

# Palmas de Mamre

April 2011

## Dr. Job Ebenezer:

Palmas de Mamre has been honored to have world renowned Dr. Job Ebenezer, PhD in Electrical Engineering, volunteer to teach some of our leaders in Sarapiquí his methods of technology for the poor. Dr. Job was born in India, studied in the U.S. and has taught engineering at several U.S. universities. As he was nearing retirement he began to follow his passion to invent and teach techniques that use commonly available materials to help the poor provide for themselves and live more healthy and comfortable lives.

In Palmas de Mamre we believe so much in his philosophy of “train a man to fish rather than giving him fish,” that we want to do anything we can to bring his ideas and teachings to our people here on the river.



## 3 Main Teachings

- **The Bible's prospective of our duty to reach out to the poor.**
  - As one looks deeper we find that helping the poor is not just a casual option, but God's directive for our life

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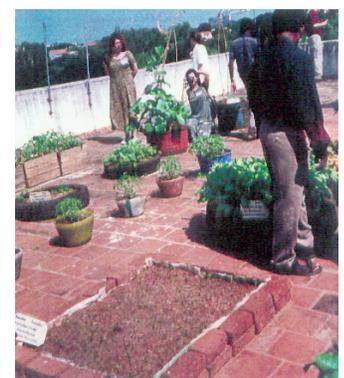


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- **Urban, or intensive gardening**
  - One would not think that these techniques used to produce vegetables in the cities would be applicable to the Sarapiquí River community. The truth is that it is very difficult to grow crops here due to the heavy rains that knock off the blooms before the fruit can bear. We would like to set up a project in the village of Jobo (where we placed some of the school books) which would be continued and supervised by the teacher. A public boat passes this village once a week when river conditions allow travel, selling vegetables and other items, but the prices are prohibitive. This style of gardening could make a huge difference in the lives of these people.
  - These gardens are set up on top of cement parking lots, roof tops and other unlikely places.

**Comparison of vegetable yield data between ELCA, U.S. and Wisconsin Farms**

Vegetable	ELCA RoofTop Equivalent	U.S. National Farms*	Wisconsin Farms*
Cucumber	58,867 lbs/acre	17,527 lbs/acre	12,680 lbs/acre
Snap Bean	9,408 lbs/acre	4,725 lbs/acre	6,930 lbs/acre
Tomatoes	37,206 lbs/acre	25,980 lbs/acre	Data N/A
Bell Peppers	23,600 lbs/acre	24,092 lbs/acre	Data N/A



\*National & Wisconsin data from the United States Department of Agriculture

# More Examples

A wheat thresher



The generator becomes a bicycle to take the vegetables to the market



A normal bicycle with a special kick stand and controls for another chain



## • Pedal Power

- This is a system to convert a normal bicycle into a power tool whereby the following tools or pump can be run.
- Power production mode. Note the back wheel elevated to make a generator of the bike.
- Bicycle kick stand raises up to become a carrier.



Winnowing



Corn Sheller





Peanut Sheller



Water Pump



Operating Circular Saw



Operating a wood working lathe.



## Donate:

I have seen all of these things in production and am impressed and would like to direct this program to fruition here in the river, but we need the funds to purchase the basic initial materials and some of the transportation.

If you would be interested in this type of project I think the money would be one of the most far reaching and long lasting projects that we could do.

### Bicycle Project Costs:

1.1- Single Speed Bicycle	US \$100 (Used will be about \$30)
2. 21- Free Wheels	US \$16
3. 2- Bottom Brackets	US \$30
4. 2- V belt Pulleys (12" and 9")	\$40
5. 20' of angle iron (1" x 1)	\$20
6. 1 - Table Saw (circular)	\$100
7. 1 - Maize sheller	\$75
8. 1 - Grain Grinder	\$75
9. 2 - regular size bicycle chains	\$20
10. 108 " V belt (approximate size)	\$45

### Container Garden Project Costs

6 cu ft of peat moss	\$24
Assorted Seeds and Seedlings.	\$20
20 plastic cans 3-5 liters	0
50' of 3/8" rebar	\$50