

The organic vegetable garden in urban areas



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“In our Twenty-first century of absolute convenience and consumerism, we have become disconnected from nature. We somehow believe that not only can we live separately from nature, but that we can also take as much as we want without giving anything back. That is not how a successful relationship works. We are a part of nature and if we continue to live as if we are a privileged and separate species, we risk losing everything. The multitude of problems facing us as human beings on this planet can be overwhelming and daunting. But one thing each one of us can do is to take personal responsibility to cultivate a better relationship with the piece of planet on which we live”. Jane Griffiths (Television producer and writer).

Up until the twentieth century, people in rural areas commonly produced a significant proportion of their own food in their vegetable gardens. This was an age-old practice that dated back beyond memory; it was what people had always done. In those more uncertain times, the garden was the most secure and reliable source of food. At many points in history, it became a matter of life or death; it provided the food that kept people alive in times of crisis. Even when it was not essential for survival, the garden provided a margin of comfort and security, supplying its inhabitants with a better and more varied diet and making their lives easier. Indeed often, the only difference between a comfortable family and an impoverished one was whether they had access to land for growing food.

In the twentieth century, industrialization and greater affluence broke the old bonds with the land. People moved to the cities and suburbs and the self-sufficient home vegetable garden became outdated. To most people food is now just another commercial product, like shampoo or detergent. It is available year round, ready packaged from the supermarket. It is no longer our most vital link to the earth and as a result, our view of nature has become distorted. We now see ourselves as so separate from nature that the health of the economy seems more important than the health of the planet.

Making life more sustainable is an incredibly good reason to plant a vegetable garden, but there is also a much more personal reason. It is one of the most satisfying things you can do

in your life and provides a wonderful contrast to the chores of daily life. So many of us have mundane jobs that do not require us to use our minds or bodies and do not produce anything of any real significance. Gardening is the perfect antidote to such work, as it uses both mind and body and is highly productive. It also provides us with food, the most essential thing in life. Gardening can also enhance our health, by providing us with exercise, psychological satisfaction and as a source of healthy and delicious food. The art of coaxing food out of the earth is such an elemental activity that it also speaks to us on a deeper level; it is a natural activity of humans.

Urban Vegetable Gardening:

Increasing the amount of food grown in our cities will do more than provide fresh, affordable, organic vegetables, fruit, and herbs on our doorstep. Urban food gardens create greener spaces in our cities, reducing food miles and recycling waste that would have gone to landfill sites. City areas are heat-creating islands of concrete, tarmac, and glass, with increased air pollution from traffic and industry. Greener spaces within the city lessen air pollution, as plants clean and filter the air. Vegetation absorbs heat and insulates buildings, reducing the need for energy-

hungry air conditioners and heaters. Storm water, instead of running off flat roofs, walls, and pavements and out of the city, is slowed by plants and their growing media. Green spaces attract and provide habitat for birds and insects, reconnecting city dwellers with nature and relaxing green havens.

Urban farms give urbanites an increased appreciation of our food and its food, and are more likely to want to eat it, leading to better eating habits and a healthier society. Gardening opens eyes to the importance of recycling and conserving precious resources. A city farm is an effective way to teach children practical aspects of science, biology, and how the world around us works. This increased knowledge leads to opportunities for job creation and entrepreneurs. Finally, green havens simply look and feel good, improving the quality of our lives. Whether you are growing vegetables in your own back garden, a patio or on a large city rooftop, a basic understanding of soil, plants and how to grow them is the first step to success.

Soil Management:

It has been said that the primary activity of organic gardening is growing soil and that growing plants is secondary. This makes sense





once you understand the close symbiotic relationship between living plants, organic matter, and soil organisms. Soil is composed of so many organisms, living in an elaborately interconnected web, that it is almost a living entity and should be treated as one. Organic growers strive to make the soil as biologically active and diverse as possible, in the knowledge that this will enhance its fertility. If the soil is fertile then plants will grow steadily and vigorously without interruption and will be more productive, healthier, and more resistant to pests and diseases (it will all be so easy). Diseases and pests can be considered symptoms of deficiency or imbalance in the soil, rather than simply random attacks by malevolent organisms.

When most crop plants are planted in a poor, infertile soil, they grow very slowly and often bolt before they get big. They can sense that things are not going well, and that life is

precarious and so they respond by producing the next generation of seed as quickly as possible. Their slow growth also means that they often do not get big enough by a critical time, such as when bulging or flowering is initiated by day length. In such cases, a crop will often be a total failure.

Plants growing in a healthy fertile soil behave quite differently. They grow rapidly, producing an abundance of foliage and will reach maximum size before they think about bolting. Such crops cannot help but be a success.

