

# THE ONIL COOKER

BY *HELPS* INTERNATIONAL



# Guatemalan Statistics:

- Average family size:  
2 adults and 6 children
- They spend \$25.00 per month in firewood to cook with an open fire
- They walk 2 to 5 kilometers to get wood every 3 days.
- They use 30 pieces of wood every day with an open fire



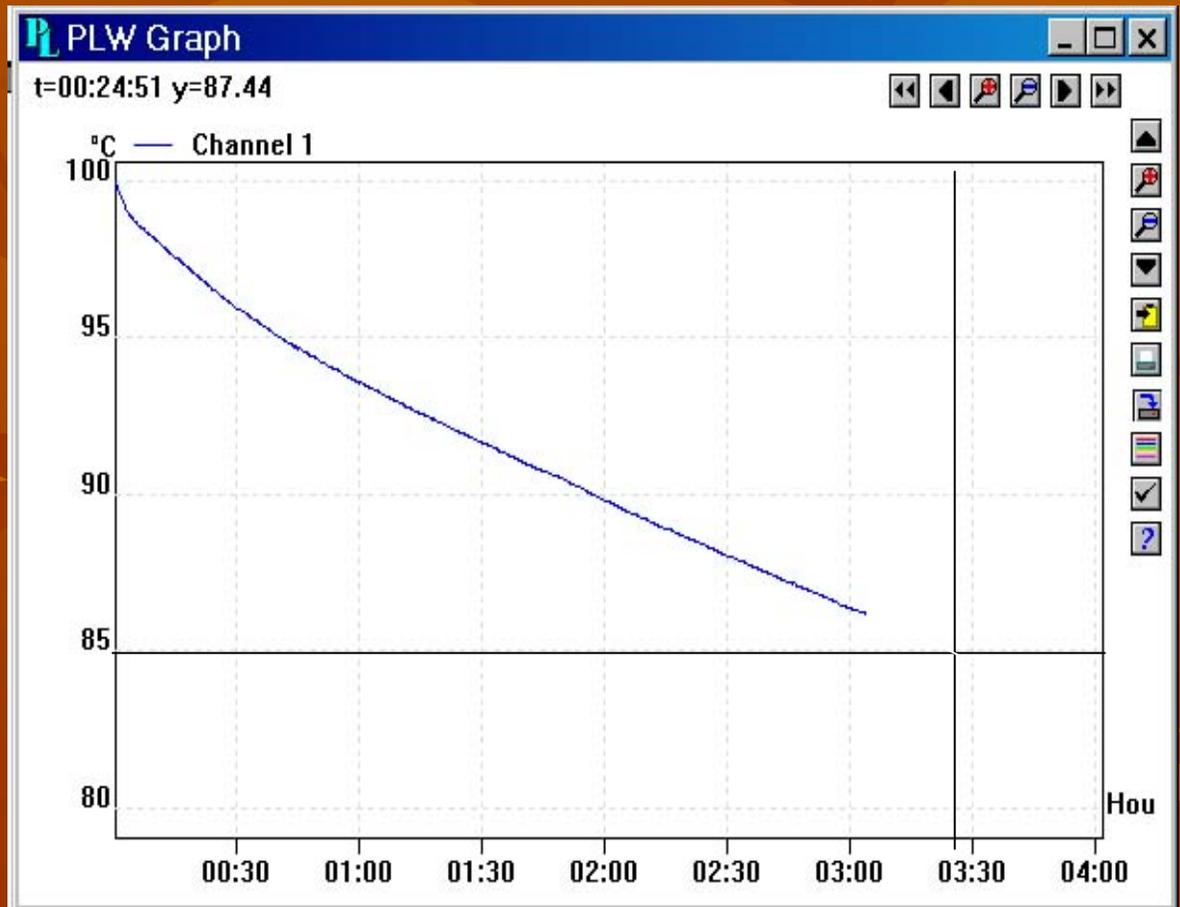
**Guatemalan black beans : take 4 hours to cook  
without a pressure cooker**



