

# YOUR GIFT CAN BE TWICE AS NICE



Are you giving a Heifer gift? More than 16,000 companies across the country match employees' donations to Heifer, even if the gifts were made as long as a year ago. Many even match retiree gifts.

All you have to do is go to **www.heifer.org/matching** and type in your company's name. If you find your employer, just follow the instructions, and your contribution to end hunger and poverty will have double the impact. You can also call **888.5HUNGER** (888.548.6437).

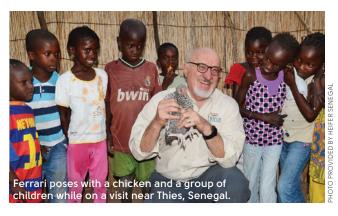




# Dear Fellow Activists,

of the year approaching, I want to say a special thanks to all of our supporters who have made our work in 2016 possible. I am so proud that Heifer International can be the connector between generosity and the hardworking farmers carving out better lives for their families.

The heartwarming stories in this edition of World Ark truly highlight how livestock transform families' lives. In Zambia, cows are bringing women together for success and better health. A family of nine who once shared a single blanket on cold winter nights now sleeps in proper beds with enough blankets to go around. In Vietnam, families are using their income from selling milk to launch businesses selling



exotic fruits and frogs.

The families whose stories you will read here represent the millions of families who, together, we are helping achieve living incomes so they never again have to face hunger and poverty. As you celebrate during the holiday season, I hope you will hold these families in your hearts, for they are part of our extended, global family.

We've enclosed our gift catalog in this edition,

too. If you haven't already selected a Heifer gift for the year, I hope you will. And please be sure to Pass on the Gift and share this magazine with family and friends. It will take all of us to help move 4 million families out of poverty in the next four years.

Yours for a better world,

ien a. Ferran

Pierre U. Ferrari

#### Program Visits

- Mexico

- Tanzania

#### Fundraising Visits

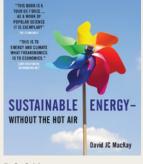
- Belgium
- California
- France
- Germany
- Italy

- Washington, D.C.

#### MY FAVORITE THINGS IN 2016



**CORNERSTONES** Nutrition and Income



BOOK Sustainable Energy—Without the Hot Air by David J.C. MacKay



GIFT A flock of chicks: Chickens can help pull families out of extreme poverty exceptionally quickly.



# PLAN YOUR SPRING FIELD TRIPS TODAY!



Heifer's Learning Centers offer field trip opportunities that educate your students about the world while inspiring them to become part of the solution to end hunger and poverty. Whether you visit Heifer Farm in Rutland, Massachusetts, Heifer Ranch in Perryville, Arkansas, or Heifer Village in Little Rock, Arkansas, you'll find programs for any age group. But call soon—spring programs fill up fast!

#### **★ SAVE THE DATE ★**

All three of our Learning Centers will host Holiday Open Houses the first two weekends of December, Visit our website for exact dates.



WWW.HEIFER.ORG/VISIT RESERVATIONS@HEIFER.ORG 855.3HEIFER (855.343.4337)

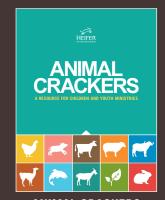


# A TIME TO GIVE

These **FREE**, hands-on resources can help you transform hearts in your church year-round while helping to end hunger and poverty worldwide.



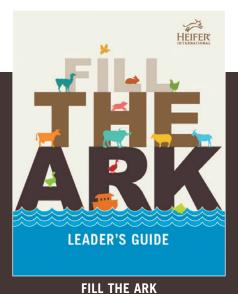
LIVING GIFT MARKET Host a giving event at your church.



ANIMAL CRACKERS

Connect to the global family through Sunday School lessons.





## The perfect program for the Lenten season.

ORDER RESOURCES NOW AT WWW.HEIFER.ORG/FAITH OR CALL 888.5HUNGER (888.548.6437)

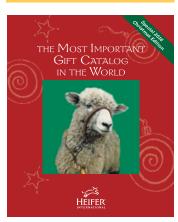
## worldark





Top photo: Huynh Van Chien feeds his frogs near his home in the Tra Vinh Province of Vietnam.

Photo by Omar Havana



The Most **Important** Gift Catalog in the World Fried Frogs and Fiery Fruit in Vietnam

> Savvy families in the Mekong Delta are diversifying their farms, branching out beyond cattle to tap into markets for more exotic fare.

Farming Forward Leaders in the push for sustainable farming techniques that replenish the Earth met in Uganda in May. The group highlighted strategies to feed a growing population while going easy on soil, water and wildlife.

A Good Night's Rest in Zambia Hard work is all the more taxing after a chilly night spent on a lumpy grass mattress. Heifer farmers in Zambia coddle the cows they've been given so that the pampered animals produce more milk, and more money. The farmers can rest easy now that they can afford new mattresses, cozy bedding and other trappings of a more comfortable life.









#### **RE: NOT A FAN**

I just read the letters to the editor in the Fall World Ark and could not agree more with the letter titled "Not A Fan." The values your organization are built on do NOT match the values of the Clintons.

SHARON DUNCAN Camden, Delaware

Why on earth did you print the letter from Rebecca McCollum (World Ark, Fall 2016)? It's hateful, disgusting and totally political.

GERALD-DAVID RUNKLE Washington, D.C.

I am astonished that you printed such a nasty letter (*World Ark* Fall 2016) about the author of a children's book promoting awareness of and solutions to Third World problems. Rebecca McCollum questions Chelsea Clinton's motivations and calls her "a faker." She claims that Clinton doesn't know or care about "the environment, women's rights or poverty in underdeveloped countries" because she comes from a wealthy family. Rubbish. Such negativity and snarkiness have no place in the World Ark magazine.

KATHRYN HEGGS Louisville, Kentucky

#### **NICELY DONE**

Your recent World Ark Fall 2016 magazine was simply great! I look forward to receiving these informative issues, and they are becoming better with every passing edition.

I want to thank you for the articles, as they are very informative. These people are trying so hard to get ahead. I am happy to be able to support your good works. Our help puts hope into their daily lives, and you do much to show them the way to go forward.

Once again, thank you for all that you do.

MARJORIE EHRENBERGER-BAUHS
Sunrise. Florida

#### In our Fall issue, we asked readers:

If you could recommend one book to a recent college graduate, what would it be? Why?

The Greatest Salesman in the World by Og Mandino. An excellent roadmap for life regardless of your current status.

JOHN LEINGANG

The Noticer by Andy Andrews. Great book on perspective and understanding the actions of others.

KELLY O'BRIEN

*Dreams From My Father* by Barack Obama.

SUSAN KRAMER

Not so much about careers, but The Millionaire Next Door (Cheryl Phipps) shows you who has real wealth and how not to get trapped in competing with the Joneses.

PRADO BEATRIXITA

All I Really Need to Know I Learned in Kindergarten by Robert Fulghum. A lot of important life lessons we learn when we are young, but we lose sight of their value.

NANCY MAYNARD STERN

Animal, Vegetable, Miracle by Barbara Kingsolver and various of her family members.

SUSAN BENTZINGER

A copy of *Our Town* by Thornton Wilder. It illustrates beautifully what we too soon lose sight of in this life.

JULIE MORIARTY WOOD

#### Q&A HOLIDAY

Is there a country where Heifer International doesn't currently work, but should? Where, and why?

#### We want to hear from you!

Please send your comments to worldark@list.heifer.org. Include your name, city, and a telephone number or email address. Letters may be edited for length and clarity, and may be published online as well as in print. Because of the volume of mail we receive, we cannot respond to all letters.

## worldark





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#### JOIN THE CONVERSATION

Follow World Ark blog on RSS and find Heifer on Facebook, Twitter, Instagram, Pinterest, YouTube and Vimeo.

















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Since 1944. Heifer has helped 25 million families, directly and indirectly, move toward greater self-reliance through the gift of livestock and training in environmentally sound agriculture

Heifer International is a member of InterAction, the largest alliance of U.S.-based international development and humanitarian non-governmental organizations, and of Global Impact. Federal and state employees may designate gifts to Heifer through payroll deduction by entering CFC #12079.

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Kumis, or fermented horse milk, has been popular for centuries among the people of the Central Asian steppes. Herodotus wrote about the production of kumis in the fifth century B.C.



Why buy a cow when you can get yak milk instead?

There's no reason to limit yourself to only chocolate or white, skim or whole. Take a cue from Prince, who soaked his breakfast cereal in yak milk. Or give a nod to the earliest ranchers, who milked sheep long before they milked cows.







# mozzarella paneer and khoa (fresh cheeses) kheer (Indian rice pudding) ghee (clarified butter) yogurt

#### Compared to cow milk

- caloriesbutterfat
- protein calcium
- cholesterol
- lactose



Water buffalo dislike being milked and can be quite stubborn, factors that likely contribute to the high prices of buffalo milk and cheeses.

#### **YAK MILK**



#### Used to make

butter tea (Tibetan staple) milk wine (fermented, alcoholic drink) chhurpi (a cheese used in South Asian dumplings called momos)

Yak butter is used as lamp fuel, to polish fur coats, and as a medium for traditional Tibetan sculpture.



#### Compared to cow milk

- fat
- protein
- calcium
- iron



get older, yak milk turns

to a creamy white.

