

An ECHO Heard Around the World

BY ANNA H. BEDFORD



Photos courtesy of ECHO

Cruising along the dirt path in a ramshackle golf cart, you swing by a zebu pen surrounded by egusi melon and buffalo gourd. You're in semi-arid desert—must be Africa. Next you pass a rain forest clearing—definitely South America. But wait, what's this hillside farm terraced with pine logs and old tires? And these tropical lowlands with raised beds of Malabar spinach, jicama and sweet potatoes?—looks like Asia. A bit farther, and you rattle past a tropical monsoon landscape with mango trees, passion fruit and bananas.

Where are you? You are in ECHO's Global Village in Florida. Each year, 10,000 visitors take this "walk around the world" to gaze in wonder at an amazing training ground for interns, students and overseas development workers in tropical agriculture. Besides the five mini-climate zones, they see urban gardening with exciting innovations like tire gardens and rooftop gardens—ideal for crowded urban areas like Mexico City and St. Petersburg, Russia. They also enjoy visiting the duck pond full of tilapia that gobble up algae growing from the ducks' solid waste.

The Seed of an Idea

In the mid-70s, businessman Dick Dugger took a group of students on a short-term mission trip to Haiti. Moved by the hardship of life there, he asked pastors what they most needed to solve the problem of hunger in their communities. "We need better seeds to plant and better soil to grow our crops," they said. By 1981, biochemist Martin Price and his wife Bonnie had organized ECHO (Educational Concerns for Hunger Organization) to develop a seed bank for Haiti on a few acres near Fort Myers. From the beginning, their vision was to bring glory to God and a blessing to humankind by using science and technology to help people who are poor.

Since then, ECHO has expanded to become a living textbook for growing seeds for interns, missionaries and overseas development workers around the world. It also offers technical training, agricultural research information, conferences and much more. ECHO's stated mission is to network with community leaders in developing countries to seek hunger solutions for families growing food under difficult circumstances. With 26 years of experience to build on, ECHO has programs in 80 countries. At home, ECHO

ECHO is a not-for-profit interdenominational church organization located on a demonstration farm in Florida. It is a four-star-rated charitable institution that uses only 18 percent of its income for fundraising and administration. It is supported widely by PC(USA) congregations and presbyteries. Peace River Presbytery is an example. PW has no official connection, but many Presbyterian women support ECHO.

relies on 300 volunteers to maintain the Global Village and keep its interpretation program running.

ECHO does not distribute seeds in large quantities, relying instead on recipient groups to multiply their own. And they do. When he visited ECHO recently, Dr. Nagib Fares was bubbling with excitement. Dramatically, he held out a small handful of ordinary-looking seeds to a rapt audience. Having traveled to Kenya from his home in Egypt to represent Doctors without Borders as the medical coordinator for AIDS treatment, he had seen something amazing happen. He had seen that one packet of seeds sent from ECHO to Kenya a few years ago had produced enough trees to feed an entire village.

He told how regional AIDS workers were regularly feeding the trees' leaves to AIDS patients, and their health was improving. Both children and adults gained weight and had more energy and fewer symptoms of their illness. These miracle trees were, of course, the marvelous moringa (see *Horizons*, May/June 2006), which provides eight nutrients.

Dr. Fares beamed as he described how much the Kenyans liked his Moringa recipe. He seasoned a basket of leaves with garlic, onions and

spices, then cooked them in chicken broth to make a delicious meal for 30 people. "I plan to take a packet of seeds back to an isolated monastery in Egypt," he said. "The monks can grow them and have this source of nutritious food, too."

More Powerhouse Plants

But Moringa is not the only spectacular seed in ECHO's garden. Consider the graceful amaranth. Each plant produces 50,000 to 100,000 tiny seeds. Only one-half to two pounds of seeds are needed per acre, and less rain is required than for growing corn. For hundreds of years amaranth grain was the favorite food of the Aztec people, who popped it like popcorn and mixed it with human blood for religious rituals. Unhappy with this practice, the Conquistadors eliminated its use, with the result that most of us know amaranth only in flower arrangements or as wild pigweed.

But this overlooked plant is rich in protein and essential amino acids. It has helped cure diseases stemming from nutritional deficiencies, such as scurvy and kwashiorkor; it has helped control lifestyle ailments, such as heart disease and diabetes. It is high in lysine, which aids wound healing, and in zinc, which helps

restore damaged immune systems.

Dr. Fanuel Tagwira, dean of Agriculture at Africa University in Zimbabwe, has seen this for himself. He has approximately 75 farmers growing amaranth. He buys their crop, mixes it with moringa and sells it to an AIDS program for feeding infected persons. "The boost to the immune system," he says, "improves patients' quality of life and reduces the mouth sores that prevent them from eating."

