### Amaranth Evaluation Highlights (1998-2014)



April-May 2014



### The Starting Year:



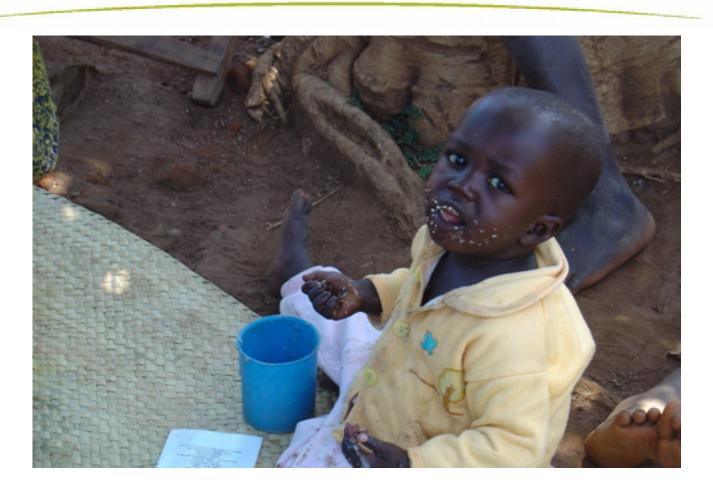
Ngaamba Village Where We Started: 8/21 Still Growing Amaranth

Dr. Mwangi's Teaching on Amaranth: Start: Selected Seeds, Eating, & Promise of Market





### Early Results Promising: Amaranth Health & Happiness





#### 2006 - 2009 : Special Volunteer Amaranth Teachers





Sid Kramer and his wife, Audrey
Kramer,
Teaching Amaranth Cooking &
Nutrition

WorldRenew

# 2014: Tanzania Farmer Continuing After Minimal Training



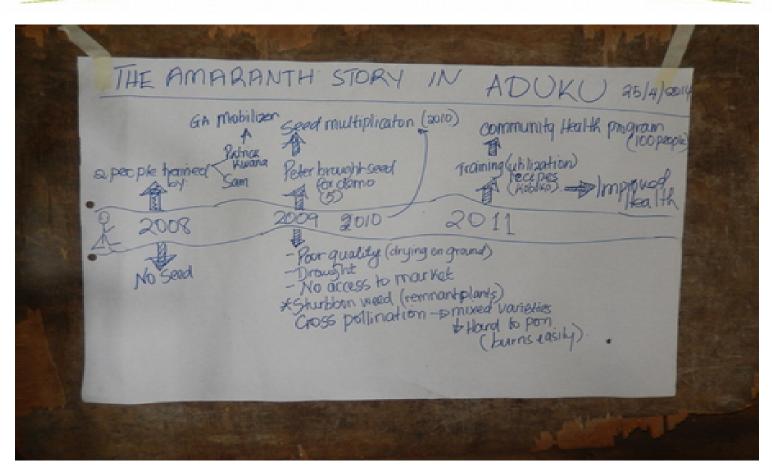


# 2014: Enthusiastic Testimony: "I felt my baby dancing within me!"





# Focus Group Dynamic: Timeline Story Telling For Lessons Learned





# Peter & Friend: Introducers of Amaranth in Ugandan Village





# How to Eat Amaranth 1:3 or 1:4 Mix





Grain Amaranth Food Utilization for better nutrition and health









# Doubling the Value: Village Level Grinding or Popping







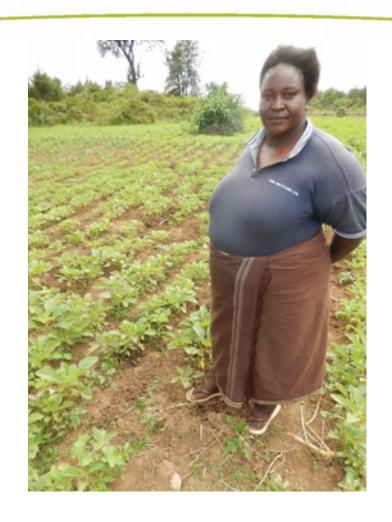
Marketing Step: Collecting Center in W. Kenya