#### **CAMEL MILK**



#### Used to make

butter (not easily processed) cheese (not easily processed)

#### Compared to cow milk

- vitamin C (3X the amount)
- fat
- protein
- lactose

#### How to drink

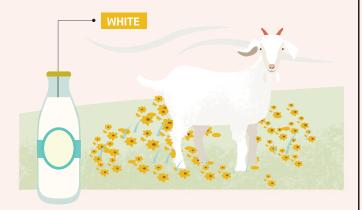
Drunk straight or fermented into fizzy, sour chal or shubat; sometimes blended into high-end chocolate.





Stop into the Ritz-Carlton in Abu Dhabi, United Arab Emirates, for a camel milk-based smoothie or shake.

#### **GOAT MILK**



#### Used to make

cheese yogurt ice cream cajeta (a thick, caramelized syrup) soaps and lotions

#### Compared to cow milk

Tastes similar to cow's milk, but can be **TANGY AND "GOATY"** depending on the proximity of bucks to milking does.



People with dairy sensitivities can often digest goat milk because it has a lower lactose content.

#### SHEEP MILK



#### Used to make

used mostly in yogurt and cheese: feta ricotta Roquefort manchego pecorino Romano casu marzu (traditional Sardinian cheese containing live and wriggling insect larvae)

#### Compared to cow milk

- fat (2X the amount)
- protein (2X the amount)
- vitamin C
- calcium



Sheep's milk is naturally homogenized, meaning the fat won't separate out.

# Maple Sugaring: How sweet it is!

By Elizabeth Joseph, Heifer Farm garden and education coordinator

icture a cold, bright day in February at Heifer Farm in Rutland, Massachusetts. The cows munch on hay that was cut months ago, when pastures were still green. The organic gardens rest under a foot (or 3!) of snow. The sound of a chainsaw buzzes in the distance as trees are felled to feed a wood furnace.

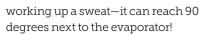
A group of volunteers who live and work on the farm bundle up and head to the forest with drills, hammers and metal buckets in tow. Temperatures rise above freezing during the day but dip below freezing at night, a sure sign to maple sugarers that it's time to tap the trees!

We work with our neighbor, Jon Williams, during our sugar harvest. This partnership is particularly meaningful as Jon's grandparents,

Bill and Nancy Williams, donated the 270 acres of land that is now Heifer Farm to Heifer International in 1983. Together, we tap 360 trees.

The sap of a sugar maple tree (Acer saccharum) is 98 percent water and 2 percent sugar—and it is that 2 percent that will yield a delicious sweetener. It takes 40 gallons of sap to make 1 gallon of syrup, and it is simply boiling the sap to remove water and thus concentrate the sugar that makes maple syrup.

Enter the sugar house and you'll immediately feel warmth radiating from the evaporator and smell a sweet maple aroma in the air. Steam billows up and out of an opened cupola in the roof as the sap reaches a rolling boil. The fire cracks and pops, constantly being fed wood by the sugarers who often are wearing T-shirts and



We can boil about 20 gallons per hour, which means we draw off, or "pull," half a gallon of syrup each hour. Filtering and bottling happen right in the sugar house when the syrup is piping hot to keep everything sterile and to seal the jars.

Our goal each season is to make enough maple syrup to serve at our annual pancake breakfast, Pancakes at the Farm. This event is held the first two weekends in March and features our own farm-raised pork sausage. Make your reservation by calling (508) 886-5000 or emailing heifer. farm@heifer.org. The sugar makers will be eagerly awaiting your visit!











## Turning Sap Into Syrup

Identify a stand of sugar maple trees. Pro tip: Mark sugar maple trees before they lose their leaves in the fall, since identifying the trees by their leaves is much easier than identifying solely by the bark.

On the south side of the tree, drill a 3-inch hole about 4 feet above the ground at a slight upward angle. Use a 7/16-inch drill bit. Use a hammer to gently tap in a spile, or spout. You can tap one spile for every 10 inches of tree diameter.

Hang collection containers from the spiles. Coffee cans, milk jugs and buckets all work well for this.

Drip, drip, drip! Sap will fill the bucket as pressure builds in the tree from the alternating freeze and thaw temperatures.

Boil the sap indoors on a stovetop or outdoors over a fire. At Heifer Farm, we use a largescale evaporator in a sugar house.



Sap is officially maple syrup when it reads 66 percent sugar content on a hydrometer or 219 degrees on a candy thermometer.

Strain the hot syrup through felt or cheesecloth.

Bottle the syrup while it's hot, or can it in a boiling water bath for longer storage.

Store at room temperature in a cool, dark location or in the refrigerator or freezer.

Enjoy on pancakes, waffles and French toast. Real maple syrup is also great for sweetening beverages and flavoring salad dressing, vegetables, meat and baked goods.

#### **Gingerbread Cookies from** the Heifer Farm Kitchen

Heifer farm volunteers and visitors celebrate the season with the Holiday Open House, held every year during the first two weekends in December. Visitors can shop in our Living Gift Market, roast chestnuts, go on hayrides and decorate these traditional cookies.

#### Ingredients

1/2 cup butter (1 stick), softened 1/2 cup granulated sugar

1 egg

1 cup molasses

1 teaspoon baking soda

11/2 teaspoons warm water

31/2 cups all-purpose flour

11/2 teaspoons ground ginger

11/2 teaspoons ground cinnamon

1/4 teaspoon salt

#### Instructions

- 1) In a large bowl, cream together the butter, sugar, egg and molasses.
- 2) In a separate bowl, dissolve the baking soda in warm water, then add to the egg mixture. Beat until smooth.
- 3) Mix flour, ginger, cinnamon and salt into the wet ingredients until well blended.
- 4) Cover and chill for 24 hours.
- 5) Preheat oven to 350 F and prepare two cookie sheets by oiling or covering with parchment paper.
- 6) On a lightly floured surface, roll out the dough to a thickness of 1/4 inch.
- 7) Cut out cookies using cookie cutters of your choice (we love farm animals!) and place the cookies 2 inches apart on cookie sheets. (They'll expand slightly.)
- 8) Bake 10 to 12 minutes in the preheated oven, or until firm. Cool on wire racks.

These cookies are fun to decorate with frosting and sprinkles but are great to enjoy plain. If you have any leftover, you can grind them up into crumbs and make a gingerbread pie crust!

### Maple Sugaring: Fun Facts

- You can tap other species of maple trees, but the sugar maple has the highest concentration of sugar in the sap.
- Flavor and translucence dictate maple syrup grades. Generally, the time of year the sap is collected determines the grade—the lighter grades are produced earlier in the season and the darker grades are produced later.
- Pure maple syrup comes from trees, while most pancake syrups are made from high-fructose corn syrup and flavorings. These syrups cannot include the word "maple" on their label.
- To substitute maple syrup for granulated white sugar in cooking or baking, use 2/3 cup of maple syrup for every 1 cup of sugar. Reduce the quantity of liquid in the recipe by 3 tablespoons and lower the baking temperature by 25 degrees.

# Farm to Conference Table

Interview by Bethany Ivie, Heifer digital engagement specialist

During any given season, around 30 men and women live on and help run Heifer Ranch, a 1,200-acre working farm and education center in Perryville, Arkansas. When they leave, Ranch volunteers take their knowledge and passion for sustainable agriculture with them. Ranch alumni have gone on to found community gardens, promote urban beekeeping and advocate for locally grown food in Arkansas and across the country. Alumnae Adelia Kittrell, Brooke Edwards and Megan Moss found that the best way for them to keep doing the work they love was to join Heifer International as full-time employees.









#### Adelia **Kittrell**

Heifer Ranch volunteer: May 2009 - October 2010

Heifer International: Since 2010

any volunteers have their first up-close-and-personal experience with livestock and field work at the Ranch. Not so for Adelia Kittrell, who grew up in the rural farming community of Yellville, Arkansas. "I grew up hauling hay in the summer and being chased by geese as a child," she said. Her grandparents owned a dairy farm with cows, pigs and other animals, and her parents kept chickens and a garden.

After college, Kittrell joined the Peace Corps and set off to Paraguay as an agricultural volunteer. For two years, she helped farmers implement a sustainable chicken project.

Kittrell met her now-husband, Cesar Bordon, in Paraguay. When the couple returned to the United States, he didn't speak any English and, after two years speaking only Spanish and Guaraní, Kittrell felt shaky, too. The couple decided to volunteer at Heifer Ranch - Kittrell as an educational volunteer and Bordon as a maintenance volunteer. The Ranch offered the couple housing, a stipend and a welcoming community. "It's safe, it's diverse, everyone is kind ... I feel like I gained another family," Kittrell said. Plus, Kittrell was an easy fit for her new volunteer gig. "So much of the work that Heifer does, I did with people in Paraguay."

Her stint at the Ranch helped Kittrell land a job at Heifer, a goal that had been in the back of her mind for years. "Growing up in Arkansas, everyone knows about Heifer," she said. Today, she's a resource development associate, meaning she plans field visits, reports on grants and keeps donors informed about how Heifer is using its funds.

And she still keeps up with the friends she made in Perryville, some of whom also work at Heifer HQ. Her husband works at The Root, a Little Rock restaurant run by former Ranch volunteer Jack Sundell. "There's such a kinship at the Ranch," Kittrell explained. "Even if you weren't there at the same time, you both know."







# **Brooke Edwards**

Heifer Ranch volunteer:

Summer 2002, Summer 2003, January – August 2004

**Heifer International:** Since 2009



Prooke Edwards visited Heifer Ranch for the first time in her eighthgrade year and returned several more times throughout high school. But she didn't feel the call to volunteer until she was a student at the University of Central Arkansas, when she returned to the Ranch for a service project. "That's when it clicked that this was something I could do," she said. "I applied to volunteer at the Ranch that next summer."