And what about the winged bean—*psophocarpus tetragonolobus*, to get technical—popularly known as "Supermarket on a Stalk"? Native to the Asian tropics, its seeds can be boiled, steamed, fried, roasted, fermented or made into milk or bean curd. Its tubers can be cooked and eaten, and so can its sprouts, shoots and leaves. Its flowers taste good raw or steamed, and its young pods can be pickled. Dry, empty pods can be used for animal feed.

Even the best seeds won't do well in exhausted soil, yet subsistence farmers must work their small plots over and over. But a farming method developed after the Dust Bowl in the United States is now offering hope to thousands of small farmers in other countries. Midway through his 43-year farming career, Zimbabwean Brian Oldreive



Try This!

Make a Tire Garden

Find a used tire and lay it flat on the ground.

With a knife, cut off the top rim.

Inside the bottom rim, place a piece of plastic large enough so it stands up on the tire walls.

Turn the cut-off top upside down. It will fit like a lock on the bottom rim.

Place an empty flowerpot (that has a hole in the bottom) in the center. This will let you see when there's standing water, so you won't overwater.

To make your garden more moveable, add airspace and use less soil. Insert a dozen empty aluminum cans with holes punched in the sides. Fill the tire with soil or potting mix.

Plant seeds, water, fertilize and watch your garden grow!



noticed that, using conventional methods of tillage and burning, his harvests were beginning to decline.

He observed that, in nature, a blanket of organic matter covers the earth. He began making his farming practices consistent with God's creation. He no longer burns crop residues, but keeps them as a blanket on the field. He minimizes soil disturbance by not tilling, dropping his seeds into planting holes instead. His crops flourish and continue to do so year after year. Brian calls this "Farming in God's Way" and has taught his method in 16 countries. Through its networking program, ECHO has expanded this knowledge to 29 countries.

Why Are People Still Hungry?

With miracle-worker seeds and exciting new production techniques, some people wonder why so many still go hungry. Mark Maerton, ECHO's communications director, says several variables affect progress: war, politics, economics, natural disasters, even predators like baboons, elephants and hippos! Tradition, lack of capital and limited knowledge are other reasons. Women, who tend to be the gardeners in many countries, cannot easily leave family responsibilities to go away for training. And our own experience tells us how hard it is to adopt changes in eating

patterns. The days of World War II Victory Gardens are long gone. Without a sense of impending disaster, we tend not to put homegrown vegetables at the top of our food pyramid, work in community gardens, compost or preserve disappearing edible-plant species.

Stan Doerr, executive director of ECHO, understands this. He says, "The options you have are dependent on your poverty level. The wealthier you are, the more options you have—which doctor to go to, what to eat, where to live and so on. The poorer you are, the fewer options you have—is there a doctor I can go to? Will I have food for my family today (as opposed to will I eat at Cracker Barrel or Bob Evans)? And will my children have shoes (as opposed to how many and what color?)"

He points out that one of the fundamental objectives of ECHO is to provide people who are poor with realistic options. Plants that produce abundant, nutritious food—and training to grow and use them—are central to breaking the cycle of poverty. In a world where 840 million people are malnourished and 16,000 children under the age of five die from hunger every day, ECHO offers a wonderful way to participate in the global movement toward a simpler, healthier, sustainable life at home and to help

hungry families around the world at the same time. 🍅

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In the past, ECHO's seed packets have been available only to farmers in developing countries. Recently, however, ECHO's seed bank has grown sufficiently that North Americans can participate too, by growing nutritious, low-cost vegetables in their own backyards. ECHO has seeds that do well even in chilly northern states and Canada. One example is the purple yard-long bean, which grows easily, produces heavily and tastes delicious.

Seed packets can be purchased online from ECHO's U.S. Seed Catalog, www.echonet.org. Gardeners are invited to let ECHO know what works and what doesn't by emailing seeds@echonet.org or writing ECHO, Inc., 17391 Durrance Rd., North Fort Myers, FL 33917.



ECHO Offerings



For an in-depth introduction to ECHO's work, ideas for your own garden or information on internships, call 239/543-3246 or visit www.echonet.org. You'll find:

- Informational brochures (free)
- *ECHO News*, a quarterly newsletter (free)
- "Link up with ECHO," a vacation church school mission-emphasis program for children in grades 1–6 (free)
- "Equip a Village," a youth/adult churchwide activity program (free)
- Moringa seeds (\$3.50 per packet)
- Winged bean recipes
- *Visionaries*, a 28-minute video (\$13.50)