

Urban agriculture Guerrilla gardening

Pictures courtesy Central Methodist Mission, Cape Town.

by Carol Posthumus

Agricultural growth – both in the quantity and quality of food produced – and an emphasis on the growth of smallholder farmers, especially women farmers, are often included in discussions as to the solution to the provision of nutritious food for more people into the future.

The SABI National Congress in 2013 looks at the quintessential future challenges to irrigation and water conservation in agriculture and the environment. Congress speakers and delegates will ask a lot of questions again about the sector's role in assisting to pave the path to effective water use as a resource in the agriculture of the future to provide food and fibre. By 2050 the planet's agriculture in all its forms will have a need to feed 9 billion people.

It appears, moreover, that the requisite agricultural growth

will have numerous permutations in the future - not just in the growth and sophistication of traditional agriculture in the rural areas, as is usually envisaged. Community based agriculture in cities is taking off, with a return to the roots of food production apparent in South African cities right now.

Pavement hacking

Hearteningly, a recent growing urban movement in community sponsored agriculture in South Africa wherein crops of fruit and vegetables are grown on pavements and in public spaces – “guerrilla gardening” or “pavement hacking” – is visible. The guerrilla gardeners want people passing by to share in the crop grown.

The gardens have signs encouraging people to “Free food - take only what you need”. In South African cities hunger is a massive problem – and “community sponsored agriculture” is certainly one way of lending a hand and, at the same time, helping to beautify suburbs.

There is something extremely uplifting about a movement that helps to provide some fresh sustenance while, very often, also greening the city streets and the sterile pavements of suburbia.

In so far as urban community agriculture goes, profound benefits of horticulture result for the gardeners and community spirit.

In one survey in Cape Town amongst urban agriculturists, one of the respondents Fatima, on being asked about the benefits of her newish veggie garden, reported being so enraptured by the growth of her cauliflower plant she couldn't bear to eat it! While “edible landscaping” seeks to provide sources of fresh food, the benefits to the psyche are immeasurable.

The Daily Maverick's expressive Ivo Vegter vented some doubts about the fashionable “romanticism” of the pavement growers amongst the “urban elite” rather strongly last year. “Small-scale, artisanal skills aren't about to overthrow the industrial-scale production that has served the world's growing population so well in providing nutritional food at low prices,” he wrote.



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One of the guerilla gardeners from Potchestroom Andre Goodrich, a social anthropology lecturer, had this to say on Facebook in an erudite retort to the Maverick's concern about the apparent Animal Farm-style intents of the pavement farmers vs. commercial farming: "I am pleased to have our humble effort debunked alongside fracking and climate change or held in parallel with the proposed labeling of foods containing GMOs. You have done a handful of people and two planted pavements a curious honour by taking us so seriously, and for that I must be grudgingly grateful.

"Grudgingly, because I am unsure of the effect this will have on our ambitions of getting community sponsored agriculture (CSA) established in some local schools and churches where the so-called 'tragedy of the commons' would be far less of a problem (in CSA the produce is usually distributed according to a system of shares allocated relative to inputs)."

Goodrich also told City Press that "we are not a bunch of idiots thinking we can solve world hunger with pavement gardens".

Mother City's Central Methodist food garden

There are, as Goodrich hoped, forward thinking churches which have already done some guerrilla gardening in public spaces.

At the Central Methodist Mission (CMM) in Cape Town, located on Greenmarket Square, a community food garden on the perimeter of the church was created in November 2012



using plastic milk crates, hessian and lots of love. Irrigation is done by a watering can. The CMM community garden was planted in conjunction with Stephen Lamb of Touching the Earth Lightly.

Strawberries, gooseberries, grapes, granadillas, peas and various herbs are planted, and people are free to pick whatever they would like, says Central Methodist Mission's Reverend Alan Storey.

The plants are still growing, and give a lot of food for thought – with people walking by reading the signs in the garden, encouraging people to "plant your own food" .

Storey says their garden shows "that you do not need a large garden to grow a food garden". "Everyone can do it – and we believe everyone should do it."

Growing food reminds us that food "comes from the soil, sun and care," and helps make a contribution to food security. The Methodist church in the centre of Cape Town is modelling for other city dwellers that the "in between spaces" can be used creatively to bring forth life.

Leaving the edges

Further, guerrilla gardening has Biblical roots, wherein farmers were instructed to leave the edges of the fields for the hungry people.

"In the Bible the Hebrew people were instructed not to harvest all the way to the edge of their land – but rather to leave the border area un-harvested so that the widow, orphan and foreigner (in other words the poor and vulnerable) could satisfy their hunger. We seek to live this out in a "parable-like-way" by surrounding the border of our Sanctuary growing food," Storey tells us.

Overall, Rev Storey says they hope with their garden to encourage others to do the same. "To return to the soil. To realise we do not live on the earth: but rather we live FROM the earth. We hope that people will be inspired to start gardening food. Gardening is Godly – in fact it is the first thing we read God doing in Genesis: God makes a garden. Our hope is that all faith communities will spread the message that we need to treasure the soil that gives us life. "



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seedlings for our other projects, grow food for distribution and develop a range of portable and efficient vegetable gardening solutions that will suit the different household contexts in the Potchefstroom area. Basically, it will be a hub to develop interest in organic gardening and serve to expand our pavement pimping project."

People need a harvest prompt

The favourite vegetable with passers-by is "overwhelmingly the chard (spinach)." Goodrich observes that spinach is well accepted by local tastes and is easy to harvest. The green beans are popular too.

