

Healing Hands International Sustainable Agriculture

Carl Burkybile, Director of Agriculture,
cburkybile@hhi.org Website: www.hhi.org

Many in our world survive on one to two dollars per day, often spending 50 to 80% of that income on food to get them through the day. World food production must double in the next 40 years or starvation, hunger, and poverty problems will increase. Global economists say an investment in food production is one of the best ways to reduce poverty around the world.



For decades, the world has focused on food aid for developing countries rather than on teaching them how to produce more food. While Healing Hands International provides food aid in times of disaster and famine, we are focused on preventing the next famine. We are training poor farmers, (men, women, and children) to feed themselves and their families. By teaching techniques that are simple, practical, affordable, and sustainable, they can learn how to feed themselves for a lifetime. Our goal is to help families stabilize their food supply by producing a crop during the dry season and then to preserving the excess during the rainy season.

Through education and training we help people help themselves. We expect students to use what they learn and to teach someone else. They learn to use resources they have rather than focusing on what they don't have. They learn to use compost and "manure tea" to provide both nutrients and organic matter to the planting bed. Farmers are taught how to develop a raised planting bed with a center trench filled with compost materials. A typical 50 foot, drip irrigated raised planting bed using five gallons of water in the morning and five gallons in the evening can produce enough vegetables to feed a family of five to seven during the dry season. Families are taught they can preserve fruits and vegetables using solar dehydration and meats through salting, smoking and curing. In some areas, pickling, leathering, fermenting and oil canning are useful.



Survival gardening workshops have already been conducted in over 35 countries. HHI currently has eight trainers in east central and southern Africa and one in Honduras. "Train the Trainer" workshops allow Healing Hands International to use its trainees to continually expand to new areas reaching and impacting more and more people. As an example, Agnes and her children, have developed 48 raised planting beds and have taught 52 others what they have learned. A simple garden can make the difference between starvation and survival for a family! When hungry people in villages, prisons, orphanages, and schools all over the world see the simple techniques we use in a growing garden bed, it gives them a new sense of hope and they say, "I can do this!"

Healing Hands International seeks to partner with others who believe in the urgency of this mission...empowering people to feed themselves and pairing that with the spread of the gospel message of Jesus Christ. For a \$25 donation our training will Feed a Family for Life. Together we can make a difference.

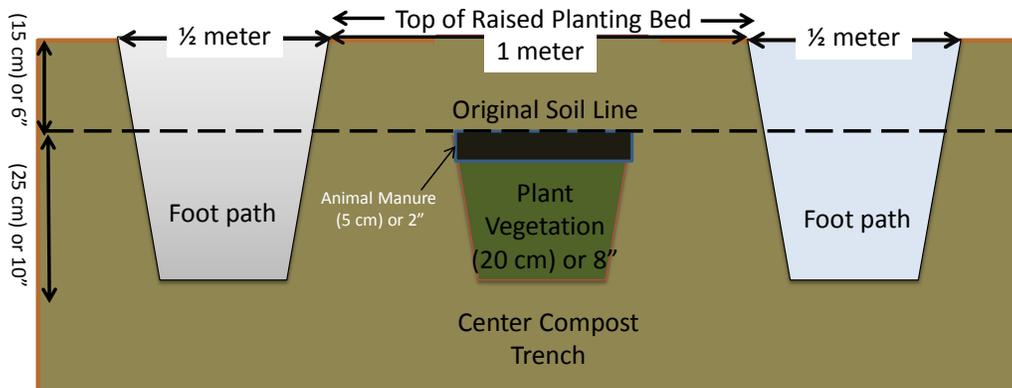
Raised Planting Beds

By Carl Burkybile, Healing Hands International Director of Agriculture Education,
cburkybile@hhi.org

Why Raised Beds?

1. They reduce soil compaction and improve the soil, making it looser and more crumbly.
2. They improve root growth, thereby improving above ground growth and production.
3. They protect the planted area in times of excess rainfall.

Raised Planting Bed



Steps

1. Lay out the 1 meter wide (39 inches) planting bed area with a ½ meter (18 inches) wide foot path between beds using stakes and strings.



2. Double dig the planting bed area. First dig and set aside soil the depth of shovel. In the same area where you have dug, use the shovel to loosen the soil the depth of the shovel. The result will be that the soil is loosened to 20 to 30 cm (8 to 14 inches) deep from the original soil surface resulting in improved soil tilth and root growth.



