

# Farm<sub>to</sub> Food

DELIVERING QUALITY GLOBAL NUTRITION



## MISSION

Create commercially sustainable solutions and opportunities for U.S. soy protein by improving the health and nutrition of people in developing countries by addressing protein deficiencies.

### Soy Delivers Quality Global Nutrition

Source: USDA Center for Nutrition Policy and Promotion (CNPP).



- > Soybeans are a complete protein source for children and adults, providing the essential amino acids required for proper human growth and development.
- > Soybeans offer an economical and adaptable protein for proper maintenance of body functions and overall good health as well as disease resistance and management.
- > Soy is the only complete vegetable protein source.
- > Soy is easily added to diverse and locally available foods that are already popular, but are often lacking in protein. Soy can increase the protein without changing the taste. It extends local resources and commodities in a wide array of uses, ranging from school feeding to bakery sales.
- > Soy has a prominent place on the New Food Plate for Healthy Diets. Soy's nutritional benefits were affirmed when First Lady Michelle Obama and Agriculture Secretary Tom Vilsack unveiled the U.S. federal government's new healthy food initiative in June. The federal government's new ChooseMyPlate.gov includes educational materials that name soy as a good choice to vary protein. Soy can also help achieve other goals for a healthier diet.

For more details about soy's role in human health, go to [www.wishh.org](http://www.wishh.org)

### WISHH Staff

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Karen Coble Edwards – KCE Public Affairs Associates  
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Ruthia Yi – Project Management Professionals  
Lorraine Hartman – Afghanistan Country Director  
R.S.N. Janjua – ASA Country Representative, Pakistan  
Bridget Owen, Karl Weingartner, Nick Scates, Vijaya Jain and Courtney Tamimie – National Soybean Research Laboratory, University of Illinois.  
Cade Fields-Gardner – The Cutting Edge

**WISHH is pleased to report** that our public-private partnerships continue to grow. We forged important linkages throughout the soy value chain, both in the U.S. and overseas.

For example, our strategic partners in Africa are now repeat customers for U.S. soy thanks to their hard work supported by WISHH activities, funded by the U.S. government, soybean checkoff and industry.

Building on our decade of work with soy protein for direct human consumption, WISHH's 2011-2015 strategic plan also recognized the importance of livestock and aquaculture programs. The United Nations Food and Agricultural Organization affirmed this view with their World Aquaculture 2010 report on how aquaculture can reduce poverty and improve food security in many parts of the world. It also forecasts that by 2012 more than 50 percent of the world's food fish consumption will come from aquaculture.

Therefore, I am pleased that in 2011 we launched FEEDing Pakistan with U.S. Department of Agriculture support. Pakistan has an extensive system of fish farming but no commercial fish feeds are produced in the country. Soy-based fish foods are expected to allow the fish to grow 4-5 times faster than current feeding practices.

We thank all who have joined us in partnerships! WISHH looks forward to even more in the future as we add new links to the soy value chain.

**Jim Hershey**  
*WISHH Executive Director*



Executive Director's Message

## WISHH Committee Members representing U.S. soybean grower organizations

Chairman, David Iverson, *South Dakota*  
Vice Chairman, Andy Welden, *Michigan*  
Secretary Barb Overlie, *Minnesota*  
Treasurer, Pat Dumoulin, *Illinois*

### Members At Large

Ken Bartlett, *North Carolina*  
Dan Farney, *Illinois*  
Scott Fritz, *Indiana*  
C.W. Gaffner, *Illinois*  
Jared Hagert, *North Dakota*  
Lucas Heinen, *Kansas*  
John Heisdorffer, *Iowa*  
Monica McCranie, *South Dakota*  
Darrel McGriff, *Indiana*  
Jack Trumbo, *Kentucky*  
Randy Van Kooten, *Iowa*  
Bill Wykes, *Illinois*



**WISHH program committee members shown left to right. Front row: Barb Overlie, C.W. Gaffner, Jack Trumbo and Pat Dumoulin. Middle row: Andy Welden, Scott Fritz, Monica McCranie, Ken Bartlett, John Heisdorffer and Randy Van Kooten. Back row: Jared Hagert, David Iverson, Dan Farney, Darrel McGriff and Lucas Heinen.**



### Chairman's Letter

Nearly 40 cents of an additional dollar of income will go to food in developing countries, compared with 10 cents in developed countries, according to the U.S. Department of Agriculture.

