



# COMPATIBLE TECHNOLOGY INTERNATIONAL

A SEMI-ANNUAL NEWSLETTER FALL, 2003

# HARVEST

Sharing resources  
and knowledge  
to fight hunger and  
poverty

## Our Work

CTI designs and adapts simple, efficient and inexpensive technologies in response to small scale food-processing and related needs in rural areas of developing countries. We work as technical consultants and as project partners to local agencies who integrate our technologies into the processing systems currently used in households and by local entrepreneurs. Our experts train in the manufacture, use and maintenance of our devices. CTI technologies are available for purchase.

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## From the Board President

Early in 2000, and not long after I was invited to the board of CTI, I was preparing to travel to Uganda for my day job. The Africa committee recruited me to add a volunteer project—locating a good local partner—to my schedule. Rolfe Leary and George Ewing repeatedly and patiently coached me on the ins and outs of our newest grinder and Bob Wolf detailed CTI grinders known to be in Uganda. Off I went, grinder in suitcase. The rest, as they say, is history: three years and five trips later Mark Kooiker has brought manufacturing to a new level at a good Kampala machine shop, and AT-



Uganda, our partner in this McKnight-funded effort, is working to get the resulting **locally manufactured** grinders to families in peanut processing areas, for sustainable businesses and a highly nutritious product.

Though virtually technologically illiterate, when I left Uganda in 2000 I was ABSOLUTELY

CERTAIN that CTI has superior technology to offer to the millions of rural poor who rely on what they grow to feed and support their families. My Ugandan colleagues provided introductions to the best engineers and donor-funded agriculture-based projects in the country. Everywhere I turned those who design—and those who use—simple food processing machines marveled at what we now call the Ewing grinder. Many literally reached to take it from my hands; more offered to buy the demo I carried. Wow, I know great feedback when I see it!

Two things about that experience have shaped and motivated my work for CTI and my agreement to become board president ten months ago. Both the certainty that what CTI provides is so excellently useful to the most deserving poor and the tireless efforts of our stalwart volunteers have inspired me to stifle my frustration and soldier on.

Why frustration? It is quite simple. CTI is so good at what it does: invent, adjust and adapt useful tools and machines to benefit

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## PROJECT UPDATES

### India Potato Project

in particular those without access to electricity. What has frustrated me is that we are not able to HELP MORE FAMILIES.

What do we need? Money, of course, is essential. CTI needs every one of our supporters to make a particular effort to give as generously as possible in the next three months because these difficult economic times have reduced what churches and foundations provide us.

But CTI also needs volunteers: individuals who are willing to spend time to identify and develop and maintain our contacts with effective local organizations in other countries. And we need volunteers to tackle the growing list of technology requests.

Among the Board and the staff there is a renewed commitment this year, a renewed energy to strengthen our infrastructure and create a larger awareness of our potential. We are excited about our nascent work—providing pure water to whole communities and nutritious food to toddlers at critical risk following weaning, as well as taking pride in the “older” ventures that continue to have untapped potential—grinders and peelers and slicers, chippers and dryers.

You don't have to put a grinder in your suitcase, but I guarantee you will be proud of your volunteer efforts at CTI. Join us!

Kathleen Graham  
CTI Board President

In late August and early September, I visited the site of CTI's potato project in India. Our partner organization, SOTEC, is located in Barielly, in the state of Uttar Pradesh, in northern India. In this area potato growers harvest their crop in February and March. They are at the mercy of the market and



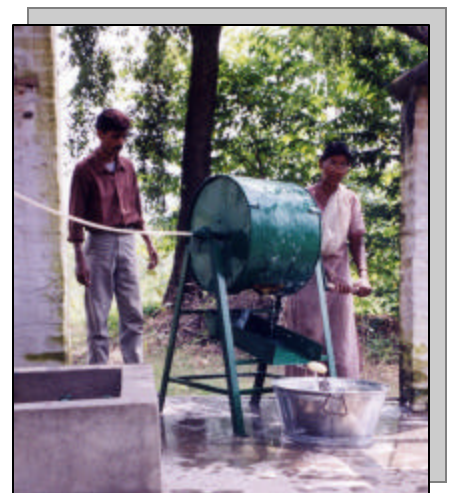
prices drop significantly during harvest. Storage facilities are too expensive for small farmers. Our project allows them to process their crop into potato chips, which command a higher price and can be stored for some time. These potato chips are not what you would find at your local grocery store. Think of the potatoes that come in boxes of potato au' gratin. They are a dried product, intended to be fried and seasoned by the consumer. Chips are consumed primarily during festivals.

My visit hit both the end of the rainy season and the early part of the road construction season. While this made travel challenging at times, my experience was informative and productive. I was able to meet with many of the

entrepreneurs who are using our machines. SOTEC has decided to brand the machines. They are “Nave Brand,” for Bob Nave, a founder of both CTI and SOTEC, who started promotion of improved potato chip technology in and around Barielly.

