that is not needed and run that bit faster.

Diet also was a major factor, people eating a poor diet - high in sugars and fats - low in nutrients - were prone to dying from Covid.

That was also expected, we already knew that our Gut Biota is an important contributor to our immune system.

Whichever way we look at it - eating healthy food grown in healthy soil leads to a healthy gut leads which in turn leads to a healthy body.

Do I really have to spend half this article saying the bleeding obvious? Lets get down to the real issue - how to get real healthy food.

The three big challenges

OK we know what we have to do - sounds so simple - just persuade people to eat plants grown in nutrient rich, biologically active soil. How can that be difficult?

There are three problems

- to work out how to make the nutrient rich biologically active soil and make the plants readily available at an affordable price

- to show that it actually works

- to persuade people to change their diets.

Making nutrient rich biologically active soil

This should not be a problem because that is exactly what has been happening in nature for thousands of years.

The snag is that it takes centuries to make soil naturally - it is a slow process and with our modern chemical agricultural system we are using it up much faster than it is being made.

But we do understand the process and with a bit of smarts and controlling the conditions we can make healthy soil much faster.

We need minerals - it is easy enough to get the minerals - there is plenty of volcanic rock (and it keeps on popping up) with a broad spectrum of the needed minerals.

But that is pretty useless as it is not soluble so we need the microbes to break down the rocks to form the complex soluble compounds we need.

We need the microbes to break down the rocks.

Microbes are particularly randy, making rabbits look like nuns - all we have to do is feed them and create the conditions for them to breed.

Food waste is particularly good for breeding the microbes but virtually any waste organic material will work. To get the process to work fast we need nitrogen and we can readily get that from manure.

Getting a load of food waste, manure and rock dust is not exactly rocket science.

But there are thousands of different sorts of microbes and we just want the beneficial ones and to do that we have to control the conditions. We need the right moisture level - not too wet and not too dry, Goldilocks moisture and we must keep it moving so it does not become stagnant.

But this is what I do - in my younger days I was a pioneer of the computer simulation of fluid flow and if I am honest this is really pretty simple to do with the partial flood and drain and wicking system that is really at the centre of the Gbiota technology.

I and many growers have been using this for years - it works fine - so we can tick this problem of making soil and growing plants off the list of problems to solve.

Proving it works

We live in the digital age which unfortunately has been hijacked - particularly by companies trying to convince people that their product - whether it is some health bar, packaged food or some bland looking pill is actually healthy - even though it is not.

Modern advertising is very effective, clever manipulation based on psychology - very effective but people are now getting very cynical and are looking for sound evidence.

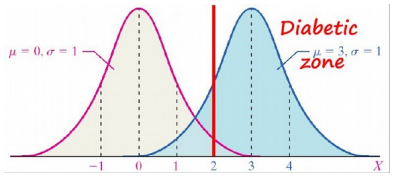
The sort of question people will ask is

- how do I know that eating real food grown in real soil will actually make me have a longer health span (and live longer)?

- how do I know that this will stop them chopping my leg off as it turns black from diabetes?

- how do I know it will prevent me getting dementia or any of the classic chronic diseases.

- how do I know that it will reduce the risk of dying from Cussed Covid.



People may be interested in general trends but they really want the answer to is how it affects **them**, and people are very different so it is virtually impossible to answer for single individual. Statistics and probabilities are just not convincing.

The question is ‘How will it work for me?’

It is next to impossible even to even show a statistical trend. Fancy trying to get volunteers for that gold standard double blind test with one group eating hamburgers the other group eating real plants, blasting Covid viruses up their noses and counting the number of dead bodies.

But there is one very simple experiment we can do which gives information on a specific individual - and that is to monitor food cravings. Our gut brain is smart enough to send out food craving signals when it decides we are not getting the right sort of food.

That is the primary mechanism why people become overweight - their gut brain says I am not being fed properly with the right balance of energy to gut foods, so it says - go out and eat more and more - and if that more is yet more energy food - sugars and fats - then people get fat and sick.

Answering the 'will it work for me' question.

It is however straight forward to carry out a test to see how a particular individual will respond.

Our gut Biota has a short life so it only takes a couple of weeks to find out if the food cravings have disappeared. If this works for a particular individual it is obviously sensible for them to keep on eating that diet.

But food craving are a complex issue.

Much of our modern highly processed food contains flavouring which are addictive (don't ask me to make a polite comment on the ethics of that).

The food industry spends a lot of big money on promotion and they do it very well using all the techniques of psychological advertising to convince us to buy their food.

Then unfortunately there are people like me (sorry to say) - I can look at the last piece of cheese cake and it will hypnotise me so I have no option but to put it out of its misery and into my tummy.

That is why I have a good swig of my green smoothie before putting myself under temptation.

This may not satisfy the most fastidious academic but it really boils down to a personal decision - do I want to reduce the risk of them chopping my leg off from diabetes and becoming decrepit in my older years or do I start eating real food now?