**As a soybean grower, I am both excited and proud** of the role soybean growers take in the theme of this year's WISHH annual report, "Delivering Quality Global Nutrition: Farm to Food".

World population reached more than seven billion people this year, according to the United Nations. Within 40 years, two billion more people will depend on farms for their food. That means the role of soy is also growing dramatically for human as well as livestock nutrition.

Soybeans are the world's foremost provider of protein and oil. They are valuable for countries of all income levels and particularly for developing countries where improving diets and health is key to their present well-being as well as future economic potential. Here in the United States, growers planted soybeans on 77.4 million acres (31.3 million hectares) in 2010 in states reaching from the Atlantic Coast into my home state of South Dakota. Together, U.S. soybean farmers produced 3.329 billion bushels (90.6 million metric tons) of soybeans.

I hope you will turn the pages of this annual report to see the many ways these soybeans deliver quality nutrition through WISHH's work with the entire value chain. We have a particularly powerful story to tell in Afghanistan.

You will see that 1000 Afghan men and women grew their first commercial soybean crop this year. These subsistence farmers were able to plant soybeans after their traditional wheat harvest. They produced a second crop on their land, a new crop that offered much-needed protein. Women and men received payments for their soybeans from Afghanistan's first soybean processing business that can sell soy protein and oil to benefit human and livestock diets.

Stay tuned and watch us grow!

#### **David Iverson**

*Chairman of the WISHH Committee of ASA, and Astoria, South Dakota soybean grower*



Beau Kalinda credits WISHH training at the National Soybean Research Laboratory as key to his ability to become a repeat buyer of U.S. soy. In 2011, Kalinda also received training at Kansas State University on soy processing technology (shown in photo).

