



Compatible Technology International

**Alexandra Spieldoch, Executive Director
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Compatible Technology International

*St. Paul, MN HQ
& design Lab*

Global nonprofit with 35 years in post-harvest handling
and processing for smallholders

Technical experts and support from food companies



Tools



Training



**Product
Development**

TECHNICAL EXPERTISE

RESEARCHER

Don Jacobson

A biochemist formerly in R&D at the General Mills and Pillsbury



FOOD SCIENTIST

Miranda Grizio

Works in R&D for the natural foods industry



AGRONOMIST

Dr. Vern Cardwell

Spent 42 years teaching at the University of Minnesota in Agronomy and Plant Genetics.

UNDERSTANDING THE NEED

Intersection of hunger, stable
food supply and climate
change





CHRONIC HUNGER AND POVERTY

- > 820 million hungry**
- > 2 billion malnourished**

**1/3 of the food
produced for
human
consumption is
lost or wasted**



Why Africa?

1/4 of Sub-Saharan Africa is food insecure, 35 billion dollars in food imports every year and expected to grow, high unemployment, growing population, lack of infrastructure....


By focusing on Africa, we will improve:

- > Sustainability
- > Peace and security
- > Well-being

OUR ASPIRATION

An Africa that can feed herself

- > When farmers can nourish their families and sustain their communities
- > When we eliminate women's drudgery and invest in their livelihoods
- > When we invest in postharvest business solutions

A man in a blue long-sleeved shirt and grey trousers is bent over, harvesting peanuts in a field. He is holding a large bundle of green peanut plants with white pods. The field has rows of similar plants in the background. The right side of the image is overlaid with a teal gradient containing white text.

Productivity is a
challenge due
to lack of
mechanization



POSTHARVEST PROCESSING





PEARL MILLET

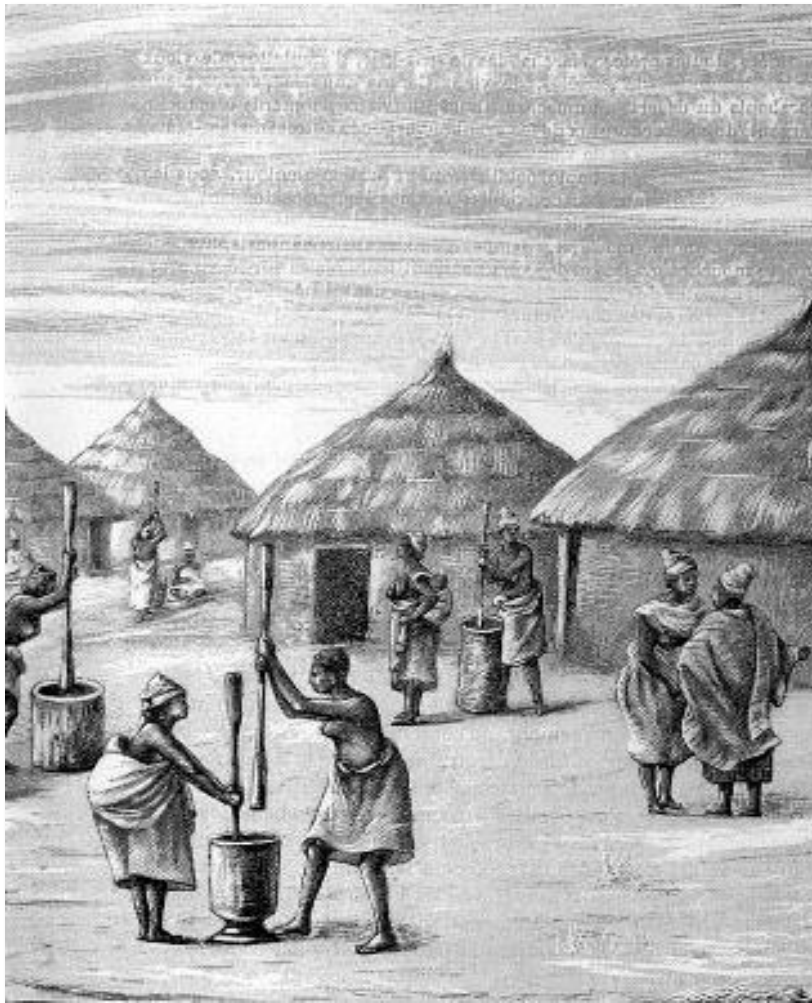
- > Feeds 500 million people worldwide
- > The most widely grown crop in Senegal
- > Drought resistant
- > Nutritious