Popularizing
Amaranth Flour in
Kenya Western
Super Market



#### Western Kenya: 2 or 3 Crops Per Year





### **East Africa Agricultural Environment**

- Most of the farmers surveyed are working within an elevation range of 1,000m -1,500m above sea level.
- East Africa region lies at the equator and has two rainy seasons, with one longer than the other, separated by two dry seasons.
- Hunger years are frequent, due to erratic rains and failure of maize crops.
- Farmers in both Uganda and Kenya long for cash crops to replace cotton.
- Many people are living with AIDS and/or malnutrition



### **Study Methods**

- April 2014: Census Survey Sampling of 480 farmers from 3
   Countries & 6 Focus Groups: All but six claimed to have grown amaranth at some point, with 366 claiming to be growing it currently.
- In addition Participatory Learning Action focus group activities were done in 6 villages in Kenya and Uganda in late April and early May, 2014 Approximately 100 farmers participated.
- "10 Seed" Voting on Relative Importance of Amaranth to Well Being, 7-Day Dietary Recall of Amaranth Consumption, and Village History Timeline of Amaranth Development



### **Results: Sustainability Indicators**

- 300/480 of the farmers reported not having stopped growing amaranth since the time they started. 380/480 growing it now.
   Main reason for dropping out: Lack of Market.
- Approx ½ of those currently growing amaranth have done so for between 3 and 10 years. 80% of farmers have taught others.
- 66 % consume leaves and/or grain between 2 to 7 days/wk
- Amaranth ranked highest ag activity for well-being impact by all focus groups.
- Grain amaranth is now a cash crop in parts of Kenya and seed is available from the government ag dept.



### **Lessons Learned & Recommendations**

- Those without marketing experience should introduce amaranth as a nutrition supplement for home consumption before raising expectations about cash cropping.
- For marketing: The collection point facilitation of Anglican Dev.
   Services offers promise.
- Amaranth shows excellent promise as a nutritional supplement for mothers and for post-weaned children.
- Soil fertility restoration methods--- legume cover crops, fertilizing trees, micro-dosing of chemical fertilizer, etc.---should be taught simultaneously or before amaranth introduction.
- The many testimonies of benefit from people living with AIDS merits further research.



# Lessons Learned & Recommendations Con't

- Crossing with wild types is observed in Uganda, and there is a need for sourcing reliable seed & for farmers to be taught seed selection methods.
- There is more potential for farmer to farmer and NGO to NGO exchange learning.



### Kids Like The Porridge!





# Latin American Version of Porridge: "Atole"





Ex-Post Evaluation of the Introduction and Promotion of Grain Amaranth Program in Eastern Africa (1998-2008)



Lead Evaluators: Thomas Post (Ph.D.) and Dorothy Nakimbugwe (Ph.D.)

# Lessons Learned & Recommendation



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### Stories Keep Coming

### CRWRC Classis Report by Anja Buwalda November, 2001

- **Development:** Enoch is a healthy 9 month-old. But it was not that long ago, that he was a malnourished boy with an extended belly, thin arms and a reddish tinge to his otherwise beautiful, black, curly hair. Severe drought had destroyed crops in Kenya for two years in a row, and Enoch's family could not afford to feed him better.
- Then CRWRC and its Kenyan partner organization, the Maasai Rural Training Center, introduced a new, highly nutritious and drought resistant crop - called amaranth - to Enoch's community.
- Enoch's mother planted amaranth on her small plot of land and harvested 5 kg! She was able to use some of it in Enoch's morning porridge. When Enoch's mom took him back to the clinic two months later, the nurse could not believe her eyes. "What have you been feeding this child?" she asked. She weighed Enoch and found he had gained nearly 1.5 kg in the previous two months!