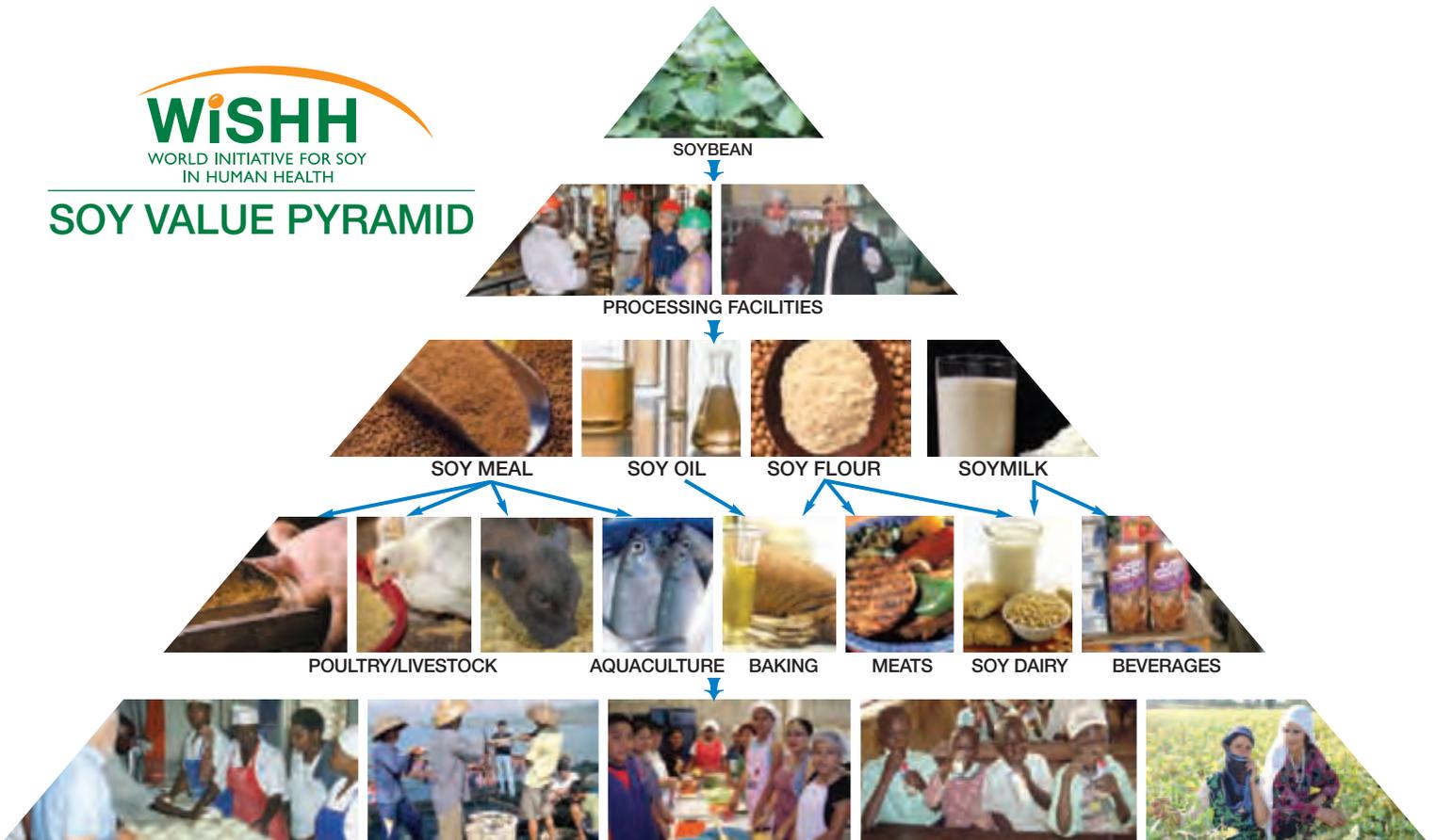


Attendees from around the world participated in the WISHH and the World Soy Foundation Midwest Soy Protein Workshop. The program includes educational sessions on soy foods uses and technology at the National Soybean Research Laboratory (NSRL) at the University of Illinois at Urbana-Champaign. 2011 attendees (shown in photo) also visited the Ken Dalenberg soybean farm.

**WISHH**  
WORLD INITIATIVE FOR SOY  
IN HUMAN HEALTH

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**SOY VALUE PYRAMID**



**SOY GENERATES IMPROVED NUTRITION AND ECONOMIC GROWTH**



Nigerian baker Margaret Buchi Ajufo (left) came to WISHH-supported training at the Northern Crops Institute (NCI) to expand her use of high-protein soy foods. Thunyaporn “Naggie” Jeradechachai, NCI crop quality specialist, assisted Ajufo in making soy-enhanced bread dough in the NCI Baking Laboratory. Photo credit: NCI



U.S. Department of Agriculture Acting Under Secretary Michael Scuse (at podium) takes questions during the “Nutrition and Agriculture Value Chains: Finding the Links” conference on March 17 in Washington, D.C. More than 100 representatives of government agencies, nutrition and development organizations, businesses as well as farmers attended. Also shown are then American Soybean Association President Alan Kemper (standing) and WISHH Executive Director Jim Hershey (seated).

African entrepreneur Beau Kalinda and Margaret Buchi Ajufo, a Nigerian bakery managing director received training on U.S. soy through WISHH and its partners in FY 2011. WISHH’s carefully selected participants then shared their new information with scores of others in their home countries.

Kalinda describes how WISHH training at National Soybean Research Laboratory (NSRL) at the University of Illinois provided the information, technical support and business relationships that were key to Kalinda becoming a repeat buyer of U.S. soy.

“We’ve been able to introduce soy flour and textured soy protein (TSP) to Rwanda and Uganda, but we’re looking at taking it even farther into Central Africa to everybody else who might want to take advantage of this protein-rich soy,” Kalinda said during a July WISHH trip to the United States.

Similarly, Ajufo recognized how her WISHH training at the Northern Crops Institute in North Dakota will benefit many others in Nigeria, “I will not be selfish,” she said about sharing the training with other bakeries in her region. “I will help the other bakeries to see the usefulness of soy and that it’s really a great product. It’s the best quality, best flavor, best color, and gives profits from increased yields of our bakery foods.”

Soybean checkoff and U.S. Department of Agriculture funds are integral to WISHH’s work with these diverse entrepreneurs and organization leaders who are growing markets for soy.



