

# ***RING BEAM GARDENS***

*Growing vegetables  
and other plants in  
small spaces*

*“a valuable oasis of  
fertility in a desert of poor  
soil”*

*Peter Morgan*



# ***The Ring Beam***

***A ring beam is a circle of bricks or concrete which is placed around the head of a shallow composting toilet pit before it is dug.***





# *The Ring Beam*

*The ring beam stabilises the pit and lifts the slab that is placed on top of it above ground level.*





# ***Casting concrete ring beams.***

***Concrete ring beams are best because they can last for many years and can be moved from place to place. They can be cast within circles of bricks or within steel shuttering.***





# *Placing the slab and structure*

*A concrete slab is placed on top of the ring beam and a suitable house on top. This unit can be used as an Arborloo, Fossa alterna or normal shallow pit toilet.*



*Once the toilet pit is full a generous layer of soil is added on top of the pit compost and vegetables and even maize can be planted in this soil.*





# *Tomato growing on Arborloo pits (Zimbabwe)*



# *Passion fruit (Malawi) and pumpkin (Ethiopia) planted on Arborloo pits*





# *Trees growing on Arborloo pits*

## *Banana in Malawi and Avocado in Ethiopia*





***However the ring beam does not necessarily need to be linked directly to a toilet.***

***It can also be a circle of bricks (or even concrete) with the soil inside being dug out to about half a metre down, and where composted materials like toilet compost, garden compost, or leaf compost can be placed. Plants of many types can then be planted in this small area. The production can be high!***



***Spinach and comfrey grow well in ring beam gardens***



# *Onion planted in ring beam garden*





# ***Covo planted in ring beam garden***

*These two ring beams were planted with covo on very poor soil.*

*The covo on the right was fed with diluted urine (4 litres of 3:1)*

*twice a week. This led to a five fold increase in production.*





# *Spinach planted in ring beam garden*

*Around 40 spinach seedlings were planted in this ring beam (internal diameter one metre). Once established the plants were fed with 4 litres of a 3:1 mix of water and urine twice a week (Mondays and Fridays). In 9 months 23kg of spinach had been cropped from this very small area (with two plantings).*





# ***Using ring beam gardens for school experiments***

**A month after planting seedlings on poor sandy soil, the influence of urine treatment ( 2.4 litres of a 3:1 water and urine mix twice a week with additional watering) was clearly visible. Rape yield increased 7X, and spinach 4 X. Increase in maize size was very obvious.**

**Upper photos untreated, lower photos urine treated.**





*Herbs and trees can be planted in these small gardens, which have been enhanced with healthy soil and compost. Diluted urine treatment also assists growth.*



*Herbs like lavender (left) and trees like mulberry (right) grow very well in ring beam gardens*