# Lab and field tests:



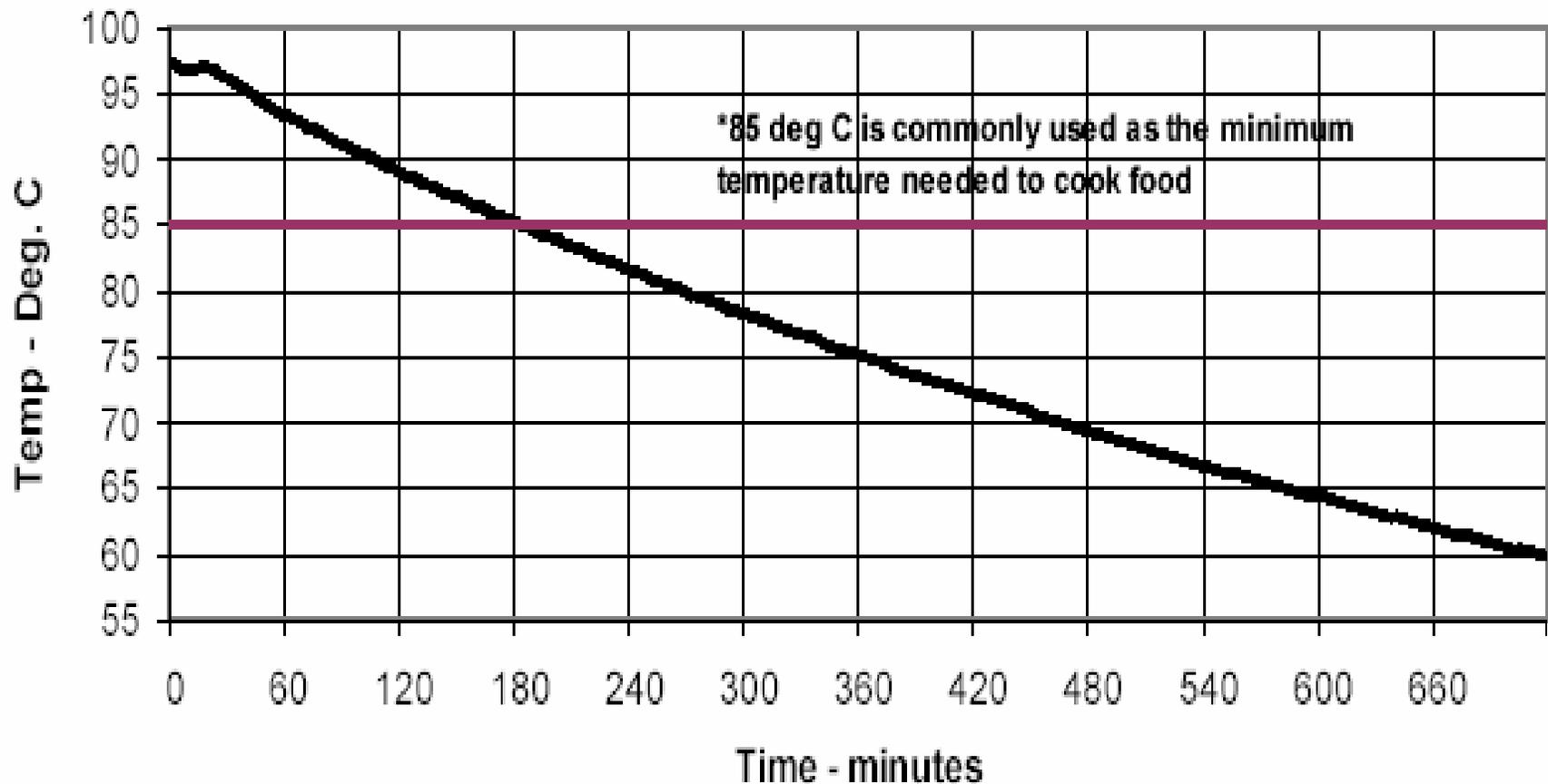
## HELPS Performance graph



# ONIL Cooker

performance graph by Aprovecho Research Center

## HELPS Haybox Performance with 5 Liters Water



## Suggested times with ONIL Cooker

Meal :	Normal time to Cook :	Boiling on the Stove wood :	Time in the ONIL Cooker:	Time Saved:	Fuel and Time Saved:
Frijol	4 Hrs.	1:30 Hrs.	3 Hrs.	2:30 Hrs	63%
Nixtamal	1 Hrs.	0:30 Hrs.	1 Hrs.	0:30 Hrs	50%
White Rice	0:25Hrs.	0:05 Hrs.	0:20 Hrs.	0:20 Hrs.	80%
Pasta	0:25 Hrs.	0:05 Hrs.	0:20 Hrs.	0:20 Hrs.	80%
Chicken soup	0:45 Hrs.	0:20 Hrs.	0:35 Hrs.	0:25 Hrs.	55%
Meat stew PULIQUE.	2:00 Hrs.	1:10 Hrs.	0:50 Hrs.	0:50 Hrs.	45%
Vegetable soup	0:35 Hrs.	0:10 Hrs.	0:30 Hrs.	0:25 Hrs.	70%
				Average	63%