## Facts on Africa and Soy

- > A 2011 United Soybean Board study identifies 20 African countries as potential U.S. soy customers.
- > Over the past decade, six of the world's ten fastest growing economies were African. (source *International Monetary Fund*)
- > Africa has more than 600 million mobile phone users — more than America or Europe. (source *The Economist*)

# Africa



Chimezie Obialor of the Nigerian-based Alltech company learns about soybeans from Illinois Soybean Association past board member Ken Dalenberg who hosted a farm tour for participants of the WISHH and the World Soy Foundation 2011 Midwest Soy Protein Workshop.



Ugandan food entrepreneur Charles Nsubuga (left) of SESACO and WISHH Executive Director Jim Hershey completed an agreement to provide nearly 10,000 pounds of U.S. soy for SESACO's promotions in Africa. Less than two months later, Nsubuga's company made news with their product launch of Uganda's first soy milk.



WISHH's Nigerian supply chain partner, Alltech, unloads one of 18 containers of U.S. value-added soy protein (VASPS) from CHS.

## African Soy Supply Chain Sees Sales Grow

2011 was a year of results for WISHH's ongoing work to help strategic African business partners build their supply chain. Companies in Burkina Faso, Cameroon, Nigeria, Rwanda, Senegal and Uganda see sales growing as they offer more nutritious foods — all made with U.S. soy.

WISHH's on-the-ground presence provides training and builds relationships that are then connected to suppliers of high-quality U.S. soy, like CHS and Solae.

For example, WISHH's efforts resulted in sales to Nigeria of more than 500 metric tons of U.S. value-added soy protein (VASPs) since 2010. These exports have a market value of approximately \$1.2 million. Prior to WISHH's work, U.S. VASPs had little or no market presence in Nigeria. African companies also launched two new Africa soy beverages in 2011.

Through a U.S. Agency for International Development (USAID) project, chronically malnourished Liberian children are getting a new source of locally produced nutritious foods made with soy. The Health, Agriculture and Nutrition Development for Sustainability Program (HANDS) is a five-year project funded by the USAID Food for Peace Program.

The multi-faceted initiative includes development of a fortified cassava food that is manufactured in Liberia with U.S. soy flour boosting its protein content. Opportunities Industrialization Centers International (OICI) leads the project. In addition to WISHH, other partners include: Liberia OIC, Shelter for Life and Malnutrition Matters.

## USAID-Funded Project Brings Soy and Cassava into Battle Against Chronic Malnutrition in Liberian Children

“We do not have representatives in many of the countries where WISHH is working, in particular Africa... If it wasn't for the front work of WISHH, I doubt anyone would know about our defatted soy flour, and we certainly would not be shipping to the locations that have requested the textured soy protein and defatted soy flour. We appreciate your efforts.”

— Pam Schubbe,  
CHS Oilseed Processing  
Soyflour Sales and Product Manager



**WISHH helped Liberians produce a fortified cereal food called Super Gari that uses defatted soy flour combined with cassava and other local ingredients. Super Gari offers greater nutrition in diverse programs, including school feeding, food for work and clinics.**

USDA Food for Education Project Helps Liberian Food Companies Make Soy-Enriched Biscuits and Beverages.

Nutritious soy foods are giving Liberian children an extra incentive to attend school. Local manufacture of these foods is also giving an economic incentive to their communities.

International Relief and Development is working with WISHH on the three-year effort under USDA's McGovern-Dole International Food for Education and Child Nutrition Program. Local manufacturers are using soy to produce protein-enriched beverages and biscuits.



## SARAI Soy Value-Chain Project Sows Opportunity in Afghanistan

WISHH's work in Afghanistan literally took root through the U.S. Department of Agriculture-funded Soybeans for Agricultural Renewal In Afghanistan Initiative (SARAI). Significant milestones occurred in 2011 in all three areas of work.

1. 1000 Afghanistan farmers, including 91 women, produced the country's first commercial crop of soybeans on a total of 500 acres.
2. Afghanistan's first soybean processing center established with 5000-metric ton annual capacity.
3. Soy flour distributed to 5000 women in some of the worlds' most malnourished communities in three provinces, Badakshan, Takhar and Kabul. The women also received cooking training on how to make naan bread with the 35 pounds of soy flour each received.

