



Michael Wale

Brought up on a farm in Sussex, Michael was a journalist, scriptwriter and TV performer for many years. He fought a battle to save allotments in West London and wrote a book about it all, *View from a Shed*. He still helps the allotments he fought to save, and now writes about agriculture and horticulture.

He might now be 73 years old, but having led me to the middle of the desert outside Al Ain, in the United Arab Emirates, Pillai Vijayan pointed to the thriving greenery around him and shouted into the evening sky: "I can change the world through the elements of the soil."

You might well ask, "What soil?", as we stand out here in the endless sands of the desert. Pillai has only been here a year, but already there is an astonishing area of woodland, together with row upon row of bushes. Admittedly, many of the latter are growing in pots, because the outdoor growing season in the United Arab Emirates stops altogether from March until October, as the temperature becomes so hot that the whole population simply retires to the air-conditioned indoors, and so it is the case, too, with all these plants that can be moved into protective polytunnels.



Pillai Vijayan with moringa trees.

Pillai's New Desert VISION

Michael Wale discovers a **convincing argument** for the **importance of soil...** and in a country almost devoid of it

For 30 years Mr Vijayan ran a farm nearby in very similar sandy surroundings. It produced a regular supply of vegetables and salad stuffs for the local community. There were also free guided visits for anyone who cared, including local schools, for talks and walks with this remarkable farmer who also has a great and profound belief in the medicinal value of many trees and plants.

Then, suddenly, everything in Pillai's life went wrong. The owners of the land, having regularly seen the abundance of food being produced and sold, were fed a story by a rival that the profits were in fact far greater than Mr Vijayan had revealed. This was very far from the truth, but the owners decided they would cash in themselves and take back all the land. Needless to say, as Pillai tells me with



Greening the desert.



Pillai's new desert vision.



Other plants will only survive if they can be moved into protective polytunnels.

great sadness in his voice and not a trace of gloating, all the land has now reverted back to desert and is no longer profitable. All that work for nothing.

But despite his age, Pillai Vijayan refused to give in and started out all over again. As he walks me around his newly farmed 20-acre site he hugs tree after tree, and bush after bush, explaining all the time just what each one can achieve.

Born in India, Pillai was an electrical engineer by trade, but he gave it all up to become a natural growth farmer after working in the UAE. He believes that good nutrition makes healthy humans. I use the word 'organic' because there is a booming market for organic food in the UAE, which has banned GM in all 7 states, even including research into the technology! But he does not like the word 'organic', claiming that 'organic' growers still have 'inputs' and types of fertilisers, none of which he would choose to use in what he regards as his own 'natural' way of growing... the way of nature.

Pillai reckons that he could be dropped just about anywhere in the world and set about what he is now doing, reinvigorating the 'hidden' soil. The visits to his new site have begun once more, and he now also lectures on the values and uses of medicinal plants at the Al Ain University. The first tree he takes me to is a moringa tree, a fast-growing species that already

towers above us, and is flowering after a mere 8 months. In fact, it is already tall enough to provide us with pleasant shade in the middle of the afternoon, on a day with temperatures in excess of 30°C. It is also known as the 'miracle tree' because of its numerous medicinal and nutritional qualities, and the United Nations is now trying to get many African nations affected by drought or shortages of water to adopt the moringa tree because it needs virtually no water, takes only 90 days to grow to its full size, and just lately has become acknowledged as a superfood.

Pillai goes even further, saying that it could potentially solve many of the world's problems, because not only is it drought resistant, it is also a superfood which produces 12 times the amount of vitamin C of oranges (and can also be drunk), 17 times the calcium of milk, 9 times the protein of yoghurt, 15 times the potassium of bananas, 25 times the iron of spinach, and its tiny leaves are one of the richest



Desert mulch.

sources of many essential nutrients often found to be lacking in diets around the world. In fact, every part of the tree is said to have some beneficial properties, even the bark.

Pillai says that 98% of everything the moringa tree needs to grow is provided by the sun, with the remaining 2% coming from the soil. He reaches his arms around the tree and says: "I can grow this anywhere," explaining that it attracts birds, and the birds drop their dung, which creates humus. To prove his point, where the tree is thriving now was all desert less than a year ago, but today the leaves fall on the ground to form a mulch, and water then comes up from the ground.

Pillai has also planted flowers alongside his rows of bushes, and these are already attracting bees. At present he relies on a minimal above-ground pipe watering system, but confidently says: "Very soon we won't need that." Within the next few months he plans to buy a cow, adding: "It will eat the grass that I've grown, and the dung will be its main use to us. I'll give the milk away to the local community, because it will not be here for the milk – the milk is secondary; it's the manure that really matters. Then I can grow my fruit and vegetables. By manuring and mulching, the water comes up from below."

He is also installing solar panels on all of his outbuildings to supply his minimal electricity requirements. As we come out from one of his polytunnels he hushes me and says: "You hear my music? It's evening now and the birds are in full song."

We move on to some medicinal bushes that he is growing. Their extracts are commonly used in commercial pharmacy, as well as having homeopathic claims. He lists several examples:



Lawsonia produces henna from its leaves to treat a variety of ailments such as rheumatoid arthritis, headaches and ulcers; *Ocimum sanctum* has medicinal claims to helping cure asthma, bronchitis and lumbago; and *Terminalia arjuna* is effective in the treatment of wounds, haemorrhages and ulcers, and an excellent medicine for the heart. Then there is *Sesbania*, which can be used to counter kidney stones, but as far as I'm concerned the most important of all is *Jatropha*, which has the ability to produce immense amounts of oil from its seeds – between 27% and 40% of their weight, in fact – while being resistant to drought and pests.

Returning to the unmade track that leads a few miles through the desert and back onto the main road to Al Ain, you realise that you have probably just met one of the world's greatest farming enthusiasts, and in one of the world's least likely farming regions. A man willing to start all over again at the age of 73 – you really do have to believe him when he says he can change the world through the soil.



In the Middle Eastern heat, a polytunnel provides cool shade.