Edwards arrived in Perryville with zero experience in agriculture but with a keen interest in food systems – mainly, the difference between industrialized food production and local, sustainable food. Naturally, this drew her to the Ranch gardens. She signed on as the Community Supported Agriculture (CSA) intern and spent the summer tending the gardens. "That was the hardest I've ever worked," she said.

The next summer, Edwards worked with the Ranch's cottage industries, milking goats and making cheese to demonstrate how farmers can use animal products like milk to make a profit. Goats

became her specialty, but the adorable ruminants weren't the only thing bringing Edwards back to the Ranch.

"You're bringing together a mix of young adults and older adults who have, at least, a stretch of similar values, and they're living together and coalescing around those values," Edwards said. The result is lasting friendships and, occasionally, something more: "I'd say at least 40 percent of my friends are former Ranch volunteers. The number of former Ranch volunteers who are couples and have had children is also pretty impressive."

And she would know. Her husband, Trevor Edwards, was a fellow volunteer who managed the Ranch's challenge course.

After Brooke graduated from college, she began her longest stay in Perryville, as an educational volunteer. "Global hunger ... if I could solve one problem, that would be it. So, being able to contribute and educate people on how they can make a difference ... that's one of the best things the Ranch has to offer."

In 2004, Brooke left Heifer Ranch to work toward a master's degree in social work. Though she quickly realized that a career in therapy wasn't for her, she made two important discoveries. "I realized that I wanted to work on a higher level. I wanted to make a change that would impact a greater number of people." She also discovered her knack for writing, so when a job opened up at Heifer's offices in Little Rock, Brooke seized the opportunity. Now, she is Heifer's executive communications manager. Though Edwards loves her desk job, she remembers the Ranch fondly. In a dream world, she said, she can see herself and her family back at the Ranch in a heartbeat. "The physicality of it, you just feel really connected, not just to Heifer's mission but to the community, to the Earth. It's the kind of thing I would recommend to almost everyone."







#### Megan Moss

Heifer Ranch volunteer: April - August 2003

Heifer International: Since 2011

egan Moss came to Heifer Ranch as a college junior with no farm experience. But she did have an interest in food and food systems. "I was a vegetarian for a long time," she explained, "and I think the original motivators were animal rights. But the more I matured and the more I learned ... it became less about vegetarianism and more about the social justice and environmental justice pieces of the food system." Heifer Ranch was a great place to take a closer look at those issues

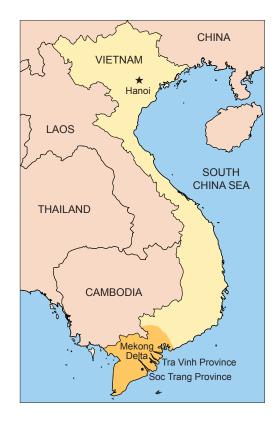
So Moss volunteered at the Ranch as an educational volunteer, making a point to send every visitor off with not just knowledge but an action plan. "If you just leave people with the knowledge that there's so much poverty in the world, then it's not fair ... it's just kind of hopeless," Moss explained. So she made a point to show visitors ways they could help. "That was definitely my favorite part of the experience, that last part, helping them come up with concrete ideas ... THIS is what I'm going to do."

After college, Moss married Carsten Platz, a fellow Ranch volunteer, and the two set out for Platz's native Germany. When the couple came back stateside so Moss could get her master's degree in sustainable development, her studies, combined with memories from the Ranch, solidified her belief that mission-driven organizations can be powerful agents of change.

And so Moss' work with Heifer continues. She now works as a resource development officer in Little Rock. "A lot of what I do is help translate our work for external audiences, helping people understand what our mission is, the nature of our work over the years," she said.

Her job today calls for laptops and PowerPoints instead of shovels and work boots, but Moss hasn't left Ranch life behind completely. This summer, Moss and Edwards laid claim to a small patch of dirt on Heifer's grounds. The two planted it with tomatoes, squash, eggplant, basil and flowers. "I still like to get out in the sunshine," Edwards said.

# FRIED FROGS AND FIERY FRUIT IN VIETNAM



By JASON WOODS, World Ark senior editor Photos by OMAR HAVANA

INNOVATIVE FARMERS IN
VIETNAM ARE TEAMING UP WITH
HEIFER TO RAISE FROGS AND
CULTIVATE EXOTIC FRUITS
THAT LOOK LIKE BALLS OF FIRE.
THE FARMERS ARE FOLLOWING
HEIFER'S ORIGINAL STRATEGY,
TOO, BY RAISING COWS TO
IMPROVE HEALTH AND INCOMES.
THIS MARRIAGE OF OLD AND NEW
APPROACHES IS SPAWNING
COLLABORATION AND SUCCESS
ACROSS THE MEKONG DELTA.







Frogs and dragon fruit are a couple of the unique investments farmers in Vietnam are making with the money they earn from Heifer cows.





#### **NGUYEN THI TANG**

Before working with Heifer, Nguyen Thi Tang and her family pocketed only 2 million Vietnamese dong a month, the equivalent of \$100. Most of that income came from her husband's teaching salary and rice farming.

Now, Tang's family earns about \$500 a month, an income spike that started with a Heifer cow. Tang is breeding cows now, selling the bulls and keeping the heifers.

She's also the treasurer of a Heifer-sponsored self-help group. Members make monthly contributions to a group savings fund. If the group approves it, members can take out low-interest loans from the fund to invest in education, livestock or other ventures.

After hearing success stories from her peers, Tang took out a loan to grow dragon fruit, which comes from a cactus and looks like a fireball on the outside. Fruits that are red on the inside instead of white garner the most money, and that's the kind Tang grows. Manure from Tang's cows keeps the cactus fruits bountiful, and the family can now count on about \$125 a month in income.

Tang is also quick to note the intangible benefits of working with Heifer. "I can communicate with others," she said. "I have the opportunity to visit other cities. I'm proud to stand in front of a crowd and talk, not like I was before."



Until recently, Vietnam was the only Asian country producing dragon fruit on a commercial scale, Locally, the fruit is known as thanh long, or "dragon's eyes."

Although dragon fruit is most popular in Asia, it's actually native to the Americas, where it is known as *pitaya* or *pitahaya*. The fruit was brought to Vietnam about 50 years ago.

Dragon fruit is high in vitamin C, calcium, potassium and fiber.



#### **HUYNH VAN CHIEN**

Huynh Van Chien leaped into the frog business little more than a year ago. "Because this was my first time raising frogs, I was scared about the risks in feeding them," he said. "I wanted to start small-scale."

As it turns out, Chien says raising frogs isn't that hard. He has 400 of them now. "I can get small fish and shrimp from the lake to feed the frogs," he said. "They are natural and easy to find." The frogs are also easy to sell. Chien earns \$2 per kilogram from the frogs, and he can sell 40-50 kilograms per month.

Two years ago, Chien received a cow from Heifer Vietnam, and shortly after, he borrowed \$50 from his self-help group's savings fund to invest in frogs.

"At first, I learned (about the frogs) by myself, then I learned from other members of the group." Chien feeds his frogs three times a day, and he administers medicine when a frog isn't eating like it should. The next steps will be expanding the scale of his frog business and finding ways to breed them so he doesn't have to buy tadpoles.

Chien sells his frogs, but he eats some of them, too. "It's my favorite because it's tasty, delicious," Chien said. He prefers them fried with onion, garlic and spices.





Frog meat is low in fat, high in protein.

In Vietnamese cuisine, it is common for the entire frog to be cooked and eaten, not just the legs.

Instead of drinking water, frogs absorb it through their skin.





#### TRAN THI THAM

Tran Thi Tham's cows gave her an economic boost, and an emotional one, too. Her sons are old enough that they've moved out of the house and far away. In their absence, Tham formed strong bonds with her animals. "I talk to my cows because I miss my sons a lot," she said.

The extraordinary care Tham gives is reflected in the cows' demeanor. Right now, Tham has a full-grown cow, which was donated by Heifer, and its calf. When she takes the cows to pasture, the calf skips with glee. When she checks on the cows, which is usually an hourly occurrence, the cows nuzzle up around her shoulders.

Although she expects to sell some calves in the future, Tham plans on keeping the two cows she has now, as well as expanding the herd. "I'd like to keep my cows forever," she said.







According to Oregon State veterinarians, one way to tell if your cow is happy is by measuring how much time she spends lying down. Cows that are agitated pace. Relaxed cows enjoy their nap time.

If you think your cow has the blues, check her nose. Scientists have discovered that negative emotions can cause the temperature of a cow's nose to drop.

As it turns out, cows have some hops. Youthful cows can clear a 5-foot fence with no problems.



#### **LE THI LONG**

A menagerie of livestock and vegetables thrive under her care, so it's surprising that Le Thi Long is new to farming.

Long started out by borrowing a cow from Heifer so she could learn how to care for it. After learning how to breed cows, she now owns three. She also bought pigs from a neighbor on credit. After she paid her neighbor back, she tapped her self-help group's savings fund to buy farm equipment, poultry, earthworms, fish and vegetables.

One of her most fruitful vegetables is *cú năng*, or water chestnut, an aquatic tuber with stalks that grow up to 5 feet. "The profit is five times that of rice, and it is highly productive," Long said. Water chestnuts are also easy to grow, since she uses her cows' manure as fertilizer.