Joining WISHH on the USDA Food for Progress project are: CBI Global, SALT International, PARSAs and Shelter for Life International.

### Soy Processing Plant Creates New Market, Food and Feed



WISHH and SALT International worked with the Afghan bakery company to open Afghanistan's first soy processing facility. Afghan men are now trained to operate the soybean extruder that can crush the soybeans to make valuable soybean meal as well as vegetable oil.

### New SARAI Soybean Processing Center Has Capacity to Process 5000 Metric Tons of Soybeans Each Year

#### The Processor Can Make

- > Soy flour for human food
- > Soy meal for poultry and livestock
- > Crude soybean oil

#### Local Foods and Feed from the Processor

- > 10-20 percent soy flour for inclusion in foods, like naan bread
- > Protein-rich soy meal for poultry and livestock
- > Cooking oil (made with further refining)

### Afghanistan Farmers Produce Their First Commercial Soybean Crop



Through the SARAI project, Shelter for Life International trained Afghan farmers on all the steps of soybean production, ranging from irrigation and land preparation to fertilization to harvest. In 2011, 1000 Afghan men and women grew soybeans on approximately 500 acres of total land.



Some farmers had oxen to pull equipment for land preparation, but much of the work was done by hand. Many farmers were planting each soybean seed one finger at a time until WISHH staff helped them develop a handheld "planting stick" that allowed them to plant multiple seeds.



Jamila, a mother of six, was one of 91 women participating in the SARAI project's first crop. She planted approximately one-half acre of soybeans in 2011. Jamila joined the project when she learned about the value of soy for her family's diet.



American Soybean Association, WISHH and state soybean leaders from Virginia, North Carolina and Illinois joined USDA Foreign Agricultural Service Associate Administrator Janet Nuzum and a Cargill representative for the loading of 3,525 50-pound bags of soy flour shipped from the Port of Virginia. USDA purchased the soy flour from Cargill as part of its cooperative agreement with WISHH under the USDA Food for Progress Program. The SARAI project distributed this high-protein soy to 5,000 Afghan women who also received training on its use.

Donkeys carried the soy flour the final miles into the province of Badakshan after it crossed the Atlantic by ship and was then transported by trucks in Afghanistan. The Afghan women sent their children ahead to meet the donkey caravan so the children could keep village dogs from scaring the donkeys carrying the soy.

Afghan women registered for their soy flour that helped their families that face some of the world's worst malnutrition rates. Each of the 5000 women received four bags of soy flour, totaling 16 kilograms or about 35 pounds.

SARAI project partner PARSA trained the women to prepare their flour for use in their local foods, such as the naan flat bread, that many families eat three meals a day.

## FY 2010-2011 SARAI Timeline Highlights

### December 2010

- > 3,525 50-pound bags of soy flour leave the Port of Virginia for distribution to 5,000 women and their families in Afghanistan.

### Throughout 2011

- > Afghanistan's first soybean processing facility under construction in Mazar-e-Sharif, a town with an already established flour milling industry.

### Spring 2011

- > U.S. State Department and Department of Defense use military air transport to take 40 metric tons of soybean seeds from a military base in Illinois to Afghanistan.

### May 2011

- > 1000 Afghan farmers, including 91 Afghan women, plant their first crop of soybeans that are contracted for purchase by the processor.

### Fall 2011

- > Afghan farmers harvest, dry and thresh their first crop of soybeans by hand. A first for any crop, they receive payment through a contract with a processor.
- > Soy flour distributed to 5000 women in 3 provinces: Badakshan, Takhar and Kabul.
- > 2012 planning underway for participation by 5000 Afghan farmers, of which approximately 10% will be women.



The Afghan farmers harvested their soybeans with hand tools. They turned them by hand to dry in the sun. When the pods began to dry, the farmers threshed them with pitchforks and sticks.



Many Afghans had never seen a soybean crop prior to their successful completion through the SARAI project in 2011.



Women and men received payment for their soybeans, which created a new source of income for them. The SARAI-project integrated the commercial payments to the rural farmers with the new soy processing plant in a larger village that was ready to use the soybeans for human food, livestock feed as well as vegetable oil.