Container and Raised Bed Gardening:

Having limited space does not mean you cannot grow your own food. Even the smallest patio, windowsill or garden patch can boast a crop of vegetables. The rewards are large, even if the space is small. Many vegetables and herbs are suited to container planting and they will grow in just about anything from an

old wheelbarrow to a fancy pot. Smaller herbs grow happily in recycled olive and yogurt containers. Even milk and juice cartons can be recycled into nifty free containers.

More and more vegetable gardeners are choosing to construct raised beds. Differing from containers, raised beds consist of four sides, with an open bottom. They can range from beautifully crafted cedar boxes to recycle wooden pallets. They are a popular option, especially in gardens where the soil is poor, or if you are growing on a non-soil surface, such as a rooftop. Both containers and raised beds create an almost instant vegetable garden.

The benefits of using raised beds are many. They warm up more quickly in spring and will not get as cold in winter. It is easier to protect raised beds from pests as the edges provide a barrier. The sides can also be used to attach supports for bird netting or frost cover. Raised

beds can be constructed in bespoke shapes to fit into odd corners and angles. If you suffer from mobility or back problems, a high raised bed is the answer.

Wicking beds:

So, what is a wicking bed? Invented by an Australian named Colin Austin, the idea is that you prevent water from leaving the bottom of the bed with a waterproof liner or layer. This creates a reservoir of water beneath the soil. Then, rather than you then having to irrigate by watering from above (via drip irrigation, a hosepipe, watering etc.) the water literally wicks up into the soil from below, keeping it nice and moist. You prevent the weight of the soil from squashing all the water out and making a muddy mess by having the water sit in amongst a layer of small stones, sand, or similar, which can accommodate the water whilst bearing the weight of the soil without collapsing. You prevent the soil from dropping





down into gaps between the stones or sand particles with a sheet or layer of something that lets water wick up but stops soil moving down. The last essential piece of the wicking bed puzzle is that you need a designated overflow point so that the soil layer does not get flooded and kill the soil life and plants by rotting their roots. A wicking bed as an agricultural irrigation system is normally used in arid countries where water is scarce. It can be used in fields as in containers outdoors, but they can also be used indoors in greenhouses.

The system is designed to increase food production while using approximately 50% less water than traditional irrigation, by utilizing underground water reservoirs filled with decomposing organic matter and the process of evaporation. Despite being an irrigation system (which can even be fitted with automated refill capability via rainwater tank and float-valve), it remains relatively low-tech.

Compost:

Composting is a process whereby complex organic plant and animal matter is broken down into simpler forms. The artificially warm and humid environment of the heap gives you a way to accelerate and control the process of decay that goes on in nature all the time. There is alchemy in composting, do it poorly and nothing happens, do it right and you will get magic.

Composting provides all the following benefits without costing anything. Compost is the best source of organic matter and humus for the garden. It is so valuable that the compost pile has been called the hearth of the organic garden. Compost is often the main source of nutrients in a mature organic garden. These are securely held in the form of microorganisms and organic matter and are slowly made available to plants as soil organisms break them down.

Water and watering:

You do not need to be a gardener to understand that water is the lifeblood of the garden (or the world for that matter). With water, you have a luxuriance of green growth all summer, without it, you have a brown desert. In dry areas, making sure that your plants have all the water they need is one of your primary summer tasks. In such places, it determines how much you can grow. Plants are mostly composed of water (80-95%) and it is an essential part of every aspect of the plant's life. It is needed for photosynthesis, growth, keeping cells (and the plant itself) rigid and the transport and absorption of nutrients. Less than 5% of the water taken up by the roots is incorporated into the plant, which is why it takes 200-500 units of water to produce one unit of dry plant material. The rest of the water is transpired out into the air. It has been estimated that an acre of corn may use 3-4000 of water per day, which

helps to explain how 10% of the water in the atmosphere comes from plants. This "lost" water has an essential role in plant growth. It is a part of the transpiration process, whereby the plant moves water, nutrients, wastes and manufactured foods around. It also helps to keep it cool and turgid (rigid).

Conclusion:

Since 1990, the market for organic food and other products has grown rapidly, reaching \$63 billion worldwide in 2012. This demand has driven a similar increase in organically managed farmland that grew from 2001 to 2011 at a compounding rate of 8.9% per annum. Organic Farming is highly beneficial to farmers as the vegetables produced have high nutritional quality with enough. This farming system encourages the biological cycle by using microorganisms, soil flora, and fauna, plants, and animals. It helps to retain the fertility of the soil for longer durations. Organic





Vegetable farming is somewhat challenging as it is a risky method for beginners. If you decide to step up from the backyard organic vegetable garden and you consider farming on a commercial scale one needs to be aware of the risks involved.

There are many challenges in Organic Vegetable Farming such as higher production costs of management, labour charges even for lower farm yields. For few farmers, they experienced little change in the yield but for horticultural crops such as tree fruits have a mark able significant difference in the yield

have been observed. The marketing costs are higher but there is less infrastructure for maintaining organic varieties. At present, demand for Organic Vegetables is higher than the supply.

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