In the last year, Long doubled her monthly income—from \$100 a month to \$200—through hard work and newfound knowledge about money management. "I experienced poverty before, so when I had money, I planned all these things because I don't want to be poor again."

Next, Long wants to rebuild her house and fund her children's educations. "They're in university now, and I want to support them until they finish," she said. ■



Both the bulbs and shoots of the water chestnut plant are edible and commonly used in stir fry dishes.

The plant provides plenty of potassium, zinc and B vitamins.

Water chestnuts stay crunchy even after cooking or canning.











Amy Davenport, Russell Powell and David Snyder

# **FARMING**

Farmers, scientists, policy advocates and funders met in Uganda in May 2016 to tackle hunger at a time of ecological and climate breakdown, land grabs and mounting challenges for small-scale farmers.

Story by Rucha Chitnis, World Ark contributor

n Chiapas, maize signifies life for farmers. Our ancestors believed that the four colors of the corn represented the four colors of the human race, which is why we believe that we are men and women of the corn," explained Maria Estela Barco Huerta, coordinator for the group Social and Economic Development of Indigenous Mexicans. In spring 2016, Huerta joined 70 farmers, scientists, food policy experts and funders from 20 countries to explore ways that small-scale producers can grow food sustainably for Earth's growing population.

"To survive, we must both feed our people and the health of our soil and water at the same time. That is the essence of agroecology," said Million Belay, coordinator of the Alliance for Food Sovereignty in Africa and one of the hosts of the learning exchange.

The event attracted farmer networks like the Korean Women Peasant's Association, a network of more than 30,000 female farmers in South Korea, and Via Campesina, an international movement uniting millions of small-scale farmers, landless people,

"To survive, we must both feed our people and the health of our soil and water at the same time."

-MILLION BELAY

pastoralists and fishermen. All participants had the same goal: to harvest food while leaving the health of soil, air, wildlife and communities intact. "Agroecology is about natural farming systems that bring together farmers and consumers," said Henk Hobbelink of GRAIN, an international nonprofit that supports farmers. "These are farmer-centered, local food systems that incorporate the culture and philosophy of small producers."

## AGROECOLOGY ADVOCATES'





#### No food security without secure homelands

Vast swathes of land that provide livelihoods for small-scale farmers and pastoralists are under threat by commercial interests, including rubber companies in Cambodia and palm oil plantations in Nigeria. African farmer networks aim to uphold the rights of small producers to hold on to their lands.



#### Youth are the future of food

Mentoring the next generation of farmers is key for feeding a growing planet sustainably. "Promoting agroecology in schools and youth academies is one of the key strategies to sustain the work we do today," said Edie Mukiibi, vice president of Slow Food International.



#### Women are a force for amplifying agroecology

Women farmers are often the backbone of farming communities. The feminization of agriculture is slowly being recognized as women farmers organize, bringing visibility to their contributions as food producers, water stewards and natural resource managers.



#### Biodiversity feeds the world

"I grow biodiversity on my farm. And every season I have enough," said Nelson Mudzingwa, a farmer and activist from Zimbabwe. Around the world, farmers are cultivating resilient native seeds, such as drought-friendly millets and flood-resistant rice. India, for example, has nearly 2,500 varieties of eggplant, each adapted to specific climates, soils and geographies.

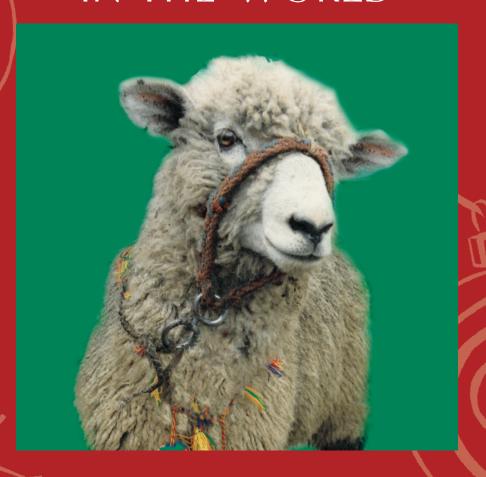


#### Social movements lead the way

Agroecology schools and peer-to-peer farmer exchanges foster knowledge sharing and are key to the success of small-scale agriculture.

Christmas to 16 tron

# THE MOST IMPORTANT GIFT CATALOG IN THE WORLD







Dear Friend and Partner.

There's a reason why people the world over call this *The Most Important Gift Catalog in the World:* 

These gifts change lives.

They change the lives of a family in need who receives the livestock your gift helps us provide. For the first time in their lives, they will know the

dignity of self-reliance. They will be able to put food on the table and earn income for clean water, medicine, school and better homes.

They are gifts that will change the life of your gift recipient. Together, you can share the experience of helping a family transform their future and make a difference in the world. And they are gifts that will change your life by creating an unbreakable bond with a family half a world away who will be forever grateful for the trust you are about to place in them.

So this year, show your friends, family or co-workers just how much you care by giving them one of these great Christmas gifts from Heifer International—the most important gifts in the world.

With warm wishes and friendship,



Pierre U. Ferrari President and CEO

#### MAKE CHRISTMAS MORE MEANINGFUL WITH A MATCH!



Your donation of a Gift Ark, the Gift of Women's Empowerment or a Milk Menagerie will be matched to help struggling families in Africa! We will choose the appropriate animals from this offer to go to Africa and double your impact.

You must call **877.4HUNGER** to have your gift **MATCHED**.

Gifts of Arks, Women's Empowerment and Milk Menageries will be matched up to \$400,000, with gifts going to our projects in Africa. You must make your donation by phone to have it matched. Donations received over \$400,000 will not be matched and will be used where the need is greatest.

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MAIL the enclosed order form with a check or credit card information to:
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Order online: www.heifer.org/ catalog

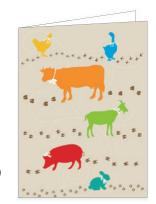
#### **FREE HONOR CARDS**

For each gift of \$10 or more, you may request an Honor Card for anyone you choose.

#### YOU HAVE THREE OPTIONS:

**Option 1:** Heifer will send Honor Cards directly to you to distribute to anyone you choose.

**Option 2:** Heifer will send Honor Cards directly to anyone you choose. Call **855.8HUNGER (855.848.6437)** or visit **www.heifer.org/catalog** for this option.



**Option 3:** You can print and give or email Honor Cards to anyone you choose at any time. Visit **www.heifer.org/catalog** for online options.

#### **SHIPPING OPTIONS:**

Honor Card orders postmarked by December 11 will deliver by December 24. Missed the deadline? For a fee, expedited shipping is available by calling us at **855.8HUNGER (855.848.6437)**.



# Say "Ho, Ho, Ho"

 $B^{
m efore}$  you wrap up your shopping this year, here's one more gift idea that is sure to make this holiday memorable. The gift of a heifer and training in its care—made in honor of your loved ones—will help provide a hungry child with daily milk.

With a heifer, families can generate income by selling milk. That income translates into food, clothes, school fees and medicine. And still more families will benefit because every family who receives a heifer agrees to also give one of the first female offspring to another family in need. This promise to Pass on the Gift® means your generosity will continue to grow for years to come! What a wonderful way to capture the giving spirit of Christmas.



Gift of a Heifer: \$500 Share of a Heifer: \$50



The cow that they received from Heifer donors will give Tran Van Thieu's family in Vietnam a steady source of income for many years to come.

#### **Biogas** Stoves for a Village: \$1,000 Gift of a Biogas

Stove: \$50



Maimouna Faye, Senegal, with her biogas stove

Families around the world depend on firewood for cooking. But as the demand increases, so does the risk of soil depletion and deforestation. Furthermore, smoke inhalation in poorly ventilated homes can cause chronic respiratory and eye diseases.

But a biogas stove burns methane gas captured from animal waste. It burns cleanly, reliably and efficiently, and is healthier for both people and our planet.





#### Milk Menagerie: \$1.000 Share of a

Milk Menagerie: \$100

The gift of a Milk Menagerie represents a quality-breed heifer, two goats and a water buffalo. These four milkproducing animals are the startup capital parents need to provide a better life for their children because gallon after gallon of wonderful, life-sustaining milk can be sold or turned into cheese and yogurt for additional income.

MAKE IT A MATCH— CALL 877.4HUNGER

# Give Them the Gift of Goats



Francisco, from Guatemala, loves to lend a hand caring for the goats his family received from Heifer supporters like you.



Goat: \$120 Share of a Goat: \$10

Gift of a

Goats make great gifts any time of year. But there is good reason why they're always a Christmas favorite.

A good dairy goat can provide a struggling family with up to a gallon of rich, nutritious milk each day so they can earn income and improve their nutrition.

Plus, families can use goat manure to fertilize their fields and boost their harvests.

So put the gift of goats from Heifer at the top of your Christmas wish list and help bring lasting change to the poorest places on the planet.

#### Knitter's Gift Basket: \$480

Share of a Knitter's Gift Basket: \$48

Over the years, mom has knitted everything from warm wool sweaters to stylish mittens and scarves. This Christmas, you'd like to give her something just as meaningful in return.

## Our Knitter's Basket is just what you've been looking for!

It includes four of our fuzzy friends that provide families with ample wool and endless opportunities to build better lives: a **llama**, an **alpaca**, a **sheep** and an angora **rabbit**.

#### Irrigation Pumps: \$150

In the impoverished communities where Heifer works, many of the homes lack running water and some families do not have a well nearby. Instead, they must spend each day carrying water. This is often a chore left to the children—especially girls—leaving no time for school. This is one burden we can easily lift by helping families and communities install irrigation pumps.