## Facts on Central America and Soy

- > One Central American food company alone uses soy flour from more than 23 thousand bushels of U.S. soybeans each month to make a corn-soy beverage and other soy foods.
- > Guatemala was the 9th largest buyer of U.S. soybean meal in 2010, with \$106 million in purchases (source ASA Soy Stats®)
- > The Central American Free Trade Agreement (CAFTA) went into force in 2007 between the United States and Nicaragua, Honduras, El Salvador, Guatemala and the Dominican Republic. Costa Rica's participation went into effect in 2009.

# Central America

WISHH continues to work with regional distributors to establish a more robust supply chain to meet the growing demand for U.S. soy in Central America. In 2011, WISHH hosted baking seminars in Guatemala and Honduras to demonstrate the value of adding soy flour to local bakery products.

Participants were impressed with the improved nutrition and taste as well as higher yields for the dough, which could mean greater profits for their bakeries. These results have prompted the distributor to work on expanding marketing for soy foods in nearby Costa Rica as well.

Meanwhile, WISHH continues its cooperation with companies like Café Soluble and Alimentos S.A. that use U.S. soy in diverse products that are popular in Central America.



**U.S. soy is widely used throughout Central America to improve the protein and other nutritional content of a wide array of foods.**



**Kansas Soybean Association Director Lucas Heinen and Director of Field Services Dennis Hupe saw how U.S. soy is marketed by companies throughout Central America as a result of WISHH's work. In late February, Heinen and Hupe joined WISHH for meetings with multiple Central American food and beverage manufacturers as they expand their product lines with soy-based foods that offer nutritional and economic benefits.**



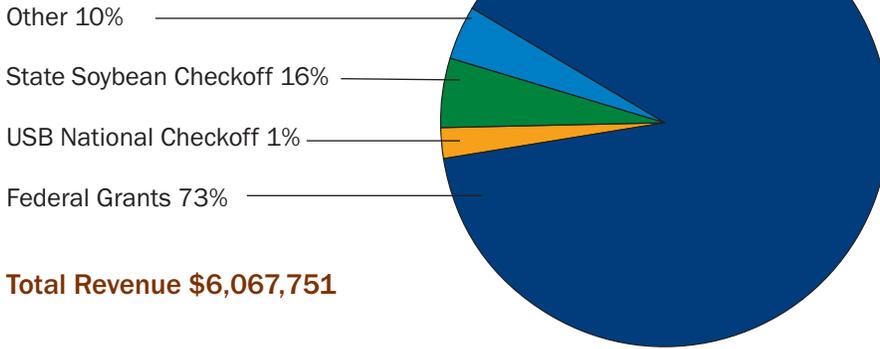
**WISHH Chairman David Iverson visits with a representative of Alimentos S.A. The Central American company uses soy flour from more than 23 thousand bushels of U.S. soybeans each month to make Incaparina corn-soy beverage and other soy foods. The Pan American Health Organization's Institute of Nutrition of Central America and Panama (INCAP) developed Incaparina that is distributed throughout Central America.**



**Iowa soybean grower Brian Kemp (left) and Michigan soybean grower Richard Janssens met with representatives of Café Soluble to learn how WISHH works with the Nicaraguan-based company that uses U.S. soy flour and soy isolates to make protein-rich products. The Nicaraguan company started with coffee and has expanded to offer soy foods throughout Central America. Following the trip, Janssens reported, "I was not aware of the many soy products in Central America... I believe this is a wise use of checkoff dollars. It benefits other countries as it opens up avenues for our exports. We can reach out to these other countries to help them improve their diets."**