3. Dig a center trench to 20 cm (8 inches) deep.



4. Line the trench with banana leaves, cabbage leaves, or other large pieces of vegetation.



5. Add 20 cm (8 inches) of vegetation to the trench and then water it. If green vegetation is available, it is preferred. If only dried vegetation is available, it is preferred.

a. Adding green vegetation



b. Adding dried vegetation



c. Watering the vegetation



6. Add 5 cm (2 inches) of animal manure on top of the vegetation and water. If the animal manure is dried and readily available, more can be added. If the animal manure is fresh, mixing it with the vegetation is a good idea.



7. Cover the center trench with soil and pull extra soil from the foot path leaving the raised bed elevated 35 to 40 cm (14 to 16 inches) above the foot path.



8. Level the top of the raised bed and prepare to add the drip irrigation lines.



9. If dried chicken, goat, or rabbit manure is available, a thin layer can be added to the top of the raised bed prior to planting. This top dressing of nutrients gives the plants a boost as they begin to grow.



Copyrighted Material January, 2013

This material may be copied for use in a workshop, but it cannot be sold.

JOIN OUR HUNGER FIGHTING TEAM

Where people use the techniques we teach for dry season farming, it is like an oasis in the desert. After attending a village workshop, Timothy said, "What you have taught me is more valuable than money. It will not only impact me but also my children and my grandchildren. May God bless you. Come again and again to teach us more."

One billion people go to bed hungry every night. Every six seconds a child somewhere in the world dies of hunger. Malnutrition contributes to more than half of all childhood deaths. We can make a difference! God can use our hearts, hands, talents, and resources to transform the lives of hungry people. We challenge you to join our "Hunger Fighting Team".

Your donation will help us impact families who need our help:

\$15 will buy a drip irrigation kit for feeding a family

\$300 will buy drip kits to feed 150 people

\$1,000 will fund a village food sustainability workshop

\$5,000 will establish a learning center with a demonstration farm

Contact Carl Burkybile, Healing Hands International Director of Agriculture

cburkybile@hhi.org

The Advantages of Using Raised Planting Beds

By Sandra Mason, Champaign County Cooperative Horticulture Extension Specialist
Article appeared in Champaign-Urbana News Gazette

What goes around comes around. Wedge shoes, capri pants and leg warmers. Let's hope polyester leisure suits are gone for good. Sound gardening techniques should never go out of style. However, some ideas, such as growing gardens in raised beds, are now cultivating a new following. Raised beds offer definite advantages over traditional row vegetable gardening:



Improved Production

Raised beds can produce twice the amount of vegetables per square foot as traditional gardens since vegetable can be planted at higher densities. There is no need for wide spacing since walking or tilling between rows is not necessary.

Aids in Soil Improvement

Got lousy soil? The addition of ample compost and better quality soil to the beds can alleviate lousy soil issues. Soil compaction can be a particular problem with clay soil. Tractors, tillers and even human feet can compact soil, making it difficult for plant roots to penetrate and for water and air to move through the soil. Soil compaction can reduce yields up to 50%. With raised beds, tractor and tillers are not needed, and because beds can be worked from both sides, there is no need to walk in the growing area.

Adds Refinement to the Landscape

Well-constructed raised beds look neat and tidy without much effort on our part. Flowers, along with vegetables, can add a spark of color.

Expands gardening season

Raised beds tend to warm earlier in spring and stay warmer into fall. You often can plant earlier and harvest later. In addition, because of their compact size, beds can be easily covered with plastic to extend the growing season. Since the beds drain well, gardeners can plant sooner after a rain.

A Few Building Tips



Raised beds can be unframed with a mound of soil; however, the height of the raised area is limited to 4 to 6 inches before the edges start to drift. Beds can be framed with just about anything available, such as cinder blocks, stones, bricks, recycled plastic lumber or wood. If your bank account can handle it, redwood or cedar can be used. Treated wood is fine to use as long as it was purchased after 2004 when the EPA banned use of arsenic treated lumber for residential use. Now, copper is the main ingredient. If any copper leaches to surrounding soil, it is quickly bound in soil particles. In addition, plants are less tolerant than we are to copper so the plants would die well before copper in plant tissues could get high enough to cause us chronic health problems from eating the plants.

Keep the beds narrow. Most people can reach two feet without much effort; therefore, beds four feet across allow easy access from both sides. Four feet also works well with common board lengths. For instance, an 4-by-8 foot bed can be made from two 12 foot long boards.

North-south orientation is best for low growing crops. Beds intended for taller crops, such as pole beans, trellised peas or caged tomatoes may be better on an east-west axis since lower-growing crops could be planted on the south side of the bed and still receive full sun.

Pretty much any plants can be grown in raised beds. Some vegetables will overwhelm a small raised bed unless trellises are used. Supports ofr poles, cages and trellises can be easily mounted to the frame.

The biggest disadvantage to raised beds is the initial expense and work to build and fill a framed bed. However, a well-constructed bed should last for many years.