Felix Mwava and his sister, Shaebyna, are able to grow more food on their farm in Zambia since receiving their foot pump.

# Gifts of Sheep Are a Shear Delight



The Lopez family from Mexico are so proud of their sheep, and so grateful for generous Heifer supporters like you.

Winter is right around the corner, and a thick, warm wool sweater is sure to be at the top of everyone's Christmas shopping list. But may we also suggest bundling up your loved ones by adding the gift of sheep from Heifer?

Sheep provide families with high-quality wool, and their milk is also wonderfully rich and nutritious. Plus, because of Passing on the Gift, your impact will grow for many years to come. That's why giving the gift of sheep is such a wonderful way to say "Merry Christmas" to someone you love.



Agnes Hedisoni, Malawi

# Gift of Clean Water: \$300

Millions of people around the world still lack access to clean drinking water. Heifer helps many families install treadle pumps, practice water conservation and use organic fertilizers to protect drinking water to improve their health.



Sheep: \$120 Share of a Sheep: \$10

#### Joy to the World Gift Basket: \$1,500

Share of Joy to the World Gift Basket: \$150

The Joy to the World Gift Basket includes two **sheep**, four **goats**, one **heifer** and two **llamas**, which can provide:

- Soft wool, woven into a blanket to keep a baby warm
- Rich, sweet milk; the first a little child has ever tasted
- Fertilizer for improving crop yields

It's the Christmas gift that reminds us that there is no challenge too great for caring people to overcome together. It's the gift of Joy to the World.

# Fa-La-La-Llamas!



Julia Purihuaman lives in Peru, where Ilamas and alpacas from supporters like you provide warmth and income.

Gift of a Llama: \$150 Share of a Llama: \$20

The gift of a llama or alpaca is sure to warm their hearts this Christmas.

Because llama and alpaca fiber is prized around the world for being dense, warm and more soft than sheep wool, our project families high in the Andes Mountains can earn a steady living by either selling the wool or making clothes and blankets that can be sold for additional income.

There's just no better way to share your warmest Christmas wishes with those you love!

# Flock of Hope: \$60

A Flock of Hope from Heifer may include **chicks**, **ducklings** and/or **goslings** that will grow and give "by the dozen" as nutritious eggs are gathered each day.

- Where children are malnourished, delicious eggs will mean daily protein
- Where families are impoverished, eggs can be taken to market and sold
- And where the earth is dry and barren, droppings from the birds will provide the fertilizer to increase farm production

A Flock of Hope is a remarkable gift that doesn't take a "nest egg" to give this Christmas ... it just takes someone like you!

#### Hope Basket: \$50



Nicols de Leon Raymundo and his daughter Margirita, raise rabbits in Guatemala.

What can bring more hope to a struggling farmer than a gift of quickly multiplying livestock?

That's why our Hope Basket includes chickens and rabbits—two animals that are easy to care for, reproduce quickly and help desperately poor families generate much-needed income.

All of these are reasons why this gift of hope goes on and on, lasting much longer and helping more families than the usual Christmas gift ever could.

# Chicks Bring Christmas Cheer



Luong Thi Dang is so grateful for the chickens she received and can now provide both food and opportunity for her daughter, Phan Dan Huynh Giao.



Flock of Chicks: \$20

The gift of chicks from Heifer will help provide a family in need with a starter flock of 10 to 50 chicks and training in their care.

Every egg is a nutritious gift for a hungry child. Since a good hen can lay more than 200 eggs a year, families can earn income to pay for clothing, medicine, home improvements, drinking wells and school fees.

So show those special people how much you care this Christmas by putting the gift of chicks from Heifer under their tree

# Have an Egg-cellent Holiday



Thuy Dang, Vietnam



Flock of Ducks/Geese: \$20

For millions of children around the world, it is duck eggs—not chicken eggs—that form the cornerstone of a healthy diet.

By regularly selling duck and geese eggs, families can generate the steady income needed to pay for food, clothes, medicine and school fees.

That's why we hope you'll put these fine feathered friends at the very top of your holiday shopping list this year.

# Christmas Trees that Change Lives



Griselda Carrillo del Valle, from Guatemala, will be able to sell fruit from her apple and peach trees to earn money.

Gift of Tree

Seedlings: \$60
Share of Tree
Seedlings:
\$10

Trees are such an important part of any small farm.

A family with an orchard or grove can supply their own fodder or firewood, sell fruit or nuts and begin saving to build a new house or pay for a child's education.

Plus, tree roots hold together topsoil and lock in moisture and nutrients.

That's why we make trees part of so many Heifer projects. And this year, we urge you to include one of these Christmas trees in your celebrations.

## Make Christmas Even Sweeter This Year!



Nicols de Leon Raymundo, from Guatemala, is so thankful for the opportunity to support his family. through beekeeping.



Gift of Honeybees: \$30

May we suggest surprising your friends, family and coworkers with the latest Christmas buzz? It's the gift of honeybees to help a needy family!

Your gift will help provide a family with bees, a box and hive, plus training in beekeeping. Because bees will pollinate the crops on a family's farm, a healthy beehive can double fruit and vegetable yields. And income from the sale of honey, wax and pollen can be put toward food, clothing, medicine and education.

That's why the gift of honeybees from Heifer is the perfect way to sweeten up your Christmas season.



# Fishing for the Perfect Gift

Celebrate Christmas
with the gift of fish
from Heifer and give new
meaning to the old saying,
Teach a man to fish and he
will eat for a lifetime.

With well-stocked ponds of fingerlings and training in fish farming techniques, families can quickly increase their daily nutrition and income with the lean, healthy protein of fish. Plus, they can help others in their community through Passing on the Gift of fingerlings.





"Now we have food security," says Bernardina, with her husband Catalino, and son Roger. "Now we can eat fish."

## Pigs Make the Perfect Present



Pigs can be the perfect solution for small-scale farmers. like the Senarillos family in the Philippines.



Gift of a Pig: \$120 Share of a Pig:

Do you still need to find that perfect Christmas present that will leave your loved one squealing with delight?

The gift of pigs from Heifer International can quickly make an impact in the lives of a family in need because a sow can provide up to 16 piglets a year. They also help boost crop productivity thanks to manure that can be turned into rich, organic fertilizer. And because of Passing on the Gift, your gift of a pig has the power to quickly uplift entire communities.

That's why pigs are a favorite of farmers worldwide—and a significant way to add meaning to your Christmas celebrations.

## Wrap Up Your Christmas Shopping with Water Buffalo



Dang Baiyuan, from China, when his water buffalo arrived.



Gift of a Water Buffalo: \$250 Share of a Water Buffalo:

\$25

Here's a big gift with an even bigger impact.

A farmer with a water buffalo may be able to plant four times more rice than when done by hand—generating more income to use for clothing, medicine, school and home improvements. Plus, the water buffalo's rich, nutritious milk is an additional source of both nutrition and income.

That's why these gentle giants are always among Heifer's most popular Christmas gifts!



## Fill the Ark



What does this generous gift mean? It means ... oxen, donkeys and water buffalo ... cows, sheep and goats ... even bees, chicks and rabbits and more.

Healthy, hardy livestock that will go forth and multiply, improving lives for countless families and children.



Gift Ark: \$5,000

MAKE IT A MATCH—CALL 877.4HUNGER

To help the greatest number of families move toward self-reliance. Heifer does not use its limited resources to track individual animals from donation to distribution to specific families. Instead, your gift supports the entire Heifer mission. We use your gift where it can do the most good by combining it with the gifts of others to help transform entire communities. Heifer's unique community development model has assisted more than 25 million families directly and indirectly since 1944. In fiscal year 2015, more than 3 million families were assisted within the four program areas in which Heifer operates.

Images and stories in this catalog represent the work of Heifer International from 2005 to present.

### A Christmas Gift for Women Worldwide





Gift of Women's Empowerment: \$25,000

Share of Women's Empowerment: \$100



This Christmas we are proud to offer our donors a very special opportunity to make a powerful difference. If women farmers had access to the same resources as men, more than 150 million additional people would have enough food to eat.

We aim to make that a reality with your help. Your gift of Women's Empowerment helps provide Heifer training and assistance so that mothers will be able to work, send their children

to school, pay medical bills and lift themselves out of hunger and poverty. We know these women can succeed. They just need someone like you to believe in them.

#### MAKE IT A MATCH—CALL 877.4HUNGER

# Send a Girl to School: \$275

This gift makes it possible for families to send their girls to school with the help of livestock and the training to care for it. The extra income the animals provide helps pay for school fees and supplies.



Tendai Mafuta, left, and Divine Mafuta study at home in Zimbabwe.

# Gift of Transformation: \$10,000

**Share of Transformation: \$100** 

Celebrate Christmas this year by igniting a transformation! This special gift is designed to effect change on a truly massive scale as you empower families, communities and even entire regions of the developing world. Each Gift of Transformation includes:

- Herds of heifers, llamas and goats
- Flocks of both sheep and chickens
- Pens of pigs
- Schools of fish
- And, of course, a gaggle of geese!



Your Gift of Transformation will give countless children like Isis Mendoza, from Mexico, a chance to achieve their full potential.