Traditional Pearl Millet Processing



- > Wasteful
(25-40% lost)
- > Time & labor intensive



1890



Today



- > 5-10x faster
- > Whole clean grain
- > Portable and durable
- > Designed for farmer groups in remote areas
- > Opportunity to supply local food markets

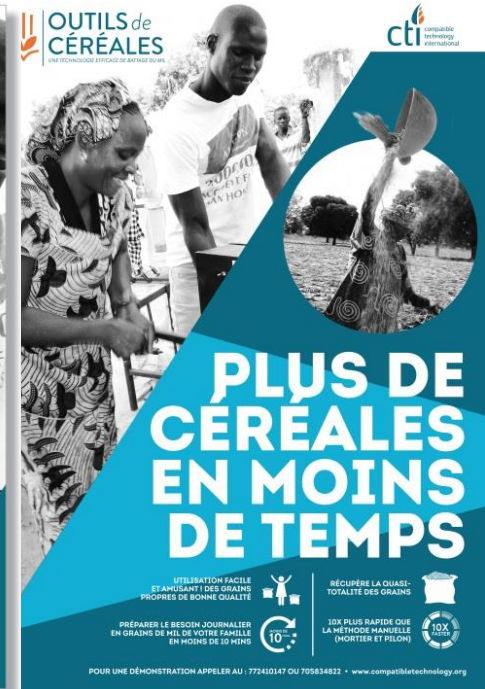
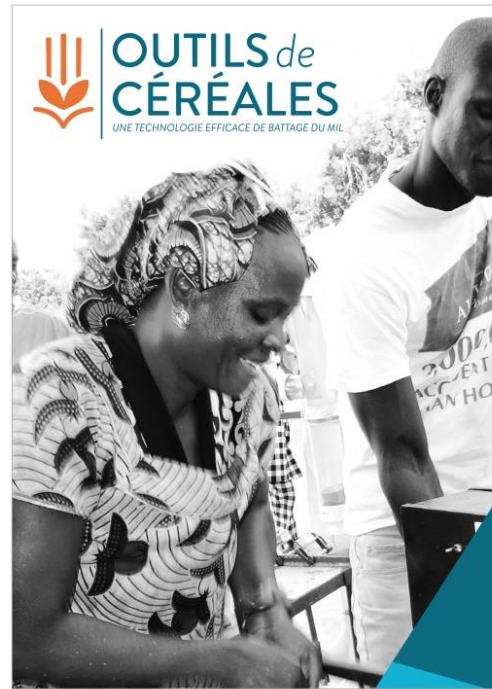
CHALLENGES

- > Manufacturing
- > Distribution
- > Promotion
- > ROI



African Assembly





POSTER FOLDED

POSTER UNFOLDED

Promotion



FARMERS NEED A RETURN ON INVESTMENT

More food security and
nutrition

Increased revenue

- > Local products sold in
neighboring markets
- > Bulk sale to local
processors and buyers











Groundnuts

- > Groundnuts are valuable and nutritious, but labor intensive
- > Smallholder constraints: harvesting, stripping, and shelling
- > Aflatoxin common



Groundnut Harvesting



Groundnut Stripping



Groundnut Shelling



Scaling: Models for Expansion

in 9-12 countries across Sub-Saharan Africa by 2025

- > Portfolio of tools to process and preserve protein rich crops**
- > Technology Service provision business models for African manufacturing, distribution and post-sales support**
- > Social franchising and business training for smallholders (especially women and youth)**

Technology Portfolio

GRINDER



PEARL MILLET PROCESSING



GROUNDNUT PROCESSING



Soybean Innovation Lab: Multi-crop Thresher





Training and Services



Training and Services



How You Can Help

- ① Provide technical expertise for programs
- ② Become a CTI ambassador to open new doors for CTI to tell the story
- ③ Contribute financially to our successful impact in Africa





**THANK
YOU!**