The entrepreneurs appreciated the quality and reliability of the NAVE machines. Making chips allows them to earn extra income at a time of the year when they would otherwise be unemployed or underemployed. My visit also included discussions with the manufacturers, consultants, field staff and other stakeholders of the project. I was impressed by the knowledgeable and enthusiastic team SOTEC has assembled and look forward to working with them through the rest of the project. We are about to complete the first year of this eighteen-month project. There is potential for this project to be extended and a possibility of developing projects related to other crops in the Barielly area.

Sara Leiste, Asia Committee



## PROJECT UPDATES

### AT UGANDA Produces Grinders

One year ago, in the Fall 2002 issue of *Harvest*, we announced a project to produce grinders in Uganda. Funded by The McKnight Foundation (St. Paul), the joint CTI/AT Uganda project has been very successful, and the first 60 locally made grinders are pictured below.

Mark Kooiker, CTI volunteer, traveled to Kampala several times to



instruct a local manufacturing shop on how to build from drawings instead of “artisan mode” (making grinders one at a time without following drawings). One of the goals was to make parts for all grinders interchangeable. This goal has been achieved. Mark had to actually make and take to Uganda machine fixtures which the manufacturer could use to mass produce the grinders. Hats off to this very successful partnership!

### Grinder Training

On Friday, May 16, we had the first formal training session for buyers of Omega VI grinders. Most of the students were representatives from St. Paul ELCA congregations who will bring three grinders to Tanzania and train local persons how to use them. Rolfe Leary, with the able assistance of Dave Elton, conducted the three-hour session. Students were given an introductory talk and demonstration, then divided into

three groups to practice disassembly and assembly, grinding corn and grinding peanuts. The training wound up with a Q&A session and critique.

The training session was also an opportunity to use and critique the new training manual and user’s manual that was developed

by Prof. Jeanne Hites of SCSU and her students, two of whom attended the training with Jeanne. They will continue to improve our training materials as lessons are learned.

This training is part of an experiment at CTI on disseminating our technologies and processes through other charitable groups who share our goals without requiring major CTI expense and travel. Ralph Thrane landed the first group through his Tanzania initiative. We hope to use this method to build on the efforts of Steve Clarke and Rodney Leibold who have been working with Peace Corps volunteers. If any of you know

of local congregations or groups who have an ongoing presence in developing countries, please introduce them to CTI and see if they might be interested in obtaining a “project kit” from us.

**Hand Tools:** A previous request for an engraver netted us both a loaner, which we used, and later a keeper, purchased at a garage sale. Thanks to those who responded! I’m going to try my luck again. Does anyone have an extra set of socket wrenches, box wrenches, and/or open-end wrenches they’d like to donate to the Boylan Center? We could use both fractional and metric.

Thanks to all our volunteers for all you do, and especially to those who participated in the grinder training.

Don Moran, Technology Committee



Dr. Patricia B. Wolff, a volunteer pediatrician at a clinic in Haiti, working on the RUTF procedure with CTI volunteer in the Boylan Technology Center.



### Volunteer Opportunities

One very positive way to contribute to CTI is to find the people CTI needs. Is it you or someone you know? Call Barbara: 651-632-3912

- **Speaker's bureau organizer:** establish and guide a group to speak to local groups and demonstrate our technologies
- **Peace Corps liaison:** set up a CTI-Peace Corps partnership; needs a returned volunteer.
- **Handyman:** assist an engineer and build a simple oil press for seeds appropriate to rural India.
- **Solar oven operator:** design the temperature controls and utensils for experiments with peanuts.

RUTF (Ready to Use Therapeutic Food) is a French product being studied in several clinics around the world as a supplement for malnourished children after weaning. It is typically administered at the clinic after a malnourished child is stabilized and it may also be sent home with the mother and child. RUTF is made from ingredients usually available in poor countries: peanuts, dried milk, sugar, vegetable oil, and possibly vitamin and mineral supplements. Two of its advantages over other formulations are that it does not require the addition of water, which could be contaminated, and it does not require refrigeration.

CTI has initiated a Therapeutic Toddler Food project to develop the devices and procedures

needed at remote pediatric clinics to make RUTF. We hope to make this capability available in areas where fuel and electrical power are unavailable or very expensive. Our initial contact is with Dr. Patricia B. Wolff, a volunteer pediatrician at a clinic in Haiti.

In addition to basic ingredients and containers, production of RUTF requires a grinder, various utensils, and possibly a sheller and a roaster, depending on local peanut availability and weather. CTI has already developed suitable hand operated grinders and has been working on solar roasters for several years. Shellers are available from other sources.

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