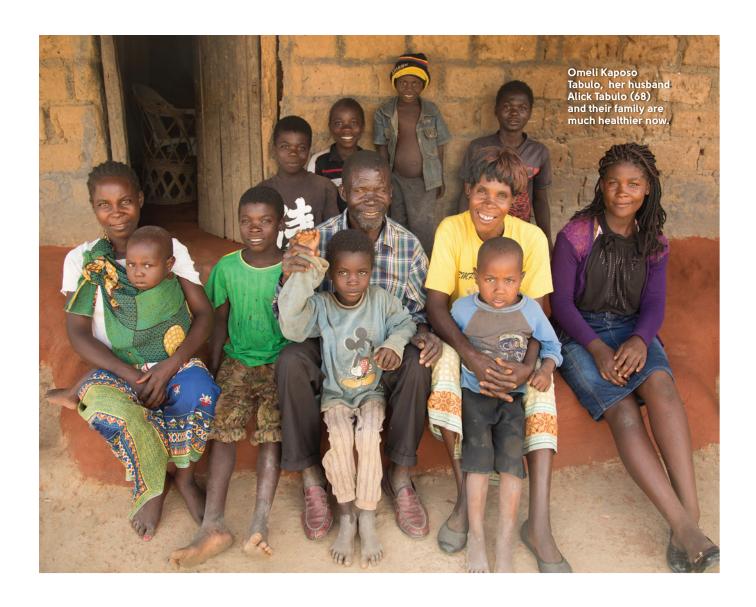


# A Good Night's Rest in Zambia

A day's work is all the harder after shivering through a cold night without a cozy bed or warm blankets. Heifer project participants in Zambia's Copperbelt province are sleeping much more soundly now that they're able to turn their dairy cows and hard work into the necessities of a more comfortable life.

By Jason Woods, World Ark senior editor **Photos by Phil Davis** 





KAMISENGA, ZAMBIA-Just outside the brick walls of her home. Omeli Kaposo Tabulo and her friend Belina Musha send bouts of laughter into a shockingly blue, cloudless sky. The two are reliving memories of their lives before Heifer International Zambia, before the women became dairy farmers with a healthy income.

"We used to get grass ... then we would put it in a sack for us just to make a mattress," Tabulo said. "No pillow, you use your arm for a pillow." If you wanted your mattress to look like a proper bed, Musha added, you would use tree branches as bedposts.

A freshly made mattress is pretty soft, but over time, it will eventually become lopsided as the grass breaks up, which is an added challenge when sharing a bed with a spouse and maybe even a young child.

"You can't sleep, you wake up tired," Musha said. "Then you have to make another one. It would take months because the grass needs to dry out."

The hearty laughing is a reminder that cold, sleepless nights are behind them. "It's funny, we can laugh about it," Tabulo said. "But we never used to laugh about it. That was real life."



Other memories still aren't very funny. Tabulo's family could only afford one blanket, which was difficult for her seven children to share. Winter nights get cold in the Copperbelt, where Tabulo lives, with temperatures sometimes dipping into the upper 30s Fahrenheit. Instead of sleeping, Tabulo spent her nights checking on her children to make sure they were covered by the blanket and her *chitenge*, or traditional wraparound skirt.

"My children used to get sick because of the cold," Tabulo said. Sometimes they would miss school, and coughing was an all-toocommon sound around the house.

Additionally, the family never had enough food. With hand hoes as their only tools, they could never grow enough maize and vegetables.

Throughout the community of Kamisenga, other families shared stories of similar struggles. Because the closest school was far away, few children from the village would make the long daily walk. With the closest hospital in the distant town of Kitwe, maternal deaths were common, leaving behind many orphaned children.

"We had a lot of problems," Tabulo said. "We saw that, working on your own, you can't manage to solve some problems. We thought working as a group would help."

#### THE WAITING GAME

In 2007, Tabulo was one of 20 women in Kamisenga who joined forces. The group started by convincing retired teachers, who had returned to the community, to teach their children. They began working in nearby communities to earn money, and they teamed up to raise vegetables and chickens together. They named themselves the Kamisenga Women's



Empowerment group and pooled money to provide small loans when a member needed one.

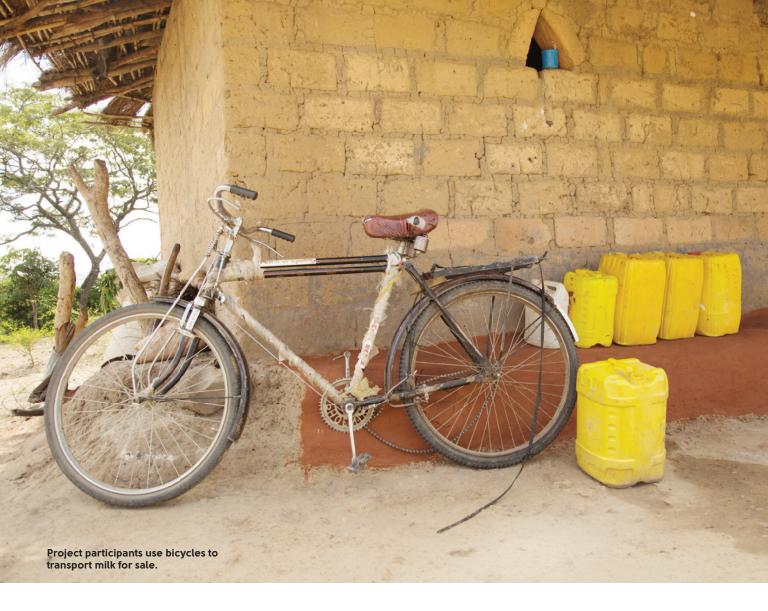
After a year of working together, some members of the Kamisenga group took notice of another women's group in the village of Kampelembe, located on the road to Kitwe. As it turns out, that group had received animals from Heifer Zambia, and the benefits were apparent.

"We went there; we wanted to join them," Tabulo said. But the group already had a waiting list of 40 people, plus the large distance between the communities would have created logistical difficulties. Undeterred, the women of Kamisenga contacted Heifer

Zambia directly, through a project application.

"We were told to wait," Tabulo said.
"They said, if we have something,
we will definitely come visit you."
At the time, the number of groups
that wanted to join Heifer Zambia
had increased exponentially, and
the country program didn't have
the resources to immediately assist
them all. The Kamisenga group
waited almost two years, sometimes
following up in person at the Heifer
office. But after those two years,
Heifer animals did come to the
community.

Before the process even started, Heifer Zambia conducted a screening to make sure Kamisenga had access to water, as well as



commitment from all the members of the families. Training on livestock management, construction of animal shelters, hygiene and record keeping followed. Then, at last, each woman in the Kamisenga group received a cow for her family. Tabulo named her cow Hope.

Tabulo sold Hope's milk for the first time in 2012, earning 800 kwacha (\$74). "I had never held 800 kwacha in my hands, ever since I was born," she said.

#### MONOPOLY MONEY

Every morning during the week, Tabulo bikes the milk she gets from Hope to a pickup point an hour away. From there, cooling trucks take it to the Fisenge Dairy Cooperative

Union, a group of 13 cooperatives supported by Heifer.

The union itself started with Heifer's help in 2005 as a way for small-scale farmers to access a wider market. In Zambia, as it turns out, the wider market is comprised of one company: Parmalat, an Italianbased multinational corporation. Most small-scale farmers in Zambia sell locally, to their neighbors or in small markets. Because of the volume of milk collected by Fisenge, Parmalat agreed to buy and collect their milk during the week. "The farmer brings the milk here," said Ronica Munahikanzele, treasurer of the Fisenge board, who have also benefited from Heifer animals. "How? It doesn't matter. Parmalat

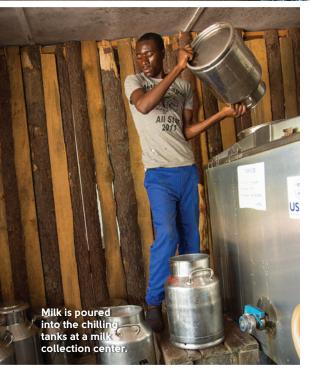
buys from here. In short, we are the market here."

The price for local sales is often more than the 3.50 kwacha per liter Parmalat pays, but selling as a part of the cooperative union has its benefits. The first is that the income is steady every month; locally, you never know how much, or even if you will sell your milk on a daily basis. Member farmers actually receive 3.20 kwacha per liter, with the remainder going to Fisenge. "The difference is for operation of the center," Munahikanzele said. "We are able to provide access to other service providers, loans, bicycles, trainings, etc."

Once Parmalat brings the milk to their facilities, they turn it into







powdered milk, cheese, yogurt and other products that earn higher prices. After packaging, the milk goes for 7.50 kwacha per liter.

The arrangement has led to prosperity for the families, cooperatives and the union. Fisenge is growing so fast that sometimes it is hard to keep up. In the beginning, with only five cooperatives, Fisenge received 500 liters of milk every other day. Now, Fisenge's facility receives 3,500 liters daily from its 400 member families.

Since Fisenge is producing seven times what they used to, Parmalat can't always collect all the milk. But Fisenge still pays farmers for the milk. "Sometimes, you'll find three or four times a month, they don't come," said Ellen Phiri, Fisenge board chair. "More than 10,000 liters goes to waste. So that is our major challenge."

To solve this problem and generate more revenue, Phiri said Fisenge is planning to start packaging the milk and selling it themselves by purchasing machinery to package the milk in 500 milliliter sachets. "If we are successful, we have a plan or a vision to sell to schools," Phiri said. She added that most parents would be happy to buy milk for their children instead of sugary soft drinks with lots of additives.