If the answer is yes we have to move onto mechanics of developing a 'real' food supply chain.

Changing the food system (or a bit of it anyway)

The key issue is that the beneficial biota and some of the phyto-nutrients in the plant will begin to deteriorate as soon as the plant is picked.

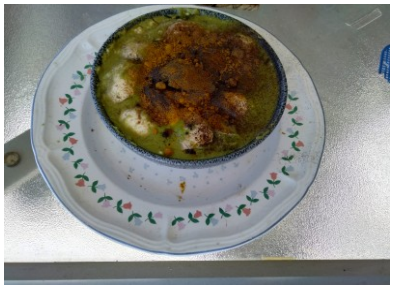
Fresh is a misused word - it has come to mean not gone rotten - we really need a new word which means still maintaining its original nutrients.

How about we use the word ‘living food’ meaning that the micro-biota in the food is still alive.

This is where the conventional food chain fails.

The conventional food chain having large farms supplying over long distances certainly aims to provide food that has not gone rotten - but simply cannot supply living food eg before the micro-biota and the nutrients degenerate - what I call gut food.

But it is very good at supplying energy food - sugars, fats, and carbs. We need lots of energy food, it is just fuel and it does not matter whether it is old or new - as long as it has not gone rotten.



Energy is by far the largest component of the food we need - at least 80% - probably more. The supply chain is already there and working fine - so why change it - at least for now? What we should focus on is gut food which may only be a small part of our diet but is absolutely critical.

It comes down to this ratio of gut food to energy food. It can be as simple as sprinkling freshly cut leaves onto a traditional meal. There is a whole area of technology on how plants can act as sugar blockers and slow down the absorption of sugars into the blood stream which leads to sugar spikes.

Just Google sugar blockers but there is a couple of slides below.

I should just emphasise the importance of eating a wide variety of plants. I use a mix of conventional vegetables like Broccoli but also add a range of herbs. This is important for health but it just makes the food taste so much better. Healthy food only works if people actually eat it.

This is something that local growers - either community growers or smaller commercial market gardeners supplying their local community can do very well.

The Gbiota™ Story

This is the story of how we evolved to eat a nutrient rich, low energy diet from a spectrum of plants grown in rich forest litter. We now eat an energy intense but low nutrient diet in tired soils leading to a poorer gut & immune system.

Gbiota™ soil based on compost & rock dust is the modern version of forest litter & is used to grow a wide variety of plants used to produce Gbiota™ smoothies fo feed our gut biota & immune system.

A long, long time ago our ancestors swung in trees and just ate leaves. It took a lot of chewing but there were no mobile phone games.

The forest floor was full of rich soil so there was plenty of nutrients in the plants but no energy foods.

But with no energy bars growing in the trees we became very good at converting leaves to energy.

Then our food changed to high in sugar but low in nutrients so we were always hungry and ate more sugary foods.

But the sugary food was very fast acting, causing sugar spikes which caused insulin spikes then food cravings like a roller coaster.

Which made our blood go very thick like treacle so our hearts could not pump it around our bodies to feed our body parts.

The insulin roller coaster pushed lots of sugar into our bodies which made us very fat and sick, leading to diabetes and dementia.

Then diabetic doctors said if you go back to eating leaves with your food it will act as a sugar blocker and all will be good.

But people said that leaves are rabbit food and no one wanted to eat them - maybe healthy but boring.

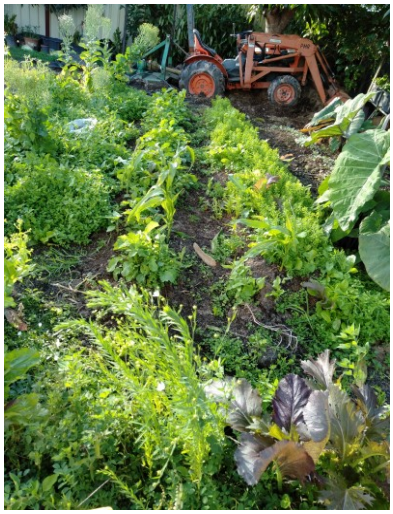
Then people said if you made them into a tasty smoothie they would drink it and that is how Gbiota™ smoothies were born.

The Gbiota™ club is a social movement which puts the community's health above profits.
Read more at www.gbiota.com and if you share our aims, join the club.

Just some of the plants we can put into Gbiota™ Smoothies

www.gbiota.com

Local community food



It is not rocket science - we just need healthy soil full of minerals and the soil biota which can break down the rock and form our gut brain which controls our bodies.

The biota in the soil and in our guts has a short life but breeds rapidly. Even within twenty four hours there is a significant drop in nutrition.

Modern chemical industrial farming is very effective at supplying us with energy food - sugars and fats. We have evolved to crave these but they are just not able to provide that nutrients and living biota we need for a healthy gut.

This can really only be done by growing food locally in nutrient rich, biologically active soil so it can be eaten shortly after picking.

That is why we need a local community food system.

