

The Abundant Harvest Garden

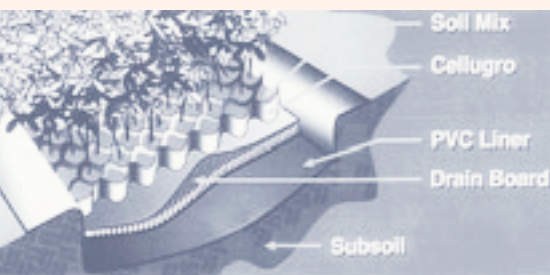
The goal of “Hunger Grow Away” has been to cultivate food security “One Family at a Time.” To achieve this the Abundant Harvest Garden (AHG) was developed, which is a micro-intensive food production system that can grow the produce needs for a family of four in 1.44m².

Too often, the space available for urban food production is distant from the home, making it difficult to protect from predators or theft. A conventional garden is labour intensive, making great demands on the time and energy of the women who tend them. The AHG puts the garden close to the home. Water is frequently in short supply or must be carried great distances, and the water itself may be a source of disease. Frequently the garden plots are located on soil that is polluted or chemically contaminated.

The possibility of frequent harvesting of fresh vegetables from the AHG is a great health advantage. When a family can grow a dependable, varied and nutritious diet, with minimal cost in money or time, the first steps out of poverty can be taken.

MICRO-ENTERPRISES

In our trials we grew moringa (*Moringa Oleifera*: Horseradish-tree or Drumstick-tree) in part of the garden while vegetables were being cultivated in the remainder of the cells. If a garden was



Cell System Drainboard and Liner

planted in only moringa seeds, over two hundred plants could be produced every two or three months, in a space only four foot by four foot. Other trees, shrubs and perennial plants could be propagated with this system to establish orchards, erosion control programs and more. Herbs grow exceptionally well in the AHG and can be a source of income. In Lagone, Haiti, around 38 gardens will be

used for the production of both culinary and medicinal herbs as a cash crop.

THE ABUNDANT HARVEST GARDEN

The CelluGRO system

This system has a proven track record in the professional nursery industry in the United States. It offers maximum use of space and resources with a minimal impact on the environment. It also offers the greatest return for a family's investment in time and labour. Furthermore, it is permanent, self-contained and can literally be folded up and taken with a family if they move. The system will last for years and is non-toxic. It is available in two sizes, the 1.4 m² family garden unit, and a larger 2.4 x 6 metre community production unit.

Without the cellular growing system the AHG would be nothing more than a growing box. The cells are 21 centimetres deep; the optimum average depth for a healthy root system. Each plant grows in its own space or in a micro-community of compatible plants. So, plants with aggressive root systems don't crowd their neighbours. Transplanting can be done with little root disturbance or transplanting shock, while harvesting or replacing spent plants can be carried out without disturbing those remaining. Finally, the plants grow so close together that they serve as their own surface mulch, keeping soil moist, maintaining even soil temperature and controlling weed growth.

The dimpled drain board provides efficient drainage of surplus water and it creates an air space that prevents soil fungus problems. The permeable filtration fabric covering the drain board permits surplus water to gradually drain. The soil and the roots have time to absorb the required moisture. The drainage outlets can be channelled for the recovery and recycling of surplus water. The liner prevents the loss of valuable water and nutrients do not leach out of the soil. Less fertilizer is required. There is no contamination from soil

borne organisms or chemical pollutants and invasion from soil insects and nematodes is prevented.

ADVANTAGES

❖ The AHG requires *limited space*: in the dooryard, on a rooftop or the pavement, and can be used where there is poverty of space, water, labour, time and finances. For example, in urban areas and where there is a need for an adaptable system to

Advantages of the Abundant Harvest Garden:

- ❖ Saves water, time and labour (no tools required other than bare hands, one time financial investment)
- ❖ Adaptable, to accommodate individuals with disabilities
- ❖ Flexibility in what can be grown

accommodate children, the elderly or the disabled.

❖ The gardeners have control over what plants will be grown, how they will be grown and what will be done with the harvest. As this system is so compact, water efficient and adaptable, gardens can be productive during droughts, monsoons and cold weather.

❖ The system is forgiving of the problems of neglect, planting errors, over watering and under watering: the gardener can make mistakes and still put food on the table.

❖ The AHG system can be emptied, rolled up and moved if necessary. It can be re-established and productive in as little as three weeks.

❖ Cultivating plants that provide food in more than one form can increase the productivity of a vegetable garden. Local favourites and indigenous vegetables should also be a part of the garden.

❖ The development of green spaces, even micro-spaces of productive green, are a valuable community resource and may become a teaching tool.

CONSIDERATIONS

❖ The micro-intensive gardening system can be used under extreme conditions: where there is poverty of space, water, labour, time and finances, like in urban areas. On its own, however, it cannot be used to reduce poverty.

❖ Wise and efficient water use is needed to prevent breeding grounds for mosquitoes.

Tommi Jill Folk & Hank Bruce

Hunger Grow Away, USA, ✉ tomifolk@mail2.Lcia.com



Abundant Harvest Garden in full production

experiments with five different gardens using a variety of growing mediums and plant materials.

Community Development Program (CODEP) is working with Hunger Grow Away in *Lagone, Haiti* where most of the gardens are used for food production, some in a nutrition

program at several schools, and others as a micro-enterprise producing herbs for market.

Residents of a homeless shelter *Anthony House* near Orlando, Florida, USA, and student volunteers assembled and planted four of the AHGs. Twenty-one days later they had their first harvest, which was sufficient to produce a salad for each of the sixty-two shelter residents.

Plans are being developed with the Greater Albuquerque Habitat for Humanity to use the AHG as a way to improve nutrition and teach important life skills. The first garden for this

program was planted April 26th of this year. The African Assistance Plan (West Africa) is exploring ways to use these gardens at a number of schools throughout Ghana.

ONE TIME INVESTMENT

Rooftop gardens are a logical solution to the question of where to grow fresh produce in urban centres. Due to its water and space efficiency, the AHG is an ideal, cost efficient and permanent rooftop system. Beyond the obvious food production, rooftop gardens can provide a number of environmental benefits including, providing thermal insulation for those living below, absorbing rainwater to control runoff, filtering pollutants out of the air, enhancing the oxygen supply and controlling noise pollution.

If we can use these AHGs to cultivate family food security, improve nutrition and halt the poverty spiral, it is a wise investment. It will serve as a cost efficient green space programme, that decreases the need for food relief, alleviates poverty, decreases crime and promotes micro-enterprise.

❖ The family size AHG costs approximately \$225 (US) or more in materials and transportation. This is also one of the reasons that Hunger Grow Away was formed, to raise funds to help supply these gardens where they can be used most effectively.

❖ The AHG is not manufactured locally, although the food grown in them is. Soils, soil building materials and compost will all be supplied locally.

EXPERIENCES

The work of the *Osceola County Childrens' Home in Kissimmee, Florida, USA* was invaluable to the development and where the research actually began. The residents of this childrens' home did