The first step is buying a barcode machine, then completing the







// / hen I used to go into town, I never used to know the ATM, those machines at the bank," Omeli Kaposo Tabulo said. She would always see people lined up at the bank and wonder what they were doing. "Oh, they're getting money from the wall!" she remembers thinking. "Oh, the person in there counts really fast."

Things changed when she started selling milk. Fisenge Dairy Cooperative Union doesn't distribute cash, only checks. "That was my first time to have a bank account," Tabulo said. One day, she went to the bank to withdraw money.

"They told me, no, go to the ATM machine. I said, 'Oh, how am I going to use this?' They told me there's a secret number, and you don't have to show it to anyone. If you show it to anyone, they'll be stealing money from your account." But by the time Tabulo made it through the line and to the ATM, she had forgotten her PIN. So she had to go back to the bank and have someone walk her through the process and enter her number. With time, things have changed. Tabulo looks for that familiar look of bewilderment from new bankgoers and helps them through the process. "Now, the ignorance is gone," she said. "Now I go confidently." ■



#### Zambia's Copperbelt

Tabulo and her family, as well as all the members of the Fisenge Dairy Cooperative Union, live in Zambia's Copperbelt, a province known for its copper mines. During British rule, when Zambia was known as Southern Rhodesia, the mines supported the economy, and that stayed true after Zambia gained its independence in 1964.

At their peak, the mines in Zambia, which were owned by the government, provided 12 percent of the world's copper. But copper prices started to dip in the 1970s. By the 1990s, the Zambian government decided it had to sell its mines to private companies to address its large foreign debt and retain aid from agencies like The World Bank and International Monetary Fund.

During this time, about 100,000 Zambians in the Copperbelt lost their jobs. Mismanagement of some mines also led to intensive pollution and environmental degradation. Decades after privatization, the mining economy of Zambia is more stable, constituting 85 percent of Zambia's exports. But the transition period was a dark time for many people.

"We lost a lot of lives," said Benedict Mulenga, a Heifer farmer and former employee of one of the mines. "Children weren't going to school. Chaos went on for the next three years. Strikes, looting. No medicines in hospitals. No food."

Heifer started working in the Copperbelt in 2001. At the time, most project participants were former miners looking for a new way to provide for their families. Heifer Zambia provided dairy cows and training to help the new farmers get back on their feet and rebuild their lives. Many of those families that started working with Heifer in the early 2000s are now turning their dairy operations into small businesses as members of Fisenge.

paperwork to create the code for their milk cartons. "It's a process, but once you have a barcode, you can sell your product anywhere," said Phiri.

Fisenge also has plans for solar panels to help generate power for the eight hours a day electricity isn't available in the area. They would also like to add more cooling facilities and purchase at least a couple of computers to improve record keeping.

"Fisenge is growing so fast," Munahikanzele said.

#### **CELEBRATING A NEW LIFE**

As Fisenge grows stronger, so do the farmers. After receiving that first milk payment, Tabulo and her friend Musha celebrated during a visit into town. Normally, the pair would dissolve a couple of packs of sugar in a bottle of water to drink. "Then we would find somewhere they are making homemade scones, then sit in a tree somewhere, and that would be our lunch," she said. "So after we got that money, we went for the first time in a restaurant."

Tabulo and Musha tried Cokes and doughnuts for the first time before buying food for their families. "I also bought a broiler chicken. I wanted my children to celebrate. It was a party, we made a party.

"It was a way of celebrating," Tabulo said. "This is how Heifer is turning my life."

The Kamisenga group now counts 120 women as members. All of them have received a heifer, half through Passing on the Gift. And life in the community has improved as a whole. Maternal deaths are not a problem anymore because women in the Kamisenga group can afford cell phones.

"Even if a person is not a member of our group, we contribute money and call a taxi to get that person to the hospital," Tabulo said. "So things have really changed."

Tabulo is planning to build a new house next year and is now employing help in the fields during harvest time. She no longer has problems paying the school fees for her seven children, and she hopes to send them to college eventually.

"Even if I died today, I'm sure that my children will be OK," Tabulo said. "They'll have a good life, and I'll leave the animals with them."

No longer does anyone in Tabulo's family go without sleep because of the cold or discomfort. "We've bought big beds and mattresses," Tabulo said. "You don't have to be close to your neighbor, because it's warm."

Every family member now has a blanket so warm that Tabulo's husband jokes that they can't even tell when it's winter time anymore.

"And we sleep," Tabulo said. "And we sleep like a baby." ■



#### The impact of Heifer's work

An independent study of Heifer's work in Zambia reveals that the donation of livestock and training to extremely poor households "can increase consumption expenditures, provide additional sources of income, improve dietary quality, and make people feel more prosperous and food secure." Conducted by researchers from the University of Illinois at Urbana-Champaign, the first phase of the study centered on Heifer projects in the Cobberbelt. Further findings from the ongoing study, which is being funded by Elanco Animal Health, will be shared in the future.





& INCOME



# A Heart for Helping

By Erica Goodwin, Heifer global communications manager





Leia Gluckman celebrated her Bat Mitzvah with a women's empowerment trip to Heifer Ranch in Perryville, Arkansas.

ifelong Heifer supporter Leia Gluckman proves passion knows no age limit. Her first memory of being involved with the nonprofit—at 5 was during the premier of a Heifer documentary called 12 Stones at the Television Academy in North Hollywood, California. According to her mother, Judy Friedman, attendees found the precocious preschooler irresistible in her simple explanations of how Heifer animals help people.

The experience fueled her love for educating others. Since then, Gluckman, now 12, has embraced her participation in other events

including a fundraiser called Ark in the Park and a reading of Beatrice's Goat at the Saban Theater, both in Beverly Hills.

Gluckman attributes her affection for the organization to her mother's long-time devotion to Heifer's work. Friedman is a leader in organizing and hosting events in the greater Los Angeles area, which have all involved her daughter.

At 10, Heifer's mission took on a deeper meaning for Gluckman when she visited a Heifer project in Vietnam and even witnessed a Passing on the Gift ceremony.

"Traveling to Vietnam was one of my favorite experiences," she said.

"I enjoyed seeing the people I've helped and what I have become a part of. I got to see people who had never been able to give before and heard them say, 'Sixteen months ago, I was where you are today, and now this is where I am.' It was a powerful moment, and I am grateful to have observed that."

After the ceremony, Gluckman was able to see homes recipients had built and even met a girl close to her age. Despite the language barrier, the girls were still able to communicate—in a way—as the girl showed Gluckman her home and animals.

"I was glad to see I could help



make someone happy and that I had made a difference in someone's life." she said.

When Gluckman turned 12 in May, in lieu of an elaborate party for her Bat Mitzvah, she opted to celebrate her coming of age with a trip to Heifer Ranch in Perryville, Arkansas. With the help of her mother, the pair invited 18 friends to attend Women's Lambing Weekend with them at the Ranch.

Women ranging in age from 11 to 70 from cities throughout the United States gathered in Arkansas for a memorable weekend. Most of them had never met before, but they formed fast friendships.

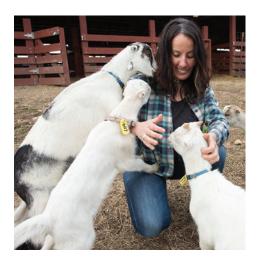
"We witnessed how everyone got along during the trip and bonded over shared experiences," Friedman said. "It was reminiscent of women in Heifer projects. Being part of Heifer builds an incredible sense of camaraderie for women in the villages. Both in Vietnam and at the Ranch, we saw how women are empowered just by interacting and connecting with other women."

For Gluckman, the future holds

limitless opportunities. Passion and purpose drive her to make the world a better place. She plans to continue supporting Heifer through various events and speaking engagements in hopes of raising awareness about ending hunger and poverty.

Ultimately, Gluckman said she hopes to take a more hands-on role in volunteering with Heifer in the future.

Learn more about planning a trip to Heifer Ranch in Perryville, Arkansas, by visiting www.heifer.org/visit.











Leia Gluckman, along with her mother, grandmother and friends, bonded over their shared experience of witnessing multiple births during Women's Lambing Weekend at Heifer Ranch last spring.

## Korean Student Reaches Out to Nepal





eifer supporter Justin Chang lives in Korea, but his heart is in Nepal. A high school student at Seoul International School, Chang joined the mission to end hunger and poverty six years ago when he and his classmates began raising money for Heifer International. Chang visited Nepal on a mountain climbing expedition only months before the 2015 earthquake that killed nearly 9,000 people. Chang reacted by launching a fundraiser, and in July 2016 he traveled back to the recovering country to deliver a \$5,000 check to Heifer Nepal.



Justin Chang, in the white shirt above, raised money to help Heifer Nepal project participants rebuild after the 2015 quake. The high school student from Korea delivered the funds himself.









(Left) Debora Martinez shows off Heifer Guatemala's award-winning app. (Right) Technicians use the app to help out in the field.

By Jason Woods, World Ark senior editor

eifer's field technicians in Guatemala are going high-tech with a new app to tackle challenges on the farm. Heifer's Guatemala team recently developed an application called 5 Manuales Pecuarios (5 Livestock Manuals) that can be used on Android devices. The app gives users solutions written by experts for goats and sheep, bees, native poultry, pigs, and fish and snails.

"If field technicians have a problem and they aren't sure about something, they can look in the app," said Debora Martinez, communications coordinator for Heifer Guatemala, who led the effort to design the application. "For Heifer Guatemala, it has opened up a door, an opportunity to improve people's lives."

