Why WickiMix

Colin Austin 16 Nov 2015

WickiMix enable almost anyone to grow their own healthy food in a wicking bed.

We depend on biology

Most people understand that the current system of factory farming and processing food is unhealthy - a problem not resolved by eating sterile - chemically farmed fruits and vegetables.

There are more bacteria in our bodies than native cells, they help us digest our food and produce hormones which signal that we are full. Without these signals we always feel hungry and tend to overeat. Further hormones signal our bodies to store excess calories as fat - our bodies mistakenly protecting us from starvation in the future.

We need to be eating fresh fruit and vegetables grown in healthy living soil. The easiest way is to grow them ourselves.

Wicking beds - anyone can grow their own food

Wicking beds make it easy to grow vegetables even for people with limited time or space – however the quality of the produce - like in any growing system - is totally dependent on the quality of the soil.

The soil must have a high void space to hold water - if there is enough void space there is no need for any additional water reservoir - the soil can hold all the water that is needed.

It must be hydrophilic - water loving - so it will wick and hold onto water and nutrients.

It must contain the nutrients essential for both us and our plants and the nutrients must be available to the plants and not locked up. This comes from a living soil.

Limits to factory production

Factory production can turn out vast amounts of cheap and sterile processed food. This is the root cause of the current health crisis.

Factory production can also turn out bags of cheap sterile soil by the truck load. But that is not a living soil and results from a failure to appreciate the importance of biology.

We know a great deal about the chemistry and physics of soil but the most important technology is soil biology - a young and rapidly growing science. But we still have only identified, isolated and studied a fraction of the millions of different species of soil biology.

Soil is more than a collection of many species - it is a living eco-system with all the myriad species working together.

Learning from nature

If we want to learn how to make a living soil we have to step outside the research lab and study how nature makes a living soil - after all nature has been doing this for billions of years.

It is a remarkably simple process which anyone can do from what we would normally think of as waste.

Natures way of making living soil

Soil is normally formed over thousands of years but we can actually watch it happen after a volcanic eruption. The lava is rich in minerals but no plants can grow on it.

First lichens, a combination of algae (which can photosynthesise) and fungi (which can dissolve rocks) attach to the surface of the rocks. Over time they can dissolve enough rock that weeds can get established. This first stage is very slow.

Weeds produce large quantities of seeds - which generally blow about in the wind - and have aggressive roots systems which can obtain food from the most meagre of sources. These pioneering species speed up soil formation and form the critical synergistic relation between fungi -(which can dissolve rocks) - and plants - (which can photosynthesise).

Weeds are often short lived with the dead plants being decomposed by bacteria to increase the rate of soil formation. This second stage is much faster.

Later a much wider range of plants take over from the weeds, the plants exuding sugars and more complex chemicals which attract a broad spectrum of bacteria and fungi, particularly the mycorrhizal fungi. Animals and birds are attracted to the food source with bacteria decomposing their excreta and finally dead bodies. This creates a complex eco-system with a rapid creation of soil. This third stage is very rapid.

WickiMix imitating nature

WickiMix essentially imitates this third stage of soil creation. A broad spectrum of plants known to encourage beneficial biology - particularly mycorrhizal fungi - is grown in undisturbed soil. Small sections of this living root structure containing this broad spectrum biological eco-system are extracted to form WickiMix-R (R standing for roots or rhizosphere).

This can be mixed with or put on top of food waste, weeds or any available organic material as part of the soil generation process.

But this biological eco-system has to be fed. WickiMix-M (M standing for minerals) is fine textured and containing a mix of minerals and additives is placed on top and seeded or planted. The roots grew into the lower layer extracting nutrients from the slowly decaying layer and feeding the biology with sugars.

Literally growing soil from waste.

What is WickiMix

WickiMix™ is a system which transforms waste food and weeds into nutrient rich soil suitable for Wicking or Sponge Beds.

The key parts are WickiMix-R which is a fibrous mass from the root zone of selected biologically active plants and WickiMix-M which is a fine soil loaded with mineral for seeding and starting plants.

How does it work

Wicking beds are a very effective and inexpensive way of growing healthy food. There is minimal loss of water and nutrients.

But they need soil particles which have a high attraction for water and nutrients and give a high void content.

Any watertight container is filled to within about 50mm of the top with the organic waste.

This could be food waste as shown.

Or it could be waste organic material like weeds. Many soils - like clays are too heavy to use in a wicking bed. However a heavy soil can easily grow plants like Comfrey, Senna Alata, Queensland Arrow Root etc. which have deep tap roots which are very efficient at extracting nutrients from the heavy soil.

They produce a lot of thick foliage which make an excellent raw material for making nutrient rich soil suitable for Wicking Beds.

It is then topped up with WickiMix-R which is an inoculant full of active biology particularly fungi - which decompose the organic material.

It is made by creating an eco-system of plants which are known to attract beneficial biology like mycorrhizal fungi. The root system is extracted with the living soil biology.

This is spread over the surface of the organic waste.

A seed tray with an open base is placed on top and filled with the much finer WickiMix-M

This also contains biology but with a bias to bacteria but contains minerals - particularly the secondary and trace minerals.

Seeds are sown into this rich soil in the normal way and top watered until a root system has developed.

As the soil is very water absorbent it can be used in sponge beds which are similar to wicking beds but do not have a water container but rely on the water holding capacity of the soil.

After the seeds germinate the roots will penetrate to the lower layer where they can extract further nutrients as the organic material decomposes.

Water can then be applied to the lower layer as in a conventional wicking bed.

As the level drops from decomposition the tray is lifted and further organic material added.

The roots form a thick mat which lift with the tray.

This is an effective way of recycling food waste in an apartment where normal composting is not practical.

Getting Hold of Wickimix

How do I get hold of some WickiMix?

Actually it is dead easy – we supply directly – all you have to do is order on the internet - just email me colinaustin@bigpond.com tell us what you want and we will post to you. If you are not sure how much you need then tell us the size of your beds and we will advise.

The easiest way is to pay directly by bank transfer or by PayPal - but before racing to your bank account can we give you a bit of background information.

Distribution

WickiMix is a concentrate and inoculant for you to make your own soil from organic waste. Recycling waste to make a top quality soil fits in with our philosophy of striving for a sustainable world.

The most economic system of distribution is to use the standard Post Office Parcel Sachets. The most practical size is the 5Kg bag which holds the best part of 10 litres. This contains both the fibrous rhizosphere -R and mineral packed -M version.

This is sufficient for a typical wicking bed. The cost of 1 sachet including postage is $48 anywhere in Australia. If you want a larger quantity please contact us.

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