## HELPS Onil Stove Savings Using the Haybox

Time To Boil 5L of Water		min28		
Time to Simmer 5L of Water		min45		
Time to Cook 5L of Food		min73	<b>Time Saved</b>	<b>62%</b>
Fuel Used to Boil 1L of Water		g/L 117		
Fuel Used to Simmer for 45min		g/L 160		
Fuel Used to Cook 1L of Food		g/L 277	<b>Fuel Saved</b>	<b>58%</b>
CO Released	To Boil	g/L 2.0		
	To Simmer	g/L 4.3		
	To Cook	g/L 6.3	<b>CO Saved</b>	<b>68%</b>
PM Released	To Boil	mg/L 112		
	To Simmer	mg/L 157		
	To Cook	mg/L 269	<b>PM Saved</b>	<b>58%</b>

*Chart by Aprovecho Research Center*

# Technical aspect:

- Material : 100 % Recycled Polyethylene.
  - Low thermal mass
  - Easy to clean
  - Readily available
  - Low cost
- Insulation: Shredded Styrofoam beads.
  - 4 cm on sides, 15 cm on bottom and 10 cm above
  - Total Styrofoam used 341 grams (.75 lbs)
  - Low thermal mass
  - Readily available
- Plastic Welding :
  - High density polyethylene rod and industrial hot melt glue.
- Total weight : 8.25 pounds
- Vapor Barrier: 7 cm overlap on the lid
- Inside dimensions : 33.5 cm diameter x 27 cm high
- 12 lt. Aluminum pot included
- Easy and efficient manufacturing



# Ready for shipping



## User testimonies :

- “I leave my frijoles all night in the Onil cooker and they are cooked like I like them in the morning.” *Doña Ana, Santa Avelina Quiche*
- “I don’t know if this ONIL cooker is working, I can’t feel it getting hot on the outside like the one I had before” *Doña Susana, Santa Avelina Quiche.*
- “I used to get up during the night to prepare oatmeal for my baby; with the Onil cooker, I can keep oatmeal hot to use during the night”  
*Doña Rosa, Santo Domingo Xenacoj.*

# Marketing

- Total sales price:
  - Q175.00 (\$23.00)
- HELPS offers financing:
  - $4 \times Q45.00 = Q180.00$

# Marketing

- Methodology:
  - Community demonstrations with hands on cooking



# Marketing

- Results:
  - Women understand the benefits
  - Creative thought process
  - Interest in buying through financing



# Marketing

- Micro-credit organizations
  - Willing to fund RHC and stoves
  - Have available funding
  - Looking for good projects
- Giving payment options
  - Women are more willing to pay full price
  - Can choose to buy higher priced products
    1. Better quality
    2. Longer lasting
    3. Solve the problem
- They already purchase this way
  - Enameled pots
  - TV's
  - Furniture
  - What they think is useful and beneficial

# Economics

- Wood used per month: 1.2 mts.<sup>3</sup>
- Wood cost per month: \$25.00
- Wood savings: 58% (Aprovecho)
- Wood savings: .70 mts.<sup>3</sup>
- \$ savings: \$14.50
- Cost of ONIL Cooker: \$23.00
- Months savings to pay: 1.6 mo.

# Marketing

- The macro results of this process
  - Increased self-esteem...”*I* can improve my families living conditions”
  - Understanding of real economics
  - Creates sustainable communities and therefore countries
  - Reduces or eliminates the dependency of total or partial subsidies
  - Increases the “bang-for-the-buck”
    - If subsidy \$’s are used for micro finance, it can help 4 times the amount of families, even at no interest.

# Marketing

- Most importantly.....



It gives them the choice!!