The 243-page manual is the result of a year of brainstorming and collaboration with consultants, the Ministry of Agriculture, Livestock and Food, and project partner FUNDEBASE. The app is private, so only people with an association to these organizations can access it.

Only Heifer Guatemala field staff are using the

app right now, as a test run, but it will be available to more users soon. By the end of the year, Ministry of Agriculture extension agents will start using the manual, and so will specialists from the Universidad de San Carlos de Guatemala, a state-run university.

In the future, Martinez and the Heifer Guatemala staff would like to find ways for project participants to use the manuals directly, in their native languages or adapted for people who cannot read. Currently, the app is being translated to English so it can be used in the United States and other places where English is widely used.

"I would like for us to have more apps on more topics, like Cornerstones or Passing on the Gift," Martinez said. "Themes that farmers are interested in, and this can be a way we can communicate with them. We also want to make things easier for field technicians, because they have a lot of work on their hands. Walking, traveling, all the hours, bad roads. We can make things easier for them, too."



# The Mother of All Worries

Reviewed by Brooke Edwards, Heifer executive communication manager

ost people have heard the parable of the woman who gives birth in a rice paddy, then straps her newborn to her back and goes right back to work. The fable has many purposes: to show that women's bodies are built for childbirth; to admonish women who prefer pain relief during birth or who bemoan a lack of paid maternity leave; and to idealize the simplicity of a life far removed from our own, whether by time or geography.

The real stories are much less romantic; a point made evident in Roger Thurow's latest book, *The First 1,000 Days: A Crucial Time for Mothers and Children—and the World.* 

The first 1,000 days span from the beginning of pregnancy until the child turns 2. As readers will learn, it's a delicate window during which illness and poor nutrition can completely undermine the future of any child. With a quarter of the world's children under 5 stunted—too short and underweight for their age, almost always accompanied by cognitive deficiencies—we have a real global crisis on our hands. Survival rates for infants have been improving steadily, but the difference between surviving and thriving depends largely on the quality of nutrition during the first 1,000 days.

Thurow takes us through the pregnancies, births and first two years of several families in Uganda, India, Guatemala and Chicago. Not surprisingly, the babies and children most at risk live in developing countries, particularly

in rural areas. But even the United States isn't exempt from childhood malnutrition. The author's aim is to explore how much difference interventions targeting the first 1,000 days can make in the lives of those most at risk.

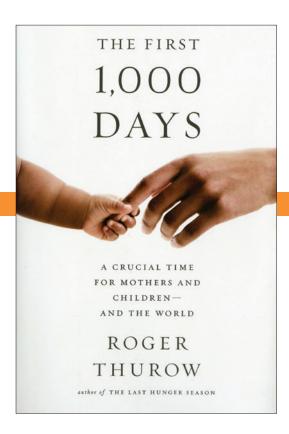
Working for Heifer International, and as a mother who has made it through the first 1,000 days twice, I was eager to read this book. How would my experiences compare to the women in the book? What were our strongest commonalities?

The short answer? To mother is to worry. All of the women chronicled by Thurow faced a slew of worries: how to afford the nutritious fruits and vegetables they needed to eat to nourish the life developing inside them, how to avoid illness while pregnant, how to survive labor and delivery, and how to keep their babies well. Following along with their stories, it is hard not to feel like the odds are stacked against them.

Each mother featured in the book receives interventions in one form or another: nutrition classes, dietary supplements, ultra-nutritious varieties of sweet potatoes and beans, subsidized food, information on improved hygiene practices, instruction on the importance and mechanics of breastfeeding.

Even still, the obstacles they face are unlike anything I've dealt with. At birth, my youngest daughter required resuscitation. Had I delivered her in Uganda, where only half of the health facilitates have neonatal resuscitation capabilities, her odds at surviving would have





The First 1,000 Days: A Crucial Time for Mothers and Children—and the World By Roger Thurow Hardcover, \$26.99 304 pages

Survival rates for infants have been improving steadily, but the difference between surviving and thriving depends largely on the quality of nutrition during the first 1,000 days.

been the flip of a coin. I've never once worried that all my work at feeding myself and my baby a nutritious diet could be undone by a case of dysentery. I worried about SIDS, but not malaria.

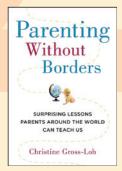
I found it difficult, at times, to not feel frustrated and hopeless on behalf of these mothers and the millions of others in the same circumstances. Even with all of the interventions, the gains made in the first 1,000 days can be so easily lost by age 9. The problem with safety nets is that they have holes and are prone to being dropped.

What I wanted most was to see more empowerment for the mothers. Yes, they were empowered with knowledge on better nutrition, but most of them had very little control over their ability to access nutritious foods. A mother's power to secure a better future for her children can only be so strong in a community entrenched in poverty, lacking electricity and good roads, and steeped in violence.

It isn't until the epilogue that Thurow really hits on it: multidimensional development. For a better future for all, every family needs solid nutrition in the first 1,000 days, plus electricity, clean water, improved sanitation and overall infrastructure. Ultimately, families have to be able to provide for themselves in an environment that is conducive to thriving. Otherwise, all the hard work is for naught.

It's easy to read a book like The First 1,000 Days and be overcome with worry. I'm worried for the mothers, for their children, for their communities, for humanity. I think it's important to remember that the antidote to worry can often be action. When I start agonizing over the state of things, whether it's childhood malnutrition or polar ice caps melting, I try to look for an action I can take, even if it feels so far removed from the actual problem. What have you done to make the world a better place today?

# PARENTING AROUND THE WORLD



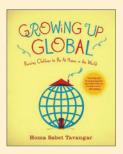
Parenting Without Borders: Surprising Lessons Parents Around the World Can Teach Us

By Christine Gross-Loh



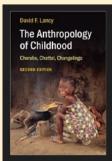
How Eskimos Keep Their Babies Warm: And Other Adventures in Parenting

By Mei-Ling Hopgood



Growing Up Global: Raising Children to Be at Home in the World

By Homa Sabet Tavanger



The Anthropology of Childhood: Cherubs, Chattel, Changelings

By David F. Lancy



#### **READ TO FEED**

"The most enjoyable part of participating in Read to Feed was picking out the animals. Sure, we had all been reading and hearing about what would happen, but to see the numbers in front of you was surreal. We learned that Heifer not only gives people animals, but shows them how to care for and support them. It blows my mind [to know that we helped change the world]. In today's world, negative can spread quickly. It just shows how even in the darkest of times, there will always be the good people to help out."

#### JACK MAHONEY

7th grade

Hopedale Memorial Elementary School Hopedale, Massachusetts

LEARN MORE AT READTOFEED.ORG



# THIS SPRINGTIME MATCH IS THE PERFECT CATCH

Spring will be here before you know it, and that means we're in the mood for matchmaking. We've set you up with a generous Heifer International fan who wants to encourage more students to participate in Read to Feed® this spring by offering to MATCH each dollar your students raise with an additional dollar. That means each gift your classroom gives will have TWICE the impact.

But hurry—matching funds are limited and only the first \$100,000 in Read to Feed donations that we receive will be eligible to be matched.





"You know, I never used to dream of having a piece of land. It's really something that I'm proud of. Because now I'm a landlord."

#### Esther Musonda

For Esther Musonda and her family, life was a series of struggles before receiving a cow from Heifer Zambia. Musonda and her husband couldn't harvest enough food to eat, paying for school for the children was impossible and poor nutrition led to constant illness in the household. A cow solved all of these problems. Now the family earns enough money selling milk to invest in a rental property, which brings extra income on a monthly basis.



The final weeks of the year offer a last opportunity to balance our income and determine our giving for the tax year. When you give a gift to a qualified nonprofit, you receive an income tax deduction. Even if your income is less this year than last, you may still consider offsetting it with a tax deductible contribution.

This holiday season, your gift to Heifer will help those in need around the world receive training and gifts to lift their families out of poverty into self-reliance.

Contact Heifer Foundation to learn more about ways to help families with a gift of human dignity and celebrate better lives for years to come.





Nonprofit Organization U.S. Postage **PAID** Heifer International



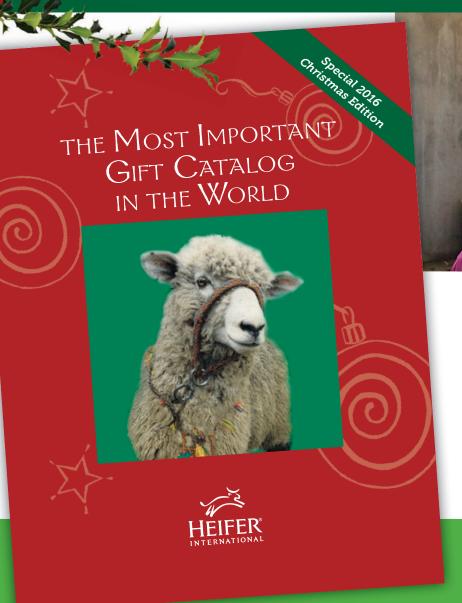
Please scan here to donate livestock to a struggling family.



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## Make the Holidays More Meaningful!



his holiday season give a life-changing gift to Heifer International in honor of a friend or loved one. It's a gift that brings promise to hungry families and the opportunity for a better life to the less fortunate. Giving a Heifer gift takes the stress out of holiday shopping while putting the meaning back into giving.

**SEE THE CATALOG** ON PAGE 27 **OR VISIT** WWW.HEIFER.ORG/WORLDARK/CATALOG