

# Pickandeat.shop

## Phytonutrients on line

### The ecological cycle

Plants convert sunlight, atmospheric carbon and water into sugars and fats, simple chemicals which provide us with energy.

But we need more than just energy - we need a range of very complex chemicals which plants provide for us as **phytonutrients**. Making phytonutrients needs a complex ecological chain. It starts with minerals in the soil which are insoluble so must first be broken down by the soil biology such as bacteria and fungi.

Mycorrhizal fungi are particularly important as their fine hyphae break down the rocks to provide the minerals which they provide directly to the roots of the plants.

Plants are master of chemistry and convert these essential minerals into phytonutrients which are essential for human (and animal) health. They also add greatly to the taste as the plants need animals to spread their seeds and provide nutrients for the soil.

While modern chemical industrial farming provides energy in abundance - the chemicals destroy the soil biology so the plants can't produce sufficient of the essential phytonutrients.

If we don't get enough phytonutrients we get hunger cravings and eat excess high sugary and fatty foods which has led to the chronic health epidemic.

### The Gbiota Growing System

The Gbiota system is a growing system in which the primary inputs are organic wastes and the essential minerals . These are composted in bins and water circulated through the bin and the root zone of the plants in a flood and drain system to aerate and provide the minerals and biology for the plants to produce the essential phytonutrients.

It is an organic **plus** system but as the roots are flushed with a nutrient rich solution every few hours it is highly productive.

Growers have to be approved to operate this system and post their available products on line for sale.

Orders are typically taken before the plants are harvested so the produce is genuinely fresh and there is no waste.

With a highly productive growing system, recycling waste organics, avoiding the high cost of chemical inputs and selling direct to the customer on line the grower can offer produce rich in essential phytonutrients at a cost fully competitive with chemical industrial agriculture while offering health benefits for the customer , providing environmental benefits by regenerating the quality of the soil, recycling organic waste and capturing carbon in the soil.

Our website [www.waterright.com.au](http://www.waterright.com.au) has many article on health, and regenerative farming which you can access from the [library](#) - look for [the food revolution 11 April 19](#) how we plan to reverse the health epidemic by food.

If you are a potential grower you would be interested in the Gbiota section but to access the technical files you would need to join the Gbiota club. Email [colinaustin@bigpond.com](mailto:colinaustin@bigpond.com)