There are two parts to the Gbiota project - the first is the technology of breeding the beneficial biota in the soil the second is a social movement where growers and consumers cooperate together in a local community food system.

The most effective system is for a grower to recycle food waste, add manure and minerals and use the partial flood and drain system to give the Goldilocks moisture level to breed the beneficial biology to create the nutrient rich soil full of beneficial biota.

This soil can be used to grow plants or to load into Bioboxes for customer to grow their own plants.

They can start with just a bare box and take care of all the growing themselves, they can have a box with specific plants growing or they can have a box loaded with an array of companion plants to give a broad spectrum of plants and their biota which are grown as baby greens.

This is the most effective when coupled with the twin box system which makes everything so easy for both grower and consumer.

The twin box system

A grower will supply two Bioboxes to a customer. The first is empty and will be filled with kitchen waste - the second is growing plants ready to be harvested.

After a period the boxes are swapped for new boxes with the grower using the kitchen waste to grow more soil and replace the box with growing plants with new plants ready for harvesting.

The grower and customer may enter into a long term relationship where the Bioboxes are swapped on a routine basis. This ensure the customer has a stable supply without having to worry about breaks in the supply chain while the grower has an assured demand and can plan and grow in confidence that the there is a demand for the work invested.

Action plan

You have got so far and maybe you have decided this all makes sense - but what to do next?

If you are a potential customer is it is simple - just go to gbiota.com click on ***community*** and register as a customer. The aim is to link you up with a local grower so it is important to give enough details of where you live to help this linking.

If you are a potential grower it is a bit more complex.

Probably the first thing is to contact me so we can set up a Skype or Zoom link and have a bit of a chat and got through the next steps - which are -

- register on gbiota.com/community as a grower

- go to gbiota.com/shop and register as a vendor and create you own home page - this, like everything in the wonderful world of computer, is pretty easy when you know how, but a mystery if you don't - but we can talk you through so don't throw the computer at the wall in frustration just yet.

As part of this process you will create your own icon on the geolocation map which will help potential customers find you and make contact

All this is free

- go to gbiota.com and register as a community grower. This is a subscription area which give you access to all our publications on how to grow gut food. Currently there is a grace period where you just pay $5 for 100 days, if things don't work out as you expected then you can cancel at any time. After that you make a regular monthly payment of $10.

This entitles you to access to all the growing publication, support by either email or a video call (don’t be cautious about asking for help, we have all had to face the weird problems in going from instructions to the real world)

- create your gbiota bed, the in-ground gbiota bed, to start growing soil. You will need to access a sources of organic waste (often provided by your customer when you get going, manure and volcanic rock dust (if you are in Australia we have organised for the supply of Biomin from an Australian company, if you are overseas then you need to search for volcanic rock dust.)

- create you own local customer base. We can help in locating potential customers and you can use our web as a source of more contacts. We operate under the Creative Commons system (apart from the grower section) so you can copy, and circulate without asking for further permissions (just acknowledge source).

You may start with neighbours and friends but you may want to use social media and other promotions to expand your operation. (Note our current focus is on community growers eg for people who are doing this as a paying hobby with a strong focus on social benefit. If you operate a commercial business supplying food products as your primary source of income then you need to upgrade to becoming a commercial grower.)

- set you own prices, terms and conditions. This includes transport or collection of boxes. They are your customers and the deal is directly between you and your customers, our role is purely to provide information, technical support and web services.

- get going. We strongly recommend you use our subscription services where you enter into an ongoing relation with your customer. This benefits both customers, who get a secure supply chain at a good price, while the grower gets a regular and reliable business.

- have a party to celebrate becoming a successful gbiota grower.

Summary

The aim of the Gbiota team is to provide expertise on how to grow food that leads to good health.

The basic technology is straight forward - just add essential minerals to the soil, breed beneficial biota in organic matter and carefully control the moisture level by a system of partial flood, drain and wicking action, then grow selected plants. But there are two fundamental issues.

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The bulk of the food we eat is for energy - it is just fuel - largely sugars, fats and carbs. In our evolution we were short of energy food so we evolved to crave energy food. Today our modern food system provides us with ample energy food - but we still have the cravings for energy food.

But we also need a whole range of complex chemicals, minerals, vitamins, phytonutrients, micro-biota etc which are not burned as fuel but from part of our bodies we call these gut food. In the young soils in our evolution these were abundant so we did not develop a natural craving for these foods.

Given the choice of cheese cake or boiled Brussels Sprouts most people go for the cheese cake. But our gut brain detects the deficiencies and send out signals so we eat more - typically more sugary, fatty food.

This actually changes our gut biota, which makes us crave yet more sugary fatty food.

This is the core reason for lower health levels and the increase in non-infectious or chronic diseases like diabetes.

It is pointless just growing really healthy food if no one eats it so we have to make the food really tasty so people actually want to eat it. Variety is the key - I grow some 27 different varieties, both vegetables and herbs. When added to a conventional sugar fatty food it add both flavour and health benefits.

Fresh and living

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