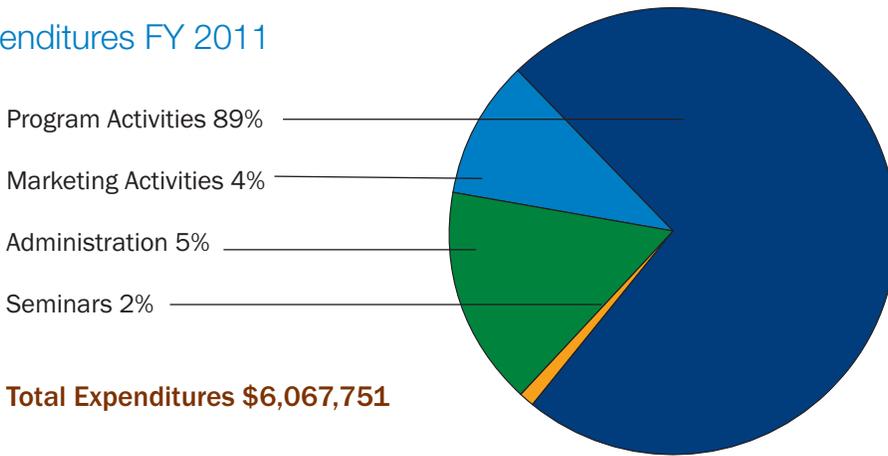
# Leveraged Growth

## Revenue FY 2011



**Total Revenue \$6,067,751**

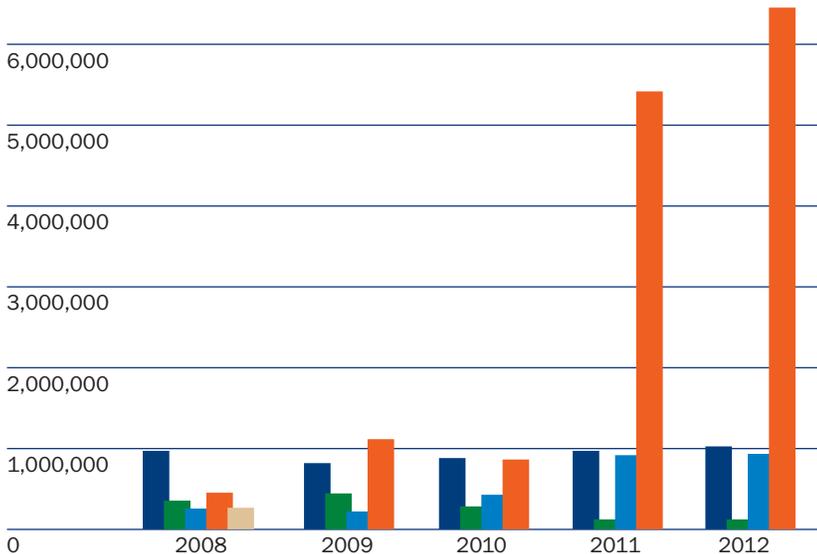
## Expenditures FY 2011



**Total Expenditures \$6,067,751**

## Funding

- QSSB funds are necessary for federal matching dollars
- FY12 outside funding = \$7,549,785
- Total FY12 budget: \$8,689,855



# THANK YOU

to 2010-2011 WISHH collaborators and partners

- American Soybean Association
- Archer Daniels Midland Company
- Arkansas Soybean Promotion Board
- CARE
- Cargill
- CBI Global
- CHS
- Delaware Soybean Board
- Humana People to People
- Fisheries Development Board of Pakistan
- Joint Aid Management International
- Illinois Soybean Association
- Indiana Soybean Alliance
- Iowa Soybean Association
- Kansas Soybean Commission
- Kansas State University
- Kentucky Soybean Board
- Malnutrition Matters
- Maryland Soybean Board
- Michigan Soybean Promotion Committee
- Minnesota Soybean Research & Promotion Council
- National Soybean Research Laboratory, University of Illinois
- Natural Products Inc.
- Nebraska Soybean Board
- New Jersey Soybean Board
- North Carolina Soybean Producers Association, Inc.
- North Dakota Soybean Council
- Opportunities Industrialization Centers International
- PARSA
- Pennsylvania Soybean Board
- Perdue Grain and Oil Seed
- SALT International
- Shelter for Life International
- South Dakota Soybean Research & Promotion Council
- Soyatech
- Soyfoods Association of North America
- Soybean Research & Development Council
- Soy Southern Africa
- Stevens and Associates
- Sunopta
- Tennessee Soybean Promotion Board
- The Solae Company
- The Soyfoods Council
- TetraPak
- United Soybean Board
- U.S. Agency for International Development
- U.S. Department of Agriculture
- U.S. Soybean Export Council
- WhiteWave Foods
- Wisconsin Soybean Marketing Board



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[www.wishh.org](http://www.wishh.org)



If you believe, belong.