It seems people need to be prompted to harvest. "On my own pavement I grew some gem squash plants and the squashes were taken. People seem reluctant to harvest those crops that require the destruction of the plant, such as cabbage and carrots. I think that is because most people assume tenants informally own what is on their pavement. We are planning to use signage in future to encourage people to take crops that are ready to be harvested," he observes.

Easy to grow crops are suggested by Goodrich for aspirant guerilla gardeners, which can be harvested in multiplicity and are popular with people. Winners are gem squash, green beans (bush variety), spinach (chard) and cherry tomatoes. Goodrich also advocates companion planting of flowers with a pest control function (like marigolds and nasturtiums) "Let some of the plants go to flower as the bees and insects love them too," he says.

From Cape Town to Potchestroom: where the summer of 2012 was also a guerilla gardening or pavement pimping season of note in the North West. Andre Goodrich says they established 10 vegetable gardens in Potchestroom last summer on the pavements. Their "public farm" movement is growing well with an edible parks and an arrangement with a local Council in the works too.

"We also began developing an edible park which has four beds and a keyhole garden that we use to grow publically available fresh veggies. We are in the final stages of an arrangement with the Tlokwe City Council over a small piece of land that will become the permanent head-quarters of 'Street Farm'. Here we will develop



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Water wise

Goodrich, who pioneered the Potchestroom movement with his wife Pia Bombardella, advises the planting of a few water-wise, permanent shrubs, to attract desirable reptiles and insects plus increase biodiversity.

"I recommend shrubs that do not require a great deal of water and that are attractive to bees and other insects – try to use these to create a barrier to the road and to offer a bit of protection from the wind. Remember to leave a clear path that pedestrians can use – we do not want to displace them into the road."

This public farmer suggests watering with an eye to the rainfall, soil, wind etc. He likes an irrigation schedule of watering in the morning, when possible.

"Mulch if possible, keep an eye on the plants to see if they are happy and avoid poisons on the crops. It is important to avoid poisons and such on the pavement as you have no control over how people access the space, and dangerous substances can endanger them. It is better to use organic methods like intercropping to limit the pest damage and build up as bio diverse a pavement as possible. This might take a season to get established, but is it more sustainable in the long run, and safer for the passers-by."

Goodrich, like Storey, advocates good soil stewardship. "The important thing is to cover soil and keep the life in the soil happy as this is what will in the long run determine how fertile it is. Alternatively you can just dump a thick layer of compost over the vegetable beds in heavy frost areas."

A Blairgowrie pavement garden

Claire Reid, the inventor of Reel Gardening and the 2003 winner of the Stockholm Junior Water Prize, also sports a pavement farm outside her house in Randburg's Blairgowrie. Instead of planting an unused space outside her home with roses and trees, she opted to plant vegetables for the community's benefit.

"We plant anything that is easy to harvest and easy to share. We plant spinach, peas, beetroot and herbs like coriander, rocket and basil."

Reid's Reel Gardening is an easy to way to plant pre-fertilized seeds, encased in reels of paper in seed strips of biodegradable paper. The product saves 80% of water in the germination stage.

Yet again spinach is a winner: "Spinach is always a win as most people eat it, it is easy to harvest sustainably on the principle of take the three biggest leaves, and leave some for others. Beetroot leaves are harvested on the same principle, until the beetroot plants are mature enough to harvest themselves."

Reid, who also is a winner of the Women in Water Award for Scientific Research, says many passers-by collect their spinach on their way home as they are situated on a busy road on the way to public transport and shops. Neighbours also

harvest, and are very fond of the herbs. "We are lucky enough to have received a present of samoosas made with our own coriander."

They water their pavement veggie garden with low-tech drip irrigation (unpressurised) to save water, and prior to that watered with a hose which was also perfect.

Tips for aspirant pavement farmers?

Ask yourself the following Reid says:

- "You need to ask: is it easy to harvest?"
- Can you harvest continually?
- Is it easy to share?
- Do most people know how to use it?
- Is it hardy?
- How quickly does it grow?

Leafy veg will be good, like spinach and beetroot, lettuce may work too. For summer butternut and pumpkin leaves may work well too, as lots of people like to harvest these for the table."

Reel Gardening's range features a variety of vegetable, herbs and edible flowers, all available for purchase online.

Notably, Reid's Reel Gardening is a water wise product, designed to use as little water possible. "The core philosophy of our company is wise water use." Reel Gardening saves 80% of water during the germination stage. The company is also much focussed on producing a product that takes the environment and people into account, notes Reid.

Organic

"We use bleach free paper with vegetable dyes that encourage nitrogen fixing bacteria in the soil. We include organic fertiliser in the strips to help with soil fertility, and our products are manufactured without the use of electricity (in a hand-driven mechanised process). This manufacturing process is labour intensive thus creating jobs.

"The seeds we use are all open pollinated varieties which means they are non-GMO. It is very hard to come by organic seed varieties in the quantities that we need, so we opt for seed that is as natural as possible (has not been genetically modified). Our aim is that our product, during the manufacturing process, and use, contributes to environmental sustainability."

Reid emphasises that water saving is a major philosophy of Reel Gardening's development.

"Vegetables generally require a lot of water to grow. We want people to be able to grow their own food, but also use as little water as possible. This is one of the main reasons that Reel Gardening was developed. And, for this reason we have begun utilising a low-tech drip irrigation system in our community gardening projects, as it drastically reduces the amount of water used."

From water consumption to soil health and fresh produce, the guerrilla gardeners or pavement farms are setting a new standard in the cities and suburbia of South Africa.